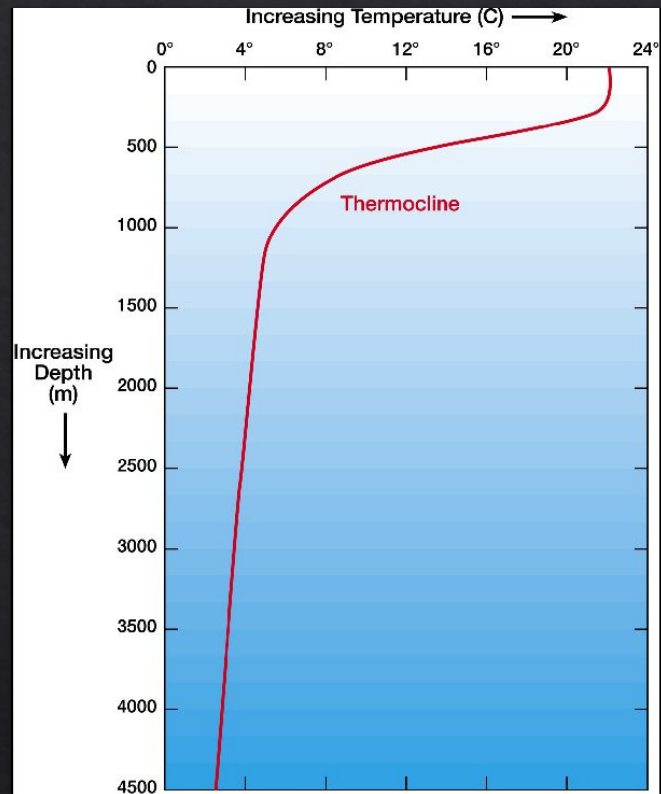


Fall 2018

Bruce F. Webster

CS 428 –  
Webster readings #5

# The Thermocline of Truth (2008) [[Link](#)]



This is a simple temperature-depth ocean water profile. You can see temperature decreases with increasing depth. The thermocline are layers of water where the temperature changes rapidly with depth. This temperature-depth profile is what you might expect to find in low to middle latitudes.  
*Windows to the Universe original image*

# The Thermocline of Truth (cont.)

- ◇ A line drawn across the organizational chart that represents a barrier to accurate information regarding the project's progress
  - ◇ Those below this level tend to know how well the project is actually going
  - ◇ Those above it tend to have a more optimistic (if unrealistic) view
- ◇ Why does it form?
  - ◇ Lack of true metrics (objective, automated, predictive) on project status
  - ◇ Excessive optimism on part of engineers
  - ◇ Self-protection on the part of managers going up the chain
  - ◇ Top management tends to reward good news and punish bad news

# The Thermocline of Truth (cont.)

- ◇ Consequence: as the deadline draws near, the actual project status tends to move upward in the management chain
  - ◇ Hence the classic “slip the project schedule three weeks before delivery” pattern
- ◇ How to avoid it
  - ◇ Honesty and outspokenness on the part of engineers and managers
  - ◇ Rewarding that honesty
  - ◇ Upper management actively seeking out from lower levels realistic feedback on project
  - ◇ Avoiding the temptation of the “quick fix to ship”

# Anatomy of a Runaway IT project (2008) [[Link](#)]

- ◇ Quality of work and effort
- ◇ Project planning and execution
- ◇ Quality assurance and process
- ◇ Architecture
- ◇ Application performance
- ◇ Staffing
- ◇ Management principles
- ◇ Intellectual honesty

# Do not Defer the Difficult in IT Projects (Baseline, 2008) [[Link](#)]

- ◇ Temptation: the appearance (illusion, really) of progress
  - ◇ Prototyping user interface
  - ◇ Use of third-party libraries, engines, utilities
  - ◇ Getting important modules to “80% completion” and then moving on
- ◇ Finishing that last 10-20% is where things drag on forever
  - ◇ All the hardest problems have been deferred to the end
  - ◇ Can find yourself in “solution deadlock” among remaining hard problems
- ◇ Solution: courage to actively identify and tackle hardest problems first
  - ◇ Initial progress will be slow, but you will be more likely to be able to predict completion