Statement:

In a CDM model we deal with representations

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Cory: “When you say everything is a “lexical object” do you mean that everything in the model is lexical or that everything it represents is lexical?

Also, if the definition of lexical is something like “Of or relating to the words of a language”, then does lexical include other forms of expression, identification and meaning?”

*Sjir is happy to answer this email of Cory at the end of this short paper and he hopes Cory welcomes the text below as a little help or stepping stone.*

In order to build a common understanding between the conceptual world of Cory Casanave and Sjir Nijssen, a number of the concepts used by both will be presented hereafter at the level where more than 99.9% of all business relevant communication takes place: the level of observable facts, or ground facts.

Another assumption of this approach is the following:

There are only three levels of conceptual knowledge:

1. The level of the ground facts
2. The level of the domain specific conceptual schema (Conceptual Domain Model)
3. The level of the generic conceptual schema.

With respect to volume of communication the following is assumed (based on decades of observation)

|  |  |  |
| --- | --- | --- |
| Level of communication | Estimated volume of communication | OMG term |
| Ground facts | > 99.9% | M0 |
| Domain specific conceptual schema | < 0.1 % | M1 |
| Generic conceptual schema | < 0.001% | M2 |

(Please note that in several OMG documents the term conceptual is (mis)used; it refers to something expressed in UML. UML is a language to express a model of software technology, and that is according to ISO TR9007 not conceptual.)

Under this assumption of relative volume at the three levels it is understandable that communication at the Generic conceptual schema (M2) level is “uncommon” or unfamiliar and therefore is prone to many and sometimes serious misunderstandings, certainly if it is mixed with specific software considerations.

It is the firm belief (after more than 40 years of experimentation) that the most productive way of establishing understanding between two or more parties, is to start where nature starts in the understanding process: the level of the ground facts, or even more precise: the level of existence facts: That is mama, that is daddy, that is grandma, that is doggy. Please be warned of the “hic et nunc” assumption used here. We are producing standards for the world of the non-hic-et-nunc-assumption, using references to be able to grow above the hic-et-nunc and accumulate knowledge.

**Let us continue the process of better understanding each other**

How do we do that?

By using an example of a ground fact:

(1): Mozart was born in Austria.

Question to Cory: can we say that we agree that we mean the same when Cory or Sjir uses this fact (1)?

Sjir assumes Cory says yes. If not please specify here: …………………………………..

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**Context 2**

Suppose we were to communicate the same meaning to somebody in a context that prefers to refer to a country by the country internet code, we would use the following surface structure:

(2): Mozart was born in AT.

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**Context 3**

If we were to communicate this fact to a community in which some people prefer country common names and others country internet codes, we would extend the fact as follows:

(3): Mozart was born in a country identified by the internet code AT.

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**Context 4**

If we were told that in that community some people are very deep into music and know all the members of the Mozart family, we would use the following surface structure fact:

(4): The composer identified by the full name Wolfgang Amadeus Mozart was born in the country identified by the internet code AT.

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Question from Sjir to Cory: do we agree that all the ground facts (1), (2), (3) and (4) represent the same deep structure fact, namely that a certain famous composer (Cory and Sjir both know which one) was born in a certain country (Cory and Sjir both know which one)? And Cory and Sjir know both what the meaning is of the three words “was born in”.

Answer by Cory: ……………………….

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Question from Sjir to Cory: do we agree that the verb part is the same in each of the 4 ground facts?

Answer by Cory: ……………………….

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Question from Sjir to Cory: do we agree that Mozart in (1) refers to the same entity (in the domain) as Wolfgang Amadeus Mozart in (4) refers to?

Answer by Cory: ……………………….

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Question from Sjir to Cory: do we agree that Austria in (1) refers to the same entity (in the domain) as AT in (4) refers to?

Answer by Cory: ……………………….

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Proposal: Let us try to make a connection between the (level III, M2) terms used by Cory and the ones used by Sjir, by systematically using level I (M0).

Once we agree at that level, we generalize to level II (M1).

Once we agree on level II, we generalize to level III (M2).

This approach is far, far more productive that the usual discussion at level III, is my belief.

Now Sjir believes he can answer Cory’s mail.

Cory: “When you say everything is a “lexical object” do you mean that everything in the model is lexical or that everything it represents is lexical? **[[Sjir: I mean everything in the conceptual domain model is lexical, and that certain things it represents are lexical but many others are non-lexical. However when we want to communicate outside the hic-et-nunc world about non-lexical things (the things we are really interested in) we need the lexicals as a help, a tool, otherwise there is no communication.]]**

Also, if the definition of lexical is something like “Of or relating to the words of a language”, then does lexical include other forms of expression, **[[Sjir: you mean e.g. icons? If included then I say yes.]]]]** identification **[[Sjir: I support your point of view that there is a huge need in professional business practice for a CDM model where there is abstracted from the naming conventions.]]** and meaning **[[Sjir: I have troubles understanding what this means? Can you give me two examples at level I and I am happy to answer]]?”**