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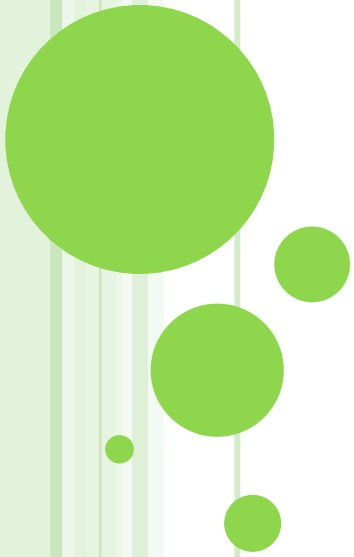


SI 410 ETHICS AND INFORMATION TECHNOLOGY

Week 11b: Ethical Game Play

THEMES

- Infosphere and game play
- Game code
- Ethical game play

INFORMATIONAL SYSTEMS AND INFOSPHERE

1. Infosphere

2. Code

3. Ethics

- Informational system = rules and context of their use
- Ludic action = any interaction in a gameworld that produces an outcome
- Infosphere = gameworld

PD-SELF

Stefano Oreschi, Luciano Floridi, Wikipedia,PD

- **Sicart, "Banality of Simulated Evil," 2009**

GAMES AS INFOSPHERES (SYSTEMS)

- A construction of rules and mechanics of the game, how they interact, and form behavioral patterns.
- Floridi's IE: moral action modeled as an information process:
  - Messages (M) invoked by agent (A) that brings a transformation of states *directly* affecting patient (P)
  - P responds to M with other changes or messages, "depending on how M is interpreted by P's methods."
- The act of playing a game is an act of agency within an infosphere.
- Ethical values and agency in-game and through simulation.

- **Sicart, "Banality of Simulated Evil," 2009**

GAMEPLAY LEVELS OF ABSTRACTION

1. Infosphere

2. Code

3. Ethics

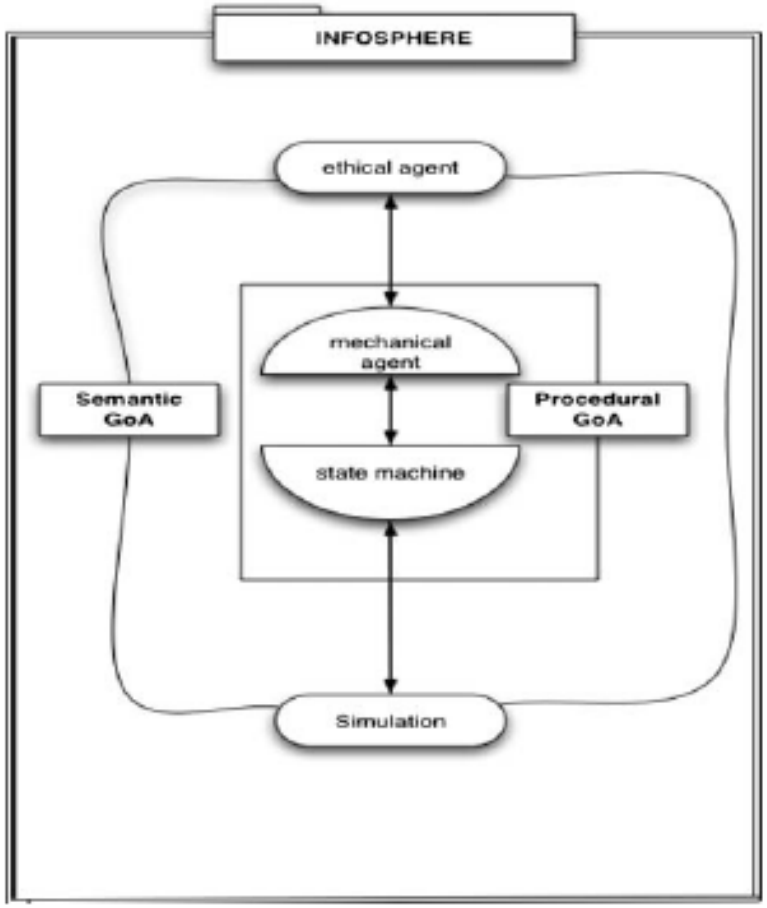


Fig. 1 An information ethics model for computer games

Miguel Sicart, The banality of simulated evil: designing ethical gameplay, Ethics and Information Technology, v11, 3, PD-INEL

• **Oxford English Dictionary**

CODE DEFINED

1. Infosphere
2. **Code**
3. Ethics

1. Collection of statutes, laws
2. Rules or regulations on a subject
3. Symbols –
    1. Military or naval signals
    2. Codewords for encryption
    3. *Cybernetics*. Any system of symbols and rules for expressing information or instructions in a form usable by a computer or other machine for processing or transmitting information.
    4. *Bioinformatics* – e.g. Genetic code

• **Star Wars Galaxies – Rules of Conduct (2000)**

RULES AND VALUES: THOUGH SHALL NOT…

1. Infosphere
2. **Code**
3. Ethics

1. Harass
2. Bad language
3. Impersonate Sony
4. Break law
5. Modify software
6. Pirate
7. Obey
8. Espouse "anti"-philosophy
9. Lie
10. Upload porn or copyrighted materials
11. Hack software
12. Exploit bugs
13. Mimic
14. Emulate

- **Lessig, Code (1999)**

CODE IS LAW

1. Infosphere
2. **Code**
3. Ethics

1. Invisible hand of cyberspace is building an architecture that perfects control
2. Recognizing how code regulates (not necessarily transparently)
3. Protection of values
    1. Structural (checks and balances)
    2. Substantive (outcomes)
4. Intellectual property, privacy, free speech, sovereignty
5. Pessimistic conclusion

- **Castronova, Synthetic Worlds (2005)**

SYNTHETIC WORLDS

1. Infosphere
2. **Code**
3. Ethics

1. Concept of membrane – porous border between synthetic and real
    1. eBay sales of virtual world objects
    2. End User Licenses
2. Governance "isolated moments of oppressive tyranny embedded in widespread anarchy." (p. 207)
3. Requirements: institutions of collective decision making; power; AI (code for Non-Player Characters)

· **Bartle. *Designing Virtual Worlds*. (2003)**

SERVER COMPONENTS OF VIRTUAL ENVIRONMENT

1. Infosphere
2. **Code**
3. Ethics

- Driver
  - Memory, parsing, data structures
- Mudlib (game physics)
  - timers, movement, magic, mechanisms
- World model
  - Maps, objects, avatars, [fully descriptive]
- Instantiation [runtime]
  - E.g., Everquest, WoW

• **Bartle. *Designing Virtual Worlds*. (2003)**

COMBINATION TECHNIQUES

1. Infosphere
2. **Code**
3. Ethics

- Coding [C, C++, Python, etc.]
- Scripting [e.g., MUF] [multi-user forth]
- Data [database(s)]

FuzzBall MUCK: http://www.belfry.com/fuzzball/

• **Bartle. *Designing Virtual Worlds*. (2003)**

ENGINES AND DATABASES

1. Infosphere
2. **Code**
3. Ethics

- Engine = hard-coded rules
- Database = everything else
  - Scripting language
  - Template database
    - Definition of objects [and avatars]
    - Functions, performance limitations
  - Instantiation database
    - Player character data

CODEBASE DIFFERENCES

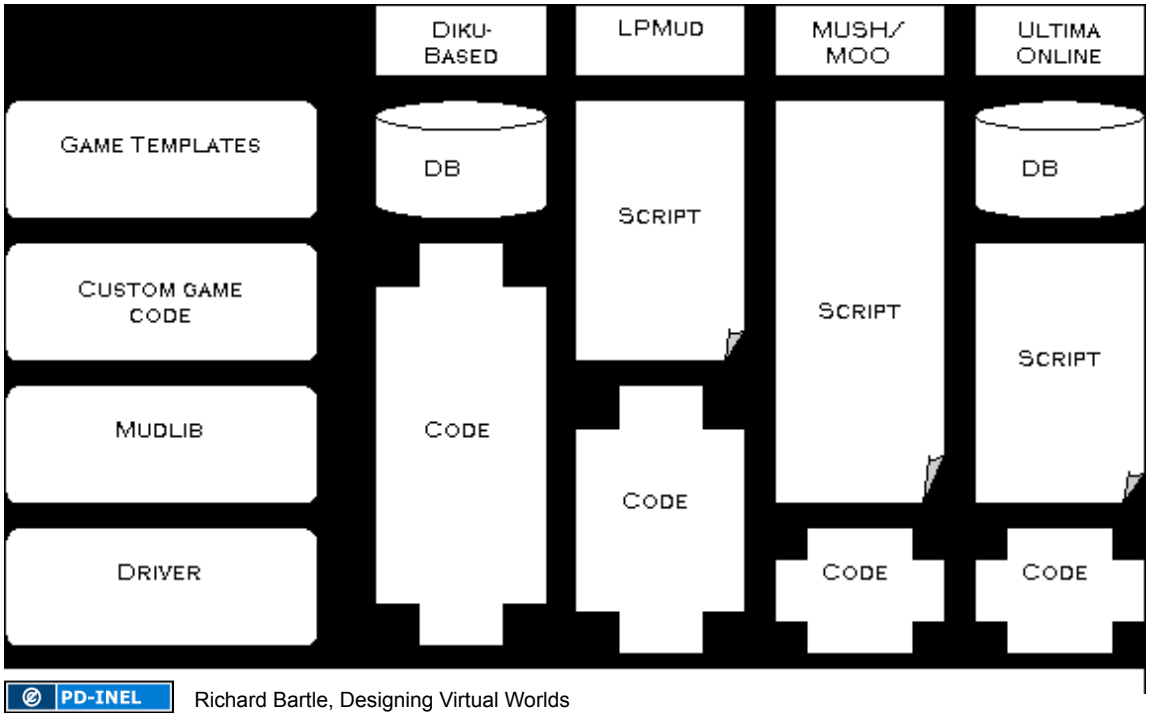
Table 1.1 Codebase Differences

Codebase	Driver	Mudlib	World Model	Runtime
DikuMUDs	Code	Code	Code	Data
MUD1	Code	Code	Script	Data
MUD2	Code	Script	Script	Data
Ultima Online	Code	Script	Script	Data
LPMUDs	Code	Code	Script	Script
MUCKs, MUSHes, MOOs	Code	Script	Script	Script

- **Bartle. *Designing Virtual Worlds*. (2003)**

CODE TECHNIQUE VARIATION

1. Infosphere
2. **Code**
3. Ethics



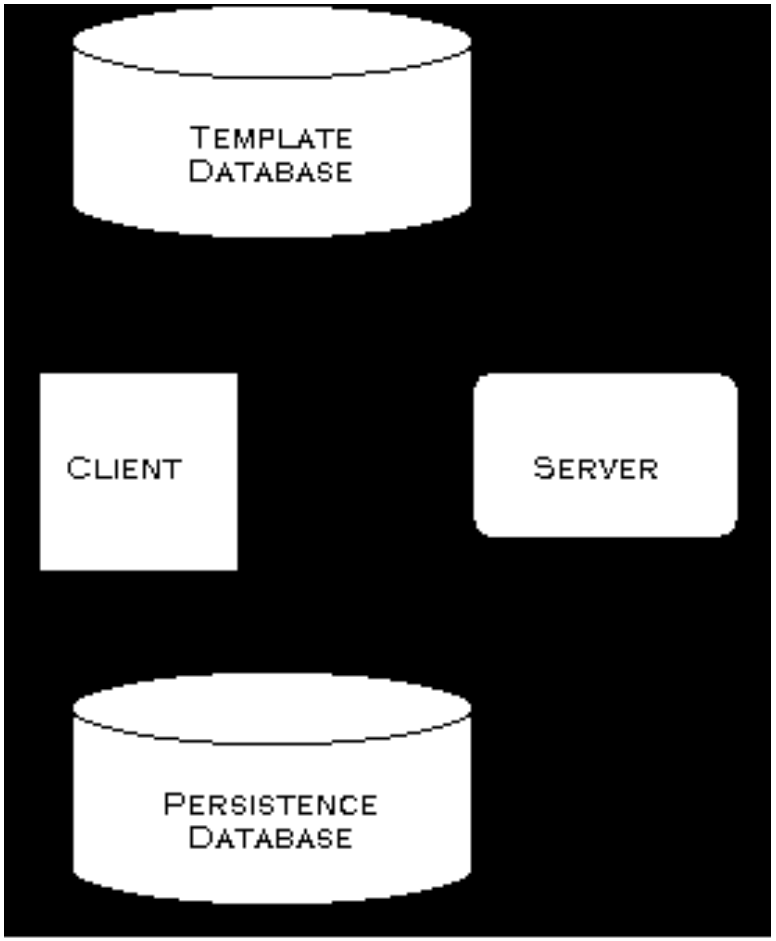
 Richard Bartle, Designing Virtual Worlds

http://www.raphkoster.com/gaming/book/6b.shtml

- **Bartle. *Designing Virtual Worlds*. (2003)**

SERVER COMMUNICATION

1. Infosphere
2. **Code**
3. Ethics



HOW A SERVER COMMUNICATES

• **Bartle. *Designing Virtual Worlds*. (2003)**

OVERALL ARCHITECTURE

1. Infosphere
2. **Code**
3. Ethics

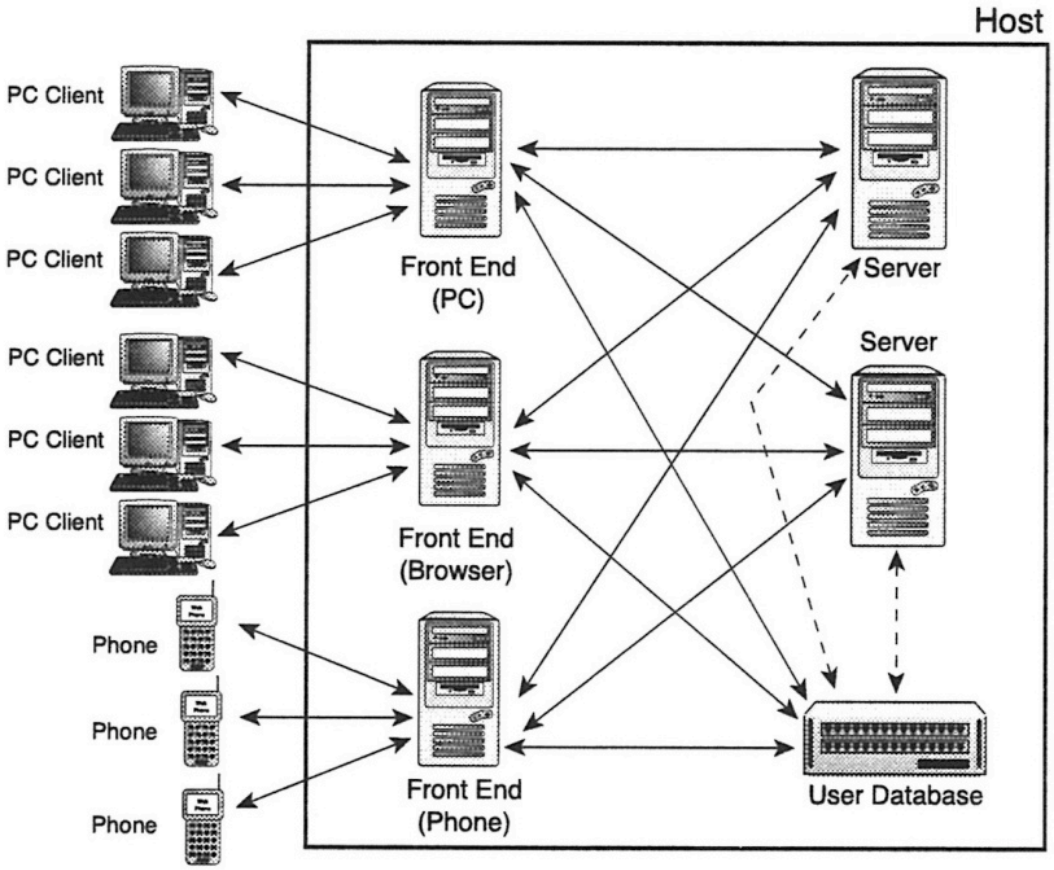


Figure 2.1 Overall architecture.

SERVER CLUSTER ARCHITECTURE

1. Infosphere
2. **Code**
3. Ethics

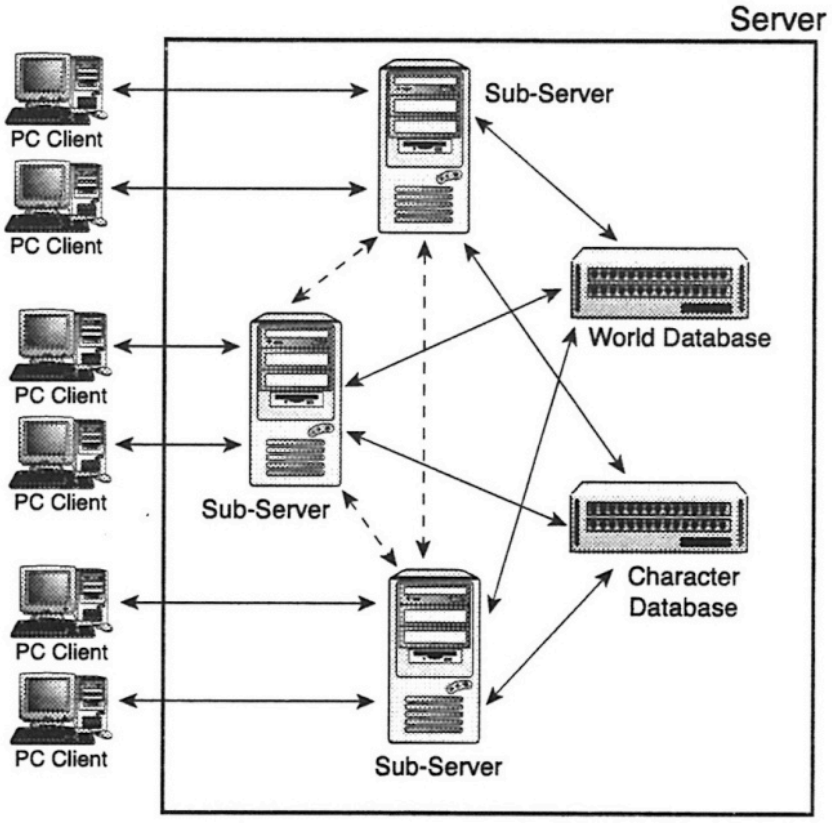


Figure 2.2 Server cluster architecture.

- **Sicart, "Banality of Simulated Evil," 2009**

ETHICAL PLAYERS

- Agents having the capacity and the duty with in a "ludic infosphere" to constitute themselves as ethical agents.
  - Playing configures the game state
  - Playing also configures
    - the agent's ethical capacities and relationships
    - the infosphere itself
    - the impact of playing the game as perceived from outside
- Example: Manhunt

- **Sicart, "Banality of Simulated Evil," 2009**

ETHICAL GAME PLAY

- The outcome of designing the relations between the mechanical and semantic levels of abstraction
- Most "ethical" games fail because they focus on capabilities and capacities at the mechanical level.
- Ethical game play can exploit the tension between player as agent (avatar) within the gameworld and player as input provider for the "state machine".

• **Sicart, "Banality of Simulated Evil," 2009**

ETHICAL GAME DESIGN

1. Infosphere
2. Code
3. **Ethics**

1. Create an ethically relevant game world.
   - Introduce ethics as important part of world (eg not Tetris or Mario).
2. Do not quantize your player's actions: let them live in a world that reacts to their values.
   - World reacts to ethical choices. (e.g., Manhunt)
3. Exploit the tension of being an ethical player.
   - Push the boundaries of ethical conventions while letting players exert full ethical agency. (e.g., September 12th, Dues Ex, Shadow of the Colossus)
4. Insert other agents with constructivist capacities and possibilities.
   - Open to players creating and implementing their own values. (e.g., Eve Online)
5. Challenge the poietic capacities of players, by expanding or constraining them.
   - Limit ability to do what is wrong in the gameworld. (e.g., Manhunt)

- **Lenoir, Military-Entertainment Complex, 2000.**

MILITARY-ENTERTAINMENT COMPLEX

1. Infosphere
2. Code
3. **Ethics**

Nexus of computer simulation and virtual reality (35 year history)

Research-Entertainment Complex

- Visible realism, "physics" abstractions, 3D data abstractions
- Economic forces fuel the revolving door (Atari-NASA 1982)
- Desire for fusion of digital and real preceded the full availability of technology (p. 305)

Networks and simulation: SIMNET

- Selective functional fidelity, collective training, high environment-low display
- Importance of government procurement processes
- Battle simulation to arcade games to PC games (p. 322)

Institute for Creative Technologies. http://ict.usc.edu/

GAMES

- Eve Online: http://www.eveonline.com/
- Manhunt: http://www.rockstargames.com/manhunt/
- DefCon: http://www.introversion.co.uk/defcon/
- GTA4: http://www.rockstargames.com/IV/

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Slide 19, Image 1: Richard Bartle, Designing Virtual Worlds, PD-INEL

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