## **ISSUE 334: Scholarly reading**

The crm-sig examined the proposed scope note and properties of I8 Conviction and accepted them. It was decided that I8 Conviction is to be included in the CRMinf classes.

The crm-sig also reviewed the definition of I1 Argumentation and found that I1 Argumentation had mistakenly be listed a subclass of E13 Attribute Assignment. Despite Attribute Assignment being easily construed as a part of an argument/argumentation, it is not seen as an integral part. The scope note of I1 Argumentation declares it a kind of E7 Activity, hence it was proposed that it be listed under E7 Activities instead.

Furthermore, the crm-sig discussed the proposed scope note and label for I9 Citation. The scope note and the properties taking it as an argument were accepted with minor adjustments (see below). There were a few concerns regarding what counts as an instance of an I9 Citation; it was specifically mentioned that the scope note read into an activity type (i.e.: if it is about an E73 Information Object, then an instance of I9 Citation involves an active interpretation) whereas both its superset, I8 Conviction, and I2 Belief, which is at the same level as I9 Citation, express states.

It was explained that the link to E73 Information Object is made explicit, in order to capture situations where there is no ambiguity in the data and the authenticity of its provenance is not disputed (representing the default case). Requests that this class also captures cases where there is ambiguity in the data or where the authenticity of the provenance is disputed were not accepted.

There was disagreement on the label however. Some of the alternatives put forth were I9 Scholarly Reading, I9 Provenanced Comprehension, I9 Quoting and they are to be reviewed in the next crm-sig meeting. The issue is closed.

The CRMinf classes and properties for scholarly reading are listed below:

### I1 Argumentation:

Subclass of: [E7](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_E13_Attribute_Assignment) Activity

Superclass of: [S4](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S4_Observation_1) Observation

[I5](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_I5_Inference_Making) Inference Making/[S5](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S5_Inference_Making_1) Inference Making

[I7](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_I7_Belief_Adoption) Belief Adoption

Scope note: This class comprises the activity of making honest inferences or observations. An honest inference or observation is one in which the E39 Actor carrying out the I1 Argumentation justifies and believes that the I6 Belief Value associated with resulting I2 Belief about the I4 Proposition Set is the correct value at the time that the activity was undertaken and that any I3 Inference Logic or methodology was correctly applied.

Only one instance of E39 Actor may carry out an instance of I1 Argumentation, though the E39 Actor may, of course, be an instance of E74 Group.

Properties: [J2](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_J2_concluded_that) concluded that (was concluded by): [I8](#_I8_Conviction) Conviction

Examples:

* My classification and dating of this bowl (I5)
* My adoption of the belief that Dragendorff type 29 bowls are from the 1st Century AD (I7)

### I2 Belief

Subclass of: I8 Conviction

Superclass of

Scope note: This class comprises the notion that the associated I4 Proposition Set is held to have a particular I6 Belief Value by a particular E39 Actor. This can be understood as the period of time that an individual or group holds a particular set of propositions to be true, false or somewhere in between.

Properties: [J4](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_J4_that_(is) that (is subject of): [I4](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S4_Observation) Proposition Set

[J5](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_J5_holds_to) holds to be: [I6](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_I6_Belief_Value) Belief Value

Examples:

* My belief that Dragendorff type 29 bowls are from the 1st Century AD
* Dragendorff’s belief that type 29 bowls are from the 1st Century AD

In First Order Logic:

I2(x) ⊃ I8(x)

### I5 Inference Making

Subclass of: [I1](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S1_Matter_Removal) Argumentation

Superclass of: [S6](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S6_Data_Evaluation) Data Evaluation

[S7](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S7_Simulation_Prediction) Simulation or Prediction

[S8](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S8_Categorical_Hypothesis) Categorical Hypothesis Building

Equivalent to [S5](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S5_Inference_Making_1) Inference Making

Scope note: This class comprises the action of making honest propositions and statements about particular states of affairs in reality or in possible realities or categorical descriptions of reality by using inferences from other statements based on hypotheses and any form of formal or informal logic. It includes evaluations, calculations, and interpretations based on mathematical formulations and propositions.

It is characterized by the use of an existing I2 Belief as the premise that together with a set of I3 Inference Logic draws a further I2 Belief as a conclusion.

Documenting instances of I5 Inference Making primarily enables tracing the dependency of knowledge from conclusion to premise through subsequent inferences, possibly back to primary evidence, so that the range of influence of knowledge revision at any intermediate stage of complex inference chains on current convictions can be narrowed down by query. The explicit reference to the applied inference logic further allows scholars or scientists to assess if they can or would follow the documented argument. The class is not intended to promote the use of computationally decidable systems of logic as replacements of scholarly justifications of arguments, even though it allows for documenting the use of decidable logic, if that was deemed adequate for the problem at hand.  Principles of scholarly justifications of arguments are also regarded as kinds of inference logic.

Properties: [J1](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_J1_used_as) used as premise (was premise for): [I8](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S2_Sample_Taking) Conviction

[J3](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_J3_applies_(was) applies (was applied by): [I3](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S3_Sample_Taking) Inference Logic

Examples:

* My classification and dating of this bowl

In First Order Logic:

I5(x) ⊃ I1(x)

### I8 Conviction:

Subclass of: E2 Temporal Entity

Superclass of: I2 Belief

I9 Citation

Scope note: This class comprises convictions by individuals or groups about the truth or not of some state of affairs.

Examples:

* My belief that Gaius Suetonius Tranquillus was deliberately lying about Nero.

In First Order Logic:

I8(x) ⊃ E2(x)

### I9 Citation

Subclass of: I8 Conviction

Superclass of:

Scope note: This class comprises beliefs in the correct reading or scholarly interpretation of the overt message intended by an instance of E73 Information Object (“source”), in which the interpretation of the source is formulated as a set of formal propositions or regarded to be unambiguously given in a natural language form.

An instance of I9 Citation implies believing the authenticity of the respective instance of E73 Information Object relative to an explicitly stated provenance, but does not mean believing the respective propositions. Rather, the truth of the cited message is the subject of another scholarly interpretation process. It further does not pertain to arguing about hidden or cryptic meanings of a source, which is the subject of yet another scholarly interpretation process.

Properties: [J8 understands (is understood by): E73 Information Object](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_J1_used_as)

[J9 believes in provenance (provenance is believed by): I10 Provenance Statement](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_J1_used_as)

[J10](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_J1_used_as) reads as: I4 Proposition Set

Examples:

* My citation and belief that the extant book De Vita Caesarum attributed to Gaius Suetonius Tranquillus stated 121AD that Nero was singing in Rome while it was burning from July 19 in 64 AD[[1]](#footnote-1).

In First Order Logic:

I9(x) ⊃ I8(x)

### I10 Provenance Statement

Subclass of: I4 Proposition Set

Superclass of:

Scope note: This class comprises statements about the provenance of an instance of E73 Information Object with known content at the time of making the provenance statements. An instance of I10 Provenance Statement must contain propositions about the presence of a carrier of the respective instance of E73 Information Object in an event or spatiotemporal context of reference. Characteristically, it may pertain to the writing by a known author at a known or unknown date or place, or to the existence of the text known to some public regardless the truth of authorship.

Examples:

* The Latin content of the extant book De Vita Caesarum attributed to Gaius Suetonius Tranquillus was published in Rome 121AD and not alienated in its propositional content by essential transcription errors until its currently known form.
* The exemplar of The Merchant of Venice, Quarto 1 (1600) owned by The British Library, shelf number BL C.34.k.22 was published 1600AD by Thomas Heyes.

In First Order Logic:

I10(x) ⊃ I4(x)

## Properties

### J1 used as premise (was premise for)

Domain: [I5](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_I5_Inference_Making) Inference Making

Range: [I8](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S2_Sample_Taking) Conviction

Subproperty of: [P17](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_P17_was_motivated) was motivated by (motivated)

Superproperty of:

Quantification: many to many, necessary (1,n:0,n)

Scope note: This property associates an instance of I8 Conviction with the instance of I5 Inference Making that used it as a premise.

Examples:

* My classification and dating of this bowl (I5) used as premise my belief that Dragendorff type 29 bowls are from the 1st Century AD (I)
* My classification and dating of this bowl (I5) used as premise my belief in the observations of this bowl (I2)

In First Order Logic:

J1(x,y) ⊃ I5(x)

J1(x,y) ⊃ I8(y)

J1(x,y) ⊃ P17(x,y)

### J2 concluded that (was concluded by)

Domain: [I1](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S1_Matter_Removal) Argumentation

Range: [I8](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_S2_Sample_Taking) Conviction

Subproperty of: [P116](file:///C:\\Users\\bekiari\\Documents\\Projects(on%20alioure)\\CIDOC-FRBR\\2018-01-15%23Cologne\\minutes\\334%20CRMinf-reading_AK3.docx" \l "_P116_starts_(is) starts (is started by)

Superproperty of:

Quantification: one to many, necessary, dependent (1,n:1,1)

Scope note: This property associates an instance of I8 Conviction with the instance of I1 Argumentation that concluded it.

Examples:

* My classification and dating of this bowl (I5) concluded that my belief that this bowl is from the 1st Century AD (I2)

In First Order Logic:

J2(x,y) ⊃ I1(y)

J2(x,y) ⊃ I8(y)

J2(x,y) ⊃ P116(x,y)

### J8 understands (is understood by)

Domain: I9 Citation

Range: [E73](file:///C:\Users\bekiari\Documents\Projects(on%20alioure)\CIDOC-FRBR\2018-01-15%23Cologne\minutes\334%20CRMinf-reading_AK3.docx#_E73_Information_Object) Information Object

Subproperty of:

Superproperty of:

Quantification: many to one, necessary (1,1:0,n)

Scope note: This property associates an instance of I9 Citation with the instance of E73 Information Object it interprets with respect to its intended overt message.

* My citation that Nero was singing in Rome while it was burning *understands* the extant book De Vita Caesarum by Gaius Suetonius Tranquillus

In First Order Logic:

J8(x,y) ⊃ I7(x)

J8(x,y) ⊃ E73(y)

### J9 believes in provenance (provenance is believed by)

Domain: I9 Citation

Range: I10 Provenance Statement

Subproperty of:

Superproperty of:

Quantification: many to one, necessary (1,1:0,n)

Scope note: This property associates an instance of I9 Citation with the instance of I10 Provenance Statement that defines the believed provenance of the instance of E73 Information Object referred to in the instance of I9 Citation.

Examples:

* My citation that Nero was singing in Rome while it was burning *believes in provenance* that the content of the extant book De Vita Caesarum by Gaius Suetonius Tranquillus was published in Rome 121AD

In First Order Logic:

J9(x,y) ⊃ I9(x)

J9(x,y) ⊃ I10(y)

### J10 reads as

Domain: I9 Citation

Range: I4 Proposition Set

Subproperty of:

Superproperty of:

Quantification: many to one, necessary (1,1:0,n)

Scope note: This property associates an instance of I9 Citation with the instance of I4 Proposition Set that formulates the interpretation.

Examples:

* My citation that Nero was singing in Rome while it was burning *reads as* “Nero, while watching Rome burn, exclaimed how beautiful it was, and sang an epic poem about the sack of Troy while playing the lyre”

In First Order Logic:

J9(x,y) ⊃ I9(x)

J9(x,y) ⊃ I4(y)

1. https://en.wikipedia.org/wiki/The\_Twelve\_Caesars [↑](#footnote-ref-1)