A few key points to consider that I have tried to explain/present with concept maps

http://neurorganon.org/20120302-Presentation.html

1) Web 2.0 was characterized by the term Social Network (Wikipedia, Wordpress, Facebook, etc....)

2) Web 2.0 content handled by RDBMS is presented with the assistance of templates

http://neurorganon.org/20120302-Presentation-Web3.html

3) Web 3.0 revolution has not happened yet.

- 4) Semantic Web is a web of linked data, a web of linked documents, i.e. Document centric computing
- 5) But we think and act based on linked concepts Subject centric computing

http://neurorganon.org/Concept_vs_Semantic.html

6) Data is the lowest level of abstraction

7) Data resources (web pages, files, etc....) REPRESENT information resources that describe concepts

8) Current web has almost solved the problem of addressing and identifying data resources

9) A standard procedure, model, to link data resources to concepts/terms and NOT the other way around (e.g. tagging) has not been realized or attempted in the field of computer science

http://neurorganon.org/Knowledge_Representation_Model.html

10) The three layers of data modeling have to be distinct and independent

11) There is a lot of confusion in the field of software engineering on what is included at each layer

Example - Advertising a property through a Real Estate Firm

http://neurorganon.org/RealEstate-02.html

12) Identify the roles in a specific relation; find the term to describe that relation e.g.

Advertising(RealEstateFirm:Agent, HumanResidence:Patient) or

Advertising(RealEstateFirm:Agent,HumanResidence:Patient,PublishedPeriod:Time)

14) Use attributes (facets) to describe the terms (e.g. RealEstateFirm, HumanResidence) that participate in the relation

http://neurorganon.org/RealEstate-01.html

15) For all the terms that participate in the relation (role players, facets, relation predicate) build/use their taxonomyontology

16) Take values for the facets and instances for the role players based on this taxonomy

http://neurorganon.org/Faceted Classification.html

17) If you need to expand your model, add more facets, values, roles, etc, look up the faceted classification principles summarized in this slide

Finally NOT presented

Link data, (resources) to the terms you have in your taxonomy. Find the terms that best describe a data resource and match them to those standardized and defined in the taxonomy of the problem area.

http://neurorganon.org/20120302-Presentation-Final.html

18) Conceptual and logical models have to be standardized in terms of the procedures we follow. Automatic or semiautomatic methods have to be defined for the user to select the granularity of information level to present concept map on the field, problem area we are interested in.