

From authorities to multi-source representation of things past: Modelling interpretations

Gerard Kuys, July-August 2021

Out of, say, one thousand ways of describing a published book, how did libraries succeed in developing a way of describing such a book completely, resourcefully, and convincingly? Well, they chose for themselves a number of authorities (persons or institutions) that were deemed to be knowledgeable enough to make their advice or prescriptions followed. From this practice, a standard resulted which libraries welded together in a two-century tradition of information science / library science. In this way, libraries came to be authorities themselves. And of course at that time, until the eve of the digital search engines, standardisation also meant the elimination of possibly viable alternatives.

The key to the success of information science was, that henceforth information concerning published books could be described in a uniform and standardized way. However, the issue of the 'subject', what is this work about, always nagged away part of the certainty that some bibliographic systems promised to bring. Of all possible solutions to a problem (e.g. how to represent a statement by some author on some state of affairs), the standardized descriptions offered a more or less unambiguous and universally findable way of disclosure of a particular piece of information – by sheer banishment of all the subjects that did not fit in well enough. In the information age, though, the good fortune that has befallen the authorities upholding thesauri and controlled vocabularies before Google times, now is on the wane. With the significant rise in (real or imaginary) recall, precision became less important. The very notion of precision weakened in the same pace as the multiplication of non-library documents that claim to be just as relevant. 'Screen culture is a world of constant flux, of endless sound bites, quick cuts and half-baked ideas. (...) Notions don't stand alone but are massively interlinked to everything else; truth is not delivered by authors and authorities but is assembled by the audience' ¹.

This image of a shifting focus of attested truth in an increasingly digital world – from venerable experts advising us to autonomous members of an internet audience – is compelling, but elusive. Yes, the initiative in information retrieval is much more with the audience now. However, members of this audience are guided towards certain types of answers by way of the searching mechanisms they are using. If an underlying thesaurus tells us, that notion X has a hierarchical or associative relation with notion Y, we will be looking into that direction, and no other ². If search is centered around a particular keyword, there is no way we can distinguish the various contexts around such keywords, so that controlled vocabularies or search algorithms are likely to do that for us.

Also, the nature of descriptions comes with its own implications. The world of libraries is straightforward. If there is no published book (no 'work'), there is nothing you can tell about its author or about its content. That is why in this highly regulated world controlled vocabularies, vocabularies that exist by the grace of boiling down every description to its bare essentials, are hard to dismiss. If in doubt about classifying a book, there is always the touchstone of other books: what are those about and how have their contents been classified? What has been the approach of the relevant authority?

1 Baroness Greenfield in the UK House of Lords, 2007, quoted by Alan Gilchrist, Editorial, in: Alan Gilchrist (ed.), *Information science in transition*, London (Facet) 2009, p. xx.

2 As Stella Dextre Clarke points out, quoting H.P. Luhn. *The last 50 years of Knowledge Organization*, in: Gilchrist, o.c., p. 52.

Although it shares with libraries the agonies that come with classifying ‘subjects’, the world of non-art museums – and, that of archives, too, although archives tend to stay clear of narratives – is much more fluid. In many cases, the artefacts or documents in museal collections are diverse to the extent, that hardly any guidelines exist about the way their context should be read. It is equally hard to answer the question: of all contexts, which one is the most relevant to the narratives I want to have at my disposal? While book descriptions depend on the existence of books, for museums the physical collection items are much more in a support role to narratives, rather than a reason for being. The best narratives, of course, are those based on a set of related physical items or common concepts, but some narratives survive even though their underlying evidence is flimsy. At the same time, while seldom there is debate whether some book is written about topic Y rather than topic Z, the narratives of a museum may very well present different views on the same situation. The content of a book is contained within the universe of the individual book (or book series), whereas narratives may need to refer to several different views at a time. Within the world of digital cultural heritage, we witness a shift from authority-based describing of collections to stating assertions about the past, with or without a sound foundation in material or conceptual evidence.

The relevance of this shift hits us hard when dealing with historical data like A.J. van der Aa’s. For example, we have found several inconsistencies in his thirteen-volume work. Van der Aa is the authority for the work he wrote, the undisputed source for the digital data we want to be published. Finding inconsistencies, we should be asking their author, but, alas, he has been dead for some time. If we would follow the path of authorities-based modelling, we could deal with inconsistencies – or, for that matter, also with clearly incorrect statements – by marking the most historically correct locus in the source text as the one to be followed, and by discarding the rest as unfounded. But this approach would introduce two problems: first, it would be an intervention in the text of the source and make us for a tiny bit its authors as well, and second, on what grounds can we identify what is ‘historically correct’? From whose point of view? And what kind of modelling would that imply when structuring Van der Aa’s text into digital data? Petri nets and varieties of the SSM Weltanschauung concept ?³

Fortunately, we do not have to go that far. The principle that we adopted earlier, saying that every statement must also point to the source it originates from, can help us out quite a good deal. Statements can be assessed by the value we generally attribute to their source, and authorities no longer have to be referred to on a take-it-or-leave-it basis. If A.J. van der Aa seems to be inconsistent over the volumes of his work, we could possibly identify a Van der Aa at time t1 along with a Van der Aa at time t2. Maybe he changed some of his views during the years he worked on his Geographical Dictionary. Maybe his local correspondents wrote and convinced him that some descriptions of a situation should be rewritten slightly or altogether differently – which, for example, may have happened if geographical locations further on in the alphabet saw the action of persons who had been named in volumes already published.

In an earlier document, we introduced the Event-Model ‘F’ to our project. A central feature of this Event-Model ‘F’ is its commitment to the DnS pattern adopted by DUL: even the same set of circumstances or events can have different descriptions from different points of view. At the same time, a single event may be part of, and thus help to configure, different situations. The DnS pattern allows us to arrange the elements that constitute an event ‘differently through the lenses of the framing (or description) applied by the observer’⁴. In the last part of our previous document about

3 John W. Lamp, Using Petri Nets to Model Weltanschauung Alternatives in Soft Systems Methodology, http://lamp.infosys.deakin.edu.au/pubs/98_ssmnpn.pdf

4 Aldo Gangemi, Valentina Presutti, Multi-layered n-ary Patterns, in: Pascal Hitzler e.a., *Ontology Engineering with Ontology Design Patterns. Foundations and Applications*, Berlin-Amsterdam (IOS Press) 2016, p. 120.

event models, we defined two categories of event descriptions against which – for us to prove our approach to be adequate – event models must be tested: event descriptions that tackle complex events, and event descriptions that need to deal with contradictory event descriptions or even with falsehoods.

As to the first question, how the combination of situations and descriptions of Event-Model ‘F’ can help to describe complex situations, we will expand on the example of Hugo Gallus and Elbertus Westenberg. Both were protestant ministers called upon to preach in the Reformed church of Diepenheim, in the second decade of the 17th century. Of these, the application of Hugo Gallus (probably a Huguenot) was rejected by the Deventer classis, on the suspicion of Remonstrantism. The other minister was not therefore sure of his admission as a preacher. However, he repented for his ‘unlawful’ application and finally got the job ⁵. How to model all this in ODP’s we shall demonstrate in an appendix.

As to the question how to model interpretations, slanted readings and contradictory event accounts, we need to see whether or not the Interpretation Pattern of the Event-Model ‘F’ can handle these well, and test it thoroughly against a set of criteria. The first thing to be categorised, in doing so, is the nature attributed to an event description – what type of event description structures the account of the event. Our original feeling was, that we should distinguish straightforward errors from interpretations. Ideally, interpretations start from the same documentary basis, whereas a lot of errors were supposed to spring from an incomplete or unreliable state of informedness.

However, most lapses in Van der Aa’s text, and by consequence in Vennik’s Index of Names, are due to the state of historical knowledge in Van der Aa’s era, and that state in itself is a feature to be documented. Therefore, what has turned out to be erroneous since then, cannot be classified as an error within the context of the times of Van der Aa and his contemporaries. As far as possible, there should be a distinction between what we know now and what can be considered as standard knowledge during a certain period. Since it is hard, however, to decide what was common (historical) knowledge in the 1840’s and what was not, we have rejected a possible category of Errors pointing to the statements that we now know to be mistaken. To mention but one of the simpler examples: in Volume 1 of his Geographical Dictionary, A.J. van der Aa writes about a Jan VIII van Arkel, who was believed to have founded a village and who would have been a crusader ⁶. As far as we know, a Jan VIII van Arkel did not exist. There is, though, a Jan V van Arkel, who visited Jerusalem in the year 1124 ⁷.

We classify Van der Aa’s statement on Jan van Arkel not as an error, but rather as an assertion in its own right, about a village that got founded by a local lord. At the same time, it is also as an assertion that cannot be reconciled with present-day’s state of knowledge (e.g., as presented in the source nl.wikipedia.org), so what ‘real’ state of affairs is Van der Aa writing about? We must, therefore, both render in data what Van der Aa asserts to be true, as well as what to our own knowledge really was going on. In order to bridge the gap between Van der Aa’s universe and our own, we shall use the Correlation Pattern of Event-Model ‘F’. This pattern provides a Justification role to state the nature of the relation between two versions of an Event description. The former version is described using an ‘F’ Participaton Pattern (that we believe to be more accurate), while the latter Event is described using an ‘F’ Interpretation Pattern (the gist of which we would rather leave with its author). Both ways of seeing, however, point to a common Domain Ontology. This

⁵ A.J. van der Aa, o.c., Aardrijkskundig Woordenboek, volume 3 (1841), p. 317-318.

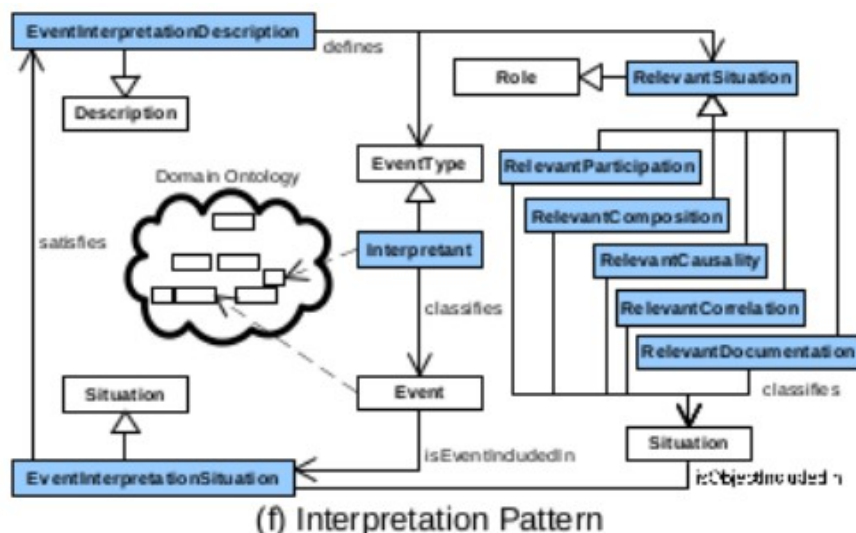
⁶ ‘ACQUOY werd in 1140 door JAN VIII, Heer van Arkel, gebouwd, nadat hij van zijnen kruistogt naar het H. land teruggekomen was’. A.J. van der Aa, Aardrijkskundig Woordenboek, volume 1 (1839), p. 50.

⁷ [https://nl.wikipedia.org/wiki/Jan_V_van_Arkel_\(1105-1170\)](https://nl.wikipedia.org/wiki/Jan_V_van_Arkel_(1105-1170))

Domain Ontology we define as the representation of basic, but present-day knowledge about the Places, Persons and Events that populate the universe of Van der Aa's Geographical Dictionary.

When referring to Event types, by the way, we should bear in mind, that the categorisation of present-day historical knowledge is very much work-in-progress – which also means that there is hardly any measure to compare modern historical knowledge with that originating in the 1840's. In 2015, four authors of the Slovenian Jožef Stefan Institute and one from iMinds in Ghent, Belgium, published an ACM article under the title Towards a Complete Event Type Taxonomy⁸. This brave endeavour had a high 'towards'-level indeed, given the fact that the event types concerned were retrieved from news articles only. Although their scoping precludes events in the sphere of people's personal lives – there are no marriages, divorces or personal careers in their taxonomy – still this is the only event type categorisation we have so far. On the assumption that a provisional event type taxonomy is better than none, we shall use it wherever possible, and at the same time pretend that 19th-century preoccupations would match ours – at least what the subjects of published content is concerned. We have added categories for Personal and Interpersonal Events, though, just to be a little more complete.

Coming back on the question of how to deal with variations in event representation, we find ourselves ending up with no errors but with all the more interpretations, both 19th-century and present-day. Partly, to make it worse, these interpretations rely on the tottery basis of a provisional event types taxonomy. Let us see in how far the ODP's can help us out of this uneasy predicament. Among the patterns in 'F', there is an Interpretation Pattern, the diagram of which is in the figure below. As follows from this diagram, there is the general DnS pattern distinguishing between an actual Situation (a configuration of Events) and one or more Descriptions making sense of the Situation. According to the Interpretation Pattern, it is the Interpretant telling us what kind of Event(s) this is all about, and what aspects of the Situation are supposed to be especially relevant. We are quite sure this pattern can be of great use in cases where the Situation is just the same, and where we have different views on that Situation. But what to do in cases where different 'lenses' point to Situations that actually diverge one from the other? And how is the Correlation Pattern (not in the diagram) going to support us when expressing opinions ('error!', 'bias!') about one EventInterpretationDescription compared to another?



Let us pick a case, in which A.J. van der Aa seems to make his way through the history of Almelo

⁸ Aljaž Košmerlj, Evgenia Belyaeva, Gregor Leban et al., Towards a Complete Event Type Taxonomy, in: IW3C2 WWW 2015 Companion, May 18-22, 2015, Florence, Italy, ACM 978-1-4503-3473-0/15/05.

with seven-league strides. According to his writing, countess Beatrix of Almelo was the daughter of count Egbert of Almelo, granddaughter of count Arnold, she was married to count Evert van

Hekeren, and became heiress to the House of Almelo when her father died ⁹. Van der Aa's text does not provide any indication of the year(s) concerned, but due to his being married with Beatrix, her husband Evert van Hekeren must have become count of Almelo (in addition to his other fiefs) in about the year 1360 or a little bit later – as we know from present-day sources. Beatrix and Evert, according again to Van der Aa, had a son who inherited the county. Van der Aa names him Egbert van Almelo ¹⁰, although his official name must have been Egbert van Hekeren/Heeckeren.

If we would take note only of the person's names, Van der Aa's genealogy would be more or less correct according to some present-day historiography. We have at least two modern genealogical lines at first sight confirming the state of affairs given by A.J. van der Aa in 1839. This is what they look like ¹¹:

Voorouders (en nakomelingen) van Beatrix van Almelo



There is confusion, however, with regard to House of Almelo descendency. There is an Egbert of Almelo, who ruled Almelo-and-Vriesenveen as a fief directly to the Emperor Elect of the Holy Roman Empire. Beatrix, if she really were Egbert's daughter, must have been born into an age where Almelo-and-Vriesenveen had become a fief to the count of Gelre – for in 1318, says Van der Aa, her father had traded in the Emperor for the count of Gelre as his liege lord. At the same time, she is known to have married Evert van Hekeren at the midst of the 14th century. How could this be? As it turns out, Egbert I of Almelo lived from about 1260 until 1303, so this Egbert cannot have changed his fief's allegiance in 1318. His successor was his son Arnold III of Almelo. But the Beatrix concerned was not the spouse of Evert van Hekeren, nor has she been proven to become dependent on the count of Gelre. When following other present-day sources, we find that Beatrix (Beatrix I of Almelo, born 1278, year of death unknown) was the daughter of Egbert I from second marriage with Mechtilde of Limburg, and the half sister of Arnold's. There must have been some

9 'Van ARNOLDS zoon EGBERT kwam deze heerl. aan zijne erfdochter, BATE (BEATRIS) VAN ALMELO, die zich in huwelijk begaf met EVERT VAN HEKER'. A.J. van der Aa, o.c., volume 1, p. 101.

10 '... zijnde de vergunningsbrief, tot den afstand van gezegden grond, gegeven op St. Adolphusavond van gezegd jaar [1407], en gezegeld met de wapenen van BEATRIS VAN ALMELO, haren zoon EGBERT VAN ALMELO en ELIZABETH VAN VOERST, EGBERTS huisvrouw'. A.J. van der Aa, o.c., volume 3, p. 38.

11 Genealogy by Richard Remmé (<https://www.genealogieonline.nl/genealogie-richard-remme/163912.php>) and Ben Peijssel (<https://www.genealogieonline.nl/stamboom-peijssel/17944.php>) respectively.

untimely deaths in the Van Almelo family, since Egbert I's elder son Arnold (Arnold III of Almelo) did not live long enough to bequeath his county to his son Johan. Johan's full brother Egbert

(Egbert II of Almelo) somehow took over, at the time of his own death bequeathing his fief to his only daughter Beatrix (Beatrix II of Almelo, born 1327) some time between 1360 and 1366. Of both Beatrices, only the second was married to Evert van Hekeren/van der Ese, probably in 1362. And their son Egbert van Hekeren/Heeckeren (sometimes also known as Egbert of Almelo, 1369-1453), was married to Elisabeth van Voerst/Voirst all the same.

A.J. van der Aa's descriptions are sometimes vague but not necessarily mistaken. And the confusion is certainly not typically 19-century. The authors of several digital family trees¹² present the state of affairs quite differently in comparison to the two GenealogieOnline authors quoted above. In their view, there has been an Arnold IV of Almelo, who died in or some time before 1366, and who should be situated in between Egbert II and Beatrix II (his daughter) in the family tree of the House of Almelo. As long as we don't know on what sources present-day genealogists base their account, we simply have to treat the Arnold IV version as an alternative interpretation. Even, it is the one we assume to be closest to the truth – so this is the version to be adopted when 'filling' our Domain Ontology (marked in yellow in the table below).

Source	Event	Event Type	Time Interval	Cause	Effect
A.J. vd Aa, vol. 1, p. 101 (1839)	Evert van Hekeren becomes count of the Almelo-Vriesenveen fief	Allegiance to liege lord, new family of lords		Death of Beatrix II's father Egbert van Almelo	House of Almelo descends into Van Hekeren noble family
				Evert van Hekeren being married to Beatrix II	
Remmé, Peijzel (Genealogie Online) (2019)	Evert van Hekeren becomes count of the Almelo-Vriesenveen fief	Descendance due to family rights	ca. 1366	Death of Beatrix II's father Egbert van Almelo	House of Almelo descends into Van Hekeren noble family
				Evert van Hekeren being married to Beatrix II	
Stamboom-Corbey e.a. (Genealogie Online) (2018)	Evert van Hekeren becomes count of the Almelo-Vriesenveen fief	Descendance due to family rights	????	Death of Beatrix II's father Arnold van Almelo	House of Almelo descends into Van Hekeren noble family
			1362	Evert van Hekeren being married to Beatrix II	
Wikipedia.nl i.v. Heerlijkheid Almelo (2020)	Evert van Hekeren becomes count of the Almelo-Vriesenveen fief	Descendance due to family rights	Between 1360 and 1366	Death of Beatrix II's father Arnold IV van Almelo	House of Almelo descends into Van Hekeren noble family
			Between 1350 and 1360	Evert van Hekeren being married to Beatrix II	

Table 1: Varying interpretations of the same event

The best way to render this state of affairs correctly, is to apply an Interpretation Pattern instance for every source giving a view of its own. So, in cases where Van der Aa obviously contradicts himself, that would be not in the same text fragment but in text loci that can be positioned at different moments in time, and then signalled by a Justification in a Correlation Pattern. Also, every instance of the Interpretation Pattern would have to point to the same Domain Ontology. The latter represents, as far as humanly possible (look, we are our own authority again!), the state of affairs that may be considered undisputable – at least for information people who do not seek to doctorate on the subject. And yes, assessing the trustworthiness of A.J. van der Aa's point of view sometimes

¹² <https://www.genealogieonline.nl/stamboom-corbey/129479.php>

would make it necessary to draw other authors, regardless whether 19th-, 20 th- and 21 st century, into the picture and record their interpretations in data as well. This would lead to a configuration of pattern instances like in the diagram below.

In our data concerning persons named by or suggested by A.J. van der Aa, we have made a clear distinction between data about (historical or mythical) persons as we know them now, and references to such persons. For example, if Van der Aa does not tell us the year in which some person was born, and if we know that year from other sources, we include this year with the data about the person into our Domain Ontology, and we add two or more roar:Documents referencing their source. One pointing to Van der Aa's mention (from which we can see that there is no birth year there), and one pointing to the source(s) that do mention a year of birth. Now, if we want to model Van der Aa's view, we can only model those data that have Van der Aa's text as their source. There can't be a Birth event for Beatrix II of Almelo in 1327 in which sem:accordingTo (or dct:source in the 'F' vocabulary) points to Van der Aa's text. But there can be such a Birth event for the same person, in which sem:accordingTo (or dct:source in 'F') points to a family tree in GenealogieOnline. The author of the genealogy concerned then acts as the f:Interpretant as modelled in the ODP Interpretation Pattern of 'F'. In this way we can have this Birth-type event defining who is playing the infant Role within a f:RelevantSituation, and pick the relevant events depending on whose view we choose to represent.

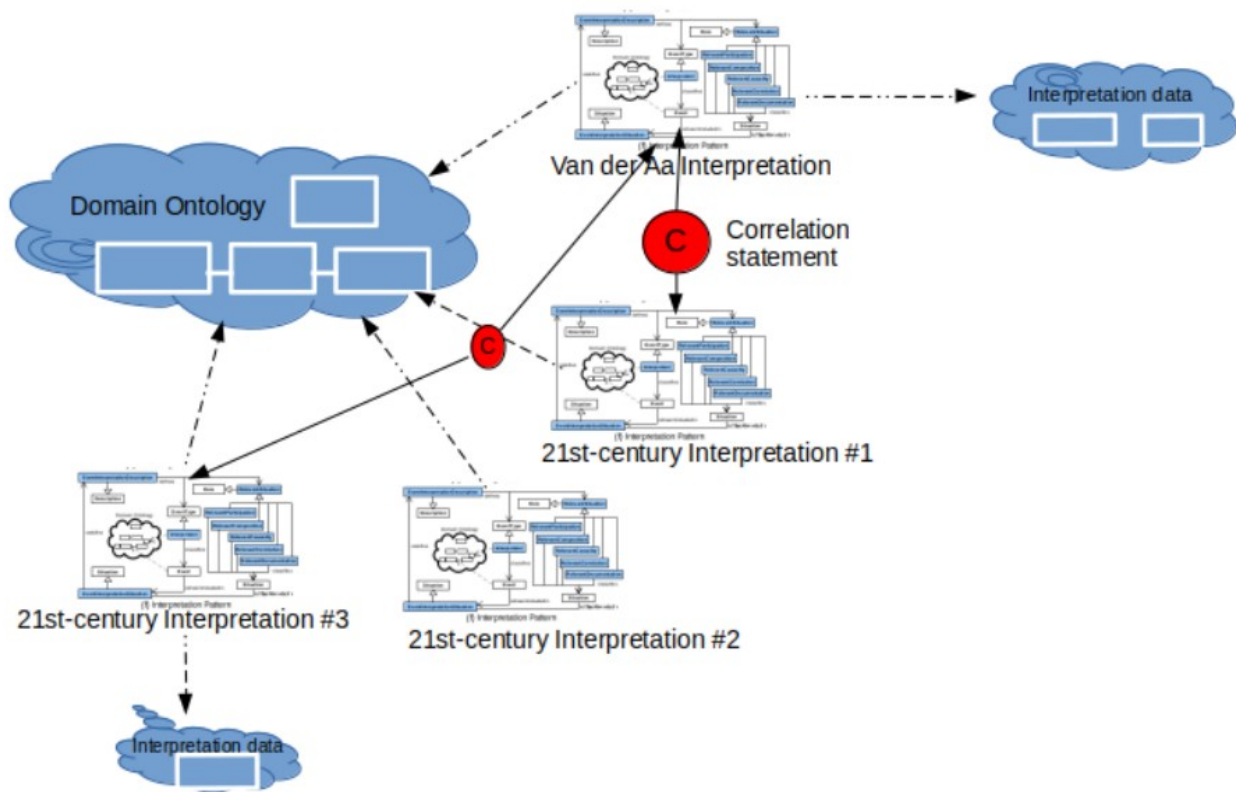


Diagram 2: Configuration of Interpretation and Correlation Pattern instances

Diagram 2 also shows, where in our model we would prefer to place the data that are neither Domain Ontology nor 'inner' part of the Time-Indexed Participation or Interpretation patterns, such as Birth year data that are no acknowledged Birth year data. Interpretations must rely on a state of affairs that can be strictly limited to that interpretation only, and may diverge considerably

from what is in the Domain Ontology. But still we do need the Domain Ontology, for most interpretations consist of a mixture of common-knowledge facts and ‘derived’ facts.

Let us take the example of the East-Netherlands’ nobles brooding against their liege lord, which in a previous document we used as a criteria to compare SEM with ‘F’. This casus, the case of the investiture of Gosewijn van Amstel/van Randerath as a bishop of Utrecht, abounds with interpretations. Our starting position here, the one to be included in the Domain Ontology, is the Wikipedia version in verbo Gozewijn van Randerath. This lemma states simply, that Gozewijn was a cleric in the Low Countries, who was elected bishop in the year 1249. However, this election, by the chapters of the diocese of Utrecht, was rejected by the pope (Innocentius IV), who appointed Hendrik van Vianden as a bishop in 1250. Shortly afterwards, Gozewijn stepped down from his function. The Wikipedia article ends with the remark, that in later historiography Gozewijn van Randerath was better known under the name of Gozewijn van Amstel, due to an error in the chronicles of Johannes de Beka (written after 1346 and perpetuated by Joost van den Vondel in 1637). So, we note in our Domain Ontology that Gozewijn van Randerath was a pnv:Person and a dbo:ChristianBishop, and that his other name (the Person Name Vocabulary allows us to assign more than one name to people) was Gozewijn van Amstel. His year of death is unknown, and therefore there is no such property.

However, A.J. van der Aa’s description is quite different. There are two places in his work where he mentions ‘Gozewijn van Amstel’, in volume 1 and in volume 11. The latter is just a list of Utrecht bishops, from which we learn that, according to Van der Aa, ‘Goeswinus van Amstel’ died in the year 1250. The other mention is in relation to Van der Aa’s account of Almelo history ¹³, from which we derive the following interpretations:

1. Five nobles, notably Hendrik of Almelo, the lords of Vianen, Amstel and Woerden, and also the Duke of Gelre, collude in order to protect the current bishop (Gozewijn) against the newly appointed bishop Frederik van Vianen;
2. Gozewijn van Amstel was deposed, because count Willem II of Holland (who was also king of the German Holy Empire) wanted Frederik van Vianen in his place.

There are real errors here: first, there was no Duke of Gelre, at least not in 1250, and second, the bishop who succeeded Gozewijn was not Frederik van Vianen but Hendrik/Henricus van Vianden ¹⁴, who is also in the Domain Ontology (vdA-Venn:AaPers20186). On the other hand, Van der Aa is right about the involvement of Willem II of Holland, albeit not in the way he depicts – for the greater conflict is about the distribution of worldly power between pope and emperor.

However this may be, we need to have an as clean as possible Domain Ontology, and leave Van der Aa’s interpretations entirely to himself. This we will do by creating a handful of f:EventInterpretationDescriptions, and reserving the f:EventParticipationDescriptions for the events that are Domain Ontology-related exclusively. In the former group the f:Interpretant is Van der Aa, and here we have the description of an Election event, a Collusion event, a Deposing event, and, finally, the description of an Appointment Event. In the latter group there is no f:Interpretant (or maybe DBpedia or a reliable source found elsewhere), and here we have the descriptions of partly the same event types (and also an Abdication event), but with a different configuration.

13 ‘Later was zekere HENDRIK VAN ALMELO, met deHeeren van Vianen, Amstel en Woerden, benevens den Hertog van Gelder in verbond, om GOZEWIJN VAN AMSTEL, den zeven en dertigsten Bisschop van Utrecht, die door WILLEM II, Graaf van Holland, afgezet was, tegen den in zijne plaats, verkozen Bisschop, FREDERIK VAN VIANEN, te beschermen’. A.J. van der Aa, Aardrijkskundig Woordenboek, vol. 1 (1839), p. 101.

14 [https://nl.wikipedia.org/wiki/Hendrik_van_Vianden_\(bisschop\)](https://nl.wikipedia.org/wiki/Hendrik_van_Vianden_(bisschop))

The fact-like data that are wholesale connected to Van der Aa's personal interpretation cannot be added to the Domain Ontology, nor is there room for it in the patterns' model. What then is a logical place to allocate them? Given the fact, that the central event-sensitive information in Van der Aa's work is about Persons and their involvement in major changes (most Places do not change their location even after a frightful event), we should think of a slight extension to the Event class in Event-Model 'F'. This could be a type that is equivalent to what once was the class of a FictionalCharacter in the DBpedia ontology, but should be equivalent to pnv:Person as well.

We call the type of Person, who for its existence is totally dependent on an Interpretation, a PersonObservation. Connected to a Role performed in an Event within the context of an InterpretationPattern pointing to Van der Aa as an f:Interpretant, there is a PersonObservation with the name of Gozewijn/Goeswinus van Amstel. This PersonObservation is a 'fictional' look-alike of the Person in the Domain Ontology whose name is Gozewijn van Randerath; and this PersonObservation Goeswinus died in 1250, whereas about Gozewijn van Randerath we don't know when exactly his life ended. Between this InterpretationPattern and a supposed ParticipationPattern in which Gozewijn van Randerath participates in his own death, there is a CorrelationPattern stating, that the death year derived from Van der Aa's text cannot be corroborated, so the type of this correlation should be something like Uncertainty. How exactly all these details are going to fall into their place, we relegate to the same appendix as we did with the two ministers applying for a pulpit in Diepenheim.