On the Evolution of Games

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*not so much a presentation of results as an Invitation
overview

New(?) lens through which to examine games

• More questions than answers...
History vs Evolution

History
- event-driven, broad scope, contextual
- interested in all aspects of the past

Evolution
- data-driven, narrow scope, highly threaded
- specifically interested in change
Change

What changes over time?

• Genres and their definitions.
• What's on the screen during play:
  – Graphics
  – H.U.D.
• Game play.
• Narratives.
• And, of course, technical advances.
Evolution

Examination of change across time....
Welcome to now..
What can we Learn?

How a behaviour (or other aspect) may have evolved from similar behaviours in other games can provide some insights into elements of designs that are successful.
How do we proceed?

Examine game(s) from one or more perspectives to look at....
How do we proceed?

Look at: Descent

• **affinity** (similarity) : common descent
How do we proceed?

Look at: Environmental adaptations

• *convergent evolution*: different species / same behaviour, possibly due to similar external forces
How do we proceed?

Look at:

Spontaneous ‘mutations’
How do we proceed?

Look at:

Selective Pressure
Perspectives

• Games Generally
• Specific Genres
  – Shooters, RPGs, etc.
• Game Elements
  – H.U.D.s, graphics, interaction
• Franchises
  – Mario, Pokémon, The Sims, Final Fantasy, Grand Theft Auto, Madden NFL, Tetris, FIFA, The Legend of Zelda, Tom Clancy
• Numbered Games
  – GTA
Evolution Basics

1. If all the individuals of a species reproduced successfully, the population of that species would increase uncontrollably.

2. Populations tend to remain about the same size from year to year.

3. Environmental resources are limited.

4. No two individuals in a given species are exactly alike.

5. Much of this variation in a population can be passed on to offspring.
Evolution Basics

1. If all the individuals of a species reproduced *successfully*, the population of that species would increase uncontrollably.

Enter Sturgeon’s Law:
2. Populations tend to remain about the same size from year to year.
Evolution Basics

3. Environmental resources are limited.

Markets

Consoles

Development Teams

Imagination?

Peripherals
Evolution Basics

4. No two individuals in a given species are exactly alike.
Evolution Basics

5. Much of this variation in a population can be passed on to ‘offspring’.
Why do some games change very little over time?
And Others Change a Great Deal?
Struggle for Existence

• A game’s survival has to do with how successful it is at keeping people in the game as well as at doing what it was designed to do:
  – Entertain
  – Learning
  – Persuasion
  – Marketing
The Evolution of Final Fantasy
The Evolution of Mario
Thanks!