

In search of differences

Information Dynamics

1. Development of Metapattern by Information Dynamics in overview

Metapattern is both an invention and has been developed by Information Dynamics (Voorburg, Netherlands).

Software platform (since 1990)

Original names: Activity Center and Object Center. Later: KnitBITs. Demonstrating prototypes for various applications.

Multicontextual paradigm for object orientation (essay, 1991-1994)

First version of context orientation; methodically already complete on the assumption of the unique object-in-context; attempt at explanation on the basis of so-called behavioral forms still partly derived from encapsulation.

Metapattern: context and time in information models (Addison-Wesley, 2001; the book actually appeared already at the end of 2000)

Modeling method including 'language' and notation acquires a name; Metapattern, with the slogan of "contextual differentiation;" some methodical refinements and/or radicalized assumptions (e.g. departure from inheritance through types); presentation of practical notation (also read: visual language).

See a.o. **Metapattern Primer** (essay, 2001, in Dutch) for a short introduction to Metapattern's notational scheme at the time.

Semiosis & Sign Exchange: design for a subjective situationism (dissertation Pieter Wisse, 2002)

develops and explains epistemological foundations for modeling information variety without limits. Also many essays on Metapattern's semiotics, ontology, et cetera.




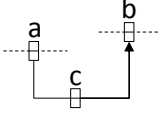
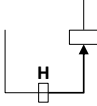
horizon	
primitive object-in-context	
intermediary object-in-context	
additional differentiation	
homogeneous hierarchy	

figure 1: Metapattern's notational scheme for model elements and configurations.

In 2002 new, current version of notation: mature. See figure 1. No separate publication dedicated to changes in notation; introduced through various information models (with explanation added as required). An early example provides [Conceptueel informatiemodel van GBA Startpakket+](#) (information model, 2002, in Dutch).

2. Standardization Forum of the Netherlands has Metapattern evaluated

Appendix C in [Semantiek op stelselschaal](#) (Office of the Standardization Forum, June 19th, 2009; in Dutch, translated title would read: Semantics across systems) is titled **Contextuele verbijzondering: inspiratie door Metapatroon** (English: Contextual differentiation: inspired by Metapattern). With this appendix, Novay reports its evaluation of Metapattern.

With the label of “language,” on p. 38 Novay sketches how “contextual differentiation” is presented “graphically” by Metapattern. Figure C2 in [Semantiek op stelselschaal](#) is transcribed here as figure 2. It is indeed a faithful copy of Metapattern’s modeling configuration of/for additional differentiation.

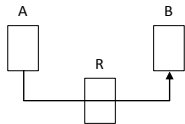


figure 2: “Contextual differentiation in Metapattern.” (caption also quoted from the original)

Regarding the notational elements, Novay also highlights about

Metapattern ‘a conceptual horizon’, i.e. a nameless concept appearing as a large horizontal line at the top of the models.

Next, also commissioned by Standardization Forum, Novay contributes the essay [In so many words: semantic interoperability across organizations and domains, an ‘open’ perspective](#) (December 7th, 2009, translated from the Dutch). Metapattern is mentioned and it says (p. 9):

The most important, and in fact only, construct¹ in this approach is called contextual specification.

Therefore, when asked, Novay should conclude that whoever copies that particular “construct” right away effectively completely copies Metapattern.

A second evaluation of Metapattern was commissioned by Standardization Forum, in this particular case to be performed by RAND-Europe. In the report [Metapattern in context](#) (May 12th, 2010) RAND has taken figure C2 from [Semantiek op stelselschaal](#) and continues to explain (p.3):

Metapattern diagrams primarily use two primitive graphic elements (or ‘graphemes’): boxes and arrows. Three boxes are connected by a single arrow into ‘triads’ that constitute the basic graphical ‘phrases’ of which all Metapattern[diagrams] consist.

RAND, too, recognizes as characteristic that (p. 5)

the top of a Metapattern diagram is always bounded by a bold line that is referred to as the ‘horizon’ of the model; this added grapheme represents the scope of a given diagram[.]

¹ It reads “construction” in the translation. What is meant is “construct.”

3. Essentially no difference

[Essence taaldefinitie en denkwijze](#) (Essence,² version May 31st, 2011; translated title would read: Essence language definition and conceptual orientation) indicates that the (p. 1)

conceptual orientation as presented has been inspired by the work of Pieter Wisse (Wisse, 2000).³

But then, is the account truthful that subsequently (p. 1)

the modeling language (notation) [...] used with Essence

can be originally attributed to Essence?

The section **Schrijfwijze** (English: On notation) in **Essence taaldefinitie en denkwijze** includes the subsection **Contextuele verbijzondering** (English: Contextual differentiation). It starts as follows (p. 7):

The Essence-language entails a single primary construct: contextual differentiation, as shown in figure 2. This notation for contextual differentiation has been inspired by (Wisse, 2000).

Figure 2 in **Schrijfwijze** of **Essence taaldefinitie en denkwijze** has been transcribed below as figure 3.

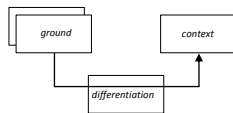


figure 3: “Contextual differentiation.” (caption also quoted from the original)

What Essence actually presents is Metapattern’s so-called composition.⁴ Please note, upon closer inspection it does **not** pass the grade as Essence’s “primary construct.” For (p. 10)

[a] multiple contextual differentiation can always appear as a cascade of single contextual differentiations, one for every ground in the multiple differentiation.

That is, only “single contextual differentiations” deserve to be called “primary” and that is exactly what is uniquely characteristic for ... Metapattern.

Essence really leaves no doubt about **actually** assuming and deploying Metapattern’s “primary construct” as with emphasis explicitly attributed to Metapattern by both Novay and RAND-Europe in their evaluations. This is clearly demonstrated through all information models in the various reports published by Essence.

And copying by Essence continues. In **Essence taaldefinitie en denkwijze** the subsection **Horizon** reads (p. 11):

In order to prevent an indefinite model, each essence-model is fitted with a horizon.

² Essence is a so-called consortium. Initiative by Novay. Participants (names in Dutch) in phase 1 are Belastingdienst, Forum Standaardisatie, Het Expertise Centrum, Novay, Ordina, RuleManagement Group and TNO; the principal contractors are Novay and TNO. Participating in phase 2 are ministerie BZK, ministerie OCW, Novay, Ordina and RuleManagement Group, with Novay acting as principal contractor.

³ The year of publication as stated in **Metapattern: context and time in information models** is 2001, so not 2000.

⁴ See a.o. § 5.2, **Cartesian product**, in: **Metapattern: context and time in information models**.

Concept and “notation” Essence has chosen for horizon again exactly match ... Metapattern. As a result, regarding modeling elements and how they may be joined forming a model, complete identity exists between Metapattern and what Essence (p. 7)

describes [as] the definition of the Essence-language[.]

It raises the question what Essence considers an “Essence-model.” [Actoren in records management](#) (Essence, version October 17th, 2011; translated title would read: Actors in records management) stipulates (p. 2):

An Essence-model is made with the Essence-language.

Then, with the Essence-language still really being Metapattern, it should be labeled a Metapattern-model instead. **Actoren in records management**, too, supports this view. Just glancing at the series of models suffices to notice how similar they look to ‘original’ Metapattern models. The impression is the same throughout the Essence publications presenting information models.

In **Actoren in records management** Essence also copies Metapattern’s homogeneous hierarchy. Modeling such a configuration for “object,” **Actoren in records management** adds some explanation (p. 7):

For the model, in addition we will allow that objects are constituted by object parts, which in their turn may be constituted by object parts, et cetera. Such indefinite recursion is indicated in the model by a capital letter H above *object*. Why this notation is chosen is of no concern here.

4. Result

The modeling method together with the notational scheme as applied by Essence, is in actual fact Metapattern. Yet Essence persistently calls it by another name, i.e. its ‘own’ Essence language. What Essence presents as the “primary construct” is methodically misleading.