# 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
  - like street directions
- Heuristic is a technique that helps you look for an answer
  - 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
  - Design a piece
  - o Code a piece
  - Test a piece
  - 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
  - Add dummy classes
  - 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