

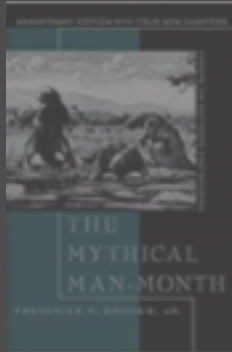
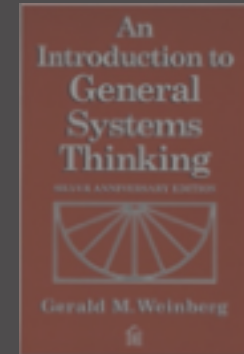
Laws of Systems Thinking

1. Today's problems come from yesterday's 'solutions.'
2. The harder you push, the harder the system pushes back.
3. Behavior will grow worse before it gets better.
4. The easy way out usually leads to a dead end.
5. The cure can be worse than the disease.
6. Faster is slower.
7. Cause and effect are not close in time or space.
8. Small changes can produce big results, but the high leverage points are often the most surprising.
9. You can have your cake and eat it too.
10. Dividing an elephant in half results in two elephants.
11. There is no blame.

Level Up Games - Core Tenets

- Whole feature team
- Prioritize learning
- Avoid local optimization - *watch the baton, not the runner*
- Understand system forces and how they impact you (this is not about developer productivity)

Causation Fallacy: Every effect has a cause... and we can tell which is which



Lean Thinking

Sustainable shortest lead time, best quality and best value, most customer delight, lowest cost, high morale, safety

Respect for People

- Develop people, then build products
- No wasteful work
- Team based organizations
- Teams evolve their own practices and improvements
- Build partnerships

Product Development

Long-term great engineers, mentoring from manager-engineer-teacher, cadence, cross-functional, team room, visual mgmt, set based concurrent dev...

7 Principles

Eliminate waste, amplify learning, decide as late as possible, deliver as fast as possible, empower the team, build integrity in, optimize the whole

Continuous Improvement

- Go See and Help
- Kaizen
 - spread knowledge
 - retrospectives
 - root cause analysis
 - eyes for waste
- Perfection challenge
- Work towards flow without delay

Lean Wastes



1. Partially done work (WIP)
2. Extra features
3. Relearning
4. Task switching
5. Waiting
6. Handoffs
7. Defects
8. Extra processing

Management applies and teaches lean thinking, and bases decisions on this long-term philosophy

Adapted from "Summary of the Toyota Way (Lean Thinking) House" by Craig Larman and Bas Vodde. 2009