



Classic Game Postmortem: Oregon Trail

Don Rawitsch
Co-inventor and Wagonmaster

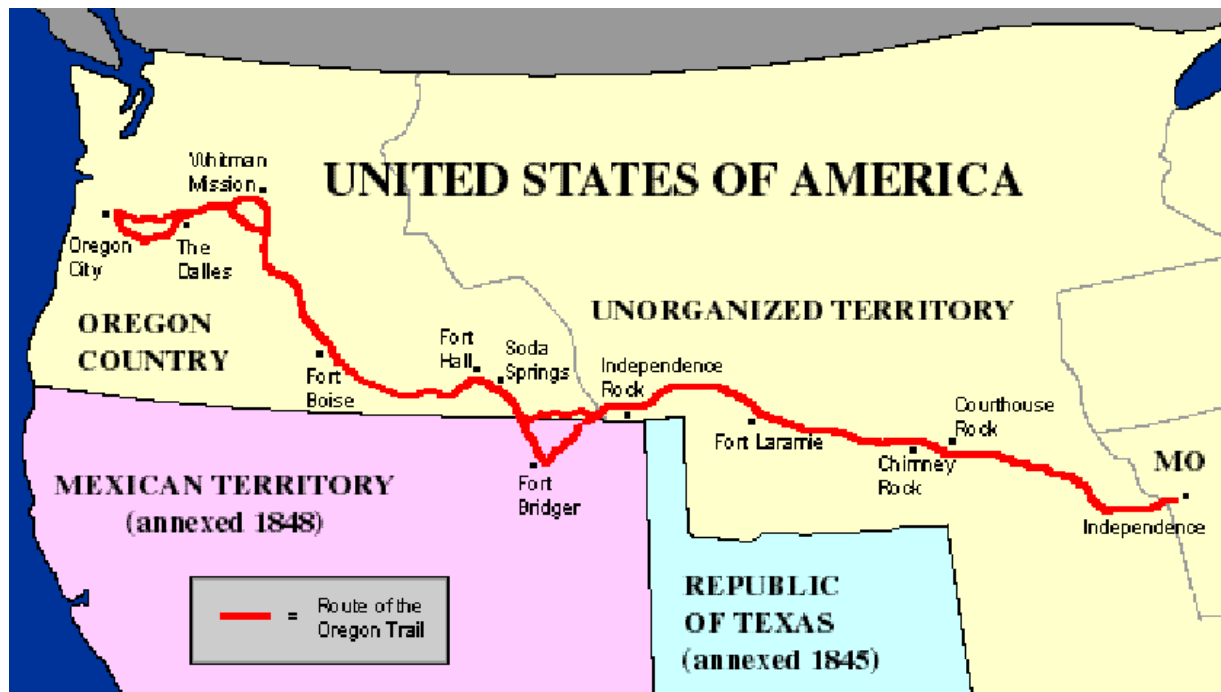


U.S. Westward Migration – 1800s





The Oregon Trail – 1840-50s





Your vehicle for 2,000 miles





The Oregon Trail Computer Game

Popular on personal computers: 1979-1995

Best known school software of the era





Mainframe Computer – 1960s-70s





The Birth of Educational Computing

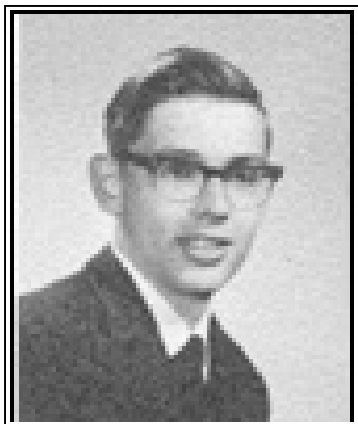
Late 1960s

- Most educational computing found at universities
- Some schools connected to a local university
- Some larger districts purchased own computer
- Most K-12 computing was learning programming
- Software applications for K-12 very scarce

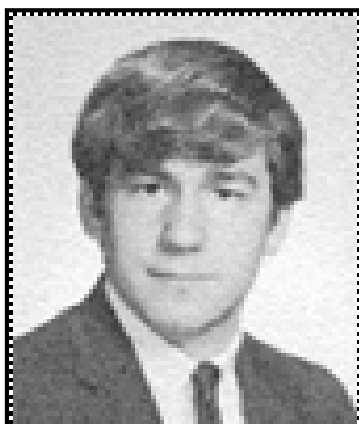




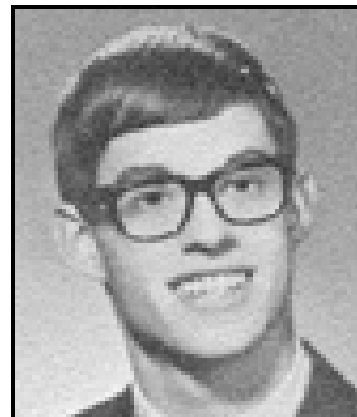
Oregon Trail Game Inventors



Bill Heinemann
Math



Paul Dillenberger
Math



Don Rawitsch
History

Carleton College, Minnesota - 1971





Oregon Trail Game Invention

- Fall, 1971 – college seniors
- Practice teaching in Minneapolis Schools
- District had computer for student use
- Bill & Paul knew some BASIC programming
- Don preparing for Westward Movement unit
- One afternoon in November . . . an idea!





Teletype - 1971



No screen or graphics

Output on roll of paper

Printing at 10 char/sec

Only one audio effect





Network Connection - 1971



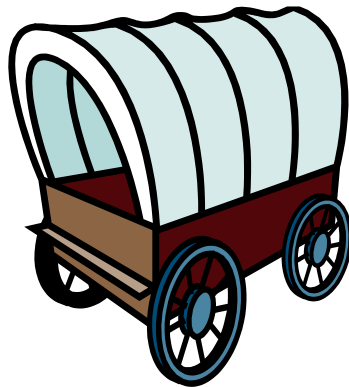
Back in the Day Modem:
Dial-up Acoustic Coupler





The Unveiling - Dec 3, 1971

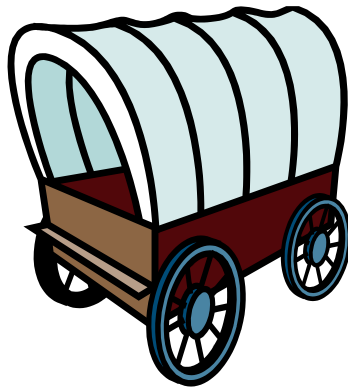
- Ver 1.0 in 2 weeks!
- Classroom set-up
- Student reaction





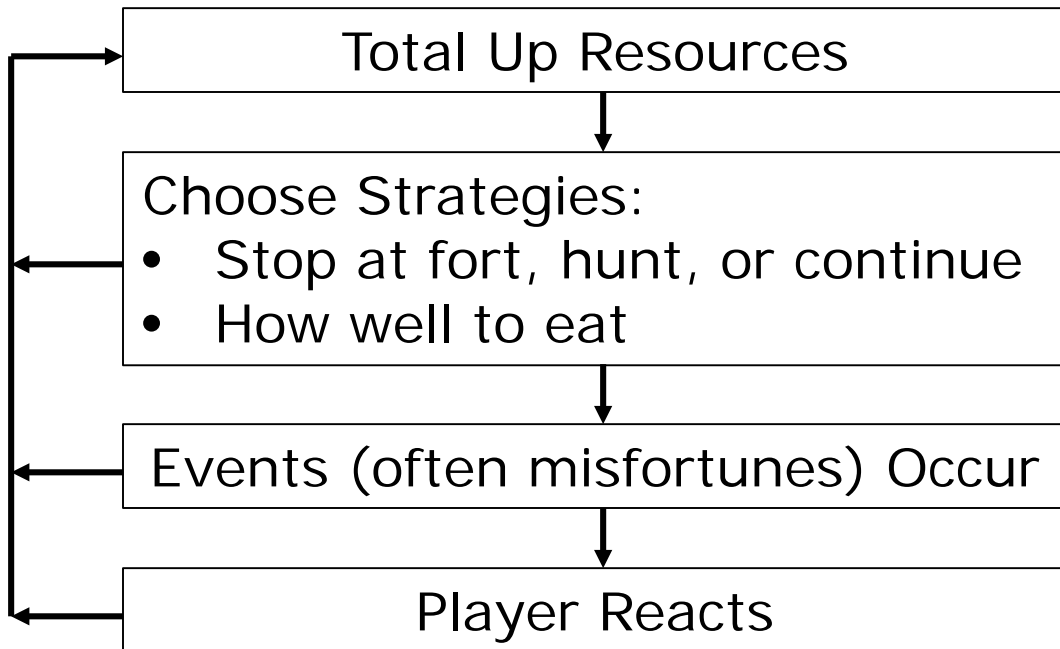
Almost Lost in Time

- Practice teaching ends
- Code printed out;
program removed





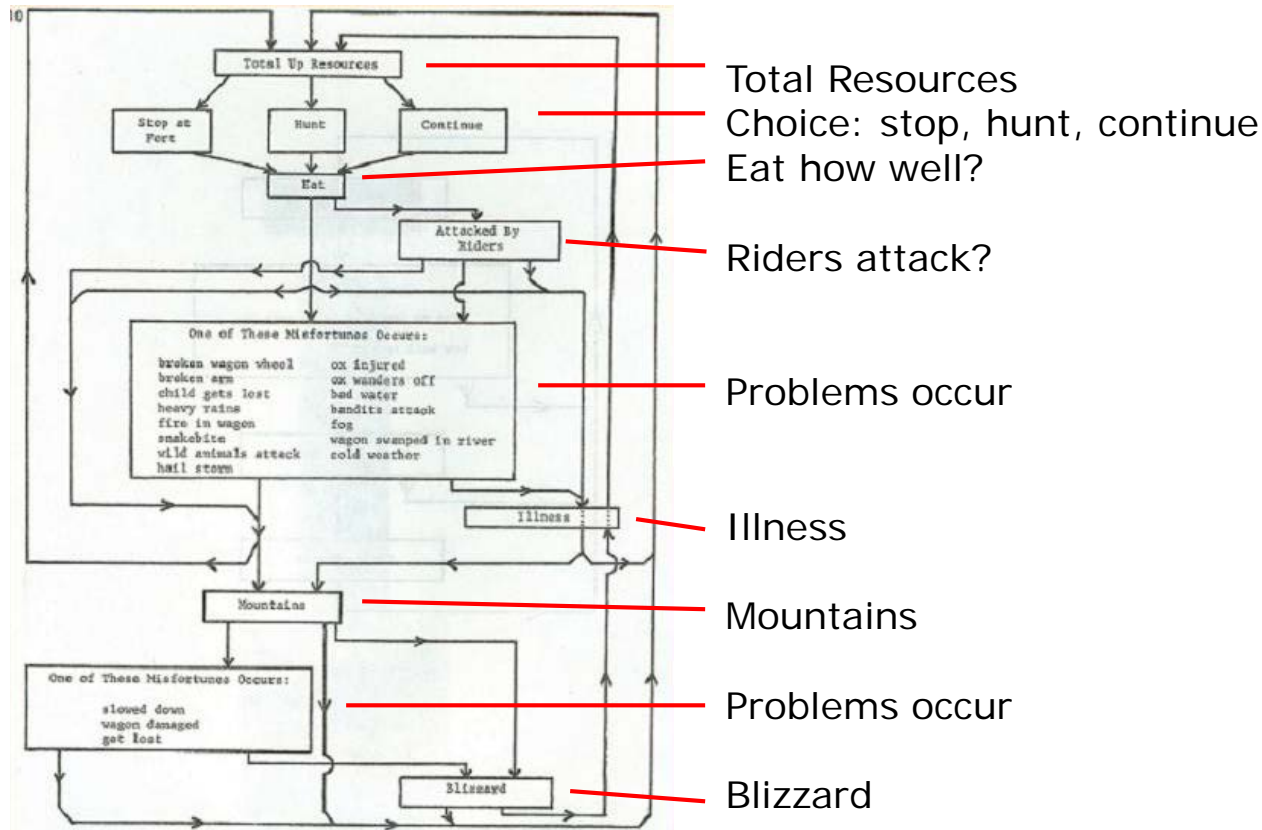
Oregon Trail General Model





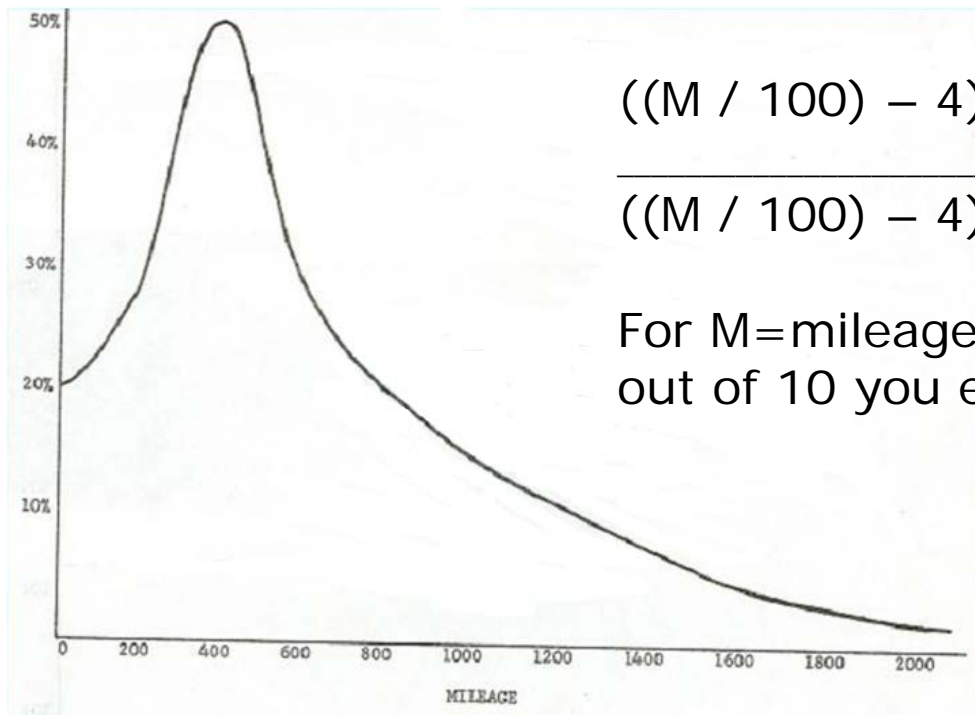
Oregon Trail

Detailed Model





Probability of Meeting Riders on the Trail



$$\frac{((M / 100) - 4)^2 + 72}{((M / 100) - 4)^2 + 12} - 1$$

For M=mileage, number of times
out of 10 you encounter riders





Text-based Firearm

When you decide to use your rifle:

Computer prints: "Type BANG" (or POW or BLAM)

You type that word quickly & press Return

Results:

- Typo – no food
- Spelled correctly, typed slowly – some food
- Spelled correctly, typed quickly – "Good eatin' tonight"





Oregon Trail Rescued - 1974

Don Historical Research 

- Mileposts & events when & where (forts, plains, rivers, mountains, cold, snow)
- Event probabilities from diaries
- Reaction to migration: Native Americans role
- Created Teacher Guide





History of Oregon Trail Versions

- 1974 – Minnesota statewide mainframe system
- 1979 – First Apple II version (green screen)
- 1985 – Apple II version (color) ->
- 1991 – Macintosh version
- 1995 – Oregon Trail II
- 2012 – iPhone “arcade” versions





What Made Oregon Trail So Popular?

- First computer game for many '80s kids
- Student controlled simulated environment
- Puts user into a first-person adventure





Oregon Trail is Well Remembered!

- Reddit "Ask Me Anything," 2/1/2016
2,000+ comments in one day
- Appeared on The Goldbergs ABC-TV show





Oregon Trail is Well Remembered!

- Tribute versions





Oregon Trail Makes the Hall of Fame!

May, 2016

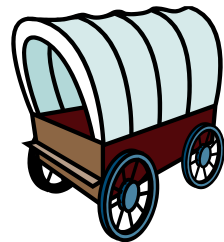
The Strong National Museum of Play, Rochester, NY
World Video Game Hall of Fame

OT joins Pacman, Tetris, World of Warcraft . . .
Only educational product of 12 now enshrined





How Oregon Trail Got It Right Before “Right” Was Defined



- Give the player a degree of control
- Put the player in an engaging story
- Simple user operation, sophisticated model
- Resources balanced with obstacles
- Multi-level learning: strategy, topics, process
- Collaborative design effort





The Inventors
25 Years Later

Now It's Been
45 years!





What Did I Learn?

Oregon Trail Lessons for Life –

- Plan ahead – there's danger out there
- Be patient – the journey is long
- If you persevere you'll find your green valley
- Even if the water is deep, sometimes you just have to caulk your wagon and head out from shore!





Thanks, pardners!

