Educational games
Educational Games

• Primary purpose is to teach or influence a particular demographic a subject.

• Often called “serious games”

• US Government one of the earliest adopters of game development for educational purposes (late 1960’s, early 1970’s)
All games are educational
Platform

- Primarily PC
- Mobile/Tablet making massive inroads and will likely take over
- Console attempts have tanked
“31,000 student hours later, we still love Apple Computer.”

When the Minnesota Educational Computing Consortium recommended Apple Computer to the state’s school districts—well, it started something big.

Today there are hundreds of Apple Computers in use in 35% of Minnesota’s elementary and secondary schools, and nearly all of the colleges and universities in the state. Most communicate with the Consortium’s CYBER 73 mainframe in a state-wide educational computer network.

The educational computer

Dr. Kenneth Brumbaugh, Manager of User Services, heads the team responsible for supporting instructional computing. “MECC evaluated personal computers and chose Apple in the state. That also means we can serve as the communication link for the wealth of new programs students and teachers are writing themselves. For us, Apple is an excellent educational computer.

The kids—and the teachers—love Apple

“One big reason we chose Apple is that it is so easy to program. Now, with Pascal, Apple can provide even more programming flexibility.

“For example, MECC has written a note-recognition program to help teach music that takes advantage of Apple’s unique built-in speaker. And Apple’s color graphics make programs far more interesting than conventional black and white.”
Woe is the Console

- Software subpar
- Controls too difficult to learn
- Controllers too big for kids’ hands
Categories of Edu Games

- Traditionally educational: games designed to teach a specific subject
- Emergent: not designed to be educational, per se, but have a strong edu component
- Training: designed to train someone to do a specific job
- Influential: designed to motivate a desired behavior
Landlord’s Game

- 1904 patent
- Published 1910
- Elizabeth Magie
- Realty and taxation game
- Wanted to show how renting makes landlords richer and tenants poorer
- Designed to “practical demonstration of the present system of land grabbing with all its usual outcomes and consequences” [The Single Tax Review, Autumn 1902]
Brer Fox an’ Brer Rabbit

- Landlord’s Game is published in UK under the title Brer Fox an’ Brer Rabbit
The Landlord’s Game

Part III

- Patented again in 1924 under “The Landlords Game” using her married name Elizabeth Magie Phillips.
- Includes named streets.
- Commercially distributed in 1932.
Quaker Mod Community

- Homemade versions of Landlord Game begin to appear.
Sold patent in 1935 for $500 to Parker Brothers. She received no royalties.
• Darrow just one of many, many people playing mods of Phillips game.

• Parker Bros was buying up all mods for undisputed rights to game.
Designed to Teach

Game of "Monopoly" Was First Known as "Landlord's Game."

Mrs. Elizabeth Magie Phillips, Clarendon, Va., and the "monopoly" game she patented in 1904. To her left is the miniature model, to the right the new "landlord's game" she is now perfecting. —Star Staff Photo.

Very likely your grandma and grandpa played Monopoly.

Why not?

It isn't new. Truth to tell, Mrs. Elizabeth Magie Phillips, 2309 North Curtis road, Clarendon, Va., then Lizzie J. Magle of Brentwood, Md., took out a patent on the game on January 3, 1904—a good three decades ago!

Except that it was called "The Landlord Game," at the time (and also 20 years later, when Mrs. Phillips improved the game somewhat and took out a second patent on it), you might notice little difference in the 1904 version and the one you tried to buy this week.

According to the specifications of the earliest patent, "the object of the game is to obtain as much wealth, or money as possible, the player having the greatest amount of wealth at the end of the game, after a certain predetermined number of circuits of the board have been made, being the winner."

Method of Teaching

This innocent statement of the purpose of the game was somewhat of a subterfuge for putting across ideas that stirred the mind of Mrs. Phillips. For, as well as a game to amuse it was one to teach.

A follower of the principles of the famous "single take" of the ninth century, she still holds the Henry George School of Social Science chances in her home. Thirty-two years ago, she created "The Landlord's Game" as a means of spreading interest in George's system of taxation. The game, as now called "Monopoly," still amazes the Georgian principles.

As fast devised, the game didn't catch hold. Four times Mrs. Phillips improved and patented new, similar ones. The latest, of September 23, 1924, comes out pretty boldly in its specifications.

"The object of this game," it states, "is not only to afford amusement to players, but to illustrate to them how, under the present or prevailing system of land tenure, the landlord has an advantage over other enterprises, and also how the single tax would discourage speculation."

The winner is, in this newer game with the same title of "The Landlord's Game," the one who first accumulates $3,000. It has become more blunt, less subtly, in the 26 years of its evolution.

Engines Popularize Game

Even this game, however, did not get the popular hold it has today. It took Charles E. Darrow, a Philadelphia engineer, who retrieved the game from the oblivion of the Patent Office and dressed it up a bit, to get it going. Last August a large firm manufacturing games took over his improvements.

In November Mrs. Phillips sold the company her patent rights.

"It went over with a bang. But not for Mrs. Phillips. For it is understood she received $500 for her patent and she gets no royalties. Probably, if one counts lawyer's, printer's and Patent Office fees used up in developing it, the game has cost her more than she made from it. However, if the subtle propaganda for the single tax idea works around to the minds of the thousands who now shake the dice and buy and sell over the "Monopoly" board, she feels the whole business will not have been in vain.

Although she has never played "Monopoly" as such, Mrs. Phillips has a set for doing so, along with sets of other games she has invented, in her living room. A card game, called "Block Trial," is one of her other creations. At present, she is working out a new board game which she hopes will prove as successful as this astounding grandchild of her first game of finance and economics, "The Landlord's Game."

The Black Explorers (1990)
29
x4
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Oregon Trail (1971)
MECC (Minnesota Educational Computing Consortium)

- Written by TA: Don Rawitsch and his assistants Bill Heinemann, and Paul Dillenberger
- Used HP Time-Shared BASIC on HP 2100 minicomputer
- Published in 1974 on mainframe computers accessed across Minnesota’s time-sharing network
- First microcomputer version was on the Apple II in 1981 by John Cook
Rocky’s Boots (1982)  
The Learning Company

- Logic Puzzle game
- By Warren Robbinett (Adventure on 2600) and Leslie Grimm
- Player uses logic gates, clackers to design circuits and games
- Visual design engine
Math Blaster! (1983)
Knowledge Adventure

• Originally created by Jay Davidson (Davidson & Associates, Inc.) & Richard Eckert, Cathy Johnson

• Teaches math grades 1-6

• Move your cannon across bottom of screen to shoot the correct answer at the top with the equation in the middle

• Original was written in Applesoft BASIC on the Apple II; now an MMO launched in 2011
Carmen Sandiego (1985)
Brøderbund

- Written by Dane Bigham, Gene Portwood, Lauren Elliott
- Carmen is a master thief who leads V.I.L.E., an organization that steals the world’s treasures without a trace
- Tests player’s knowledge of geography and general knowledge about countries
- Must discover which of Carmen’s gang the thief is by matching personal characteristics, then obtain a warrant; eventually catch Carmen
Reader Rabbit (1986)
The Learning Company

- Designed & Programmed by Leslie Grimm, Ph.D
- Teaches language arts: reading, spelling
- Ages 3-7
- Wii version in 2011
Civilization (1991)
Microprose

- By Sid Meier & Bruce Shelley
- 4x game, turn-based strategy
- Exploration, Warfare, Diplomacy
- Tech trees
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WHO'S GOT THE IFFY STIFFY?
SCRATCH TO SEE WHO'S GOT AN INFECTION

SEE WHAT YOU CAN PICK UP

NHS and the UK Department of Health
Training Games
Training Games

- Ice cream viscosity model for accurate scooping
- Distributed via corporate Intranet
- Simulator and arcade style game play, requiring speed and skill
- 2 major, 1 minor training objectives
- Scoring system tied to corporate Learning Management System (LMS)
Recruitment

- Targeted Recruitment

Here are the Top Gun 4 Kids drills where you can prove yourself and become a real cyber-surgeon!!!

Cobra Rope >>
The goal of this drill is to move the rope from right to left. Use the mouse to control the tool. You can only move the rope by clicking on the Red or Blue sections. If you click anywhere else on the rope, the rope will reset to its original position. The tool can only move so far, so if you try to move the rope further than the tool can go, or backwards, the rope will reset to its original position. You will be timed. Good luck!
Activist Games

- McDonald’s Game
Activist Games

- May Day Net Parade
Activist Games

- A Force More Powerful
Games for Education

- Teaching
Games for Education

- Retaining Knowledge
Political Games

- Get across party ideology
Games As Tool

“Subjects who in the past played video games for more than three hours per week have a 37 percent reduction in errors when performing laparoscopic surgery, and accomplish their surgical task 27 percent quicker, than their non-video game playing counterparts.”
Games for Health

- Re-Mission
Zynga.org wants to improve the quality of education games and apps

By JENNA PITCHER on May 02, 2013 at 4:17a  

Zynga.org and NewSchools Venture Fund have teamed up to create a new “ed tech” accelerator aimed at improving the quality of education games and apps, Zynga Inc. announced.