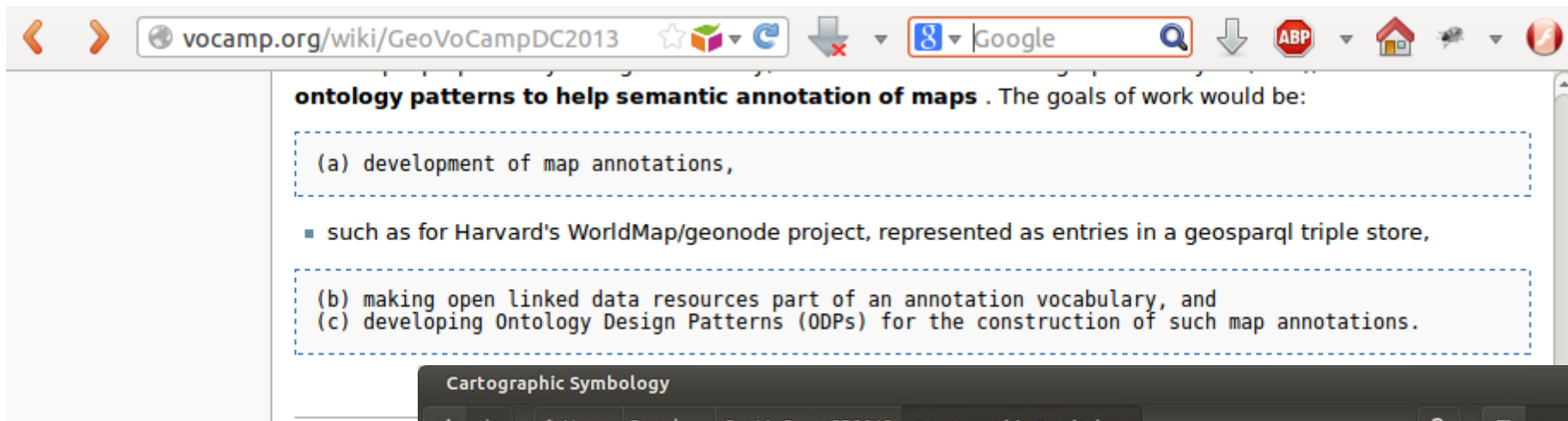


Please don't agree: **Descartes-Core**

GeoVoCamp DC Nov.2013

'Similar to Dublin Core for the library science and Darwin Core for ecology, we plan to establish Descartes-Core at this meeting. Descartes-Core will not be a top-level ontology but a **set of (geo-)ontology design patterns, micro-ontologies, best practice guides, examples, software, and services**, that aim to **foster semantic interoperability** between different (Linked Data) sources **without restricting semantic heterogeneity** at the same time.'

Why Do We Need Descartes-Core?



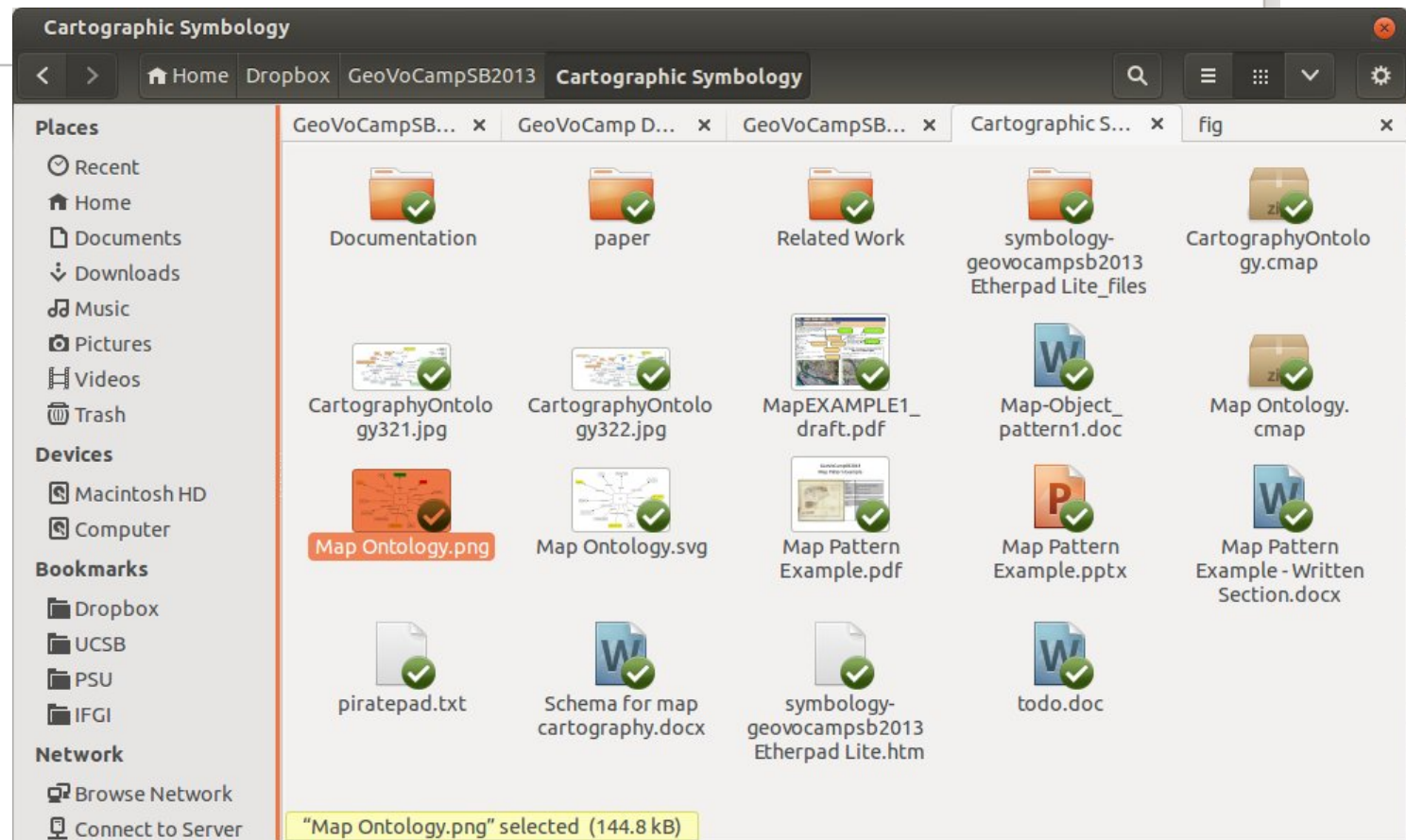
ontology patterns to help semantic annotation of maps . The goals of work would be:

(a) development of map annotations,

- such as for Harvard's WorldMap/geonode project, represented as entries in a geosparql triple store,

(b) making open linked data resources part of an annotation vocabulary, and
(c) developing Ontology Design Patterns (ODPs) for the construction of such map annotations.

A very simple example.



Cartographic Symbology

Home Dropbox GeoVoCampSB2013 Cartographic Symbology

Places

- Recent
- Home
- Documents
- Downloads
- Music
- Pictures
- Videos
- Trash

Devices

- Macintosh HD
- Computer

Bookmarks

- Dropbox
- UCSB
- PSU
- IFGI

Network

- Browse Network
- Connect to Server

GeoVoCampSB... x GeoVoCamp D... x GeoVoCampSB... x Cartographic S... x fig x

Documentation paper Related Work symbology-geovocampsb2013 Etherpad Lite_files CartographyOntology.cmap

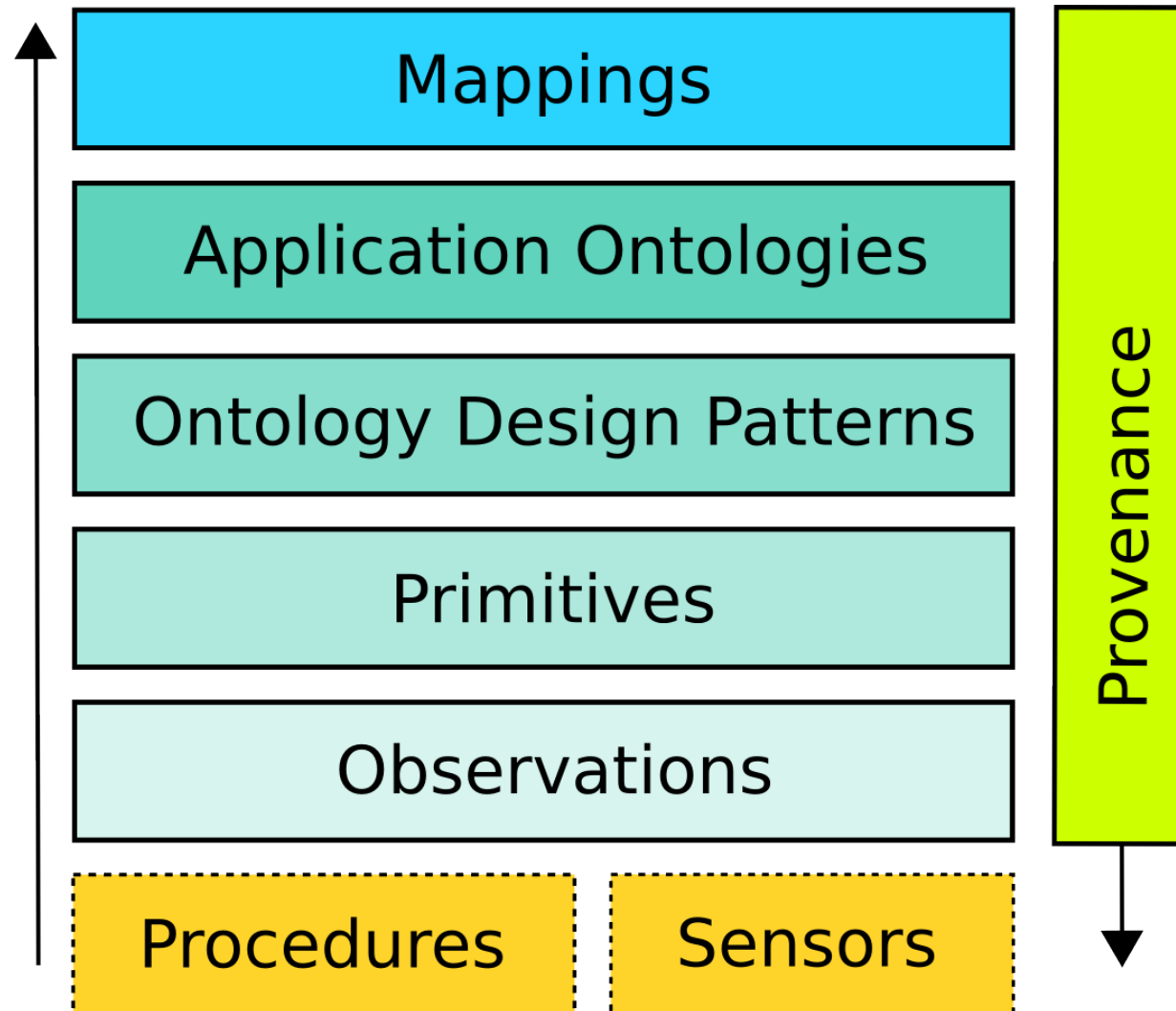
CartographyOntology321.jpg CartographyOntology322.jpg MapEXAMPLE1_draft.pdf Map-Object_pattern1.doc Map Ontology.cmap

Map Ontology.png Map Ontology.svg Map Pattern Example.pdf Map Pattern Example.pptx Map Pattern Example - Written Section.docx

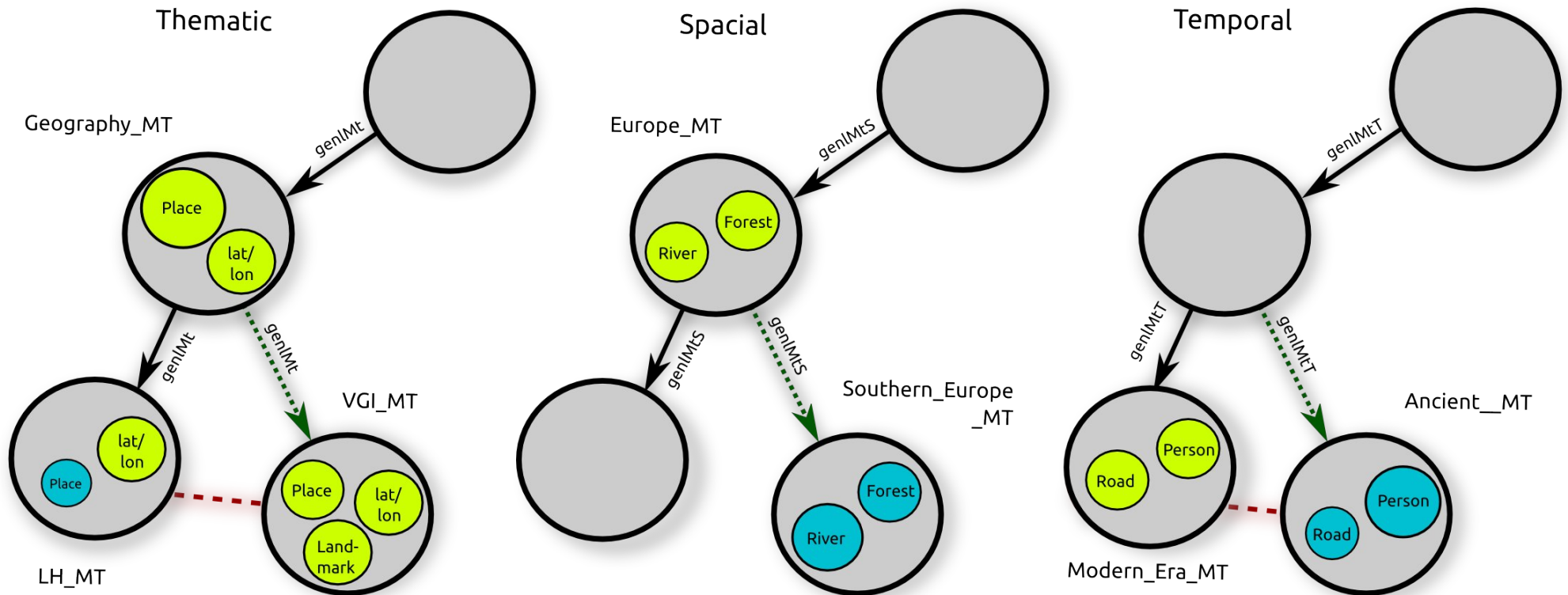
piratepad.txt Schema for map cartography.docx symbology-geovocampsb2013 Etherpad Lite.htm todo.doc

"Map Ontology.png" selected (144.8 kB)

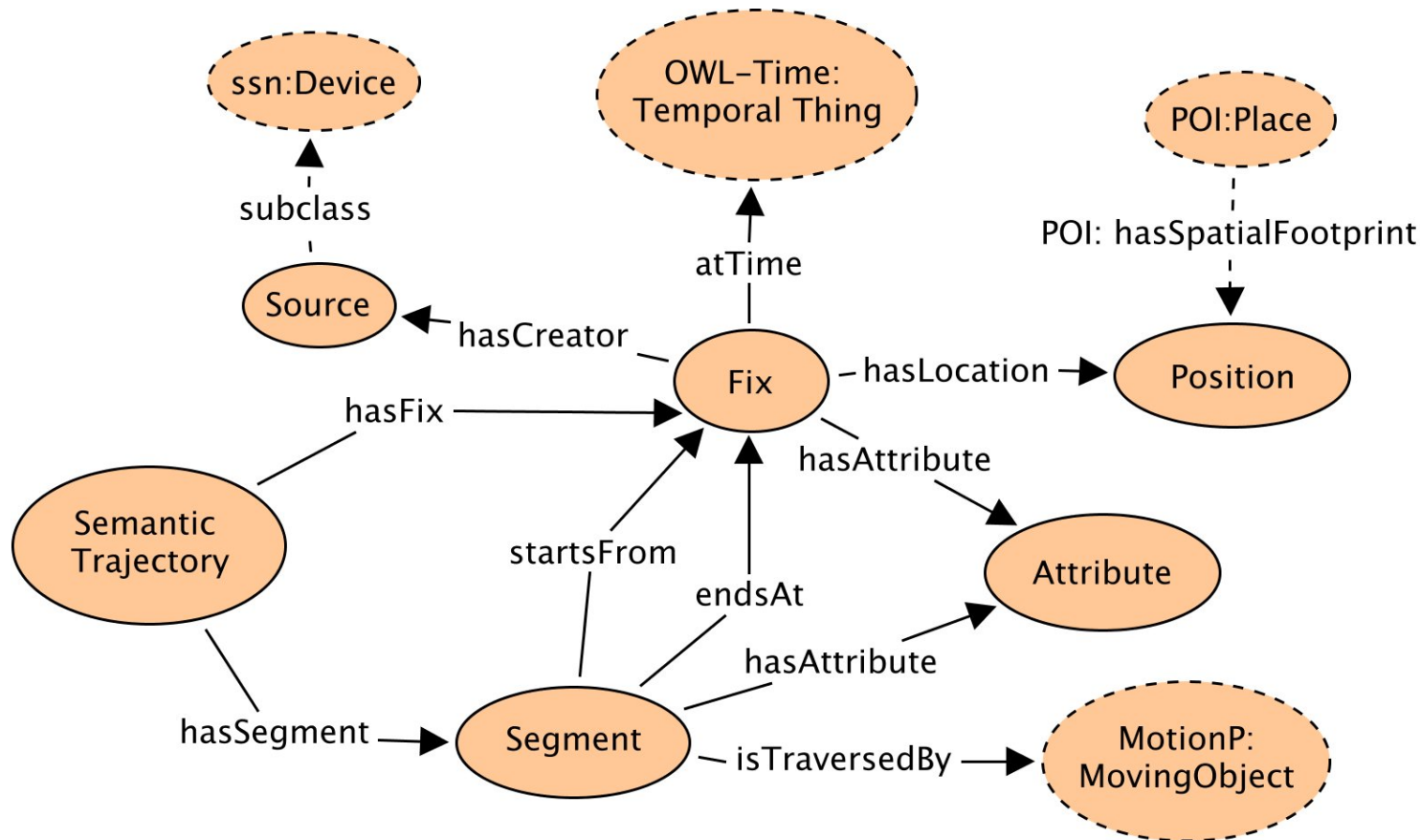
Descartes-Core Ontology Engineering Stack



A Network of Micro-Ontologies

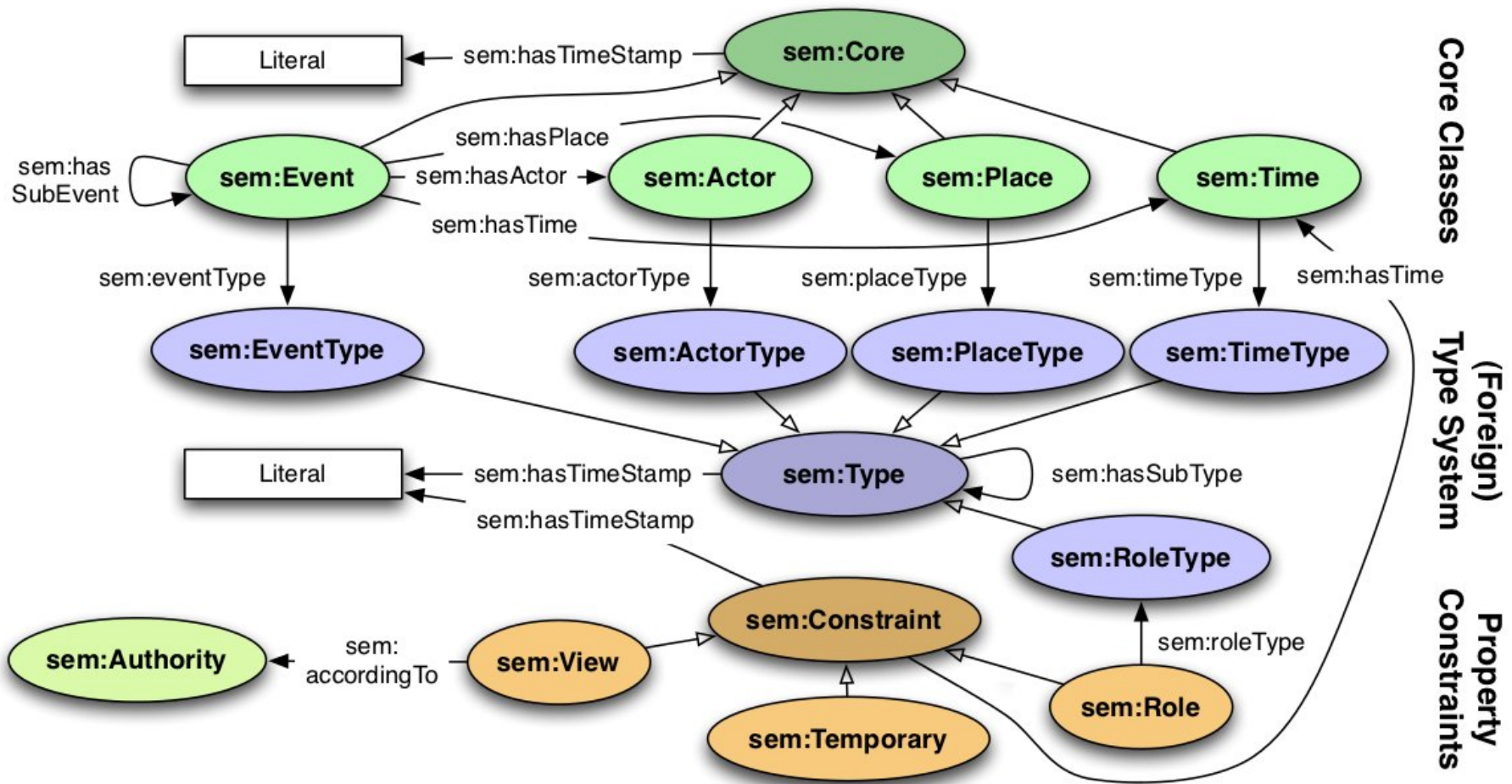


Ontology Design Pattern?



- Not every (small) ontology is a pattern; calling everything a pattern does not help
- There are different types of patterns, e.g., logical patterns vs. context patterns
- Patterns and ontologies require an axiomatization, not just a figure
- Trajectory pattern example → Why is Place, Device, MovingObject, etc not part of the pattern?

Dealing with Subtypes and Modeling Complexity



Mark Gahegan's Guiding Pattern Principles

- Keep it simple, stupid
- Where you end up depends on where you start, and what you think is important....
 - Choose and agree on (and document) a 'Subject'
 - Check existing patterns to see what other subjects might form useful connection points
- What is important about your subject depends on what it means to you—what you want to do with it...what problem it solves for you
 - Choose and agree on (and document) a 'Purpose'
 - Ensure there are Data that fit this purpose...
 - Later, also consider other purposes, as this will help you to avoid over-specifying
- Provide three examples of where this pattern works

Ontologies, Conceptual Models,?

