IMGD 3000 - Technical Game Development I: Gold's Nuggets

by

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Ideas to Build By

□ Start small. Get bigger through small, incremental steps.
   ■ Iterative design allows you to solve progressively larger problems to complete the project.

□ Avoid presenting single solutions to critical tasks.
   ■ There are many ways to solve problems.

□ If something works, keep doing it.
   ■ Don't change for the sake of changing.

□ If something doesn't work, stop doing it, and replace it with something that does.
   ■ Acknowledge your mistakes. Learn from them, and ask yourself: How can I prevent this in the future?
Ideas to Build By (cont.)

- Avoid repeating things you do wrong, and avoid having to redo things you've already done right.
  - Reuse what you can.
  - Better yet, make your design (and write your code) knowing you will use it again on a different problem.

- No rule, no matter how good, is applicable in every situation.
  - You should use whatever languages/tools/environments/people make the most sense for the given situation.
Phases of Learning

- Unconscious Incompetence
  - "I didn’t even know I couldn't do it."

- Conscious Incompetence
  - "I'm aware it's not how I'd like it to be."

- Conscious Competence
  - "If I make the effort, I can get the desired result."

- Unconscious Competence
  - "I don't even have to try and it works out."
Development Priorities

- What are some priorities for measuring the quality of games?

- Where should you spend most of your time/effort?

- How would you order these?
Reality of Game Dev: Open-Ended Development

- Desired
- Required
- Core
Reality of Game Dev: Heuristic Content

- Constantly making "playjustments"
  - Incremental tweaking of game-play elements to make a game more playable, balanced, etc.

- Subjective, so test with players!

- Eye candy versus substance
Reality of Game Dev: Hardware

- Hardware support
  - Lowest-common-denominator PC?
  - Console? Which ones?
  - Handheld? Which ones?

- Control methods
  - Specialty controller
    - Guitar
  - WASD + Mouse?
  - Camera input?
    - EyeToy
  - Motion-sensitive controller?
    - Wii/PS3/Natal
Game Software Engineering

- Games are getting more sophisticated
- Development times are not getting longer
- Team sizes are growing only modestly
  - Various companies/groups involved
- Need to be *more efficient* in development
  - Reduce time scales
  - Use team members better

- Problems
  - Egos, inertia, structure, ...
What Makes a Good Game Developer?

☐ Good programmer?
  ■ Language specific?

☐ Designer and planner
  ■ Bottom-up and top-down analyses
  ■ Estimator and scheduler

☐ Team player
  ■ Liaise with artists
  ■ Follow a lead developer
  ■ Support other developers
  ■ Technical reviews