Metaphors for a Richer Understanding of Software Development

Basically, metaphors serve to make explaining and conveying information easier to grasp. Conveys at a higher plane such that low level mistakes can be avoided

How to Use Software Metaphors

- Software metaphors are more like a searchlight than a road map
- It doesn't tell you where to find the answer, it tells you how to look for it. Thus, they serve more as a heuristic than as an algorithm
- Algorithm is a well-defined instruction set
    o like street directions
- Heuristic is a technique that helps you look for an answer
    o Tells you how to look, not what to find
        ▪ Find last letter mailed
        ▪ Drive to town in return address
        ▪ Ask someone in town for directions

Software Penmanship: Writing Code

- the term "writing code" implies that it's a casual affair
    o you sit down
    o write a script start to finish
    o and then you're done
    o and once its been sent, it can never be modified
- Writing original work is often less effective than reusing design ideas code and test cases from previous projects

Software Farming: Growing a System

- Some say creating software is like plating seeds and growing crops
    o Design a piece
    o Code a piece
    o Test a piece
    o Add to system
- By taking small steps, minimize trouble one can get into at any given time

Software Oyster Farming: System Accretion

- Accretion = growing in size by gradual addition
- Basically, this is incremental design
    o First step is to design simplest possible version of the system that will run
    o Add dummy classes
    o Replace dummy classes with real classes

Software Construction: Building Software

- "building" is better suited than "writing" or "growing"
- Also, you won't try to build things that you know you can buy
  - o washer, dryer, freezer
- Lots of planning and revisions
- Treat code as structural components (or nonstructural)

Applying Software Techniques: The Intellectual Toolbox

- Techniques are not rules, they are analytical tools
- A good craftsman knows the right tool for the job and how to use it correctly
- Also, some consultants many tell you to buy into certain methods and to exclude others. That's no good