



The Gaming Classroom

USING GAME DESIGN AS A TEACHING TOOL

Boris Willis

- ▶ Professional Dancer, Choreographer and Game Designer
- ▶ 1991 Started teaching at Mason- Dance
- ▶ Taught Dance Appreciation course using WebCT
- ▶ MFA Dance Technology Choreography- The Ohio State University
- ▶ 2009 Game Design Program

Live Board
GMU 1997



Photo: Neil Adams

The way we have always done it syndrome



Hello, you have an “F”

- ▶ One grade at the end of the semester
- ▶ Cannot earn enough points to get a D until after midterm.
- ▶ Cannot earn enough points to get an A until the final is taken.
- ▶ Cannot lose any points earned. (Happy with a D, don't come back)
- ▶ Earn points by doing the work
- ▶ All late assignments accepted for full credit
- ▶ Give bonus for submissions by the due date
- ▶ Built in extra credit (quizzes)
- ▶ Quizzes only give XP when all answers are correct
- ▶ Quizzes can be taken an unlimited amount of times

Points awarded only when the work is satisfactory.
 Poor quality work can be resubmitted.

Mid-Term High	Mid-Term Atten	Mid-Term Pres	Mid-Term HUD	Mid-Term Mock	Pixel Art	Spacewar!, Por	Construct 2 Pla	Solar F
0.00	--	--	--	--	50.00	100.00	50.00	50.00
50.00	--	--	--	--	50.00	66.00	50.00	--
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50.00	--	--	--	--	50.00	33.00	50.00	--
50.00	--	--	--	--	50.00	100.00	50.00	50.00
50.00	--	--	--	--	50.00	66.00	50.00	--
50.00	--	--	--	--	50.00	66.00	50.00	--
50.00	--	--	--	--	50.00	66.00	50.00	--

Scenario 1

- ▶ Great student has unfortunate event causing a late submission.

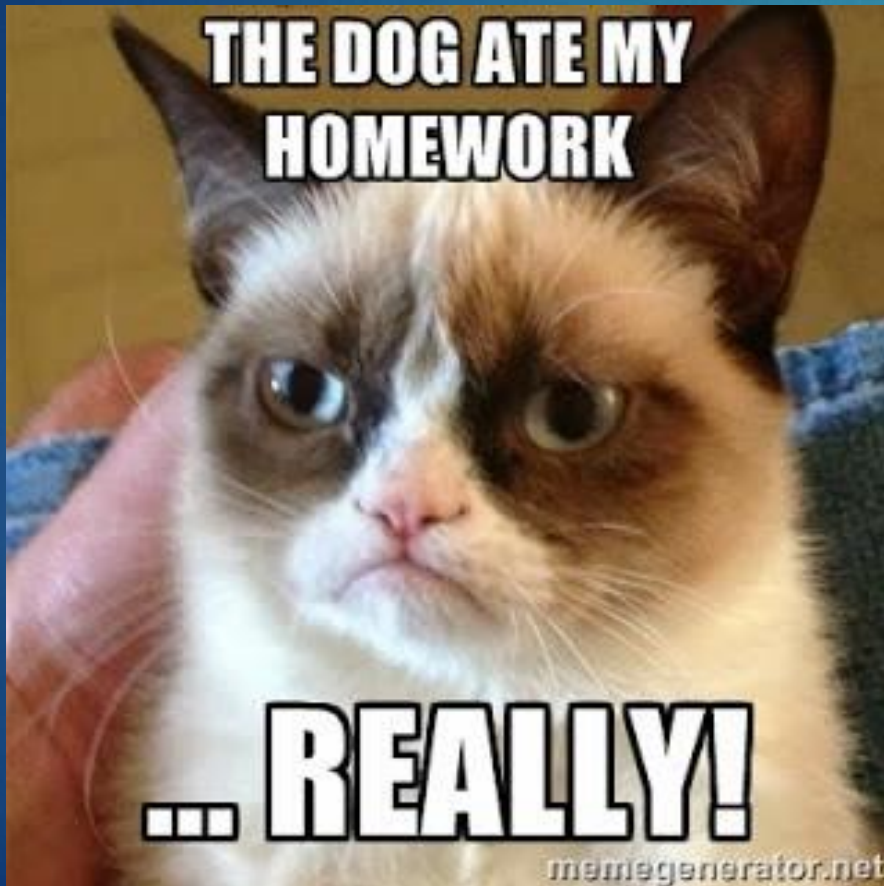


Scenario 2

- ▶ Slacker student claims they want to do better and willing to do the work.



XP assigns value to effort not product



- ▶ Grade based on what the student is willing to work for
- ▶ Excuses are irrelevant
- ▶ Always a path to an "A"

Both students are treated equally

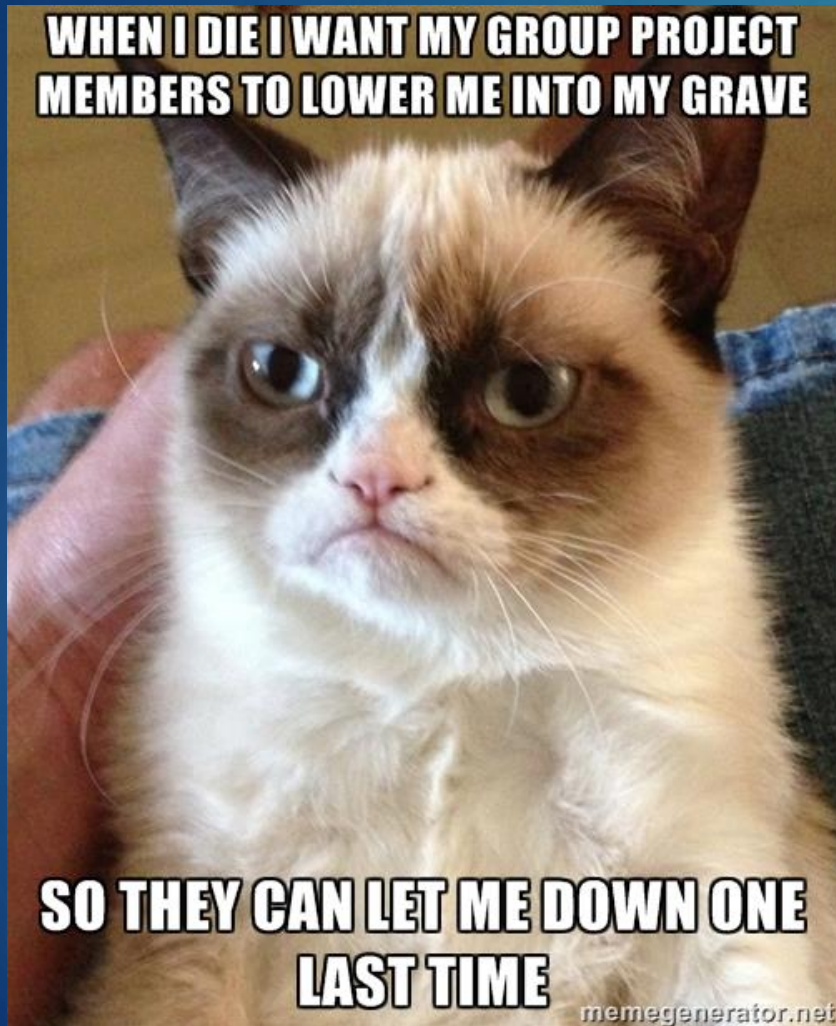


<https://thisweconfess.files.wordpress.com/2012/02/begging-boy.jpg>



<http://www.golfpunkhq.com/mediaLibrary/images/english/7032.jpg>

Working with groups



- ▶ One student does most of the work
- ▶ One student does the least work
- ▶ Both students may interact with professor a lot

Group Solutions

Roles

Each student job will require an individual submission for the final.

- **Marketing** will turn in marketing plan, posters and other materials
- **Sound** will turn in sound room levels with sound files used in the game
- **Programmers** will turn in diary of process, things that failed and things that worked. What is used in the final version
- **Artists** will turn in reference art and final art works
- **Documentation** will turn in GDD and presentation slides for alpha, beta and final game.
- **Producer** will document process, timeline, update Trello board. Items cut and altered
- **Designer** will turn in final level

- ▶ Give each student a goal and a role
- ▶ Don't give points based on perceptions
- ▶ Give points based on work submitted

Weekly Discussions

- ▶ Groups of 3-5 depending on class size
- ▶ Students only interact with their group
- ▶ Presentations available to the entire class



Collaborate using Trello

The screenshot displays a Trello board titled "12 Month Plan" with a Kanban workflow. The board is organized into columns representing months from January to June 2013. Each column contains several task cards, many of which are in progress or completed. The cards are color-coded and include details like assignees, due dates, and comments. The right sidebar shows board settings, members, and activity logs.

Board Title: 12 Month Plan

Columns (Months): Jan 2013, Feb 2013, March 2013, April 2013, May 2013, June 2013

Members: AF, CK

Board Settings: Options, Add List, Filter Cards

Activity Log:

- Wayne Barker moved **Add blog to site** from Feb 2013 to March 2013. Mar 1 at 09:24
- Wayne Barker moved **Add SEO templates to site** from Feb 2013 to March 2013. Mar 1 at 09:23
- Wayne Barker moved **Look at competitors links for quick wins** from Feb 2013 to March 2013. Mar 1 at 09:23
- Wayne Barker invited an unconfirmed member to

Task Cards (Examples):

- Jan 2013:** Site Review, Keyword Research, SEO Templates for Site, Create a 12 month plan, Claim Google Places listings, Link profile research, Set up reporting systems and other software, Analytics set up/webmaster tools set up
- Feb 2013:** Add citations for all on last months spread sheet, Activate Google Places listings, Get keyword research for service pages checked off, Optimise Google Places listings, Forward any technical errors to developer, Guest blogging, Create SEO templates for service pages, Site specifics for
- March 2013:** Create plan for blogging on site, Guest blogging, Keyword research for sub service pages, Ongoing blogging, Niche directory research and submission, Possibly formulate plan for partners to guest blog, Develop the content strategy
- April 2013:** Guest blogging, Keyword research for sub service pages, SEO Templates for sub services pages, Ongoing blogging on site, Niche directory research and submission, Get content ideas checked off with, Conversion Rate Optimisation
- May 2013:** Guest blogging, Optimise fact sheets, Keyword research for sub service pages, SEO Templates for sub services pages, Ongoing blogging on site, Content marketing
- June 2013:** Guest blogging, Keyword research for sub service pages, SEO Templates for sub services pages, Ongoing blogging on site, Content marketing

Group Work

- ▶ Group Project- With your group, create and present a concept for a Go based board game.
- ▶ Chapter Summary- Group members chose one of the assigned chapters and write a summary. Choose a different chapter for each group member.
- ▶ Play and Record - Nim and Spacewar! and discuss the games with your group
- ▶ Discussion- Discuss the games and the chapters in the discussion boards.

Rules of Go:

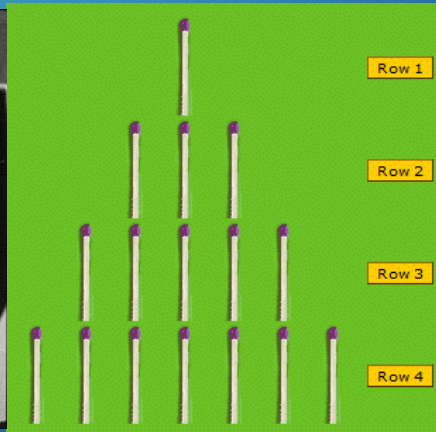
- Objective: Be the player or team to place a piece in the center point of the board.
- Two or Four players (black and white) take turns, placing one stone on the board at a time. If four players, alternate the team player that places a piece each turn.
- A stone must be placed on the intersection of the vertical and horizontal lines.
- The first two moves for each player or team are placing pieces in the corners of the board.
- Players can only place pieces adjacent to another piece, whether it's white or black.
- Once a stone is placed, it cannot be moved.

Tip: Teams may find it useful to use the entire board and dance around the center to solidify their ability to claim the center.

In the game above, Black wins the match.



http://www.computerhistory.org/pdp-1/media/image/dec.pdp-1.two_men_playing_spacewar.102631264.lg.jpg



http://www.tankonyvtar.hu/en/tartalom/tamop425/0038_informatika_MestInt-EN/images/image33.gif

Chapter One Chapter Summary

- Electronic Numeric Integrator and Calculator (ENIAC) – Feb. 14, 1946
 - \$500,000
 - 30 tons
 - 63 square feet
 - Used to calculate artillery-firing tables for the army
- Alan Turing & Claude Shannon
 - Wanted to create A.I.
 - Worked together to decrypt codes used by U-boats
 - Computer beating humans in Chess was important step
 - Chess is complex with millions of possible ways to win
 - 1947 – Turing wrote first computer Chess program
 - No computers at the time could run the program
 - Turing had to test the program by hand
 - Sady, in 1952, Turing was arrested and convicted for being homosexual and committed suicide two years later
- Festival of Britain – 1951
 - Year-long national festival to lift the spirits of the nation after World War II
 - "A tonic for the nation"
 - John Bennett created a computer to play Nim
 - Aimed to show a computer's ability to do math
 - Nimrod
 - Began Dec. 1, 1950
 - Ready April 12, 1951
 - Dismantled after festival
- Electronic Delay Storage Automatic Calculator (EDSAC) – 1949
 - Created by Professor Maurice Wilkes
 - First computer with memory that users would read, add, or remove information from
 - Similar to Random Access Memory (RAM) today
 - Alexander Douglas recreated Noughts and Crosses (Tic-tac-toe) using EDSAC in 1952
- IBM 701
 - First computer for commercial use
 - IBM employee, Arthur Samuel, recreated Checkers in 1952
 - In 1955, the program was learning from its mistakes
 - By 1961, the program was defeating Checkers champions
- Cathode-Ray Tube Amusement Device – 1947
 - Designed by Thomas Goldsmith and Estle Mann
 - Employee of TV network Dumont
 - Used the cathode-ray tube within the TV to draw lines for missiles and explosions
 - Goldsmith and Mann applied for a patent in Jan. 1947
 - Never turned into commercial product
- Tennis for Two
 - Created by William Higginbotham in 1958
 - Recreated a side-on view of a tennis court with the net in the middle and lines for racquets.
 - Created for the open day at Brookhaven National Laboratory
 - It was a huge success, especially with high schoolers.
 - Dismantled after the 1959 open day
- Spacewar!
 - Created by the Tech Model Railroad Club of MIT
 - Built on the PDP-1
 - \$120,000

Chapter Summary

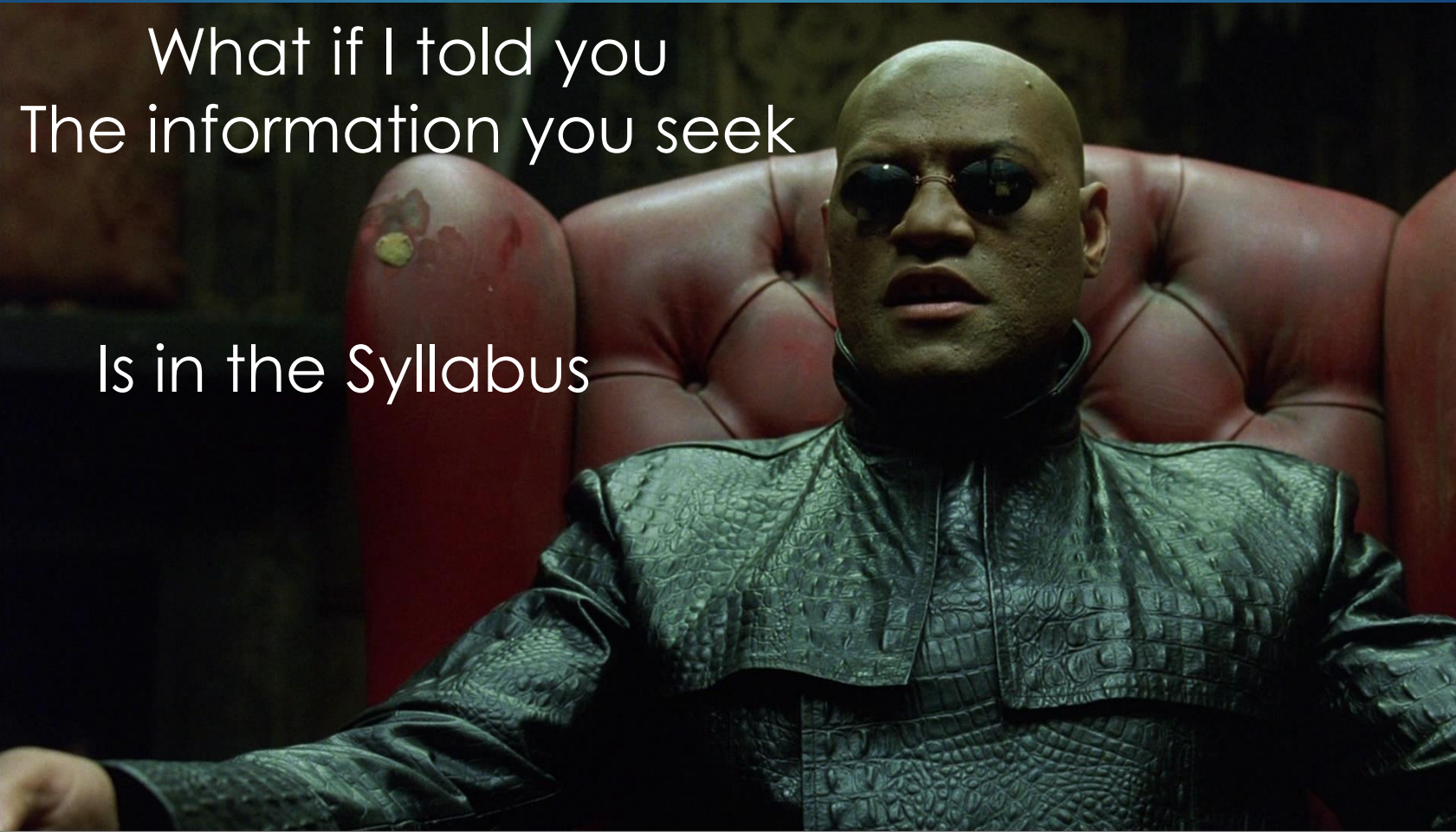
...ly interesting that after spending so much time working together on decryption methods, Alan Turing and Claude Shannon turned their sig...
 ...ing wrote a program for computer chess that was too advanced for any technology at the time to implement. Many innovators are so far abe...
 ...ed. Artificial intelligence has gone so much further than a simple game of computer chess, and it was all started by the partnership of Turin...

Chapter Summary

...how all of this tech came out of the wars, it seemed that alot of the top people worked on computers afterwards.

re Edit Delete Email Author

Syllabus



Social Casual (Participation): 260XP

- ▶ Create an introductory video (50XP).
- ▶ Submit 4 team project feedback forms (80XP).
- ▶ Course Evaluation (100XP).
- ▶ Awesomeness (30XP)



http://blog.shepherdwealth.com/wp-content/uploads/2014/04/Check_out_our_newly_released_introduitory_video_featuring_David_Shepherd_Your_Wealth_Blog.png

Boss Battle (Research Project) 450XP

- ▶ Research Topic 50XP
- ▶ Research Draft 100XP
- ▶ Research Paper 200XP
- ▶ Presentation 100XP



Real-Time Strategy (Chapter/Game Summary) 320XP

- ▶ Write a chapter summary each week in the blogs.
- ▶ Play games related to the chapter
- ▶ Discuss the chapters and games.
- ▶ Respond to chapter summaries.

Story Development

Computer Games

What is it that makes a game 'good'?

- Is it the **story** that a game tells?
- Is it the process of **playing**?

Put forward your argument based on the title. Thinking about the issues discussed in this presentation. Site examples of games you have played- use screen shots if appropriate to illustrate your points.

500-600 words



<http://www.therapytoronto.ca/images/blogpics/SeniorsGaming.jpg>

41 comments • 59 reactions



Leave a message...



Post as Ian Cleary

Best

Community

My Disqus 99

Share



Suzanne Mannion • 16 days ago

Great tips. Just checking out 500+ (do I need 500+ connections?) and tried out the "sharing" via LinkedIn option - very handy. Thanks for "sharing"! Sharing some other thoughts about networking via LinkedIn - also glad to learn from others <http://www.newsmakergroup.com/...>

0 ^ | v • Reply • Share

Co-Op (Group Work: Assignments) 520XP

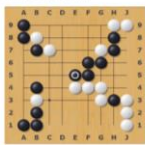
- ▶ 130XP- Create and present a GO based board game.
- ▶ 130XP-Create and present a concept for an early arcade game.
- ▶ 130XP-Create and present a concept for the ultimate game playing machine.
- ▶ 130XP-Create and present a concept for an (ARG) Alternate Reality Game.

Rules of Go!

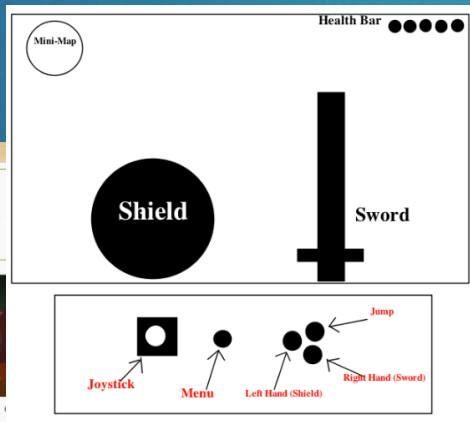
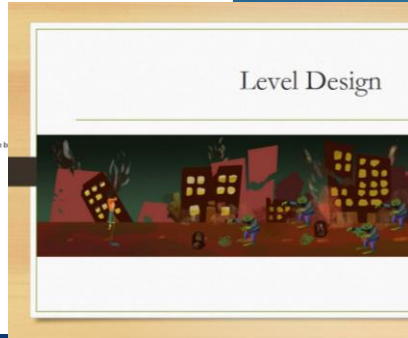
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Hint: Teams may find it useful to use the entire board's ability to claim the center.



In the game above, Black wins the match.



'Make anyplace, Anywhere!'



Puzzles (Quizzes): 100 XP Extra Credit

QUESTION 1

Which statement about early board games is NOT true?

- Game boards date as far back as 3000 BC
- Gaming has been around as long as recorded history.
- Many modern board games are simply evolutions of ancient games
- Board games were never adopted by other cultures as people traveled around the world

QUESTION 2

In 1833 this person conceived of a machine that could compute values of polynomial functions which was called the Difference Engine. While the machine would have worked in 1833 it was not actually built until 1991.

- Sigmund Freud
- Charles Babbage
- Charles Dickens
- Charlie Chaplin

QUESTION 3

Match the early computer game with its inventor.

<input type="text" value="Willy Higanbotham"/>	A. Tennis for Two
<input type="text" value="Nolan Bushnell"/>	B. Pong
<input type="text" value="Steve Russell"/>	C. Spacewar!
<input type="text" value="Ralph Baer"/>	D. Table Tennis

- ▶ You must get 100% on all quizzes.
- ▶ Quizzes may be taken an unlimited number of times
- ▶ All quizzes are open book and open note, however you may not work together.

Why this approach?

- ▶ Expectation of failure
- ▶ Arbitrary limitations to success
- ▶ Smart kids were not smarter
- ▶ Smart kids got better information

- ▶ Found dance
- ▶ Learned to work hard
- ▶ Learned to overcome challenges
- ▶ Learned to expect success
- ▶ Failure was necessary not something to avoid



Observing Art- Reveals you to yourself (Who are you)

Making Art- Reveals you to many forms of self (Who do you want to be)

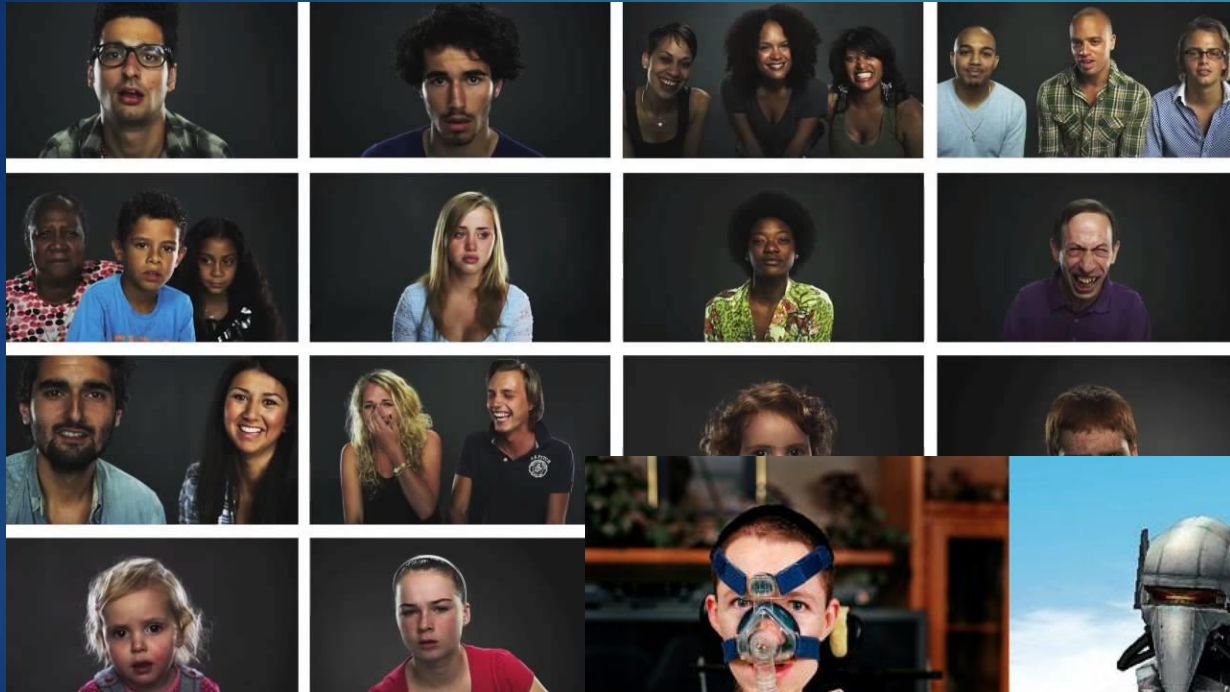


http://40.media.tumblr.com/tumblr_l8u8aulCHd1qzkofho1_500.jpg



<http://www3.pictures.zimbio.com/gj/Mouth+Foot+Painting+Artists+Hold+Their+Annual+o3rMSNdqIqFl.jpg>

Robbie Cooper Photos With a game you observe and make



<http://i.ytimg.com/vi/A7e5IE3ZW98/maxresdefault.jpg>



<http://graphics8.nytimes.com/images/2007/06/15/magazine/ava1.jpg>



http://cdn.theatlantic.com/static/mt/assets/culture_test/alterego15.jpg



http://the-other.info/wp-content/uploads/2013/12/The-Other_Home-of-Subcultures_Robbie-Cooper_Alter-Ego1.jpg



[What is 3D GameLab? »](#) [Updates](#) [Teacher Camp](#) [Pricing](#) [Guild Site](#) [Login](#)

Turn Class into a Game

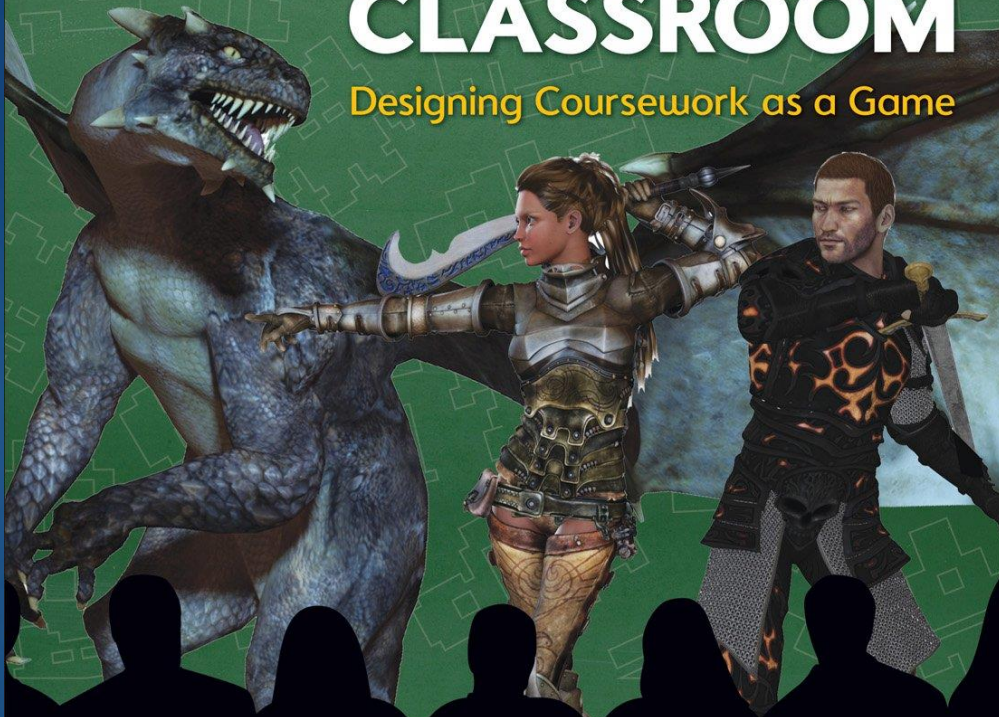
with quests and badge-based learning!



COURSE TECHNOLOGY
CENGAGE Learning
Professional • Technical • Reference

THE MULTIPLAYER CLASSROOM

Designing Coursework as a Game

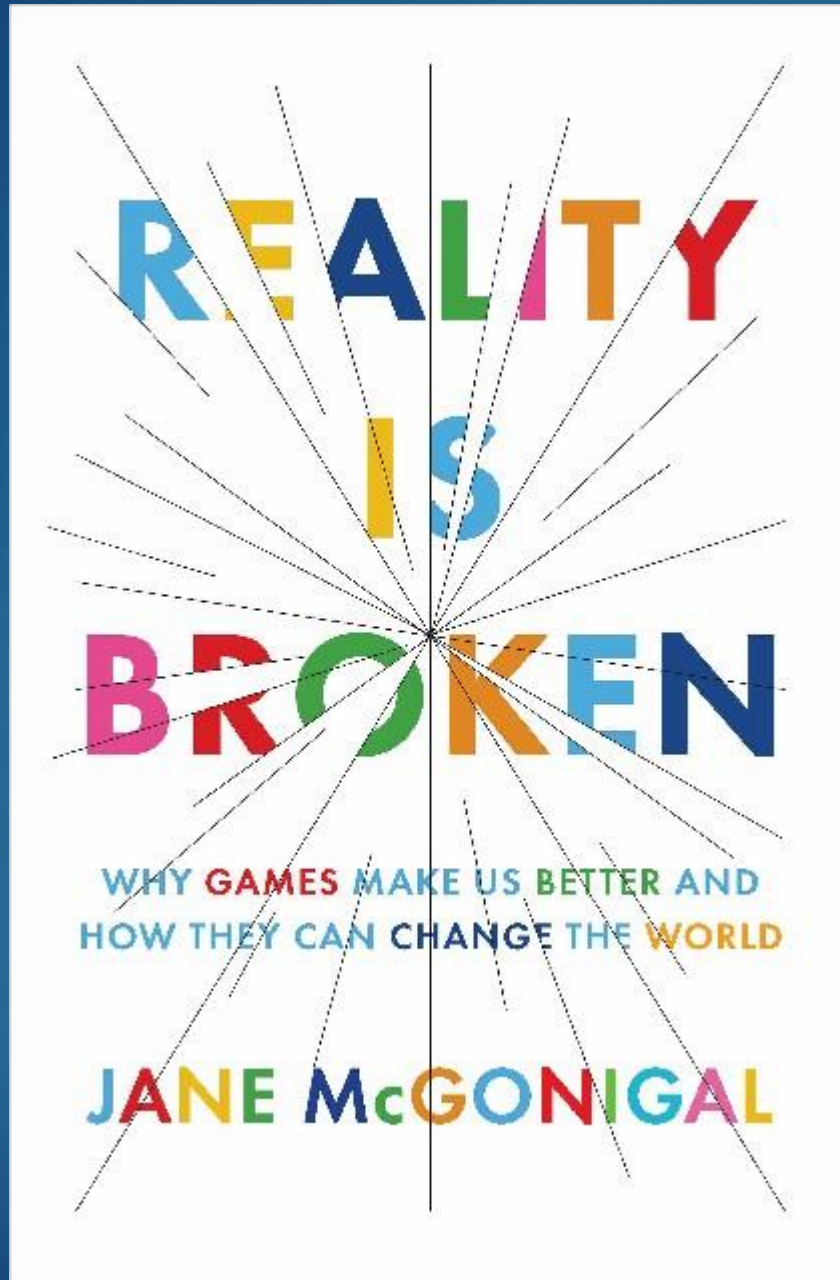


Lee Sheldon

http://blogs.elon.edu/technology/files/2014/05/multiplayerclassroom_cover.jpg



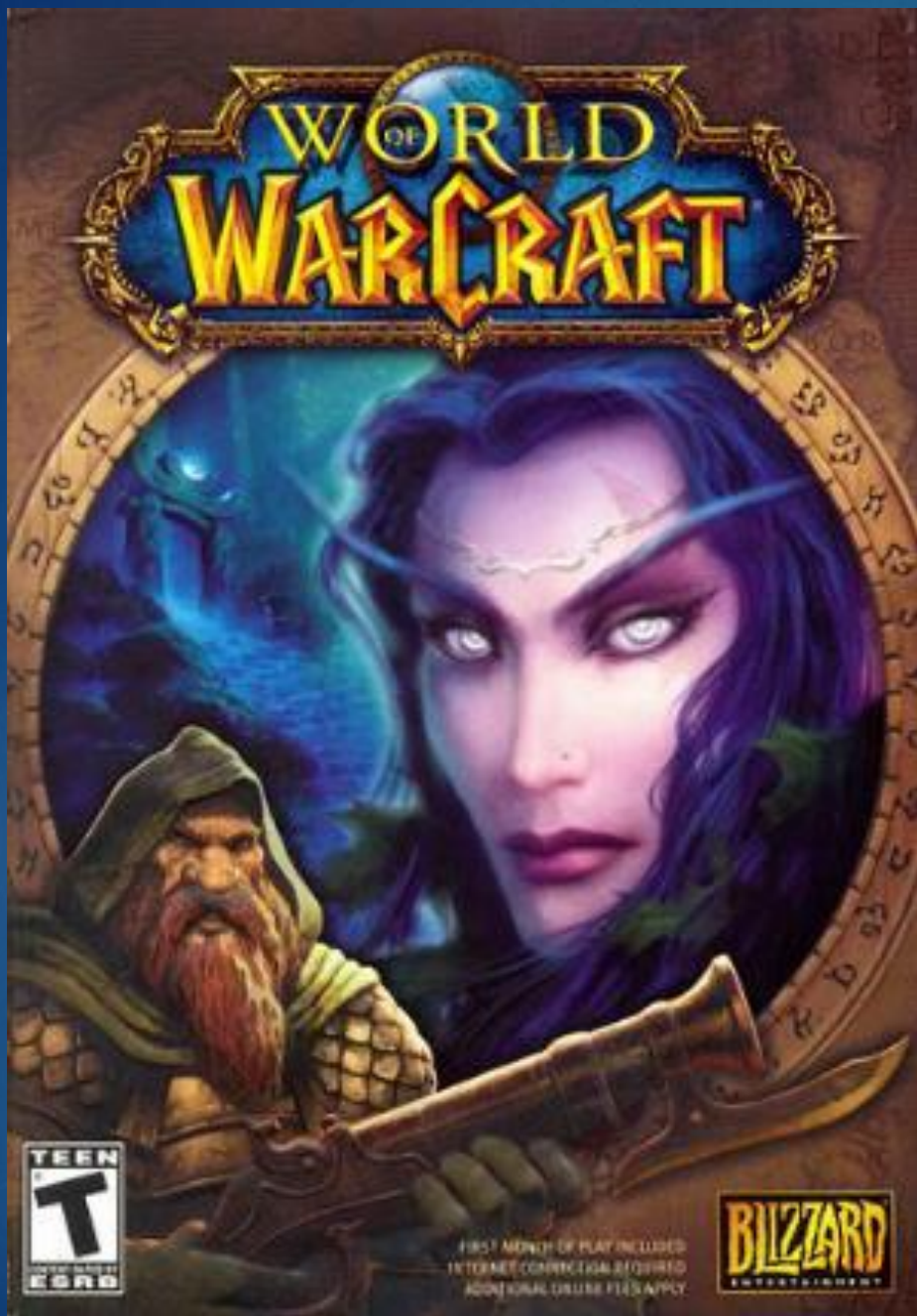
<http://hechingerreport.org/wp-content/uploads/leesheldon.jpg>



<http://lifeinleg.com/wp-content/uploads/Reality-is-Broken-421x640.jpg>



<http://nicoleskibolaesq.files.wordpress.com/2011/05/fora-tv-reality-is-broken-how-gaming-can-help-change-the-world-e13125123.jpg>



<http://ocremix.org/files/images/games/win/2/world-of-warcraft-win-cover-front-39238.jpg>



http://photos4.meetupstatic.com/photos/event/3/3/f/1/highres_4153297.jpeg

10,000 Hours

Your first 10
games will be
awful.
So get them
over quickly!

“It takes about ten years to make a mature dancer. The training is twofold. First comes the study and practice of the craft...Then comes the cultivation of the being from which whatever you have to say comes.”
- Martha Graham



Teach students
to make their first
4 (games)

Beginners do bad work

- ▶ The arts grade on improvement, not mastery

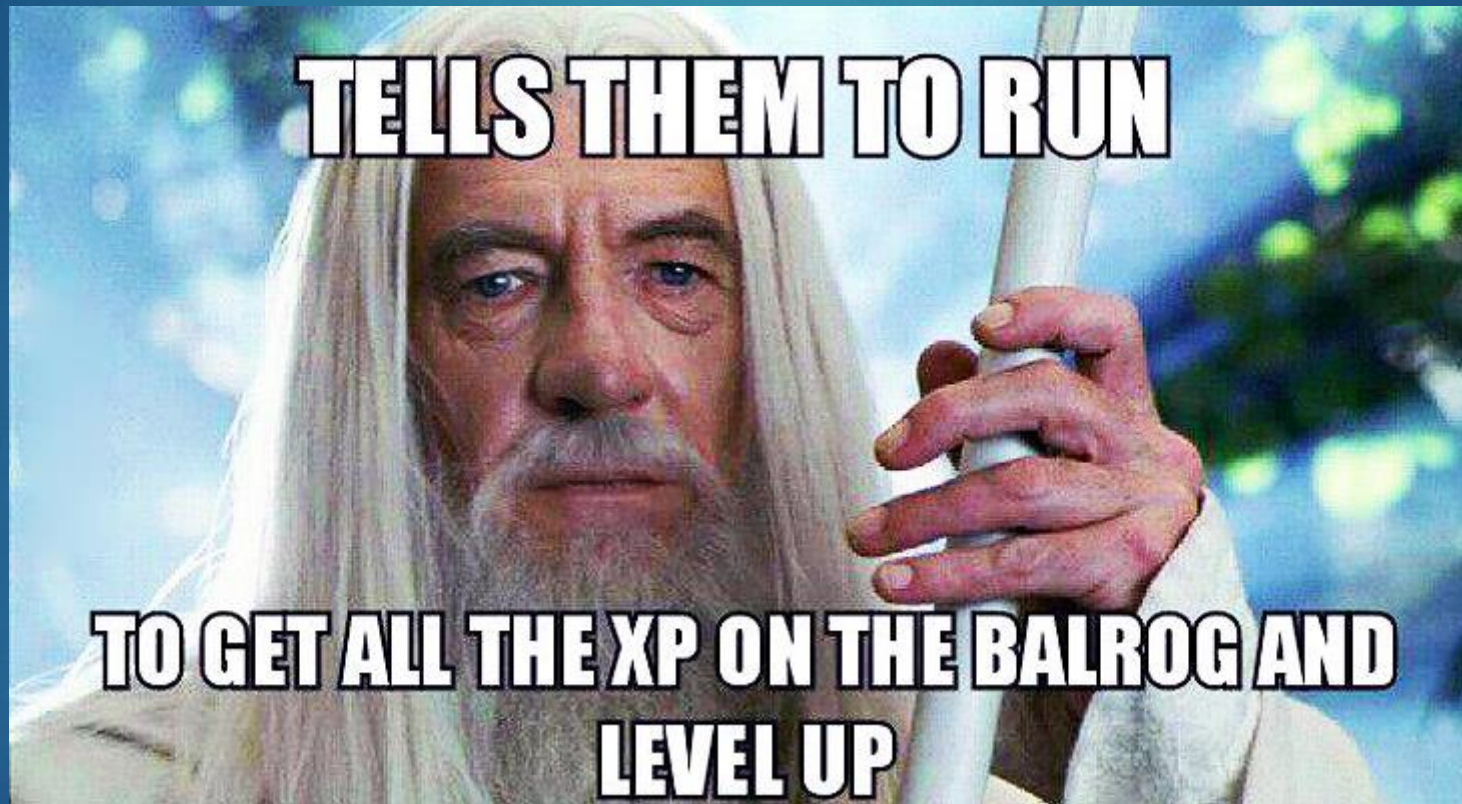


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<https://s-media-cache-ak0.pinimg.com/236x/76/74/fd/7674fdd6d78bf739a97f35a0f1350dfe.jpg>

Earn XP and Level Up (Progress)
Cultivate intrinsic motivation



Levels

Level	Name	XP	Letter Grade
25	Choreographer	1860-2000	A+
24	Dancer	1800	A
23	Dragon	1740	A-
22	Unicorn	1660	B+
21	Shape Shifter	1600	B
20	Warden	1540	B-
19	Healer	1460	C+
18	Ranger	1400	C
17	Mage	1340	C-
16	Rogue	1260	D+
15	Ghost	1200	D
14	Novice	1140	F
13	Meta	1040	F
12	Synergy	900	F
11	Gestalt	840	F
10	Trope	760	F
09	Flow	600	F
08	MDA	540	F
07	Script	460	F
06	Polygon	300	F
05	Pixel	240	F
04	Plane	160	F
03	Int	100	F
02	Float	60	F
01	Noob	0-40	F

