AET 318 FOUNDATIONS OF GAMES & PLAYABLE APPS

Course Sections

Instructor	TA	UID	Meeting Times	Room
David (D.S.) Cohen	Darwin Henderson	20607	Tues-Thurs 12:30pm to 2pm	DFA 4.112

Abstract

An introduction to the process of creating games from concept through publishing including aesthetics, design, production, and publishing.

Objective

Learn the fundamentals of design and development for the screen based interactive medium of video games,

Assessment

This course is project based. There will be no exams. Grading is based on successful completion of project objectives. Assignments are worth 40%, the final project is worth 30%, and the remaining 30% of the final grade is based on professionalism which is earned by attending class during the scheduled meeting times and conducting oneself in a professional manner.

No late work will be accepted. No incompletes will be given. If you feel you will not be able to complete all work on time, you should ask the instructor for a grade of Q or drop before the deadline for doing so passes.

Note: If you catch the flu, get a flat tire, or otherwise cannot attend class, please send an email and attach any class work as needed.

Final grades will be determined on the basis of the following rubric. Please note: to ensure fairness, all numbers are absolute, and will not be rounded up or down at any stage. Thus a B- will be inclusive of all scores of 80.000 through 83.999. The University does not recognize the grade of A+.

Letter grade equivalents:

A = 94-100
A- = 90-93
B+ = 87-89
B = 84-86
B- = 80-83
C+ = 77-79
C = 74-76
C- = 70-73
D+ = 67-69
D = 64-66
D- = 60-63
F = 0-60

REQUIRED File Format (Naming Convention):

Presentations, docs, spreadsheets, flowcharts, concept art, etc. File Format: PDF;
Game Builds – File Format: Executable file (.exe)

File Naming Convention:

If submitting as an individual...
FirstInitialLastname_AssignmentName_NumericDateSubmitted
Example: dcohen_conceptpitch_07042018

IMPORTANT: Do not use slashes (/) in the date, as the system will not accept it and it may not read correctly.

Classroom Policy

Devices

- Must be kept in silent mode unless an emergency notification is expected (please discuss this with me prior to class).
- Can be used for research and class note taking, but not for social media (unless related to class activities)

Food/Drink

- Food is not allowed in class.
- Drinks in closed containers are permitted but must be kept on the floor or out of sight when not in use.

Required Equipment

All students MUST have access to a portable computer capable of running the **Unity 2018.2** game engine. Either Mac or PC is fine.

UT Electronic Mail Notification Policy

Electronic mail (e-mail) is a mechanism for official University and instructor communication to students. Students are expected to check e-mail on a frequent and regular basis in order to stay current with University- and course-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week.

It is the responsibility of every student to keep the University and instructor informed of changes in his or her official e-mail address (do so at https://utdirect.utexas.edu/utdirect/bio/address_change.WBX).
Consequently, e-mail returned to the University with "User Unknown" is not an acceptable excuse for missed communication. Similarly, undeliverable messages returned because of a full inbox or use of a spam filter will be considered delivered without further action required of the University or instructor. (see http://www.utexas.edu/cio/policies/university-electronic-mail-student-notification-policy)

Use of Class Materials

The materials used in this class, including, but not limited to, exams, quizzes, and homework assignments are copyright protected works. Any unauthorized copying of the class materials is a violation of federal law and may result in disciplinary actions being taken against the student. Additionally, the sharing of class materials without the specific, express approval of the instructor may be a violation of the University's Student Honor Code and an act of academic dishonesty, which could result in further disciplinary action. This includes, among other things, uploading class materials to websites for the purpose of sharing those materials with other current or future students. (from https://wikis.utexas.edu/display/coursematerials/Sample+Use+Statement+for+Syllabus)

Attendance/Absences

Attendance is tied directly to your professionalism grade. Missing a class will result in a zero professionalism grade for that day. If attending a scheduled class meeting is not possible, students are expected to promptly notify the instructor of extenuating circumstances (hospitalization, death in the family, etc.). In addition, see the exception below for religious holy days.

Arriving more than ten minutes late at the beginning of class or after a break, leaving class without permission, and leaving class prior to dismissal for the day all count as being tardy. Ponts will be deducted from your professionalism grade for each of these occurrences.

Religious Holidays

Section 51.911 of the Texas Education Code states that a student shall be excused from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University policy requires students to notify each of their instructors at least fourteen days prior to the date they will be absent from scheduled classes to observe a religious holy day. (from http://www.utexas.edu/provost/policies/religious_holidays/1555_001.pdf)

Q Drop Policy

The State of Texas has enacted a law that limits the number of course drops for academic reasons to six (6). As stated in Senate Bill 1231:“Beginning with the fall 2007 academic term, an institution of higher education may not permit an undergraduate student a total of more than six dropped courses, including any course a transfer student has dropped at another institution of higher education, unless the student shows good cause for dropping more than that number.”

Classroom Etiquette

Please observe the following rules during class as a courtesy to fellow students and the instructor. These will have an impact on your professionalism grade, so it is important that you follow these guidelines...

1) Be on time at the beginning of class and after each break. If you must come in late at the beginning of class, please enter the room and seat yourself as quietly and unobtrusively as possible. And please don’t hold up the entire class by failing to return promptly at the end of an

announced break, since often the second part of the class period is when we will engage in group activities.

2) Turn your cell phone off or on silent, and put it away. Looking at your cell phone during lectures, exercises and discussions is not acceptable. Use your computer for taking notes, not your cell phone.

3) Don't distract other students. Everyone benefits from a classroom free of distracting sights, sounds, and smells. If you would like to update your Facebook page, talk to your friends, listen to loud music, polish your nails, doodle with Sharpies, Sleep etc., please do so outside the classroom during breaks.

4) Headphones and sunglasses are not allowed to be worn during lectures, exercises or discussions. Even if your headphones are not playing music, they should never be in your ears during these times.

Academic Integrity

The University's Honor Code states that "As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity." You are expected to maintain absolute integrity and a high standard of individual honor in scholastic work undertaken at the University. At a minimum, you should complete any assignments, exams, and other scholastic endeavors with the utmost honesty, which requires you to:

- acknowledge the contributions of other sources to your scholastic efforts;
- complete your assignments independently unless expressly authorized to seek or obtain assistance in preparing them;
- follow instructions for assignments and exams, and observe the standards of your academic discipline; and
- avoid engaging in any form of academic dishonesty on behalf of yourself or another student.
  (adapted from http://deanofstudents.utexas.edu/sjs/acint_student.php)

Academic Dishonesty

- In promoting a high standard of academic integrity, the University broadly defines academic dishonesty as including any act designed to give an unfair or undeserved academic advantage, such as:
  - Cheating
  - Plagiarism
  - Unauthorized Collaboration / Collusion
  - Falsifying Academic Records
  - Misrepresenting Facts (e.g., providing false information to postpone an exam, obtain an extended deadline for an assignment, or even gain an unearned financial benefit)
  - Multiple submissions (submitting essentially the same written assignment for two courses without authorization to do so)
  - Any other acts (or attempted acts) that violate the basic standard of academic integrity
  - (adapted from http://deanofstudents.utexas.edu/sjs/acadint_whatis.php)
  - Students who violate University rules on academic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University.
    (from http://deanofstudents.utexas.edu/sjs/acint_faculty_syllabus.php)

Plagiarism

"Plagiarism" includes, but is not limited to, the appropriation of, buying, receiving as a gift, or obtaining by any means material that is attributable in whole or in part to another source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one's own academic work being offered for credit or in conjunction with a program course requirement (from Sec. 11-402, http://catalog.utexas.edu/general-information/appendices/appendix-c/student-discipline-and-conduct/).

Copyright and Fair Use

Understanding the basic principles of copyright and fair use is of critical importance to designers. Many of the uses we will make of texts, images, and videos this semester will be covered by the doctrine of fair use. However, as creators, you need to be aware of your own and other copyright holders' legal rights, and to properly identify and license your own and others' works. We will discuss these issues during the semester as needed, but when you have questions about whether or when you can appropriate someone else's work, a useful resource is Georgia K. Harper's Copyright Crash Course, available at http://copyright.lib.utexas.edu/.

Services for Students with Disabilities (SSD)

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact Services for Students with Disabilities (512-471-6259, ssd@austin.utexas.edu, http://ddce.utexas.edu/disability/, or videophone 512-471-6644). Please provide documentation of your needs during the first week of class, if possible, so that I can make the necessary accommodations promptly.

Student Support Services

There are numerous free and/or low-cost support services available to students at UT. They include (but are not limited to) the following:

Fine Arts Career Services (512-232-7333, utexas.edu/finearts/careers) provides a full range of services and resources to support students and alumni.

The Undergraduate Writing Center
(512-471-6222, uwc.utexas.edu) helps students with every phase of writing assignments for their courses.

The Sanger Learning Center (512-471-3614, utexas.edu/ugs/slc) provides study skills, time-management, and note-taking courses.

University Health Services (512-471-4955, healthyhorns.utexas.edu) provides medical and health promotion services for currently enrolled students and some non-students who are officially enrolled in certain University programs.

The Counseling and Mental Health Center (512-471-3515, cmhc.utexas.edu) helps students with their personal concerns so that they can meet the daily challenges of student life.

Behavior Concerns Advice Line (BCAL)

If you are worried about someone who is acting differently, you may use the Behavior Concerns Advice Line to discuss by phone your concerns about another individual's behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit http://www.utexas.edu/safety/bcal.

Emergency Procedures

Mass e-mails (in addition to sirens and fire alarms, when appropriate) will be used to provide students, faculty, and staff with information regarding potential threats to the safety and security of the campus community. E-mails will also be used as a way to notify students, faculty, and staff of emergency situations and keep them updated on the situation. Emergency officials also have the ability to disseminate important information via text message directly to the cell phones of users subscribed to the service. Please consider subscribing to this service at https://utdirect.utexas.edu/apps/csas/text/main/.
(adapted from
http://www.utexas.edu/safety/preparedness/plans/EmergencyManagementPlan2013a.pdf

Overview of Schedule

Please be aware that on occasion the order and timing of the course schedule may need to be altered to accommodate UT closures, instructor illness, student needs/interests, and design program workshop opportunities and lectures. Any significant alterations to the schedule will be announced via Canvas.

Reading assignments and an agenda for each day of class will be posted to Canvas.

Calendar

Note – This is outline, assignments, and reading are subject to change by the instructor, without notification in certain cases.

1 Week of 1/21 (Classes start 1/22	In Class: ● Course Intro ● What is game development? ● Saving to the Cloud (UT Box, Dropbox, Google Drive) REQUIRED ● Claim your UT Gmail **HW**: ● I Have No Words and I Must Design ● Install Unity ● Using the Unity Interface (Due Week 2, Class 1)	
	In Class: ● Lecture/Discussion: Game Design (Role, types, approaches) ● Design Kits for Project 1 - Create three challenges using your design kit. ● Possibility Space. Intro to Explorational Game Design. **HW:** ● Begin Project 1: Create three (non-Themed) challenges using	Project 1: Exploration Design Kits

	Design Kit	
2 Week of 1/28	In Class: ● Playcentric design (Decision making on based player feedback) ● Playtesting and Iteration **HW:** ● Playtest Project 1 with three non-students. Adjust design based on feedback, document what you've learned. ● Exercise 1 - Review the Unity Tutorial "Play & Edit Mode" then submit the Unity Project outcome.	
	In Class: ● Lecture/Discussion - Design Documentation **HW:** ● Write a design brief of your three challenges - Include layouts and walkthroughs	
3 Week of 2/4	In Class: ● Lecture/Discussion - Postmortems ● Review creating a single PDF from your work ● Lab: Write a postmortem of your project **PROJECT 1 DUE AT THE END OF CLASS** **A single PDF containing:** ● **Video Playthrough** ● **Design Brief for all three challenges with Photos walking through design** ● **Playtest results** ● **Postmortem** **HW:** ● Essential Unity Concepts	
	In Class: ● Lecture/Discussion - Mechanics, Dynamics. ● Intro to Project 2 **HW:** ● Begin Project 2 ● A Theory of Fun for Game Design Chapters 1 - 4 ● Exercise 2 Review "Game Objects & Components" and "Tweaking Components" then submit the Unity Project outcome.	Project 2: Exploration Exercise 2
4 Week of 2/11	In Class: ● Design Reboot **HW:** ● Continue Project 2 ● Live Sessions on Unity Interface and Essentials	
	In Class: ● LAB **HW:** ● Continue Project 2	
5 Week of 2/18	In-Class: ● Playtest with three non-students. **HW:** ● Adjust design based on feedback, document what you've learned.	

	In Class: ● Write a postmortem of your project. **PROJECT 2 DUE AT THE END OF CLASS** ● **Submit a build (.exe with supporting files)** ● **Video playthrough** ● **A single PDF containing: Playtest results** ● **Postmortem** **HW:** ● Lighting - Lights & Shading Basics	
6 Week of 2/25	In Class: ● Lecture/discussion: Project 3 Intro **HW:** ● Begin Project 3 ● Exercise 3 - Review the Unity Tutorial "Prefab Power" then submit the Unity Project outcome	Project 3: Exploration
	In Class: ● LAB **HW:** ● Continue Project 3	
7 Week of 3/4	In Class: ● Lecture/Discussion - Game Artist (Roles, Type, Establishing/Communicating Visual style) **HW:** ● Continue Project 3 ● Asset Store Basics ○ Using the Asset Store ○ Access the Asset Store from the Project	
	In Class: ● LAB **HW:** ● Playtest with three non-students. Adjust design based on feedback, document what you've learned.	
8 Week of 3/11	In Class: ● Lab and Write a postmortem of your project **PROJECT 3 DUE AT THE END OF CLASS** ● **Video playthrough** ● **Submit a build (.exe with supporting files)** ● **A single PDF containing: Playtest results** ● **Postmortem** **HW:** ● Exercise 4: In your Project 3 submission, replace the player character an environmental items with game models from the Unity Asset Store or of your own creation. This must be a full replacement, not a change in texture.	
	In Class: ● Lecture/Discussion: Paper Prototyping ● Introduction for Project 4 **HW:** ● Begin Project 4 ● Build and test out 1 level design structure for Project 4 with a paper prototype.	Project 4: Exploration

9 Week of 3/18	**Spring Break: No Class**	
	Spring Break: No Class	
10 Week of 3/25	In Class: ● Lecture/Discussion: Game Tech (Roles, Purpose, Tools, Planning and Communicating) **HW:** ● Playtest with three non-students. Adjust design based on feedback, document what you've learned.	
	In Class: ● Lecture: Game Audio (Roles, Purpose, Process) ● Write a postmortem of your project **PROJECT 4 DUE AT THE END OF CLASS** ● **Video playthrough** ● **Submit a build (.exe with supporting files)** ● **A single PDF containing: Playtest results** ● **Postmortem** **HW**: ● Review Tutorial on integrating Sound and Music to Unity Projects	
11 Week of 4/1	In Class: ● Lecture/Discussion - Intro to Project 5. Theme Jam!! ● Mood Boards **HW:** ● Begin Project 5. Mood Boards, 3 themes (NO FAN ART OR MEMES!), pick one theme and submit it for approval.	Project 5: Theme and Prototyping
	In Class: ● Lecture/Discussion: Phases of Game Development ● Prototyping ● Theme check in. Must have Theme approved before moving forward. **HW:** ● Build a single level to prototype your theme you will be using for your final project.e, Must integrate theme, design, and art. Write a design brief explaining your theme	
12 Week of 4/8	**In Class:** ● Lecture/Discussion - What is Level Design? **HW:** Playtest Prototyped level. Integrate changes based on what you learned.	
	In Class: ● Lab **PROJECT 5 DUE AT THE END OF CLASS** **Submit a build (.exe with supporting files)** **A single PDF containing:** ● **Video Playthrough** ● **Design Brief**	

	● **Playtest results** ● **Postmortem** **HW:** Create a design brief explaining the prototyped level, visual style, and process you will be following for the final project (Project 6)	
13 Week of 4/15	In Class: ● Lecture/Discussion: Game Production (Roles, Purpose, Process) ● Intro to Project 6 (FINAL) **HW:** ● Begin work on Project 6	Project 6: Final
	In Class: ● Lab and Project Check In **HW:** ● Continue Final Project (Project 6)	
14 Week of 4/22	In Class: ● Lecture/Discussion: Game Publishing and Business **HW:** ● Continue Final Project (Project 6)	
	In Class: ● Lecture: Creating an online presence **HW:** ● Playtest Final Work in Progress, integrate changes based on Feedback ● Begin building ArtStation and Itch.io pages	
15 Week of 4/29	In Class: ● Lecture/Discussion: QA In Game Development **HW:** ● Continue Final Project (Project 6)	
	In Class: ● LAB/Playtesting **HW:** ● Adjust final project based on playtest feedback	
16 Week of 5/6	In Class: ● LAB/Check-In **HW:** ● Postmortem ● Finalize Final Project (Project 6) and prepare for submission next class.	
	In Class: ● Lecture/Discussion: Where to go from here **FINAL DUE - Due at end class** ● Submit a build (.exe with supporting files) ● Video of full playthrough ● A single PDF containing: ○ Design Brief ○ Moodboard of final theme you used ○ Playtest results Postmortem ○ Submit final ArtStation and Itch.io Page	

Units of Study

1. **Explorational Game Design**
    - Use explorational game design techniques to discover gameplay and create interesting play opportunities.
2. **Elements of Game Design**
    - Readings and discussion of important design topics
    - Theme development and content considerations.
3. **Level Design Fundamentals**
    - Prerequisites for engaging in level design.
    - Creating meaningful play.
4. **Game Development**
    - Structure and process of studio based game development
    - Discussions and exploration of disciplines within game productions

Process

Projects

Students will work individually using explorational game design techniques to discover play opportunities within interactive systems, develop theme, and create level design.

Projects 1 - 4: Explorational and Playcentric Game Design

Utilize Explorational Game Design[1] techniques to create 3 different challenges based on discovered gameplay opportunities in the provided starter materials. It's CRITICAL that NO additional content be added, however duplication/modification of the starter assets/systems is allowed - provided functionality is NOT significantly changed and visual changes are limited to primitive shapes and colors. These constraints are essential to the process.

Game designs will then be playtested and iterated upon to focus on the player experience.

Projects which contain superimposed, significantly modified, or additional content will receive a grade of 0. DO NOT under any circumstances add representational or thematic content. No Exceptions.

Project 5: Theme and Story

Choose one of the previous three projects and develop a theme and/or story which aligns with discovered gameplay and integrate themed assets into the project. Build a single level prototype example, representative of the final game.

Once you've completed your prototype, write a design brief of your design.

[1] https://goo.gl/DWB5jP, Design Reboot, Jonathan Blow (2007)

Project 6: Final

Design a sequence of 5 levels which plot a clear progression. Progression can be based on difficulty, story, theme, etc. Consider using challenges or obstacles to create this sequence. Create a successful build which starts with level 1 and allows the player to progress to level 5. The levels should be playable by anyone in the class with minimal practice. In other words, the levels should not be too difficult to complete.

Integrate final themed assets and refine/balance gameplay. Students are encouraged to create their own themed assets, but purchased asset kits may also be used. As with Project 6, the final must function as a playable build which starts at level 1 and ends with level 5. A starting menu screen is optional.

Requirements:

- Submit final executable on itch.io
- Final hi res images and breakdown on ArtStation showing workflow breakdown and explaining each step in your process from concept to completion.
- Single PDF Containing
    - Links to itch.io and ArtStatio
    - Mood Board of final theme
    - Design Brief
    - Breakdowns with final images
    - Playtest Results
    - Postmortem
- Submit zip file to Canvas containing:
    - Final executable with supporting files
    - Video of full game Playthrough

Exercises

Students will engage in tutorials, readings and activities focused on building their knowledge of game development roles, tools, and process.

Exercise 1

- Review the Unity Tutorial "Play & Edit Mode" then submit the Unity Project outcome.

Exercise 2

- Review the Unity Tutorial "Game Objects & Components" and "Tweaking Components" then submit the Unity Project outcome.

Exercise 3

- Review the Unity Tutorial "Prefab Power" then submit the Unity Project outcome

Exercise 4

- In your Project 3 submission, replace the player character and two environmental items with game models from the Unity Asset Store or of your own creation. This must be a full replacement, not a change in texture.

Required Viewing/Reading

Unity Tutorials:

- ***Using the Unity Interface***
- **Essential Unity Concepts**
- **Live Sessions on Unity Interface and Essentials**
- **Lighting - Lights & Shading Basics**
- **Asset Store Basics (Due**
  - Using the Asset Store
  - Access the Asset Store from the Project

- **A tutorial on importing and using 3d models**

- **A high level tutorial on scripting basics for unity (editor, how to access, how to edit, how to add scripts)**

- **A high level tutorial on adding music and sound effects.**

Elements of Game Design

- ***Possibility Space* (Will Wright, 2006):**
  - A conceptual region which defines the range of possible player activities within a game.
  - https://goo.gl/7n55Qn, *Dream Machines*, Will Wright (2006)

- ***Kinesthetics***:
  - The sensation of movement of one's physical body. This is related to proprioception which describes the sensation of position and orientation of limbs and muscle strain. When considered in the context of the rapid feedback loops in screen based games, Kinesthetics is perhaps THE primary characteristic which defines videogames as a unique medium.
  - https://goo.gl/HLjKWY, *Kinaesthetics*, Errant Signal (2012)

- ***Explorational Game Design*:**
  - Also known as Forward Game Design[2] and related to emergent gameplay, this idea was introduced by Jonathan Blow in his GDC 2007 talk Design Reboot. Explorational Game Design (EGD) can be viewed as a "bottom up" approach to designing play systems in that the process requires designers to develop their "listening" skills in order to discover the latent play possibilities within interaction mechanics. This is contrasted with the more traditional "top down" approach (referred to as architected design by Blow) which subverts all development in service of a design document. Explorational Game Design is generally a more reliable means of creating meaningful play experiences as thinking through the play possibilities of a dynamic interactive system is nearly impossible for most

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humans.
    - https://goo.gl/DWB5jP, *Design Reboot*, Jonathan Blow (2007)
    - https://goo.gl/oKuL5s, *Today I'm Going to Design an Ernesto Boss*, Daniel Benmergui (2014)

- ***Endogenous Meaning:***
    - Proceeding from within; derived internally. A game's structure creates its own meanings. Explorational and Forward Design techniques seek to discover the endogenous meaning of interactive systems.
    - https://goo.gl/fjHgwY, *I Have No Words and I Must Design*, Costikyan (1994),

- ***Mechanics*:**
    - Discrete actions which change the state of the game world. Players and Non-player agents interact with mechanics during play. e.g. jump, move, collect, shoot, score.

- ***Dynamics*:**
    - Sometimes referred to as emergent gameplay, dynamics are the result of mechanics combined through play. e.g. move and jump are combined to create platformer gameplay.

- ***Aesthetics:***
    - The "content" of games which exists in the realm of emotion and sensation. In an applied sense, aesthetics can refer to any and all of the following: visual design, story, play systems, values, endogeny, ludonarrative meaning, and any other content not easily defined as mechanics, dynamics, or play systems.

- ***Game Feel/Juice*:**
    - The intangible yet essential quality of a gameplay experience which defines the "feel" of interaction. Closely related to the harmony between kinesthetics and audiovisual feedback, Game Feel or Juice is essential for engagement, especially for action games.
    - https://goo.gl/BSLHMx, *Secrets of Game Feel and Juice*, Mark Brown (2015)

- **Rewards:**
    - Symbolic tokens which mark progress in games. ***Intrinsic*** rewards occur in the player's brain in the form of chemical releases associated with pattern recognition and problem solving. ***Extrinsic*** rewards are given to the player by the game. They have no value outside the context of the game systems. The simplest type of extrinsic reward is the schedule reward, which is a token given to the player when a clearly defined task is completed.

- ***Ludonarrative and Ludonarrative Dissonance***
    - Ludonarrative is the "story" generated through play. In open world games, this story is unique to the each player as their decisions during play determine a course of events. In story driven games or those with a distinct imposed narrative, play is often limited and serves only to unlock the next part of a predetermined sequence. Ludonarrative

Dissonance is said to occur when a game's narrative and its play systems conflict. i.e. when a game's systems permit only actions which conflict with the in-game story. The term originated in a game criticism context by Clint Hocking. Some designers view Ludonarrative Dissonance as a tool.

- https://goo.gl/4X4VFN, *The Debate That Never Took Place*, Errant Signal (2015)
- https://goo.gl/uk65TJ, *Ludonarrative Dissonance in Bioshock*, Hocking (2007)

- **Flow**:
  - Defined by Mihaly Csikszentmihalyi (Meehai, Chik-sent-meehai) in 1975. Flow is the mental state of operation in which a person performing an activity is fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process of the activity. In game design, the "flow channel" is a conceptual model which defines a region in which players enjoy maximum engagement while completing tasks of increasing difficulty.

- ***LeBlanc's Taxonomy***:
  - Aesthetics defined in the MDA framework as an attempt to more precisely describe "fun" and "gameplay". The taxonomy includes: Sensation, Fantasy, Narrative, Challenge, Fellowship, Discovery, Expression, and Submission; and is intended as recombinant utility for analyzing game content.
  - https://goo.gl/32LeXX, *MDA: A Formal Approach to Game Design and Game Research*, Hunicke, LeBlanc, Zubek (2004)

- ***Bartle Types***:
  - A classification of player types in terms of play motivation: Killers, Achievers, Explorers, and Socializers. Later Bartle mapped the types on 2 axes relative to play goals: Acting - Interacting, and Players - World. The Bartle types are often misinterpreted as describing a player's single motivation, while in reality players may engage in each of the four types (or many more) at different times during a play session.
  - https://goo.gl/X2gyBf, *Hearts, Clubs, Diamonds, Spades: Players Who suit MUDs,* Richard Bartle (1996)

- **Affordance**
  - (James Gibson 1977): A relation between and object and organism. Affordances are the "action possibilities" latent in the environment which are dependent on an agent's capabilities. e.g. a door knob or teacup handle. As a design tool, affordances can be used to create play depth or by extension, suggest player actions, or manipulate players expectations.
  - J. J. Gibson (1966). *The Senses Considered as Perceptual Systems*. Allen and Unwin, London.

Designing Play Experience

Video games are interactive screen based experiences.

Their systems are dynamically manipulated by players and provide a high speed continuous feedback loop - these are THE distinguishing features of the medium which set it apart from tabletop games, sports, and other screen based media.

Games should be FUN.

This oft invoked phrase represents a misunderstanding of why videogames are compelling. Evidence suggests that player engagement is directly correlated with chosen meaningful work[3] - the results of which can foster a sense of accomplishment, reward, awe, surprise, joy, appreciation, delight, content, or satisfaction to name a few.

When exploring a game idea, use the following list to develop the play experience:

- Screen based interactive experiences such as videogames function like a ***conversation***. The player “speaks” through the controls and inputs, and the game “replies” by updating the game state.
- ***Engagement*** (a.k.a Fun) results from pattern recognition (***learning***), decision making (***strategy***), and problem solving (***feedback***).
- Games ***teach*** by exposing ***patterns*** and providing feedback to the player.
- Players learn by employing strategy and ***interacting*** with the game world.
- Strategy (or ***informed decision making***) is only possible in the presence of clear patterns and feedback.
- ***Obstacles*** are learning opportunities which advance the player's knowledge and understanding of the game world.
- ***Challenges*** are reinforcement opportunities which confirm/expand the player’s knowledge of game systems.
- ***Intrinsic*** and ***extrinsic rewards*** mark player progress.
- Players are generally motivated by ***meaningful play (or work)***, which manifests in different forms at different times. Some of these are: skill mastery, social connection, exploration, story, achievement, reward, collection, fantasy, challenge, discovery, expression, fellowship, competition, distraction, culture, and many others scattered across the wide spectrum of human drive and desire.
- The relationship between ***theme***, ***narrative***, and ***play*** systems should be clear and symbiotic - even if in an unexpected way.

[3] https://goo.gl/TSP7iJ, *Reality is Broken*, Jane MacGonigal (2010)

NOTES