Hamlet example

Context

We know nothing about Shakespeare’s ‘original’ text. The very notion of ‘Shakespeare’s original text’ is an anachronism. As Gary Taylor puts it, ‘we mislead ourselves if we imagine a play moving *from* text *to* stage […]. For Shakespeare, a play began life in the theatre. […] Playwrighting […] was an intrinsically social process. […] The earliest texts of his plays […] were not printed from manuscripts prepared for the convenience of that consortium of readers called “the general public”; instead, they were written to be read by a particular group of actors […]. The written text of any such manuscript thus depended upon an unwritten paratext […], an invisible life-support system of stage directions, which Shakespeare could either expect his first readers to supply, or which those first readers would expect Shakespeare himself to supply orally.’[[1]](#footnote-1)

The play seems to have been performed for the first time around 1600-1. There were seven editions of *Hamlet* prior to the 1642 theatre closures. The earliest edition (1603) is labelled ‘First Quarto’ or ‘Q1’; it is thought to have been ‘printed from a manuscript believed to be of a memorial reconstruction of the play by actors’;[[2]](#footnote-2) for that reason, it is also nicknamed ‘Bad Quarto.’ The most striking differences between that edition and *Hamlet* ‘as we know it’ are that Polonius is not named Polonius but Corambis, and that Hamlet does not say ‘To be or not to be, that is the question,’ but: ‘To be or not to be, aye there’s the point.’

The next edition (1604-5) is labelled ‘Second Quarto’ or ‘Q2’; it is thought to have been ‘printed from a manuscript believed to be Shakespeare’s foul papers’[[3]](#footnote-3) and is therefore regarded as the best source (the ‘Good Quarto’) for a correct text. The ‘Third Quarto’ or ‘Q3’ (1611) was printed from Q2, the ‘Fourth Quarto’ or ‘Q4’ (1622) from Q3, and the ‘Fifth Quarto’ or ‘Q5’ (1637) from Q4.

*Hamlet* was also included in the two folio editions (‘F1’ and ‘F2’, respectively 1623 and 1632) of Shakespeare’s (almost) complete works. F2 was printed from F1, which in turn was ‘printed from a manuscript thought to be a transcript of a fair copy prepared from Shakespeare’s foul papers […; it also] draws on the second “good” quarto. It omits lines found in the “good” quarto, but adds others.’[[4]](#footnote-4) As is usual with hand-press books[[5]](#footnote-5), not all copies of F1 contain exactly the same text: typos and flagrant mistakes were corrected in the course of printing.[[6]](#footnote-6)

As a result, specialists tend to individualize three major ‘Expressions’ of *Hamlet:* the text conveyed by Q1 (the ‘Bad Quarto’), the text conveyed by Q2 (the ‘Good Quarto’), and the text conveyed by F1. There is an edition of all three Expressions side by side.[[7]](#footnote-7)

Current library practice does not distinguish between these three major distinct Expressions. The *FRBR Final Report* states that ‘variations that would be evident only from a more detailed analysis and comparison of *expressions* (e.g., variations between several of the early texts of Shakespeare’s *Hamlet*) would normally be reflected in the data **only if the nature or stature of the *work* warranted such analysis, and only if it was anticipated that the distinction would be important to users**.’[[8]](#footnote-8) Even the Folger Shakespeare Library in Washington, where such a distinction could be deemed important indeed for its users, collocates all editions of *Hamlet* in its catalogue under the same uniform title: ‘Shakespeare, William, 1564-1616. Hamlet.’ That same library’s subject index, however, differentiates between ‘Shakespeare, William, 1564-1616. Hamlet. 1602’ (a mistake for 1603), ‘Shakespeare, William, 1564-1616. Hamlet. 1603’, and ‘Shakespeare, William, 1564-1616. Hamlet. 1605’, i.e., between Q1 and Q2.

For the sake of experimentation within the context of this Task Force, I am using here both a generic uniform title for the Work: ‘Shakespeare, William, 1564-1616. Hamlet’, and specific uniform titles, loosely based on RDA instructions, for the identification of various Expressions of that Work:

* Shakespeare, William, 1564-1616. Hamlet. English (Singer edition).
* Shakespeare, William, 1564-1616. Hamlet. German (Schlegel).
* Shakespeare, William, 1564-1616. Hamlet (First Quarto version). English.
* Shakespeare, William, 1564-1616. Hamlet (First Quarto version). French (Hugo).
* Shakespeare, William, 1564-1616. Hamlet (Second Quarto version). English.
* Shakespeare, William, 1564-1616. Hamlet (Second Quarto version). French (Hugo).

This is intended solely for the purpose of clarity, and does not prejudge of any future cataloguing rule. Theoretically, it should be possible to dispense with such specific uniform titles, and to identify all distinct Expressions through unique URIs. However, uniform titles were deemed more easily readable by a human eye.

Expressing the WEMI structure in EDM

At the heart of the FRBR conceptualization lies the so-called ‘WEMI structure’ (Work, Expression, Manifestation, Item). This basic structure is preserved in FRBROO, although in a far more elaborated way. It is therefore important, in the specific context of this Task Force, to examine whether the WEMI structure can easily be expressed in EDM or not.

At first sight, it would seem that the terms in which the edm:InformationResource class is declared – i.e., explicitly as ‘the union of IFLA FRBR Work, Expression and Manifestation’ – impedes any effort to make a clear distinction between Work, Expression and Manifestation in EDM. However, for the purposes of this Task Force, it is possible to use multiple instantiation, and to state that a specific instance of edm:InformationResource is simultaneously an instance of FRBRER Work, Expression, or Manifestation. It is also possible to specialize some EDM properties, restraining their domain to instances of Work, Expression, or Manifestation. By using these two strategies, the WEMI structure could be expressed in EDM as follows:



(This figure is taken from slide 2 of the PowerPoint document).

The FRBRER Item class corresponds to the EDM PhysicalThing class. The relationship between an instance of frbr:Item and an instance of frbr:Manifestation is expressed through the EDM property edm:realizes from edm:PhysicalThing to edm:InformationResource (the instance of which is multi-instantiated as an instance of frbr:Manifestation). In the EDM documentation, edm:realizes is defined as a property that ‘describes a relation between a physical thing and the information resource that is contained in it, visible at it or otherwise carried by it, if applicable.’ This could apply to the relation from an Item to either a Manifestation, an Expression, or a Work. What I am using here is therefore rather a subproperty of edm:realizes than the EDM property itself.

The FRBRER Manifestation class is treated here as a subtype of edm:InformationResource. The relationship between an instance of frbr:Manifestation and an instance of frbr:Expression is expressed through the EDM property edm:incorporates. In most cases, frbr:Manifestation corresponds to the notion of publication. In FRBROO, the characteristics of a publication are distributed between F3 Manifestation Product Type, which covers the notion of a set of physical features defining an abstract type exemplified by the exemplars of the publication (e.g., ‘paperback’ as opposed to ‘hardcover’ for two publications issued simultaneously by the same publisher and conveying essentially the same content), and F24 Publication Expression, which covers the notion of a set of signs (i.e., the overall content) that should be found on each single exemplar of the publication. The relation between publication content (F24 Publication Expression) and authorial content (F2 Expression) is expressed in FRBROO through property *R14 incorporates (is incorporated in),* on which edm:incorporates is based.

Both the FRBRER Expression and Work classes are treated here as subtypes of edm:InformationResource as well. Although dcterms:isVersionOf and dcterms:hasVersion could be intuitively interpreted as two labels of the same property read respectively from domain to range and from range to domain (and the respective definitions provided in the EDM documentation would encourage such an interpretation), I use them here in specialized roles. The relation between an Expression and a Work is expressed here through dcterms:isVersionOf: each distinct Expression of a given Work can be regarded as a ‘version’ of that Work. The EDM documentation describes dcterms:isVersionOf as pointing to ‘a related resource of which the described resource is a version, edition, or adaptation. Changes in version imply substantive changes in content rather than differences in format’, which seems to me to be compatible with the definition of Expression in FRBRER. On the other hand, I reserve here dcterms:hasVersion for reflecting the network of relations that exist among ‘sibling’ Expressions of the same Work, basing on the example provided in the EDM documentation: ‘<dcterms:hasVersion>The Sorcerer’s Apprentice (translation by Edwin Zeydel, 1955)</dcterms:hasVersion>. In this example the 1955 translation is a version of the described resource.’ This example obviously indicates a relation between two Expressions (an English text and the German text of which it is a translation), not between an Expression and an abstract Work in the sense defined in FRBRER. I think it is important to ensure the ability to state that two Expressions of a given Work are actually interrelated by causal links (e.g., to state that this translation was made using that particular text, not another (e.g., earlier) version, in the ‘original’ language, of the same abstract Work), while other Expressions of that same Work just happen to be Expressions of the same Work but have no other interrelation to unite them (e.g., the Spanish translation of version 5 of an English text and the Japanese translation of a German rendition of version 0.1 of that English text are two Expressions of the same abstract Work but have no other direct relationship to each other, and might indeed share only little common conceptual content).

**If the rest of the Task Force deems it impossible to interpret dcterms:hasVersion and dcterms:isVersionOf as two properties with distinct semantics**, and considers that they should be understood simply as two reverse labels for the same property, **then perhaps this amounts to identifying something that is missing in EDM**.

Comments on the N example

<<http://www.europeana.eu/portal/record/03486/8F697B538131919B8AD2D3A4867F5CAB776351F8.html>>.

In example N, we have a digitization of a copy of a 19th century edition of *Hamlet*. The metadata provided for that CHO does not specify which version of *Hamlet* is to be found here, it just says: ‘3rd ed. with notes original and selected by Samuel Weller Singer’. Actually, an examination of the digitized item reveals that this edition was based on F1, but that all variant readings from Q1 (the ‘Bad Quarto’) are also given by Singer in footnotes. This Manifestation can therefore be said to embody two distinct Expressions of the Work, but there is no way such information could be automatically added to the metadata, and we can just ignore it (unless we rely, as the subgroup led by Detlev Balzer and Steffen Hennicke did, on crowdsourcing). We can content ourselves with stating that the Manifestation edm:incorporates an Expression identified as Samuel Weller Singer’s edition, in the English language, of *Hamlet* (i.e., identified by the uniform title: ‘Shakespeare, William, 1564-1616. Hamlet. English (Singer edition)’). For the sake of simplification, the fact that this is the ‘3rd edition’ of Singer’s edition (with the implication that a given edition is in itself a complex work likely to be realized in various editions) is just disregarded here, although arguably it should be taken into account as well.

A proposal for a mapping of the N example metadata to the EDM expression of the WEMI structure can be found in slide 4 of the PowerPoint document. This graph expresses just once the fact that Shakespeare is the creator of the Work, it does not repeat Shakespeare’s responsibility as author of the Expression. Perhaps this should be added; in the FRBROO representation that can be found on slide 5 of the PowerPoint documentation, I made it explicit that Singer’s Expression incorporates Shakespeare’s.

The FRBROO mapping indicates that Samuel Weller Singer’s edition ‘incorporates’ a text (an instance of F22 Self-Contained Expression) created by Shakespeare, but nothing is asserted as to the identity of that text. Although we can know, through an examination of the digitized item, that Singer’s edition actually incorporates two distinct versions of *Hamlet,* this knowledge cannot be inferred from the extant metadata. Nothing can therefore be said about the incorporated instance of F22 Self-Contained Expression, except that it was created by Shakespeare (or is assumed to have been); it is some kind of a ‘virtual instance’. All we can know about the authorial content of N is that it is Singer’s edition of Shakespeare’s *Hamlet*.

These graphs make it possible to answer the following questions, among others:

* Give me any edition of *Hamlet,* provided it is in English.
* Give me all Romantic Era editions of Shakespeare’s works.
* What are the names of 19th century editors of *Hamlet?*
* Who published *Hamlet* in 1820?

It can serve, up to a point, to answer the following questions:

* Give me critical comments on Shakespeare written during the Romantic Era. [This implies that the content of the information given as a literal: ‘with notes original… by Samuel Weller Singer’ could be exploited.]
* Did any German publishers publish the English text of *Hamlet* in the 19th century? [This implies that the information about the place of residence of the publisher – Leipzig – could be aligned with a gazetteer and exploited as such.]
* Give me all editions of *Hamlet* in any language published in continental Europe in the first quarter of the 19th century. [Same comment.]
* Who published *Hamlet* in English outside English-speaking countries in the 19th century? [Same comment.]

It does not make it possible to answer the following questions, among others:

* Where can I find (were it only as variant readings mentioned in footnotes) the text of the ‘Bad Quarto’ of *Hamlet?*
* Which earlier versions of *Hamlet* were republished in the first third of the 19th century?
* What did Ophelia look like?

Comments on the O example

<<http://www.europeana.eu/portal/record/03486/2FCBFD375F4A688FDB1867AC2599A806EB6740BC.html>>.

O corresponds to a copy of a 19th century reprint of the content of Q1. This important information is only conveyed in the provided metadata through a literal in heavily abbreviated German: ‘[Nachdr. d. Ausg. London, 1603]’ (i.e., ‘reprint of the London 1603 edition’). I don’t think it would be easy (perhaps not even feasible) to transform automatically that literal into actual exploitable data. However, for the sake of this experimentation, I made as though it could be exploited.

Although the content of O is included (or ‘incorporated’) in the content of N, such information cannot be automatically extracted from the available metadata. Therefore, I did not strive to represent it in the EDM and FRBROO mappings. Both N and O are ‘versions’ of the same abstract Work, they are not shown as interrelated through any more specific relationship.

(For graphical representations of the EDM and FRBROO mappings, see slides 6 and 7 of the PowerPoint document).

The EDM and FRBROO mapping do not convey strictly equivalent semantics. The EDM mapping does not strive to make it explicit that the publication is a reprint of a previously released text; this information is only implicitly conveyed through the choice of the uniform title for the incorporated Expression (although it is far from certain that such a uniform title could be automatically assigned). In the FRBROO mapping, by contrast, this relation is explicitly modelled, on the assumption that the information provided in the metadata as a literal, ‘[Nachdr. d. Ausg. London, 1603]’, could be automatically exploited.

These graphs make it possible to answer the following questions, among others:

* Give me any edition of *Hamlet,* provided it is in English.
* Give me all Romantic Era editions of Shakespeare’s works.
* Who published *Hamlet* in 1858?

If (and only if) the information element “[Nachdr. d. Ausg. London, 1603]’ can be exploited, then these graphs also make it possible to answer the following questions:

* Where can I find (were it only as variant readings mentioned in footnotes) the text of the ‘Bad Quarto’ of *Hamlet?*
* Which earlier versions of *Hamlet* were republished in the second half of the 19th century?

They do not make it possible to answer the following question, among others:

* What did Ophelia look like?

Comments on the M example

<<http://www.europeana.eu/portal/record/04202/D7C283128126CBEA3CCFB3815E3D005D108EC160.html>>

M corresponds to a copy of a 19th century publication of a German translation of *Hamlet*. By exploiting the birth and death dates of the translator, that German translation can be assumed to have been created in the late 18th century – first half of the 19th century (but I did not strive to include that assumption in the graphs). Unless a thorough philological study is undertaken, it is impossible to determine which specific English version of *Hamlet* was used by Schlegel as his source material. We must therefore content ourselves with stating that this publication conveys Schlegel’s German translation of *Hamlet* (this information being synthetized through the uniform title: ‘Shakespeare, William, 1564-1616. Hamlet. German (Schlegel)’). Shakespeare is declared as ‘creator’ at the Work level, but is not mentioned at the Expression level.

(For graphical representations of the EDM and FRBROO mappings, see slides 8 and 9 of the PowerPoint document).

The graphs make it possible to answer the following questions, among others:

* Give me any edition of *Hamlet,* provided it is in German.
* Give me all Romantic Era editions of Shakespeare’s works.
* Who published *Hamlet* in 1844?
* What are the names of 19th century translators of *Hamlet* into German?
* Into what languages was *Hamlet* translated in the 19th century?

They could make it possible to answer the following questions, among others, if some literals could be processed and transformed into exploitable data:

* Did any German publishers publish *Hamlet* in the 19th century? [This implies that the information about the place of residence of the publisher – Berlin – could be aligned with a gazetteer and exploited as such.]
* Give me all editions of *Hamlet* in any language published in continental Europe in the first half of the 19th century. [Same comment.]
* Give me German translations of *Hamlet* from the Romantic Era. [This implies that the birth and death dates of the translator could be exploited, as the publication date alone might be misleading.]

They do not make it possible to answer the following questions, among others:

* Which version of *Hamlet* did Schlegel translate?
* What did Ophelia look like?

Comments on the L example

<<http://www.europeana.eu/portal/record/03486/5058482DFB934B3B21FB5666210E4AE3A822B2E5.html>>.

L corresponds to a copy of the publication of a study devoted to a specific German translation of *Hamlet* (namely, Schlegel’s translation already encountered in M). It is therefore a very interesting case of a study about, not an abstract Work at the conceptual level, but one of its specific Expressions (or, in the more rigorous definitions of FRBROO, not about the concepts of a Complex Work, but about the concepts of one of its member Works). **The utility of identifying precisely the Expressions of a Work appears here clearly**.

(For graphical representations of the EDM and FRBROO mappings, see slides 10 and 11 of the PowerPoint document).

The EDM and FRBROO mapping do not convey strictly equivalent semantics. The EDM mapping does not strive to model in detail the relation between the manifestation and the series within which it was released. In the FRBROO mapping, in contrast, this relation is explicitly modelled, on the (optimistic) assumption that the literal ‘Serie : Palaestra ; 257’ could be exploited.

The graphs make it possible to answer the following questions, among others:

* Give me 20th century studies that are related in some way to *Hamlet*.
* Give me 20th century studies that are related in some way to Schlegel.
* Give me studies about how the German Romanticism understood Shakespeare’s works.
* Give me studies in German about translation issues.

They could make it possible to answer the following question, among others, if some literals could be processed and transformed into exploitable data:

* Give me volumes of the *Palaestra* series. [This implies that the information about the series in which the publication was published – *Palaestra* – could be extracted from the literal in which it is buried.]

They do not make it possible to answer the following questions, among others:

* Which version of *Hamlet* did Schlegel translate?
* What did Ophelia look like?

Comments on the P example

<<http://www.europeana.eu/portal/record/04202/073685A2283127728C7F7A690256D18CE84D2F26.html>>.

P corresponds to a copy of a publication containing French translations of both the Q1 and Q2 versions of *Hamlet*. It is an interesting case of a Manifestation that embodies two distinct Expressions of the same Work. Current cataloguing practice fails to deliver that important information to users in the form of structured data; in the metadata provided to Europeana, it is only expressed as a literal in Dutch language: ‘Vertaling van de uitgave: Londres: Trundell, 1603; en: Londres: I. R., 1604’ (i.e., ‘Translation of the following editions: London: Trundell, 1603, and London: I. R., 1604’). Although I am not sure it would be feasible to extract that information from the metadata such as it stands, I made the mappings as though it were.

(For graphical representations of the EDM and FRBROO mappings, see slides 12 and 13 of the PowerPoint document).

**The correct identification of the Expressions makes it possible to establish the correct semantic link between P and O** (P contains a translation of the same text that O contains).

The graphs make it possible to answer the following questions, among others:

* Give me any edition of *Hamlet,* provided it is in French.
* Give me all Romantic Era editions of Shakespeare’s works.
* Who published *Hamlet* in 1865?
* What are the names of 19th century translators of *Hamlet* into French?
* Into what languages was *Hamlet* translated in the 19th century?

If (and only if) the information element “Vertaling van de uitgave: Londres: Trundell, 1603; en: Londres: I. R., 1604]’ can be exploited, then these graphs also make it possible to answer the following questions:

* Where can I find (even in French translation) the ‘Bad Quarto’ version of *Hamlet?*
* Where can I find (even in French translation) the ‘Good Quarto’ version of *Hamlet?*
* Which earlier versions of *Hamlet* were republished in the second half of the 19th century?

They do not make it possible to answer the following question, among others:

* What did Ophelia look like?

Comments on the C example

<<http://www.europeana.eu/portal/record/9200103/6ACC4B8238AFEA8252EC48DC772DD4CCA3C01E7E.html>>.

C corresponds to a copy (evidently found in a newspaper, but the provided metadata does not say a word about it) of a lithograph representing Hamlet as he delivers (in French translation) his famous line: ‘To be or not to be, that is the question.’ It is unclear whether the artist intended to represent a frozen moment from an actual performance, or to show how he imagined the event in his mind’s eye. In the absence of relevant documentation, the latter assumption is a necessary default choice, and the relation is established directly between C and *Hamlet* as an abstract Work.

The very poor quality of the provided metadata (I can say so without offending anyone, as it was provided by BnF) does not enable one to contextualize much this CHO, which considerably diminishes its cultural value.

(For graphical representations of the EDM and FRBROO mappings, see slides 14, 15, 16 and 17 of the PowerPoint document).

One of the advantages of using FRBROO is that it is an extension of CIDOC CRM; which means that it is always possible, when it comes to describing items that belong typically to museum collections rather than library collections, to use a CIDOC CRM structure rather than the too constraining WEMI structure. WEMI does not fit all equally well: in the case of images, it is not necessarily always useful to distinguish painstakingly between a Work, an Expression, and a Manifestation. Therefore, I made two alternate mappings for C in both EDM and FRBROO: one that uses the WEMI structure (with indeed only very limited information at the Expression level), and one that uses CIDOC CRM classes instead. However, in order to make that possible, **a revision of FRBROO is required: currently, the range or *R14 incorporates (is incorporated in)* is F2 Expression; if the range of R14 was E73 Information Object in lieu of F2 Expression, then it would be possible to dispense with the WEMI structure in many cases**.

The graphs make it possible to answer the following question, among others:

* Give me graphic representations of *Hamlet* from the 19th century.

They *might* return a misleading answer to the following question:

* What did Ophelia look like?

Comments on the B example

<<http://www.europeana.eu/portal/record/9200103/CFCAB1EE0450F2241324D99E3DCD8D7BAA679F72.html>>.

B corresponds to a copy of a publication of a study about the depiction of mental disorder in *Hamlet*. No specific version of *Hamlet* is referred to (perhaps the author of the study used a French translation of *Hamlet*): **the study deals with the concepts, therefore the abstract notion of *Hamlet* as an FRBRER Work. As a consequence, it seems desirable to include that level of abstraction in EDM**.

(For graphical representations of the EDM and FRBROO mappings, see slides 18 and 19 of the PowerPoint document).

The graphs make it possible to answer the following questions, among others:

* Give me 19th century studies that are related in some way to *Hamlet*.
* Give me studies about how the French understood Shakespeare’s works in the late 19th century.

If information contained in the subject terms could be exploited, the graphs would make it possible to answer the following question, among others:

* Give me 19th century French publications on psychiatry and literature.

They do not make it possible to answer the following question, among others:

* What did Ophelia look like?

Comments on the F example

<<http://www.europeana.eu/portal/record/9200103/5AD7B0A40C510A60A3F298A753F2F851FAE70F4A.html>>.

F corresponds to a copy of a playbill designed for advertising performances of *Hamlet* by Sarah Bernhardt in Paris in 1899. The relation to *Hamlet* is therefore indirect and goes through an Event.

(For graphical representations of the EDM and FRBROO mappings, see slides 20, 21, 22 and 23 of the PowerPoint document).

As in the case of C, two alternate mappings are given, one with the WEMI structure (which is not quite relevant here), one with CIDOC CRM classes (requiring an adjustment of FRBROO).

The graphs make it possible to answer the following questions, among others:

* Give me graphic representations of *Hamlet* from the 19th century.
* Give me drawings by Mucha depicting Sarah Bernhardt performing works by Shakespeare.
* Give me information about Sarah Bernhardt’s performances of Shakespeare’s works.

They *might* return a misleading answer to the following question:

* What did Ophelia look like?

Comments on the G and H examples

<<http://www.europeana.eu/portal/record/9200103/9AB963D098E759080108CF271FB5457355CB5693.html>>.

<<http://www.europeana.eu/portal/record/9200103/10786471EDBB68BF7B47DD2A8DE7DD56CA5D76D0.html>>.

Both G and H correspond to collections of prints of photographs of two distinct performances of *Hamlet*. These examples clearly show the biases of current cataloguing practice: any description found in a library catalogue is assumed to be the description of a ‘publication’. These photographs can hardly be said to be ‘publications’, but current cataloguing practice obliges us to associate them with a ‘publisher’ (who is none else but the photographer, actually; but the routines of metadata transformation from the catalogue to Europeana turn the personal name into a corporate name).

Further investigation is required as to the modelling of photographs in FRBROO. I understand F21 Recording Work as covering photographs, but maybe this is a misinterpretation of mine. If Martin does not agree with that mapping, then E31 Document and the property of which it is the domain, *P70 documents (is documented in)* could be an acceptable alternative. At any rate, I think **the FRBROO documentation should clarify this issue, and make explicit statements as to how to model photographs**.

The items described are actually aggregates of objects; but according to the Scope note for E19 Physical Object in CIDOC CRM, ‘all aggregates of objects made for functional purposes of whatever kind’ fall under E19 Physical Object. They can therefore be described as a whole that carries an overall content.

(For graphical representations of the EDM and FRBROO mappings, see slides 24, 25, 26, 27, 28, 29, 30 and 31 of the PowerPoint document).

As in the case of C and F, two alternate mappings are given, one with the WEMI structure (which is not quite relevant here), one with CIDOC CRM classes.

The graphs make it possible to answer the following questions, among others:

* Give me any documentation about performances of *Hamlet* in Paris between 1950 and 1990.
* Give me photographs made by Roger Pic of performances of works by Shakespeare.
* Give me photographs of performances of works by Shakespeare directed by Daniel Mesguich.

If information expressed as literals could be exploited, the graphs would make it possible to answer the following question, among others:

* Who directed *Hamlet* in Paris and its suburbs between 1950 and 1990?

The graphs *might* suggest materials in response to the following question, among others:

* What did Ophelia look like?

Comments on the E and J examples

<<http://www.europeana.eu/portal/record/9200103/734C58AB59F799EEF3C1A13EE39591D600C8F4A0.html>>.

<<http://www.europeana.eu/portal/record/9200103/5DA8BE393B1155CE701F9C7B9BD982B790AC4177.html>>.

E and J correspond to models for the sets and costumes used in given performances[[9]](#footnote-9) of an opera derived from *Hamlet*. Strictly speaking, it is not the opera, as a musical Work, that is derived from *Hamlet,* but the opera ‘incorporates’ a libretto which is an Expression of a literary Work derived from *Hamlet*. The proposed mappings do not go into such details and establish the edm:isDerivativeOf property directly from the opera to Shakespeare’s Work.

**It is impossible, using EDM alone, to provide correct information about the specific nature of the relation between these models and the performances. This level of precision can only be achieved using FRBROO**. Before deciding to add it to EDM, it is necessary to pose the question whether it is needed in Europeana.

(For graphical representations of the EDM and FRBROO mappings, see slides 32, 33, 34, 35, 36, 37, 38 and 39 of the PowerPoint document).

As in the case of C, F, G and H, two alternate mappings are given, one with the WEMI structure (which is not quite relevant here), one with CIDOC CRM classes.

The graphs make it possible to answer the following questions, among others:

* Give me any documentation about performances of Ambroise Thomas’s *Hamlet*.
* Give me documentation relating to operatic set designs in Paris in the 19th century.
* Shakespeare and opera?

Combined with external information, they might help to answer the following questions, among others:

* Give me documentation about the first public performance of Ambroise Thomas’s *Hamlet*.
* What did Ophelia wear?

Comments on the K example

<<http://www.europeana.eu/portal/record/9200103/00198C61B90CEE15677550BD34245442F1B063A7.html>>.

K corresponds to a print of a photograph of a painting that represents one of the performers (acting as Ophelia) in a given performance (actually, the first one) of an opera derived from *Hamlet*.

(For graphical representations of the EDM and FRBROO mappings, see slides 40, 41 and 42 of the PowerPoint document).

Two alternate mappings to EDM are given, one with the WEMI structure and one with CIDOC CRM classes, but only one mapping to FRBROO is provided. I have the same questions about the treatment of photographs in FRBROO as for G and H above.

The graphs make it possible to answer the following questions, among others:

* Give me any documentation about performances of Ambroise Thomas’s *Hamlet*.
* Shakespeare and opera?
* What did Ophelia look like?

Combined with external information, they might help to answer the following questions, among others:

* Give me documentation about the first public performance of Ambroise Thomas’s *Hamlet*.

Comments on the I example

<<http://www.europeana.eu/portal/record/9200103/C27731400F338B16235D12C5D4178DFA2FFF846F.html>>.

I corresponds to a copy of a release of a recording of a given performance of an excerpt from an opera derived from *Hamlet*. In FRBROO, this situation results in an incredibly complicated picture, while in EDM it remains relatively straightforward (even though it makes use of the WEMI structure, which is perfectly relevant here).

(For graphical representations of the EDM and FRBROO mappings, see slides 43 and 44 of the PowerPoint document).

No effort was made to express in the mappings the notion that the text performed in this sound recording is not the original libretto but a translation.

The graphs make it possible to answer the following questions, among others:

* Give me any documentation about performances of Ambroise Thomas’s *Hamlet*.
* Shakespeare and opera?

They should make it possible to avoid to return misleading hits to the following question:

* Give me sound recordings of the text of Shakespeare’s *Hamlet*.
1. Gary Taylor, ‘Shakespeare Plays on Renaissance Stages,’ Stanley Wells and Sarah Stanton, ed., *The Cambridge Companion to Shakespeare on Stage* (Cambridge, UK: Cambridge University Press, 2002): 1-20 (pp. 1 and 3-4). [↑](#footnote-ref-1)
2. British Library, *Treasures in Full: Shakespeare in Quarto,* <[http://www.bl.uk/treasures/shakespeare/playham let.html](http://www.bl.uk/treasures/shakespeare/playhamlet.html)>. [↑](#footnote-ref-2)
3. British Library, *Treasures in Full…* [↑](#footnote-ref-3)
4. British Library, *Treasures in Full…* [↑](#footnote-ref-4)
5. See Gunilla Jonsson, ‘Cataloguing of Hand Press Materials and the Concept of Expression in FRBR,’ *Cataloging & Classification Quarterly* 39(3-4) (2005): 77–86. [↑](#footnote-ref-5)
6. ‘Some pages of the First Folio – 134 out of the total of 900 – were proofread and corrected while the job of printing the book was ongoing. As a result, the Folio differs from modern books in that individual copies vary considerably in their typographical errors. There were about 500 corrections made to the Folio in this way.’ ‘First Folio’, *Wikipedia* (accessed on January 2nd, 2013). [↑](#footnote-ref-6)
7. Paul Bertram and Bernice W. Kliman, ed., *The Three-Text Hamlet: Parallel Texts of the First and Second Quartos and First Folio* (New York: AMS Press, 1991). [↑](#footnote-ref-7)
8. IFLA Study Group on the Functional Requirements for Bibliographic Records, *Functional Requirements for Bibliographic Records: Final Report* (Munich: K.G. Saur Verlag, 1998), 19. My emphasis. [↑](#footnote-ref-8)
9. Actually, these were the first performances of the opera, which had been composed just the previous year in 1867, but the metadata does not specify it, although this is a significant aspect of the cultural value of these CHOs. [↑](#footnote-ref-9)