



Anthony Anjorin

BX WITH TRIPLE GRAPH GRAMMARS:


A HANDS-ON INTRODUCTION TO TRIPLE GRAPH GRAMMARS

Boards + Bobby Grace


The Great Kitchen Redesign

Taco's Organization Public


Ideas

- Get a new window valence to match the cabinet colors
-  Install pot rack over the island
- Replace drawer knobs with antique ones


To Do

- Adjust water pressure of the sink 1 vote 0/4 Nov 10, 2013
- Remove old refrigerator and stove
- Install new sink 1 0/10 Nov 4, 2013
- Install new flooring
-  Buy paint for cabinets

Doing

- Pick countertop colors Nov 27, 2013
- Buy new kitchen cart
-  Design new kitchen space 1 vote 2

Done!

- Call contractor 1/2
-  Pick faucet to match new sink 1 vote 2

Menu

Members

Add Members...

Activity

- Adam Simms changed the background of this board. Jul 7 at 2:06 pm
- Adam Simms changed the background of this board. Jul 7 at 2:05 pm
- Tracey Marlow moved Pick faucet to match new sink from Doing to Done!. Jun 23 at 2:43 pm
- Adam Simms renamed this board (from Remodel the Kitchen). Jun 23 at 2:30 pm
- Tracey Marlow joined Pick faucet to match new sink. Jun 23 at 1:41 pm
- Tracey Marlow joined Remove old refrigerator and stove. Jun 23 at 1:40 pm
- Tracey Marlow joined Replace drawer knobs with

Anthony Anjorin

ACCOUNT

EXPERIMENTAL



Updated Card Back



Sync



Warning: Sync is experimental and may cause data loss. When enabled, certain edits are possible without a network connection. If you notice any problems, or just have general feedback please contact us by tapping below. We want to hear from you!



Sync Queue



Send Sync Feedback

ABOUT



Record Feedback



Boards



Search



Notifications



Account



Updated Card Back



Sync



Warning: Sync is experimental and may cause data loss. When enabled, certain edits are possible without a network connection. If you notice any problems, or just have general feedback please contact us by tapping below. We want to hear from you!



Sync Queue



Our Learning Goals

Triple Graph Grammars (TGGs) as an implementation of the SDL framework (Hermann et al.)



eMoflon

+

Symmetric Delta Lenses (Diskin et al.)





Our Learning Goals



eMoflon

with two new tools for your **bx** toolbox

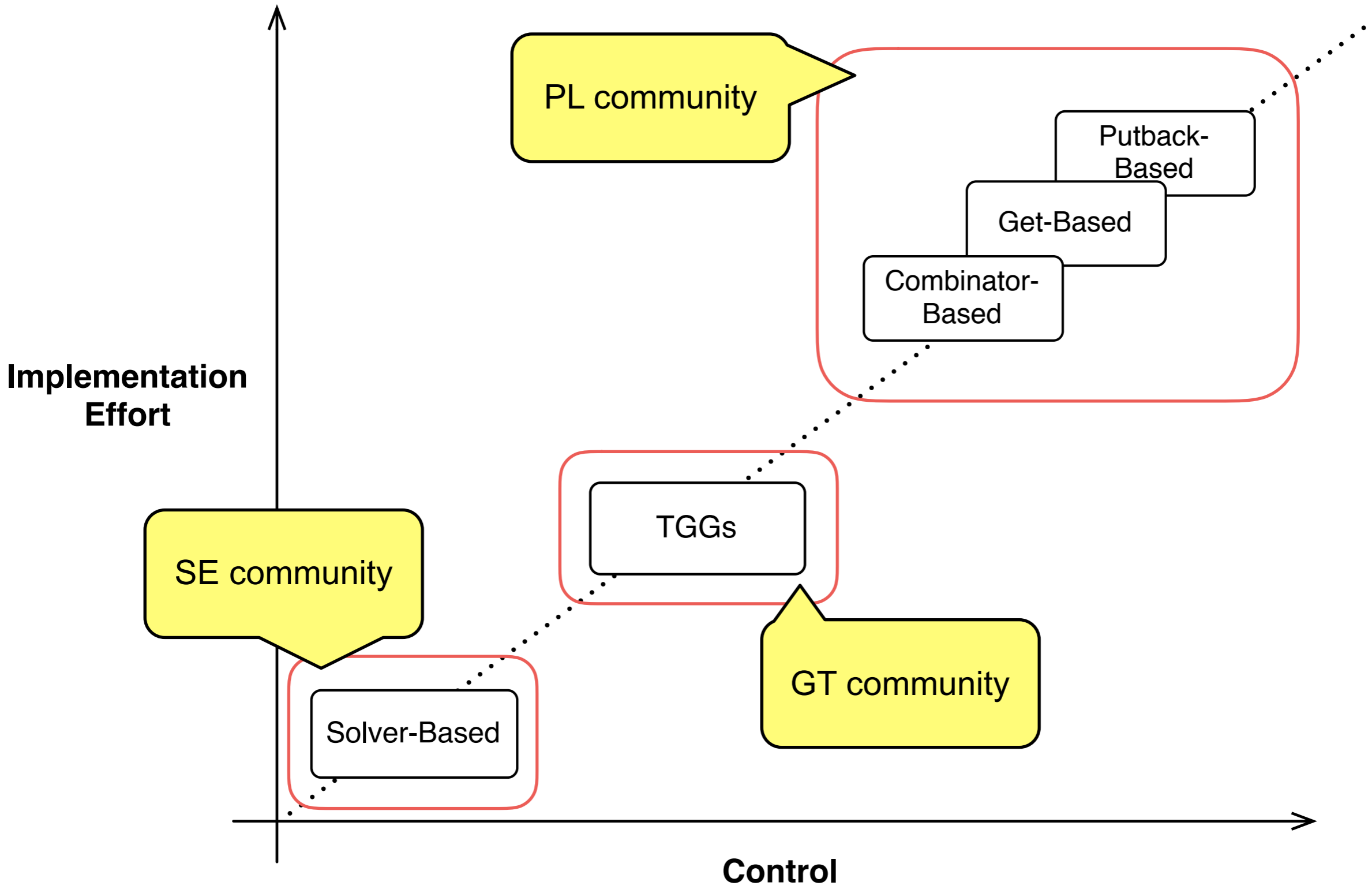
+

combination of theory and practice





TGGs in relation to other bx approaches



BX with Triple Graph Grammars

PART 1: MODEL SPACES AND TRIPLE SPACES

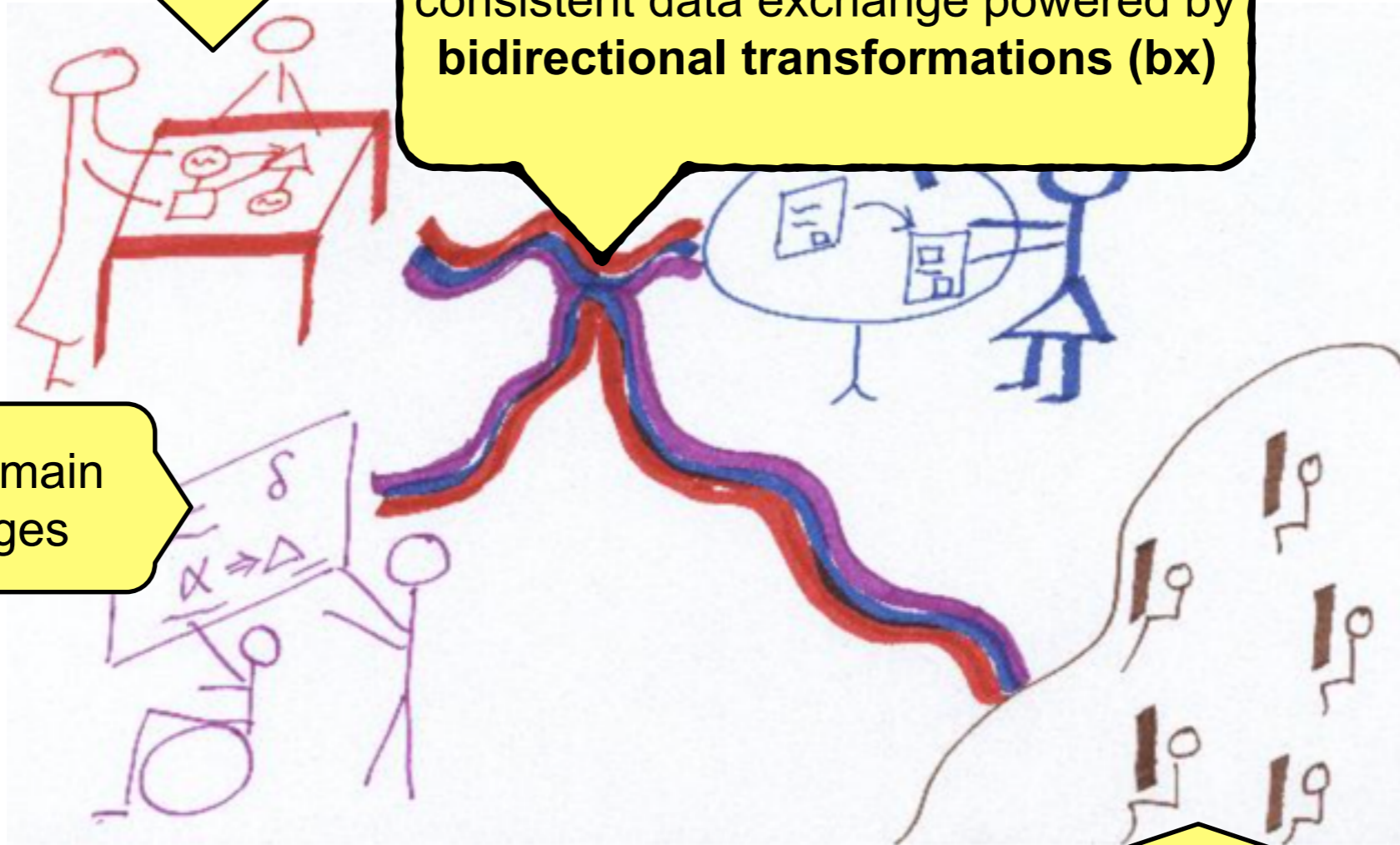


MDE Vision: 2066

domain experts should be able to solve problems in their respective domains

consistent data exchange powered by **bidirectional transformations (bx)**

using suitable domain specific languages

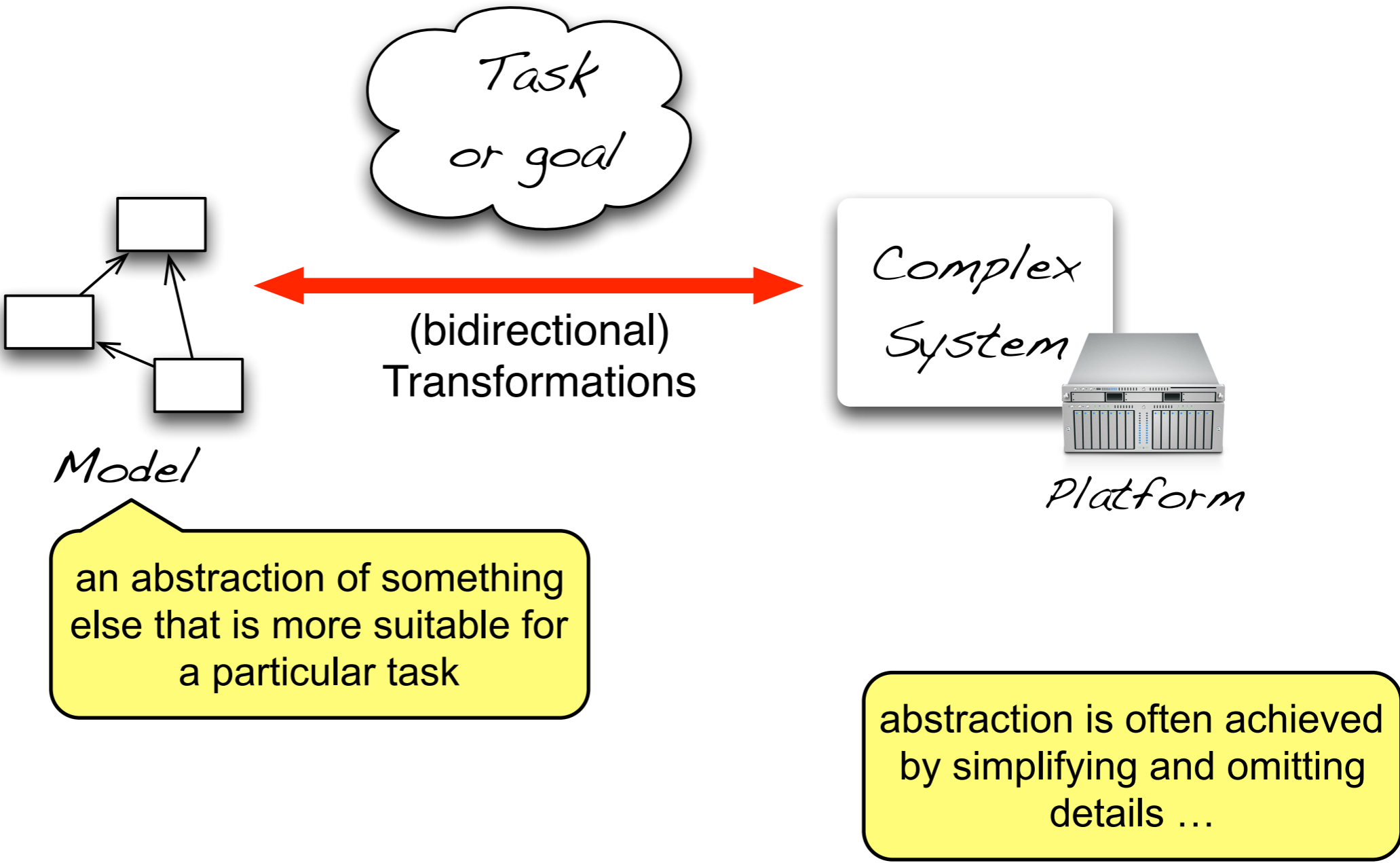


Perdita Stevens: <https://youtu.be/sxhGwJkcDul>

software engineers building and extending the required infrastructure

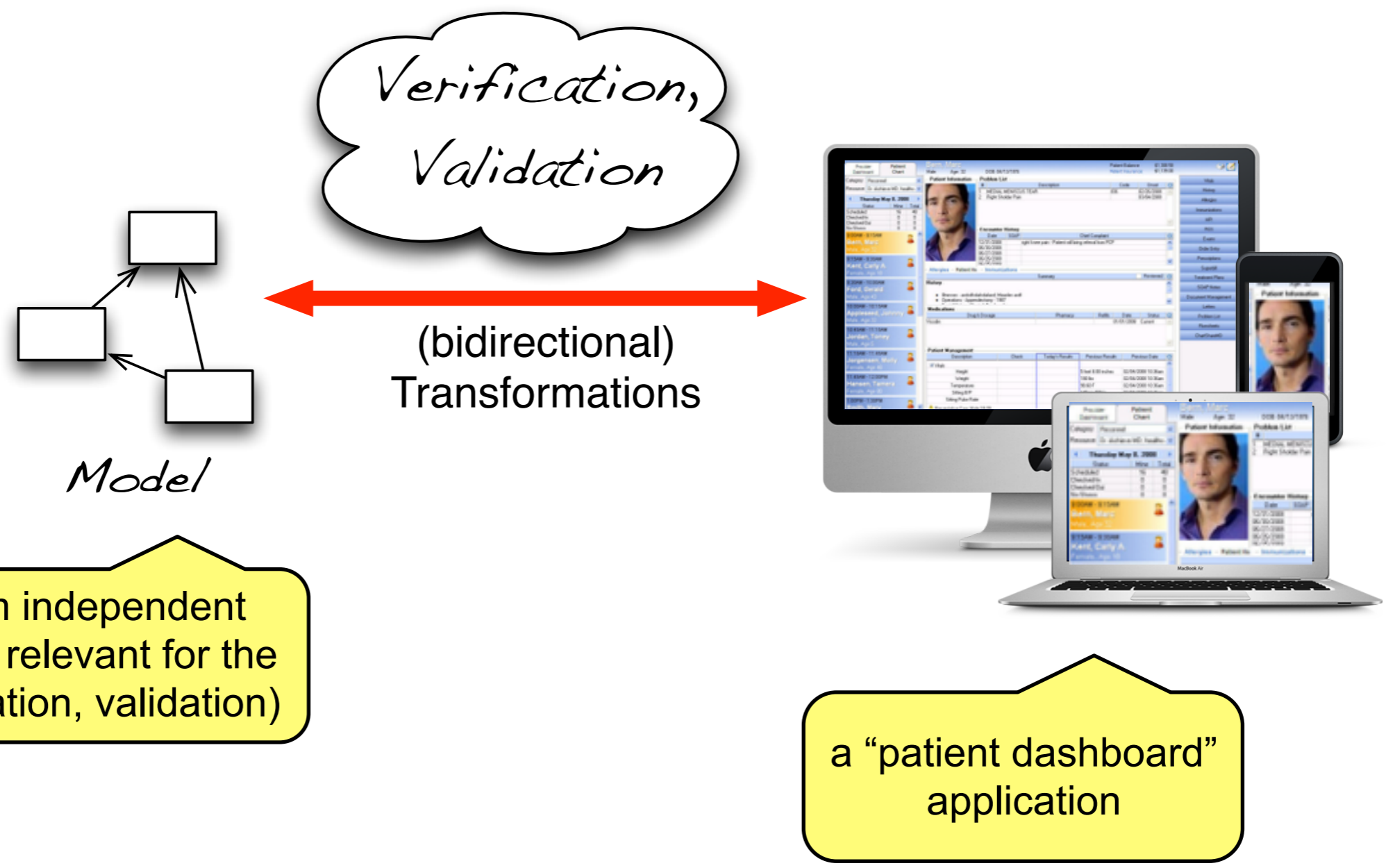


What is a Model?



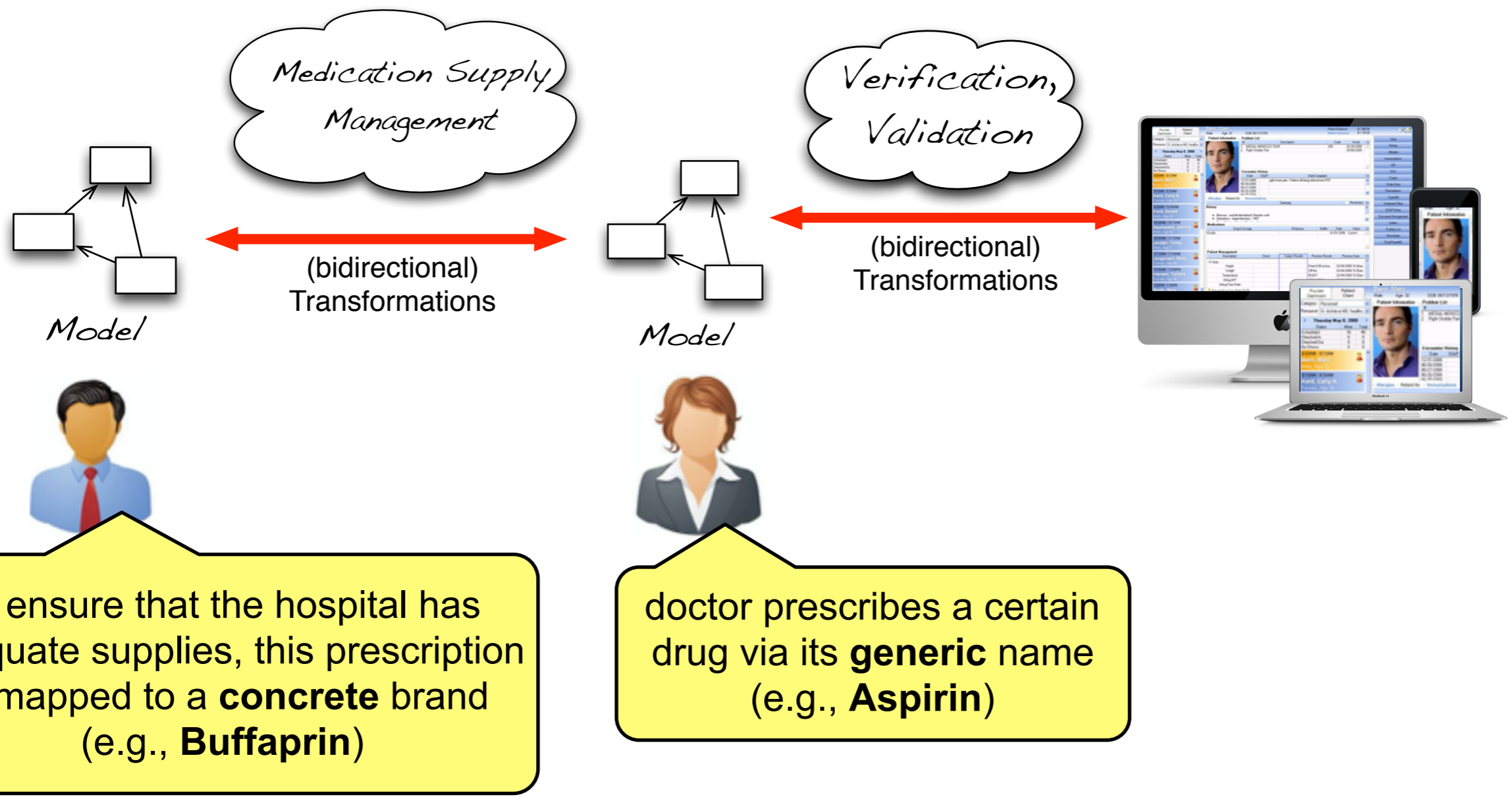


Our Example: A MediWare Application



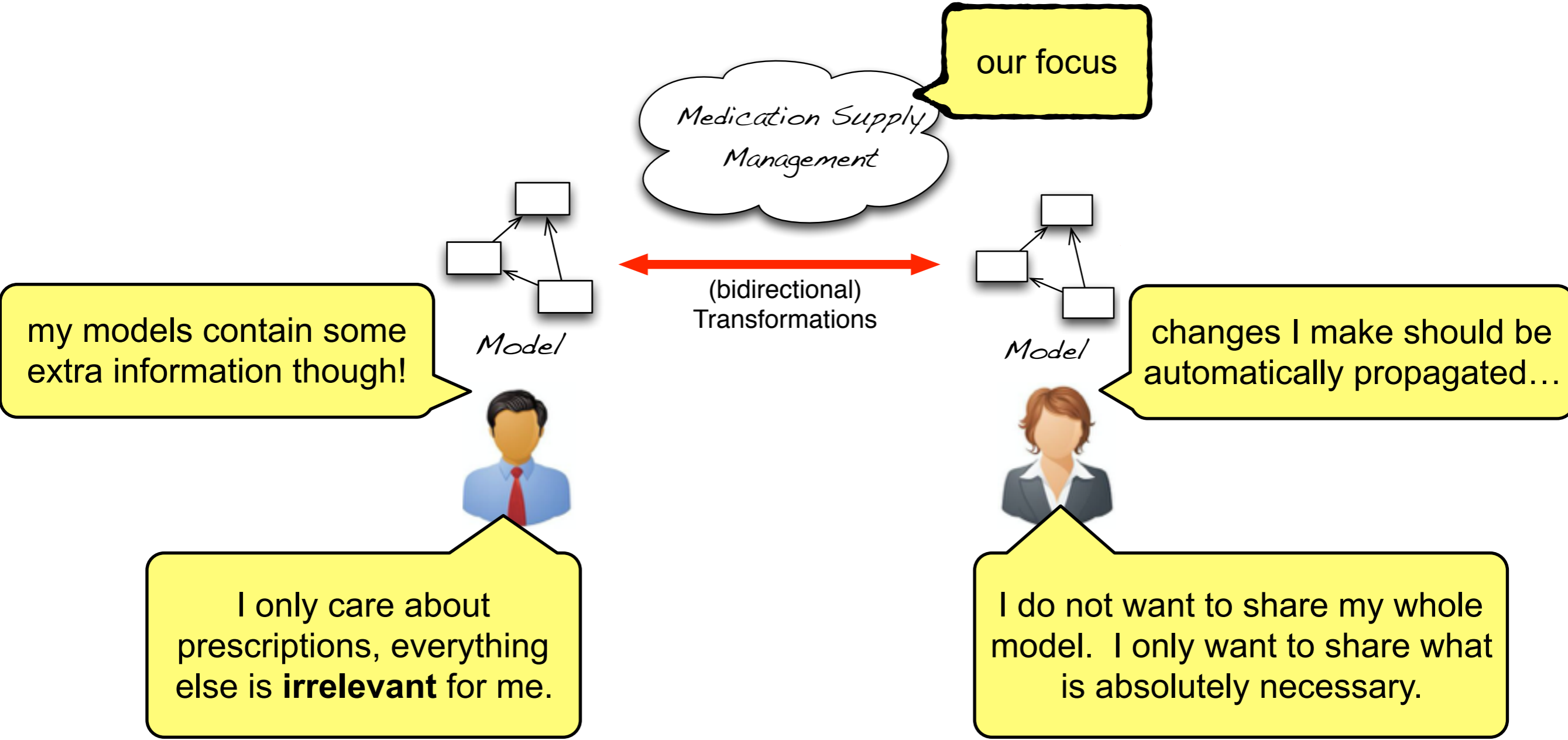


Our Example: A MediWare Application



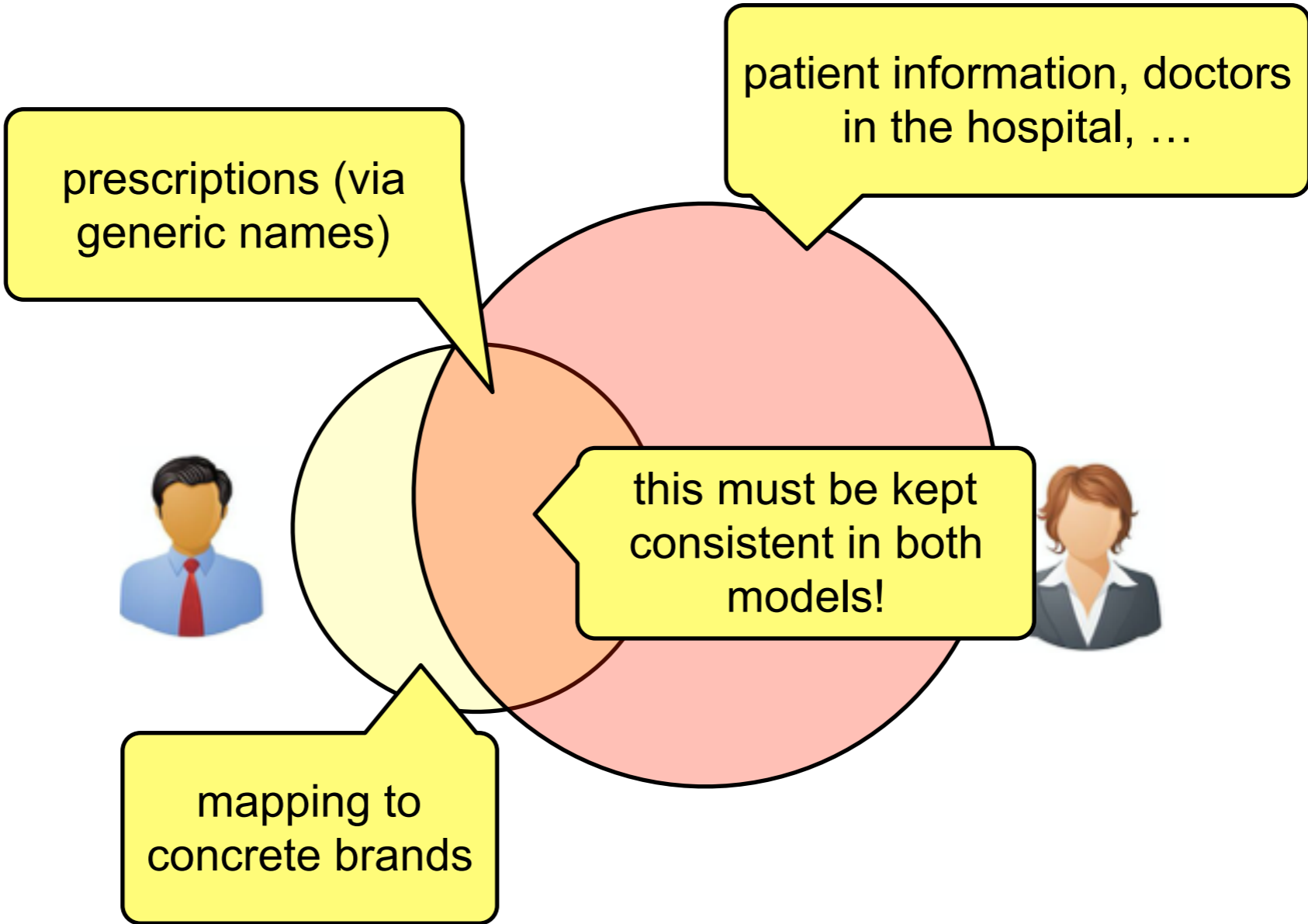


Our Example: A MediWare Application



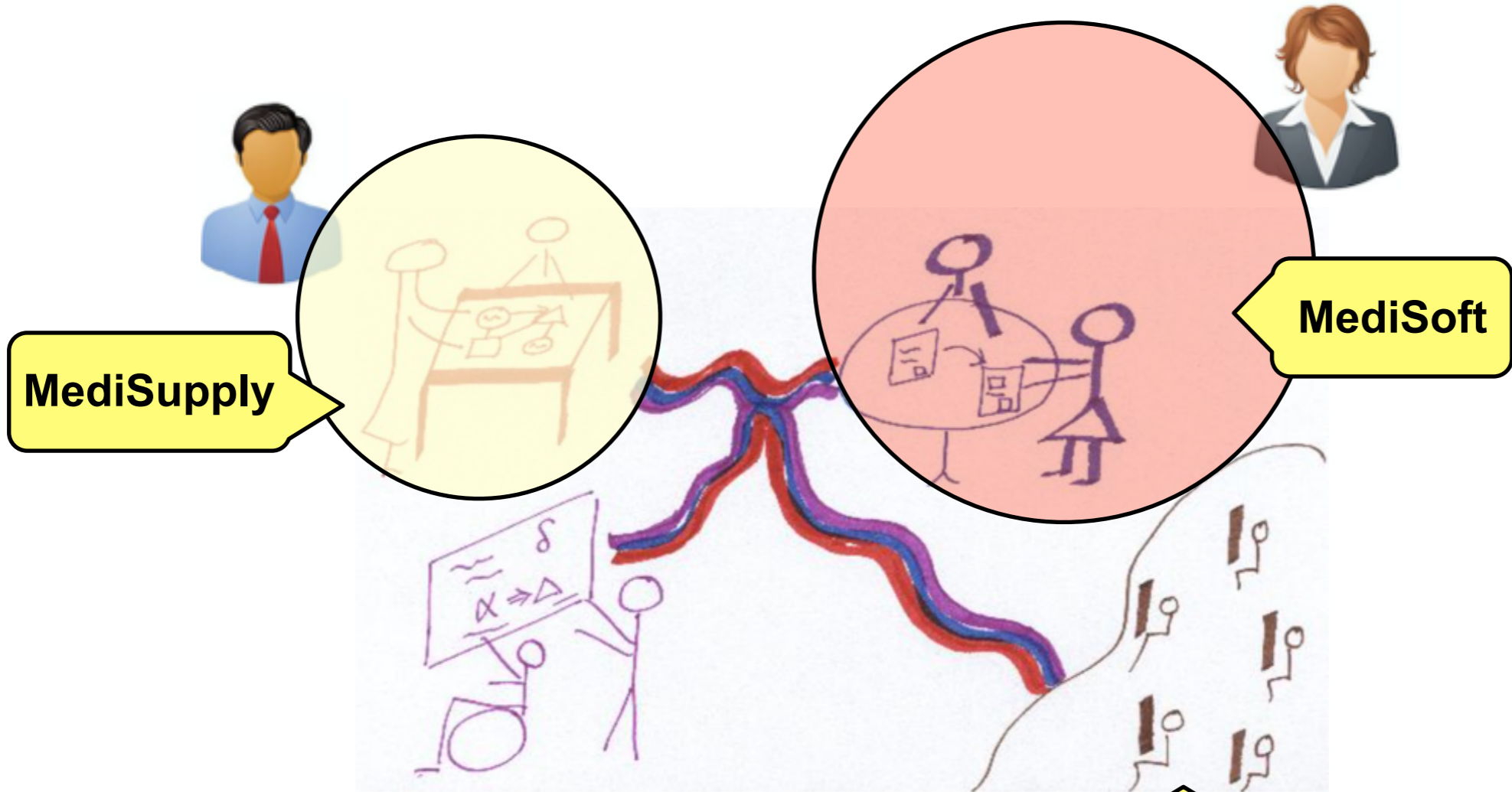


Consistency Maintenance





MDE Vision: 2066



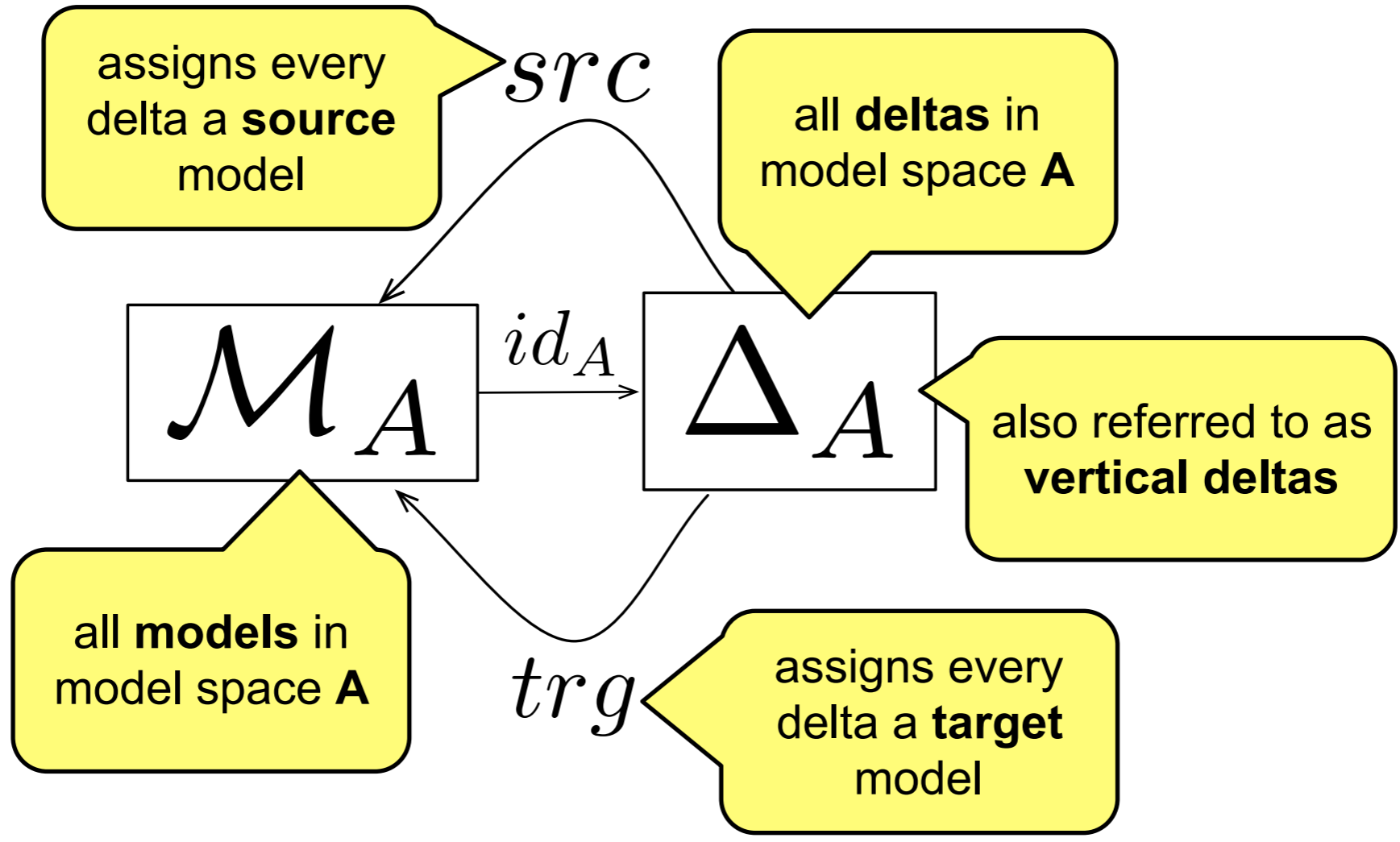
Perdita Stevens: <https://youtu.be/sxhGwJkcDul>

let's build those wires!



What's a Model Space?

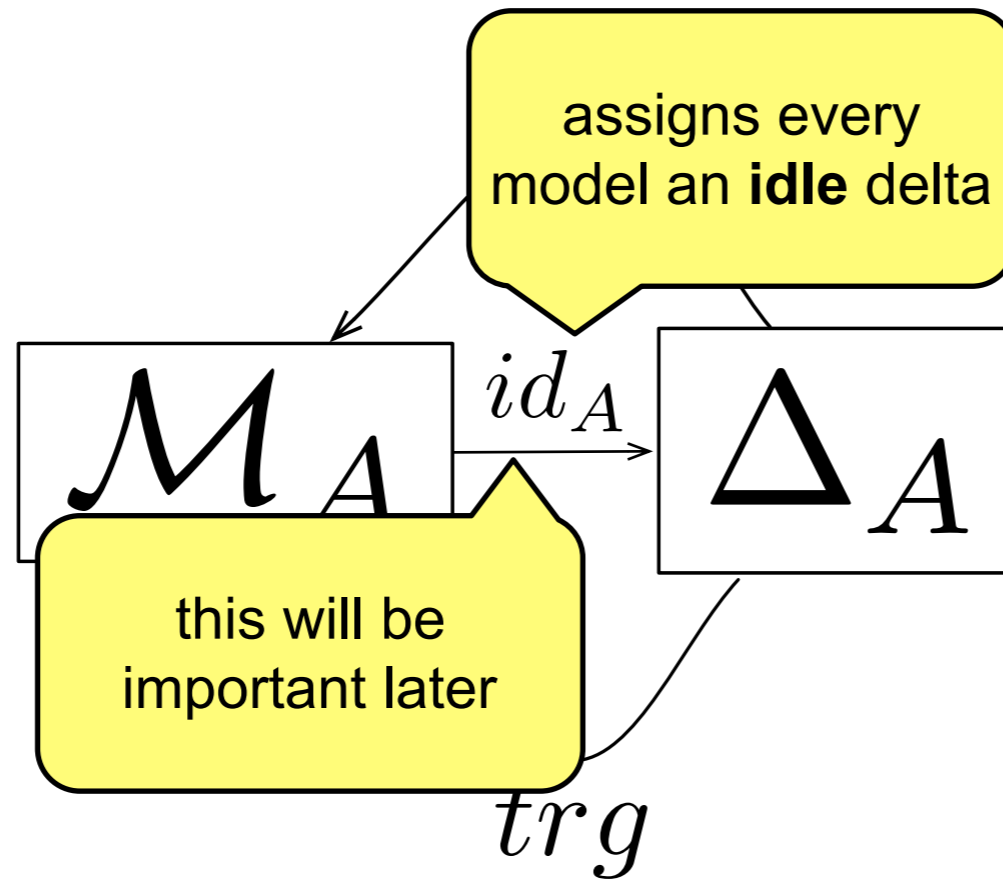
Nodes are sets, arrows are total functions





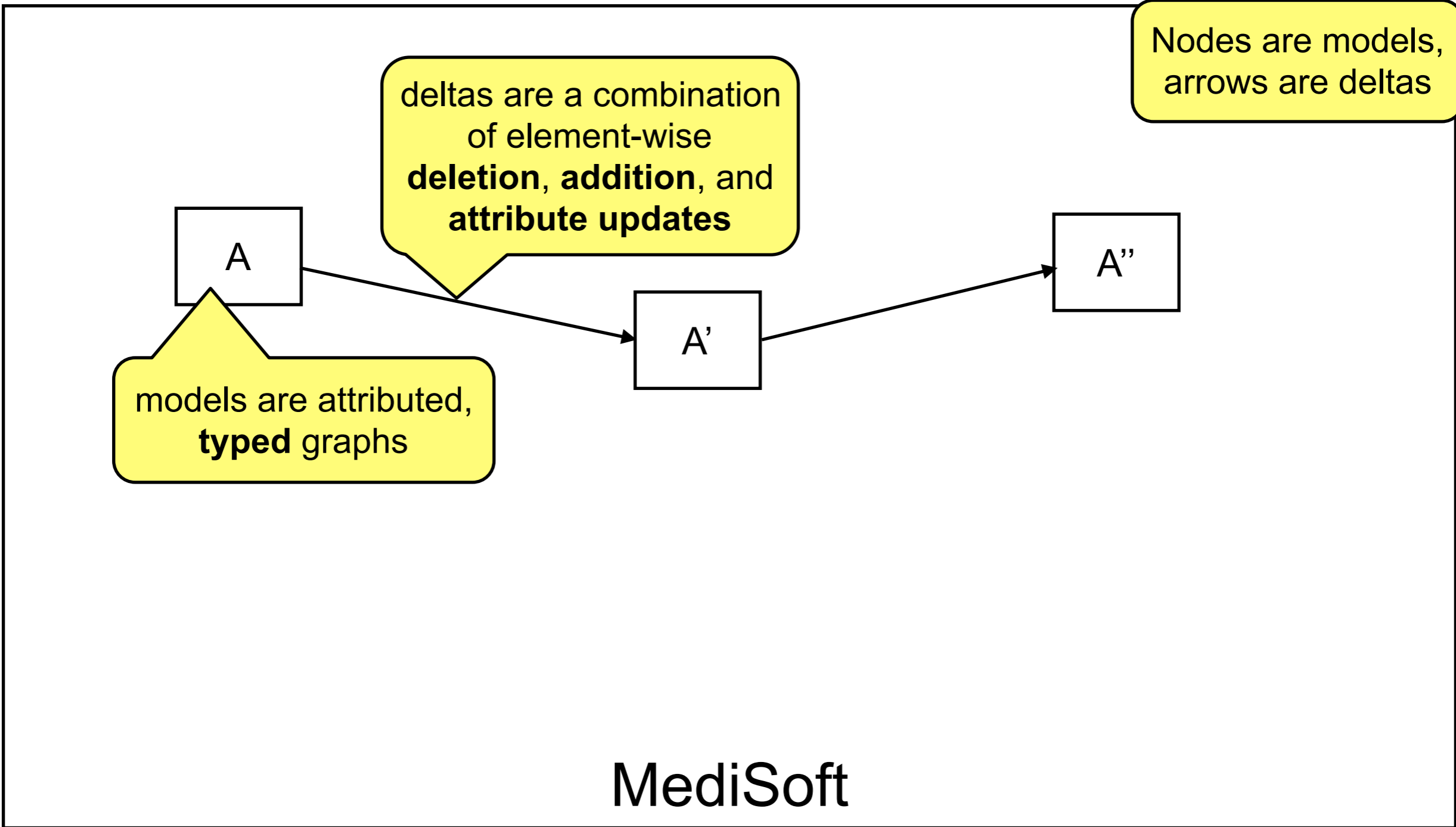
What's a Model Space?

Nodes are sets, arrows are total functions



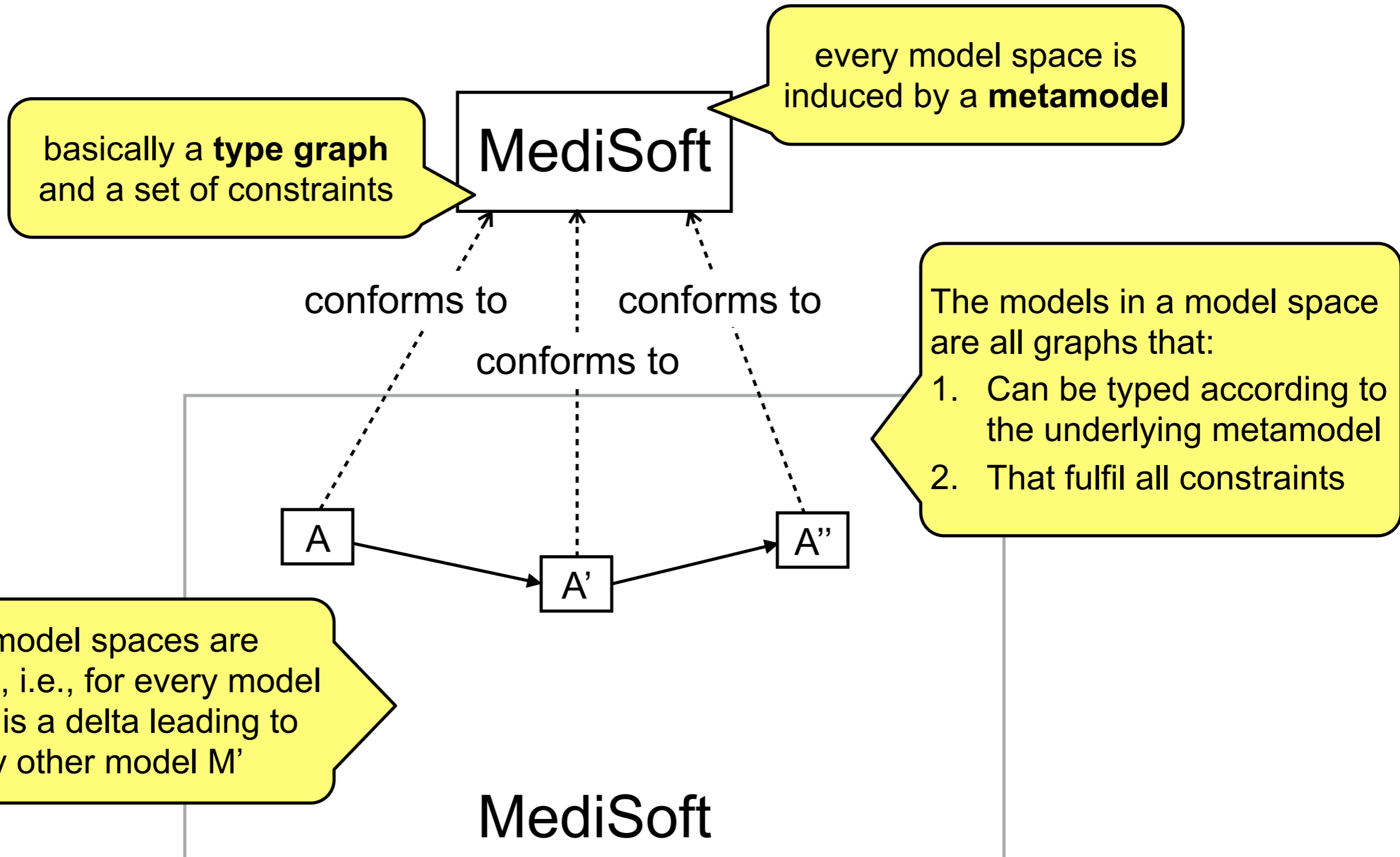


Model Spaces with EMF



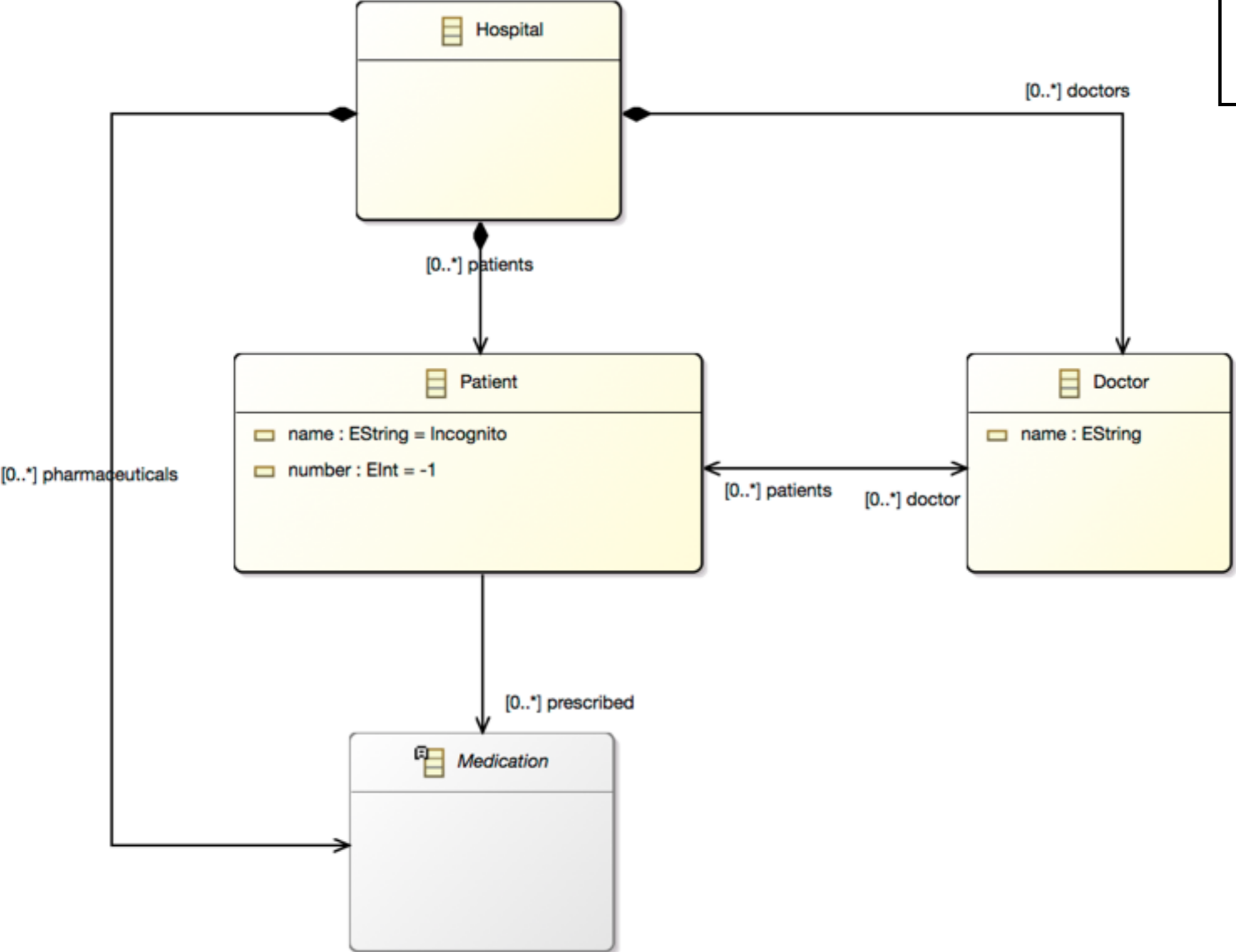


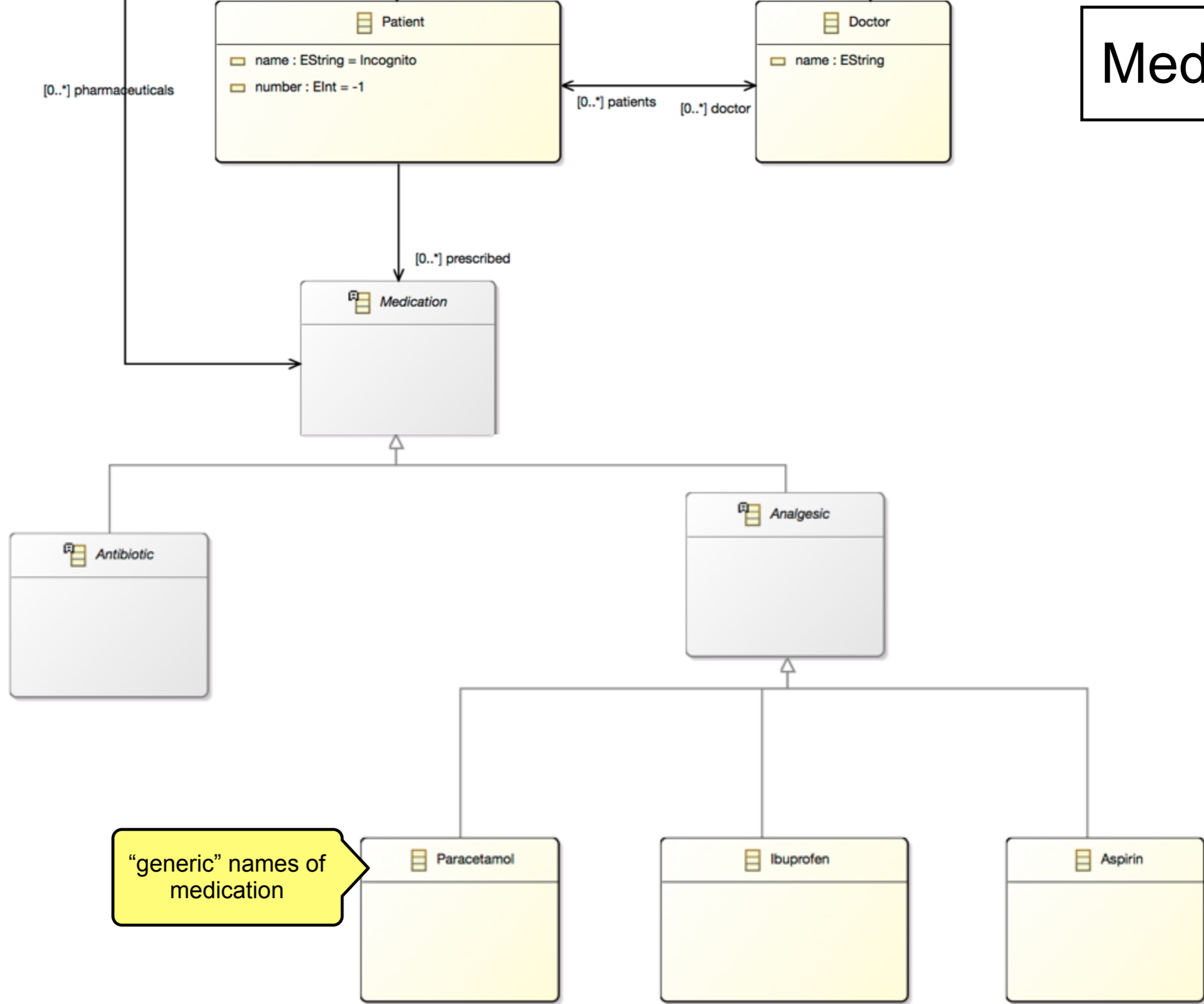
Model Spaces with EMF





MediSoft

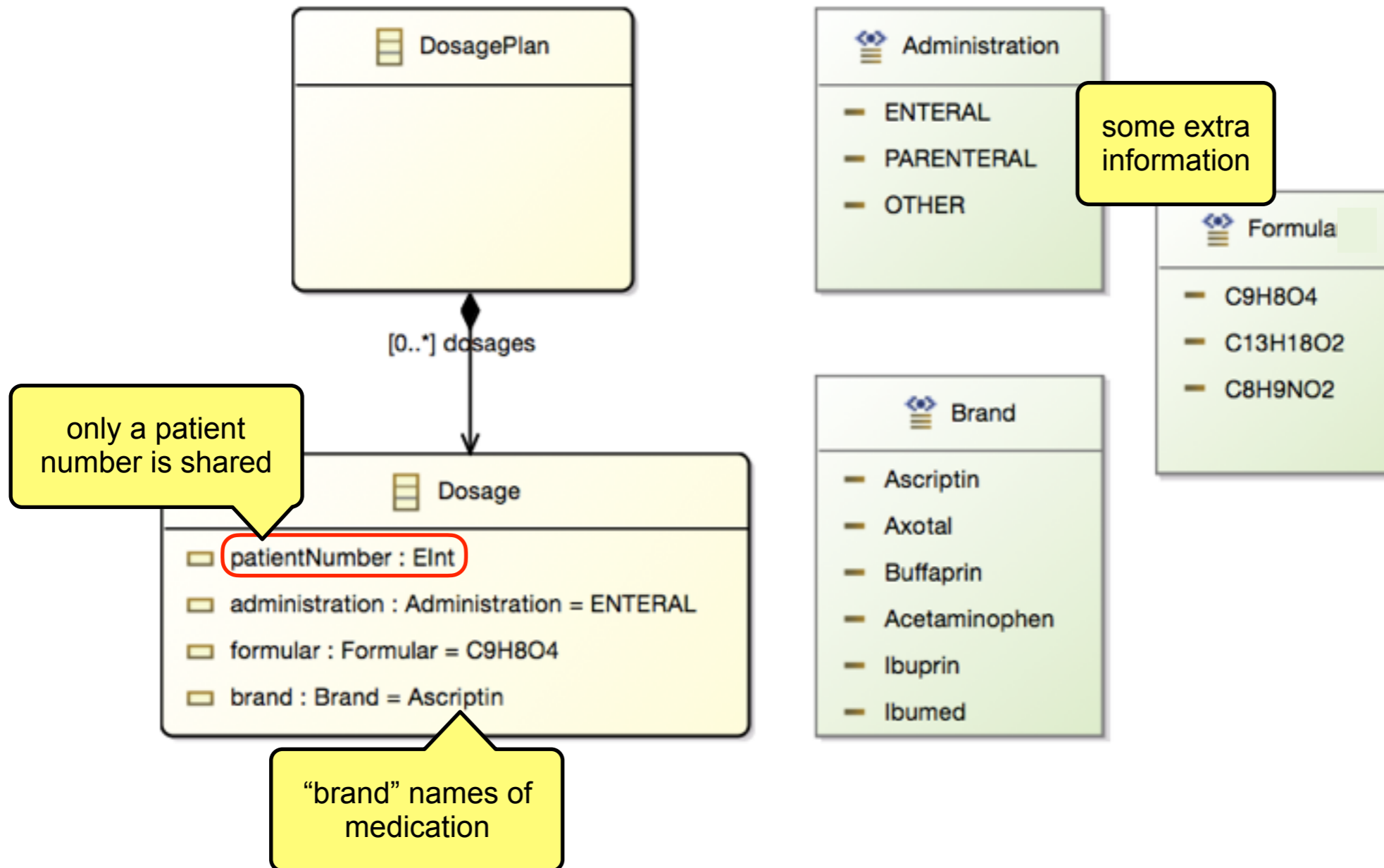






MediSupply Metamodel

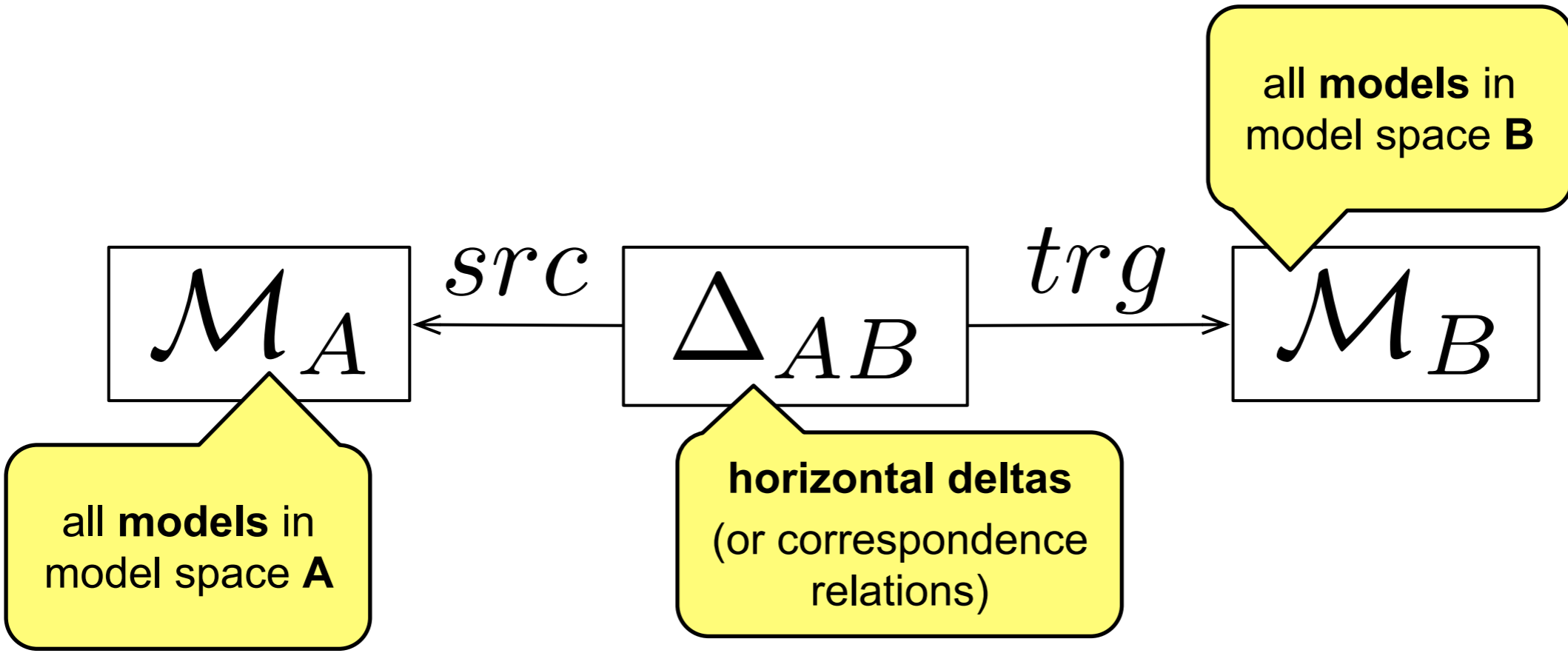
MediSupply





What's a Triple Space?

Nodes are sets, arrows are total functions

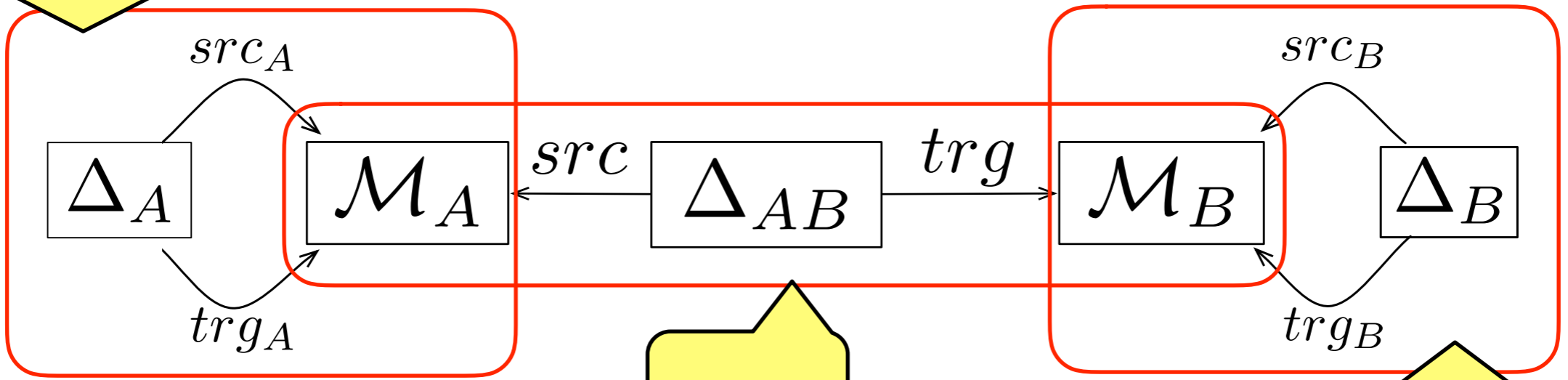




What's a Triple Space?

Nodes are sets, arrows are total functions

modelspace A



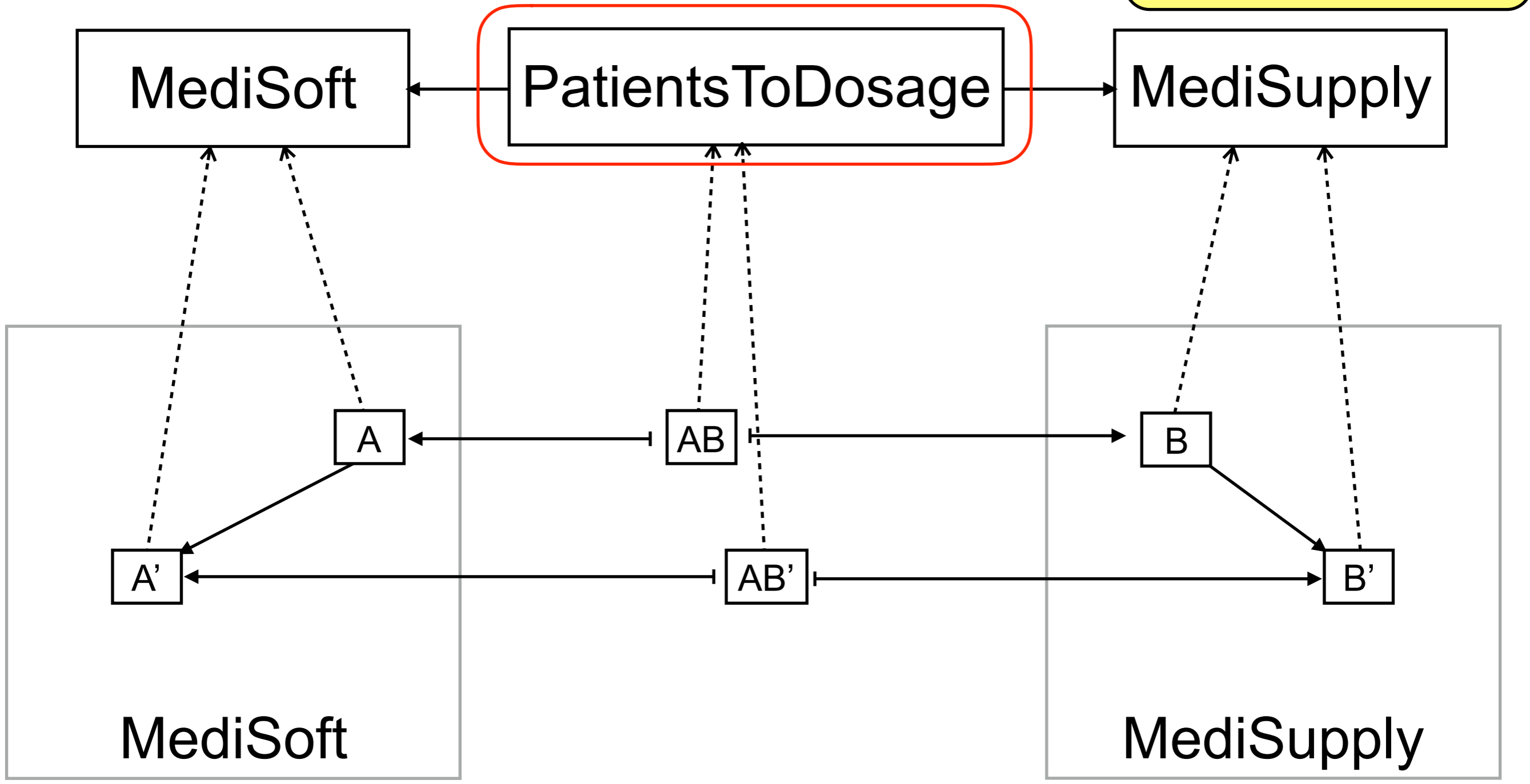
modelspace B

$$\mathbf{A} \overset{\mathbf{R}}{\longleftrightarrow} \mathbf{B}$$



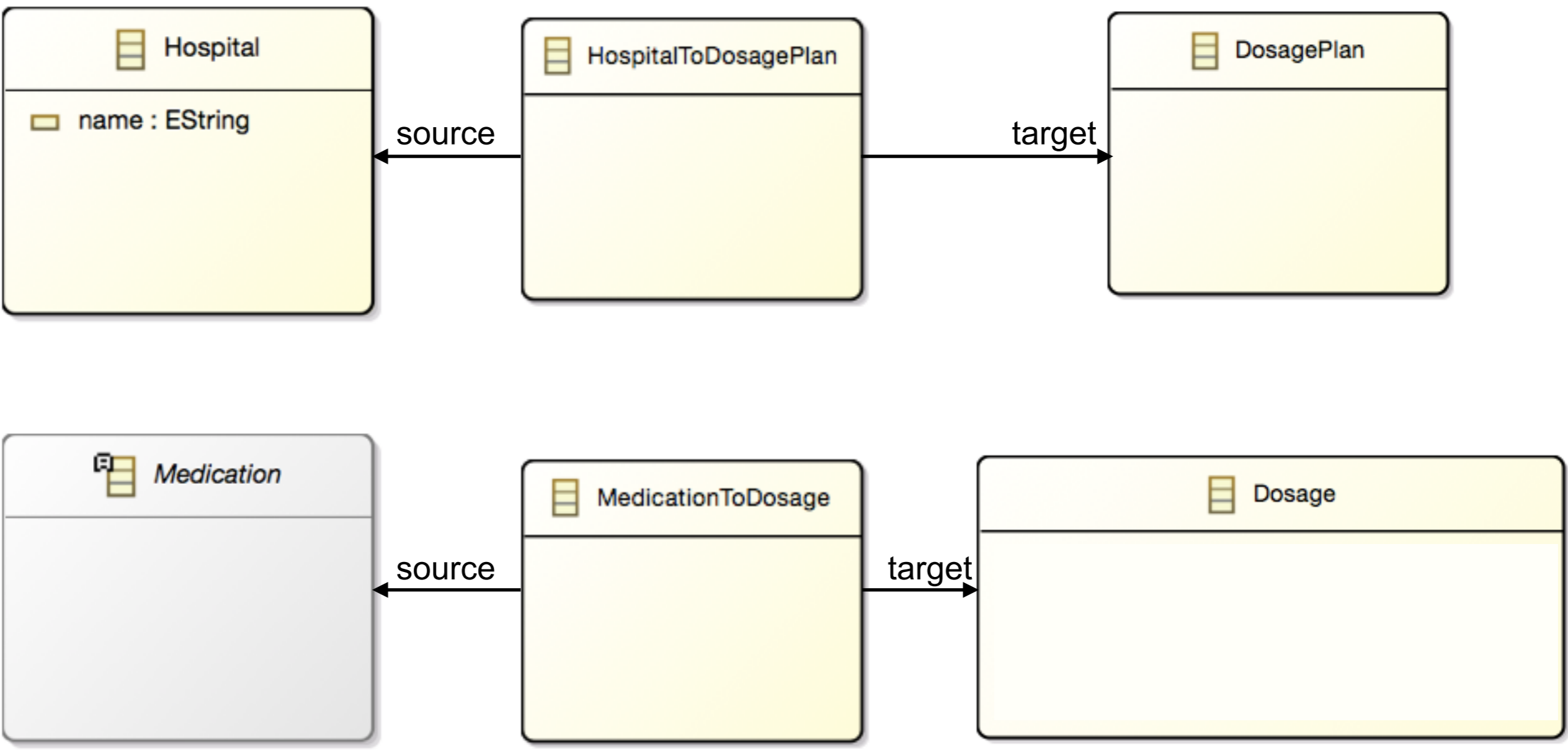
Triple Spaces with EMF

Nodes are models, plain arrows are deltas





MediSoft < > MediSupply Triple Space



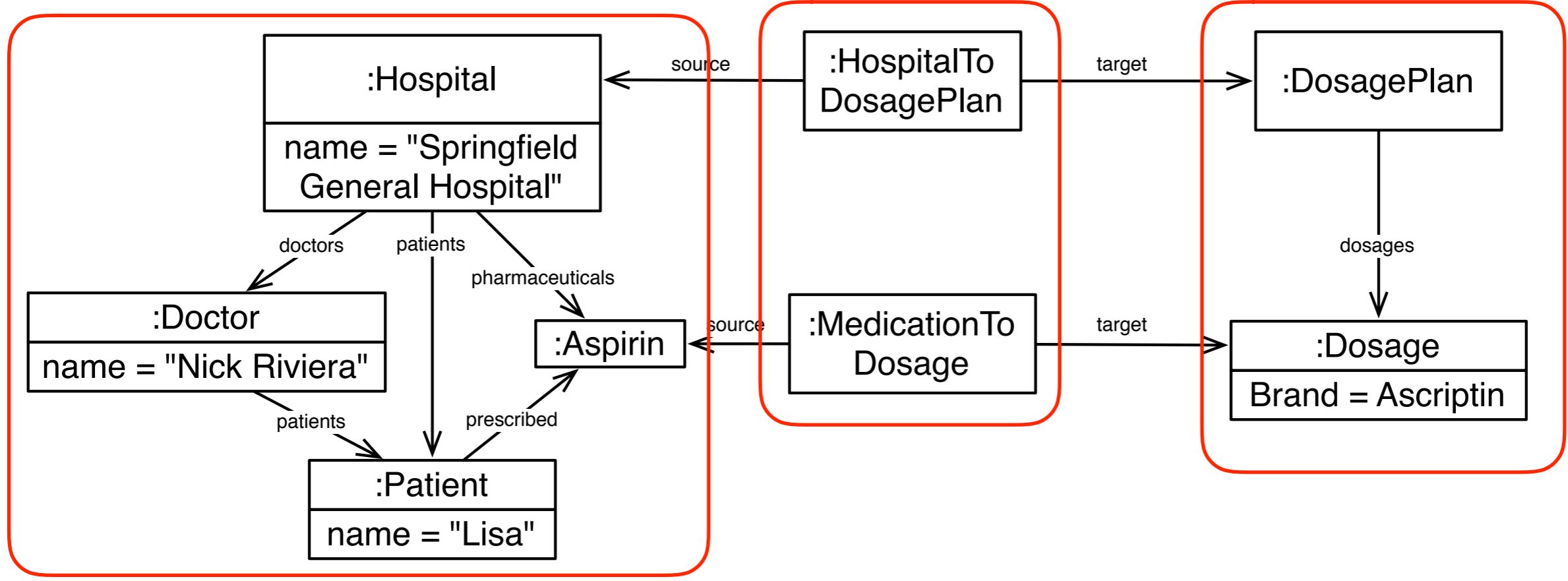
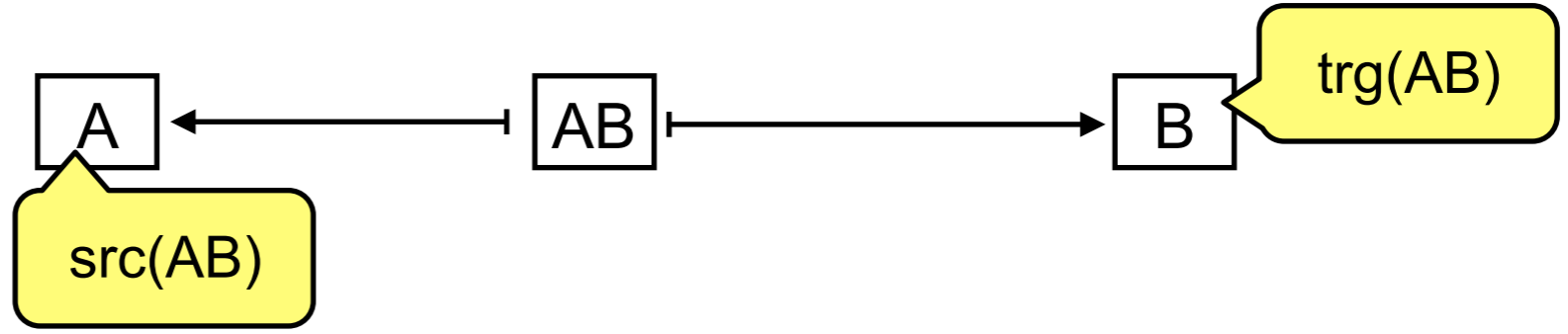


A MediSoft < > MediSupply Triple and Deltas

nodes are sets,
arrows are functions

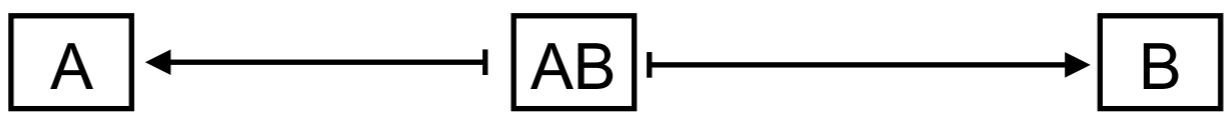


nodes are models,
arrows are mappings



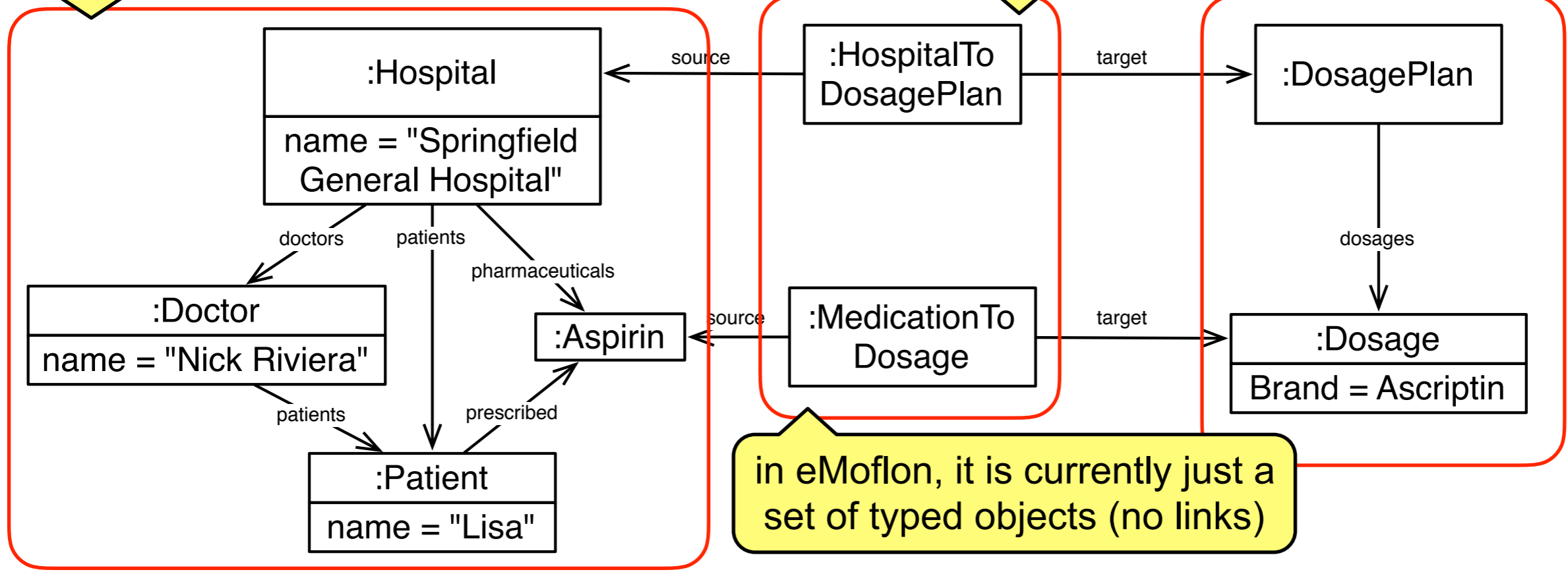


A MediSoft < > MediSupply Triple and Deltas



models realised as typed, attributed graphs

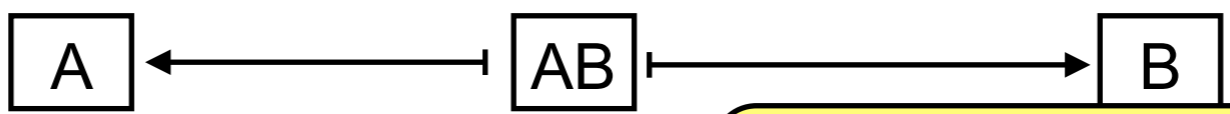
this is also (in general), a typed, attributed graph



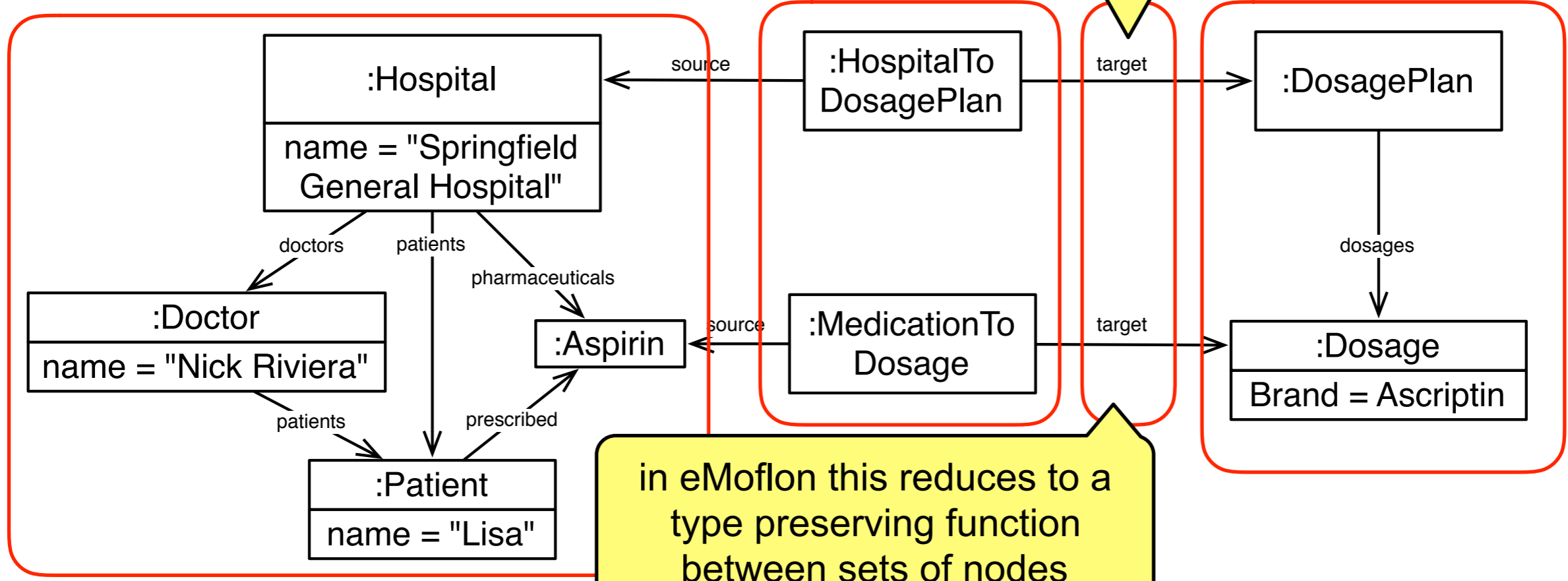
in eMoflon, it is currently just a set of typed objects (no links)

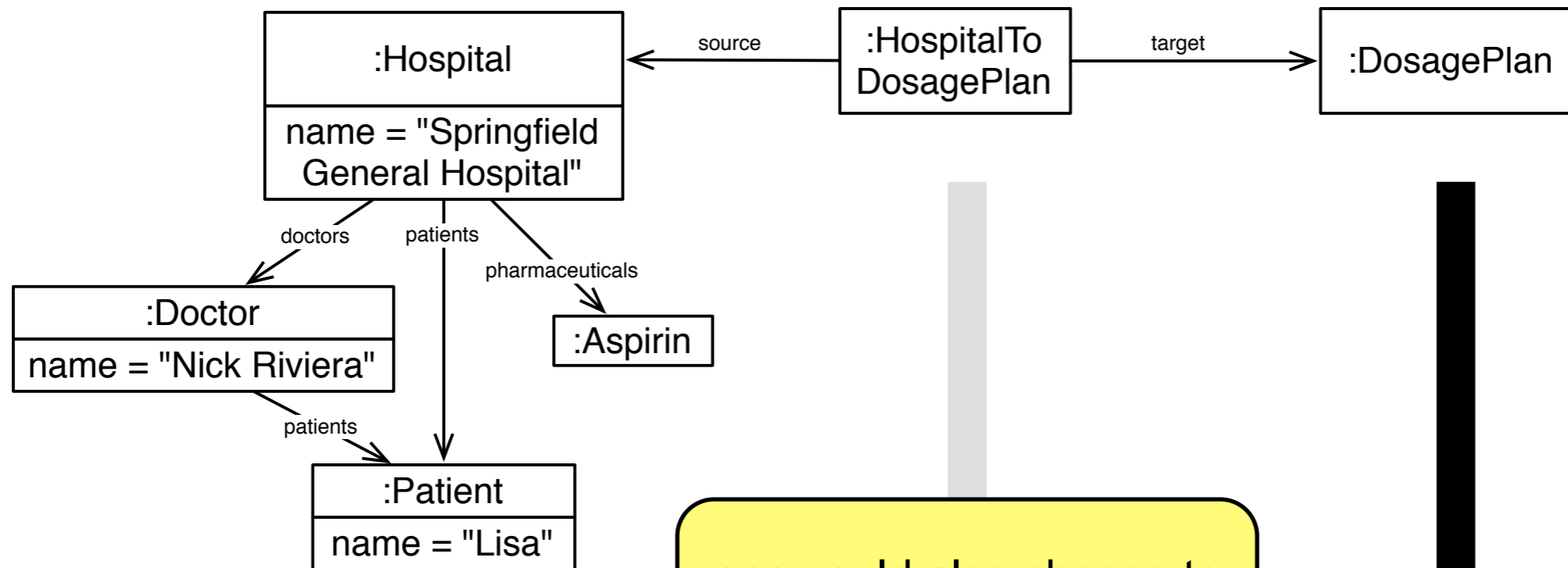


A MediSoft < > MediSupply Triple and Deltas



this mapping can be realised as a typed graph morphism





one could also choose to have vertical deltas on correspondence models

