March 22 - 28

http://www.cs.rit.edu/~vvg1074/mProject2_Mar_22_28.html

- 1. Lessons learned from Chapter 3: Style Specifics
 - a. Begin well
 - b. Use a specific term whenever possible
 - c. Structure sentences to lay emphasis on the right / important words.
 - d. Use a word only if you are aware of its meaning and usage.
 - e. Check for incorrect spellings.
 - f. Avoid padding.
 - g. Titles of papers and sections should be concise and informative.
 - h. Use present tense for eternal truths and past tense to describe work and outcomes.
 - i. Qualifiers such as "very" and "quite" should be avoided.
 - j. Correct use of plurals.

2. Lessons Learned from Chapter 10: Doing Research, part 2

- a. First stage of a research program involve identifying interesting topics or problems and focusing on particular issues to investigate.
- b. One aspect of testability is that the scope be limited to a domain that can feasibly be explored.
- c. Renaming existing research to place it in another field is bad science.
- d. Defend your hypothesis to a colleague so that you can gather the material needed to convince the reader that your argument is correct.
- e. Choose the most realistic model for describing a hypothesis
- f. An experiment should be conducted in the light of predictions made by a model, so that it conforms some expected.
- g. A reasonable scientific method is to search for counter-examples to hypothesis.
- h. Hypothesis should be capable of falsification.
- i. Do not choose to define another complex explanation for a proof when there already exists one
- j. Experiment is a real deal but the simulation is only pretending to test the hypothesis.

3. Ontology

What is Ontology?

It is in a way a tree representation of any subject, describing the subject's meaning and its relationship with its other nodes.

How to represent the ontology?

Creating a language for ontology. This ontology language should understandable by both machine and humans.

Issues with Ontology:

- 1. There are no standardization for ontology language development.
- No proper source for acquisition of ontology.
 There is no proper source for acquisition of the ontology knowledge. We need domain experts for this job. However, different experts might have different view of the same subject.
- 3. How to validate and evaluate an ontology, so that it could be improved

 This question arises, once different "instances" of an ontology is defined using

different sources.

4. How to maintain the ontology.

Now once an ontology instance is picked up to be the best and thus implemented, the question arises, how would you organize, search, and update this ontology?