Towards a multi-stage strategy to teach enterprise modelling

Hend*erik* A. Proper[1]

LUXEMBOURG
INSTITUTE OF SCIENCE
AND TECHNOLOGY | LIST

Longer version

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Agenda

1 Act of modelling

2 Principles for learning

3 Suggested strategy

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Models

An artefact that is acknowledged by an observer as being a representation of a domain for a specific purpose

Sources:

Stachowiak [Sta73], Thalheim [Tha11], Ogden [OR23], the FRISCO [FVV⁺98] report, and Bjeković et al [BPS14]
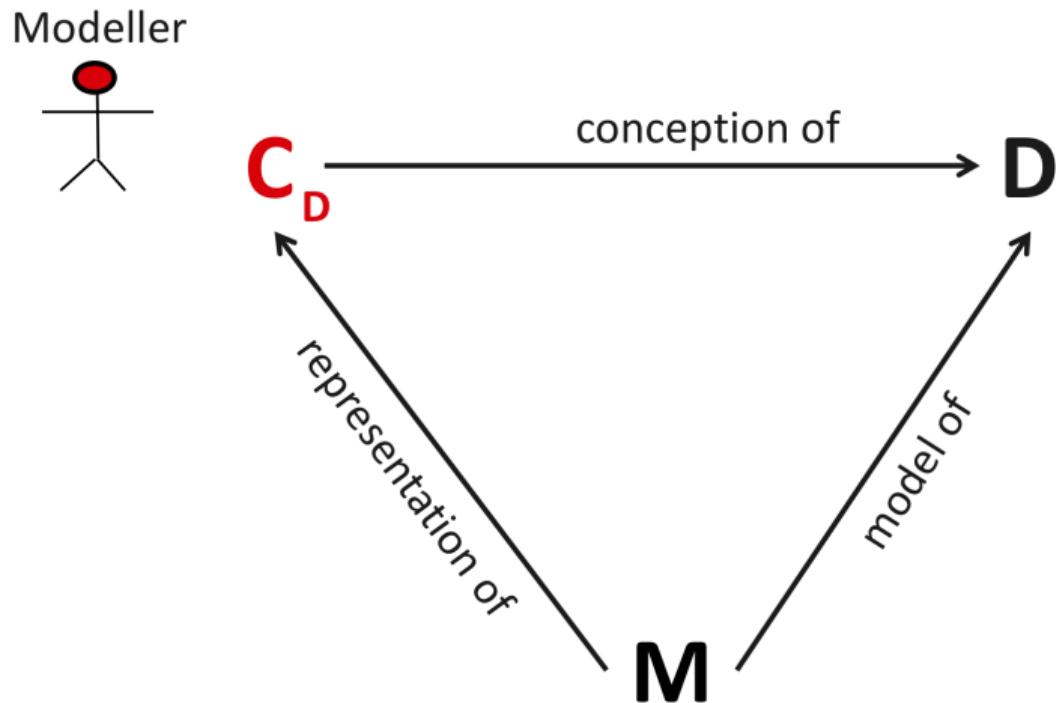
Models

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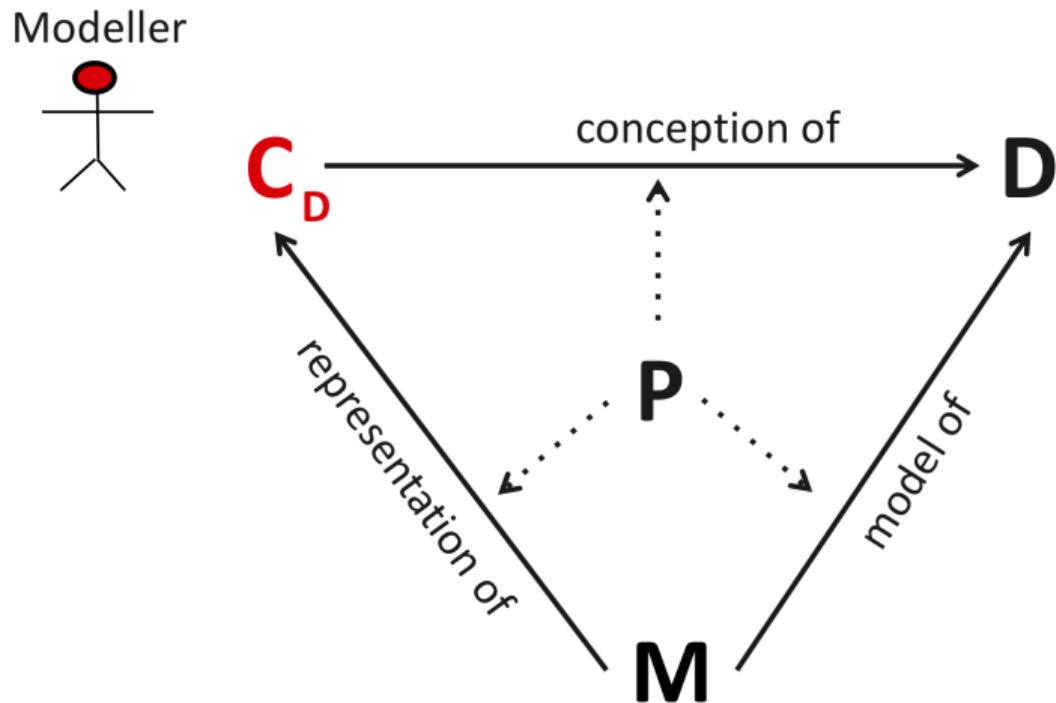
Sources:

> *Stachowiak [Sta73], Thalheim [Tha11], Ogden [OR23], the FRISCO [FVV$^+$98] report, and Bjeković et al [BPS14]*
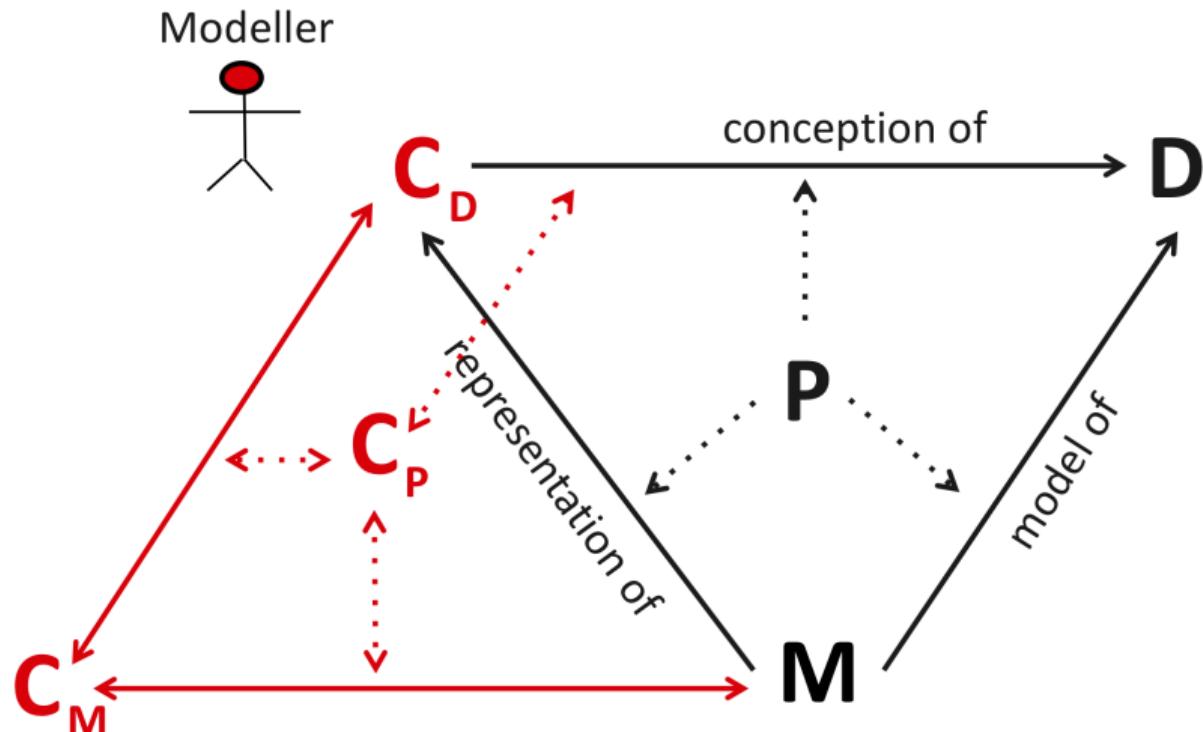
Conceptual modelling
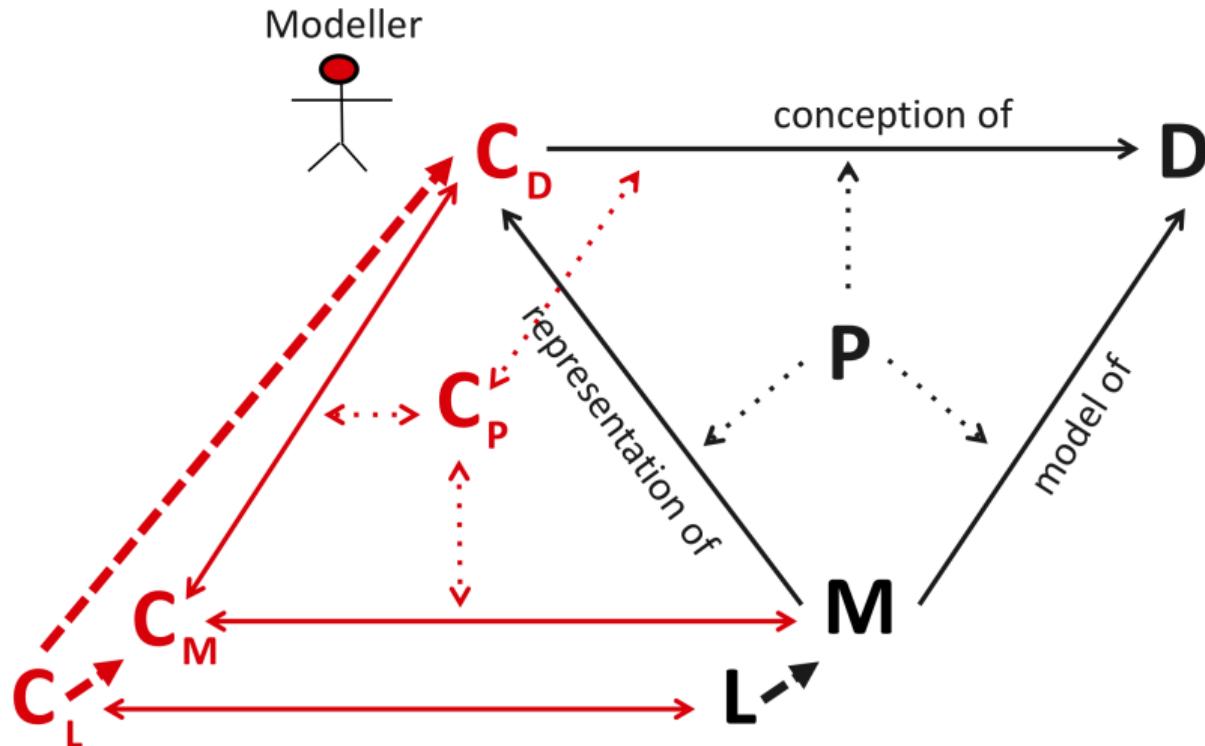
Conceptual modelling
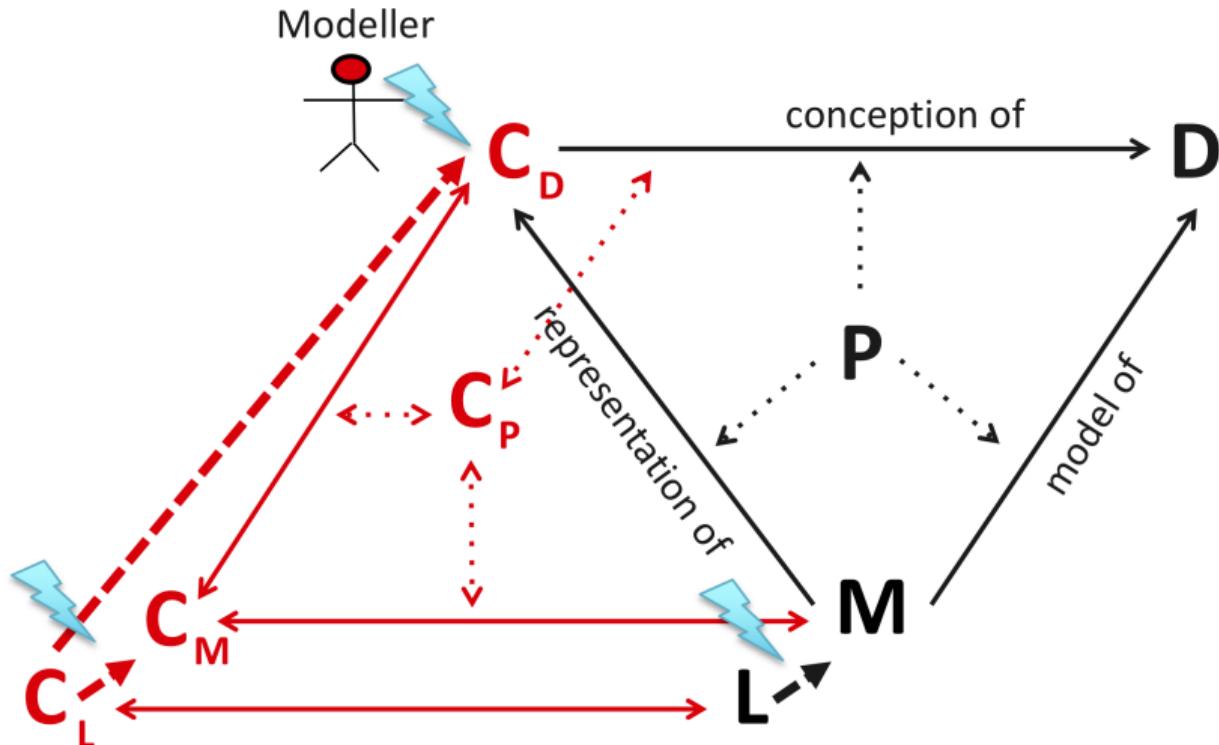
Conceptual modelling

Role of modelling languages / medium

Normative tension

What to learn?

1: In line with the purpose of a model:

- Develop a suitable conception
- Express this as a model in a given / suitable modelling language

2: The normative effects of a (modelling) language

Relates to the notion of linguistic relativity [Toh09]

Agenda

Principles

Model purpose

Learners should become aware of the (guiding) role of a model's purpose

Aware of the role of the modelling language

Learners should become aware of the role of a modelling language, and its possible costs and benefits towards the purpose of a given model

Principles

Conceptualisation and expression

Separation of concerns in learning how to conceptualise a domain, and learning how to express this in the target modelling language

Tool usage

Separation of concerns in learning to model in the target modelling language, and the use of an associated modelling tool

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Core idea

1: Conceptualise domain in terms of a modelling language with a small set of (generic) modelling concepts

2: Attribute identified *roles* with an interpretation in terms of concepts from the "target" modelling language

3: Express model in the target modelling language

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1: Conceptualise domain in terms of a modelling language with a small set of (generic) modelling concepts

- { types, instances } $\times$ { objects, roles, facts }

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Core idea

1: Conceptualise domain in terms of a modelling language with a small set of (generic) modelling concepts

- { types, instances } $\times$ { objects, roles, facts }
- fact-based *thinking* approach

2: Attribute identified *roles* with an interpretation in terms of concepts from the "target" modelling language

3: Express model in the target modelling language

Core idea

4: Develop awareness of modelling purpose and the influence of language

5: Introduce IT-based tooling

Example

1: Conceptualise domain in terms of a modelling language with a small set of (generic) modelling concepts

2: Attribute identified *roles* with an interpretation in terms of concepts from the "target" modelling language

3: Express model in the target modelling language

Example
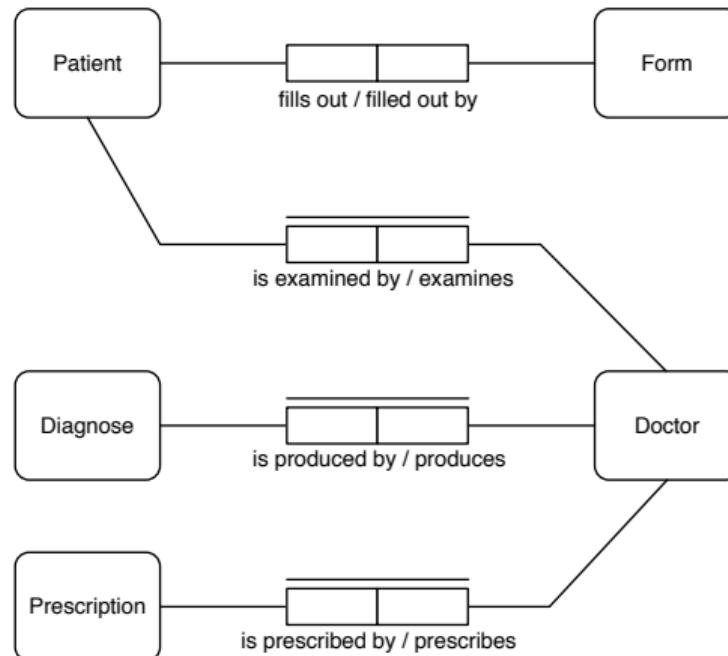
1: Conceptualise domain in terms of a modelling language with a small set of (generic) modelling concepts
*Doctor visits* domain in ORM
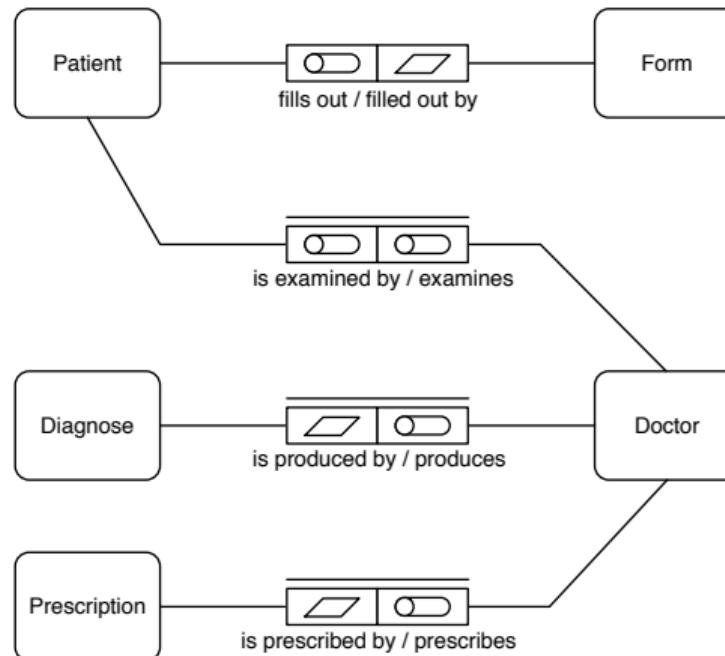
2: Attribute identified *roles* with an interpretation in terms of concepts from the "target" modelling language
*ArchiMate* as target language

**3:** Express model in the target modelling language
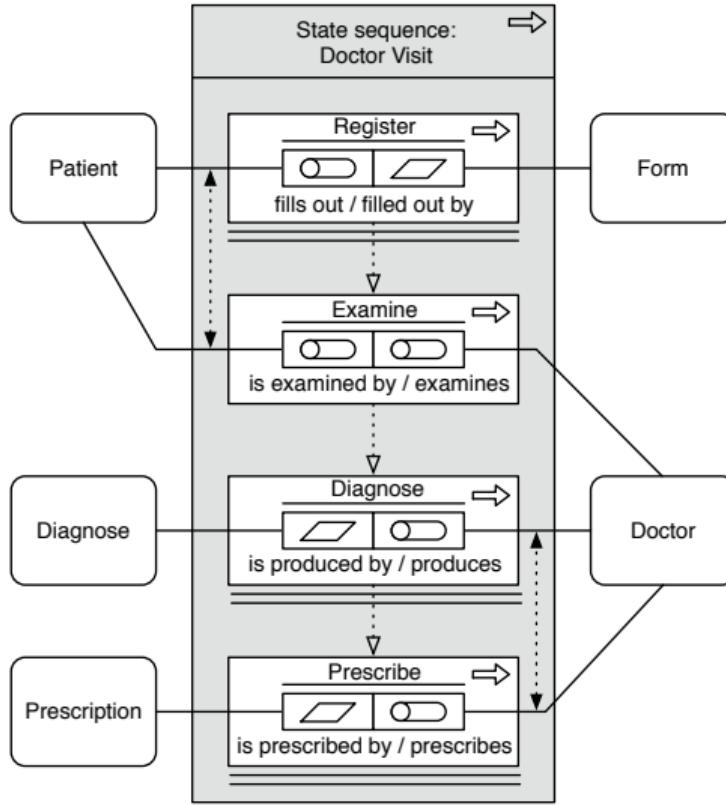
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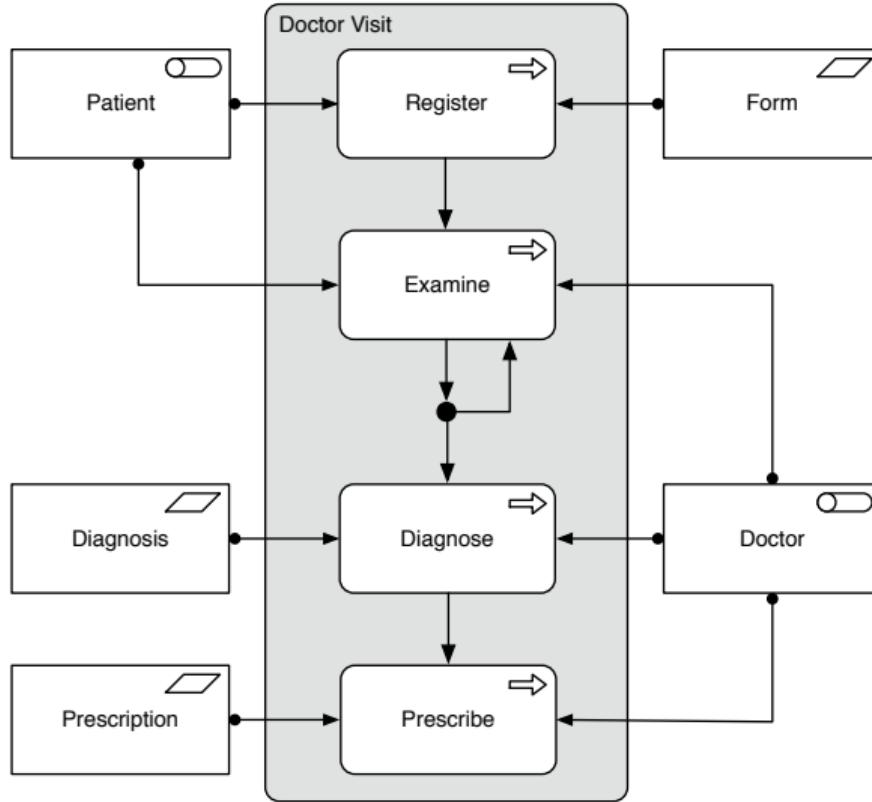
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