CCTP-599 I
Digital Game Design Studio

Syllabus v 1.1
Fall 2017
Prof. Garrison LeMasters

"Games are basically operas made out of bridges." Frank Lantz, NYUGC

Material in this syllabus CC Garrison LeMasters, where applicable.

An informal note about the nature of this syllabus:

If the study of games is academically suspect, then the study of game *design* is surely beneath contempt. And yet, there are a surprising number of Game Design Studios, linked to reputable academic programs, and scattered about the globe. These studios typically serve as business incubators, internship sites, research facilities, dev studios, training facilities, sources of modest revenue, and even generators of institutional caché.

They adopt the language of Computer Science as their *lingua franca* because the myriad disciplines and knowledge domains required to make sense of these fields necessarily overwhelm the humanist approach. Only the problem-focused, solution-oriented framework of electrical engineering can ignore the rapid-fire catalogue of human misery, greed, triumph and transcendence that is performed (and forgotten!) on tabletops and laptops both, billions of times an hour.

Dispense with Computer Science and the topic rapidly threatens to fly apart. This syllabus is a reflection of that fact. By turns micro- and macro-, this document tries to account for the fact that this semester's study is abject: Alien to the academic experience we've all worked so hard to master by this point. We'll work to smooth some of this out as the semester wears on, but with so much challenging social, cultural, historical, and mathematical material to master, we will have to develop our own *Realakademie en route*.

Class sessions

Our class meets on **Tuesdays**, from **11AM to 1:30PM**, in CarBarn 318. NB: *Class will begin promptly at 11AM.*

We may, from time to time, host CCT game nights; attendance at these is encouraged, but optional.

Contact Information

We'll make use of myriad online services this semester: I'll share code with you from GitHub; I use codepen.io as a live, fork-able whiteboard, and so forth. To wit:

garrison.lemasters@georgetown.edu

garrison@colophon.org

@glemasters (Twitter)

LeMasters (GitHub)

@garrison (codepen.io)

garrison (Steam)

PaleFirer (XBox Live)

202.271.XXXX (sms/vox)

Office Hours

Please make a point of coming to see me outside of class at least once this semester. Since drop-in appointments often overlap, it is always best to send an email ahead of time, to make me aware of when you may stop by.

Office 300c, CarBarn (near the main stairs).

Monday: 9AM-10AM, 2PM-4PM
Tuesday: 9AM-10AM, 2PM-4PM
Friday: 9AM - 3PM(when possible)

Others by appointment. I'm happy to meet with you via Skype if that is more convenient.

Course Description

Grounded in readings, step-by-step video tutorials, case studies, fieldwork and weekly workshops, and informed by our experiences as players and gamers, this course provides practical instruction and experience in the design of games and game mechanics. Drawing on games both contemporary and ancient, digital and analog, this course helps students understand games as aesthetic, rhetorical, procedural, and cybernetic systems.

Students will create, playtest, and present analog and digital game mechanics in response to weekly challenges. We will make regular use of Post-Its, index cards, rubber bands, and dice. Depending on their interests, students may additionally make use of Construct 3, a javascript-based 2D game development environment (Scirra, 2017) and/or Pico-8 (Lexaloffle Games, 2015), an 8-bit retro "fantasy console" programmable in Lua.

Course Caveat

All students will be expected to develop a working knowledge of Construct 3 (easily accomplished in five hours or less). Aside from a few specific assignments, however, students are invited to design with bits, atoms, or both, as they see fit.

In any event, **note that this course will not train you to be a professional game designer, a UX specialist, or a 9-5 programmer**. With luck, however, it may convince you that each of these specialities has a lot to offer 21st Century thought, and help you find basic competence in them.

Course Requirements

Required Texts

I will provide you with a digital **course reader** at our third meeting. *It is not for distribution beyond our class.* There are many pages: If you don't already make use of a PDF reader to review and annotate articles and books, make a point of learning to do so this semester. Please be sure to bring your course reader to class with you every week, along with the notes, insights, and questions you have jotted down while reading.

Required Technologies

You'll spend the semester making prototypes from bits and atoms.

Bits

You'll have the opportunity to make significant use of either **Construct 3** (Scirra, 2017), **Pico-8** (Lexaloffle Games, 2015), or both. You may need to purchase or rent a license for the software, but it is relatively inexpensive (the equivalent of a few cups of Starbucks Coffee at most). Do not purchase or rent the software until you and I have decided which one will best suit your needs. We'll discuss this software in greater depth during the third week of classes.

If you do a lot of work with Construct 3, you may consider purchasing pre-made digital art for your work from a site like **opengameart.org**, outsourcing your art requirements to a platform for custom creation like **fiverr**, or using a program like **Spriter** (Brash Monkey, 2015) to create animated sprites yourself. This is a decision to reserve for the second half of the semester.

Atoms

We'll spend a lot of time thinking about the player this semester, and the worlds she encounters through the games we build. "Thinking" in this case is not a purely mental activity: Taking a cue from the maker community, we will "think through things."

These are the kinds of materials that I find useful to have on-hand when prototyping ("thinking through things"). Most of this stuff can be found on Amazon.com, or at local toy shops, game shops, or office supply stores. You may already have much of it in a junk drawer somewhere, or between couch cushions. Remember that this list is just a set of suggestions, not a shopping list. One of the pleasures of prototyping comes from the surprising complimentarity of a needful substitution.

> five or more six-sided dice;
> several polyhedral dice (d8, d10, d20);
> some dominos, Scrabble tiles, or plastic coins;
> some A3+ (or larger) sheets of heavy paper (kraft paper will do, too);
> fine-tip colored markers, index cards, bits and pieces from other board games;
> toy soldiers, Legos, Post-Its.

Course Assessment

There are eight assignments and a final project. I will drop the lowest grade from the assignments, meaning only seven are graded; each of those is worth 10% of your grade.

Your final assignment is worth 25% of your grade.

The remaining 5% will reflect attendance and participation.

Course Assignments ("Challenges")

The real work in this course occurs outside of the classroom: In the readings you consume and the micro-games you prototype and test. Below, find a list of the assignments and their due dates.

Except for the first and second assignments, projects are due two weeks after they are assigned. Students will have ample time to playtest the game they are developing in class.

What is "Due"? Note that in *most* cases, you are *not* obliged to deliver a physical or digital *thing* to me on its "due date"; you are, however, expected to be able to speak to the class thoughtfully about the problem assigned. Off-handed comments are insufficient: Please prepare some notes (at least) that address some part of your experience with the assignment.

Challenge: Casual Ethnography. Due 12th September.

Challenge: Refreshing Kalah! Due 19th September.

Challenge: Meet the Meeples. Due 26th September.

Challenge: Code/Maze. Due 10th October.

Challenge: Games4Good. Due 24th October.

Challenge: Flow-er Power. Due 31st October.

Challenge: Worlding Worlds. Due TBA

Challenge: Game Thought. Due TBA

Challenge: Intervention. Due TBA

Final Project

For your final project, you will choose one of the last three assignments (numbers 6, 7, or 8) and further develop it for publication. Your final product will be delivered in the form of a Kickstarter-style fundraising video so common now to indie game development. We will discuss the requirements of the video nearer the end of the semester. Self-evidently, a big part of the final project is to help viewers understand why the game you want to build is also the game that they will want to buy and play.

Your final project is due on the last day of 2017 (unless you graduate in December, in which case we will coordinate privately).

Course Schedule

This course meets Tuesdays from 11AM to 1:30PM in Car Barn 318. Please be ready to begin at 11AM. If you anticipate presenting something to the class (video; slide deck; etc.) come early and ensure that everything is in working order and ready.

This syllabus represents the ideal line of flight for the semester: Should an unexpected opportunity or crisis present itself, we will discuss our options as a class and agree on the best way forward.

Readings are due on the day they appear (below). Please see the section on Readings elsewhere in this document.

ONE September 5 GAME

1. Course overview

   - Play ○ Abject media ○ Families of resemblances ○ The Player's experience ○ Digitality and the Shift in maintaining Game State

2. Review Challenge ONE: "Casual Ethnography"

3. In-class analysis

   - The Metagame; Exquisite Corpse; Cards Against Humanity;

TWO September 12 THRESHOLD

1. Students share findings from Challenge: Casual Ethnography;

2. How games and play are studied; the perils of game scholarship; paradigms for understanding play and games;

3. The professionalization of game design;

4. Review Challenge: Refreshing Kalah!

THREE September 19 PROTOTYPE

1. Students share findings from Challenge: REFRESHING KALAH!;

2. Paradigms for contemporary game design; historical paradigms; the role of capital in game design;

3. Lecture and discussion.

4. Review **Challenge: MEET THE MEEPLES**

5. Read

   - Irving, Geoffrey, Jeroen Donkers and Jos Uiterwijk. 2000. "Solving Kalah". *ICGA Journal 9*. 139-147.

FOUR September 26 NEW GAMESTATES

1. For today, be prepared to talk about **Challenge: MEET THE MEEPLES**. You'll address some aspects of gameplay and mechanics that interest you in a contemporary game. *See the Assignment Descriptions (below) for more information*. I recommend a *multi-modal approach* to the problem: Seek out players who love the game, for example; look for articles about the game online; and shuttle through the countless hours of video likely dedicated to the game on Youtube or (even better) Twitch.

2. Your talk is not a book report: It is an exercise in intellectual inquiry and careful thought. *Please do not merely explain how the game is played; please do not merely explain why you like the game.* Ideally, the word "fun" will not cross your lips.

3. Your talk is not a reflection on a card game taught to you by your (admittedly lovely) grandmother. We acknowledge that games have a significant and often unavoidable nostalgic value. *This presentation is about values other than those, however.*

4. Introduce and discuss aspects involved in **Challenge: CODE/MAZE**. (NB this is a two-week assignment).

5. Read

   -Garfield, Richard. 1993. "The Creation of Magic: The Gathering." In Tracy Fullerton, *Game Design Workshop: A Playcentric Approach to Creating Innovative Games*. 191-199.

   -Garfield, Richard. 2003. "Magic Design: A Decade Later." In Tracy Fullerton, *Game Design Workshop: A Playcentric Approach to Creating Innovative Games*. 199-202.

FIVE October 3 LABYRINTHINE

1. This is the first week of our work in game programming. Bring your laptop to class; be sure to have installed either Construct 3 (beta) or Pico-8 (also beta).

2. Read

   - Montfort, Nick, Patsy Baudoin, et al. 2014. "15. Mazes". *10 PRINT CHR$(205.5*RND(1)); : GOTO 10* pp 25-50+. Cambridge: MIT.

3. Play

   -Many contemporary videogames include at least some maze-building code, even if the result does not seem very maze-like. Why? Maze algorithms are challenging, as they make use of recursion, large stacks, and multi-dimensional arrays. They demand efficiency, which makes them a pleasure to build.

   -The following two games, run via hardware emulation in your browser, will not give you any pleasure, but they are testament to the explicit role of mazes in early digital gaming. (Note that the second one simulates 3D, and is therefore astonishingly slow).

   -*Castle Wolfenstein* (Muse,1984) https://archive.org/details/msdos_Castle_Wolfenstein_1984

   - *Theseus and the Minotaur* (TSR 1983) https://archive.org/details/a2_Theseus_And_the_Minotaur_1982_TSR

SIX October 10 ARIADNE SVP

1. Our second week of working with code. During week FIVE, I will outline the requirements for the (simple) digital game you will need to build. With those requirements, I will suggest certain halfway points -- tasks you should try to complete before we meet this week (week SIX). Whether you have met those milestones or not, bring your code and your laptops to class, and be prepared to focus on further developing your game.

SEVEN October 17 PLAYAS

1. Students share their outcomes from **Challenge: CODE/MAZE.**

2. Lecture and discussion: "Addicted to fun;" Banality and boredom; Better paradigms: Archetypes, Cognition, Phenomena; Performance;

3. Review **Challenge: Thesis and the Minotaur/Minions!**

4. Read

   - Bartle, Richard A. 1996. "Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs."
   http://www.mud.co.uk/richard/hcds.htm. Retrieved 14 December 2013.

   - Cisco Systems. 2007. "Case Study: World Without Oil."

   - Dibbell, Julian. 1998. "A Rape In Cyberspace; (Or TINYSOCIETY, and How to Make
   One)." *My Tiny Life*. New York: Henry Holt.

   - Martin, Paul. 2012. "A phenomenological account of the playing- body in avatar-based
   action games." *Philosophy of Computer Games Conference (Madrid, 2012): Proceedings*.

   - McGonigal, Jane. 2006. *This Might Be a Game: Ubiquitous Play and Performance at the
   Turn of the 21st Century*. Dissertation. Performance Studies: Berkeley. (Excerpts as
   provided).

   - Superstruct. 2011. "Superstruct Archive." http://archive.superstructgame.net

EIGHT October 24 PLAYTEST

1. Presentation of findings from **Challenge: Thesis and the Minotaur/Minions!** Students
   should be prepared to talk about their process of play-testing one of the two "serious
   games" provided to you. What are your findings? Where are the weaknesses? The
   strengths? Talk about proposed changes to gameplay that you included in your iterative
   testing.

2. Review basic guidelines for **Challenge: Flow-er Power.**

3. Read

   - Dillon, Roberto. 2011. "The 6-11 Framework: A New Methodology for Game Analysis and
   Design." Proceedings of Game-On Asia Conference, Singapore.

   - Hunicke, LeBlanc, and Zubek. "MDA: A Formal Approach to Game Design and Game
   Research." Unpublished MS.

   -LeMasters, G. 2017. A Play-testing report worksheet.

   - Pozzi, Nathalie and Eric Zimmerman. 2013. "Don't follow these rules! A Primer for Play-
   testing." Unpublished MS.

NINE October 31 NO PUPPET NO PUPPET

1. For today, be prepared to talk about **Challenge: Flow-er Power**. In particular, we're interested in hearing about *how player interest and engagement is sought, maintained, and/ or lost at points throughout the game.* It will be useful to read Csikszentmihalyi's brief outline of the concept of "flow." You can find information about his popular (and extremely simplistic) concept across myriad digital resources. If, however, you feel that his model contributes nothing to your understanding of the game you have elected to discuss, *be bold and uncover something better*. It is not unreasonable, for example, to return to your pseudo-ethnographic process from earlier in the semester: Watch your players carefully! When does their attention wander? What brings them back to the fold?

2. We'll explore balance, pacing, agency, and (most importantly) *flow*.

3. Some guidance on choosing another game to study for next week's **Challenge: Headkicker Two: The Final Kick ("This time it's personal")**

4. Read

   - Csikszentmihalyi, Mihaly, and Stith Bennett. 1971. "An Exploratory Model of Play." *American Anthropologist, New Series, 73*. 1. 45-58.

5. Play

   - Chen, Jenova. 2006. *FlOw*. Game prototype drawn from MA thesis, USC School of Cinematic Arts.

TEN November 7 ALL THESE WORLDS

Note that beginning in November, students will be encouraged to begin to reflect on larger-scale projects that may fit into one or more of series of three final projects. Time will be set aside in class for prototyping, workshopping, and spitballing.

1. Students present their insights and ideas about the games they investigated for this week's **Challenge: MEET THE MEEPLES.**

2. Lecture and discussion: When worlds collide... Or don't. Whatever.

3. Read

   - Zimmerman, Eric. 2003. "Play as Research: The Iterative Design Process." In Brenda Laurel (ed.) *Design Research: Methods and Perspectives*. Cambridge, MA: MIT.

4. Review

"The Length of the Queen Mary, Compared with the Height of Famous Tall Structures Throughout the World." n.d. Print.

Loechel, Dirk. 2011. "Size Comparison Chart Mecha." Illustration (*in silhouette*). Deviant Art.

Loechel, Dirk. 2013. "Size Comparison Science Fiction Spaceships." Illustration (*in silhouette*). Deviant Art.

ELEVEN November 14 THE SAME OLD STORY, ONCE MORE

1. Lecture and discussion: Towards a physics of the social; What humanists have to contribute to game design; Is *knowing* the best we can do?

2. Read

   - Bouchard, R. Philip. 2017. "How I managed to design the most successful educational computer game of all time." via medium.com.

TWELVE November 21 RANDOM()

1. Lecture and Discussion: The Rand Corporation and the invention of random numbers

2. Read

   - Hacking, Ian. 1975. "Design" and "Probability." In *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction, and Statistical Inference*. Cambridge New York: Cambridge. (Excerpts as provided)

   - Salen, Katie and Eric Zimmerman. 2004. "Chapter 15: Games as Systems of Uncertainty." *Rules of Play: Game Design Fundamentals*. Cambridge: MIT.

3. Review

   - *Andrew Reitano's Super Russian Roulette*: A New Party Game for NES. See the game's page on Kickstarter.

   - *No Country For Old Men* (Dir. Coen Brothers. Miramax, 2007).

THIRTEEN November 28 PROCEDURE

1. Lecture and discussion: The process as a unit of thought.

2. Read

- Bogost, Ian. 2012. "Carpentry: Constructing Artifacts That Do Philosophy." *Alien Phenomenology*. Cambridge, Mass: MIT UP.

- Bogost, Ian. 2015. "Procedural Literacy." *Telemedium* (Winter/Spring). 32-37.

FOURTEEN December 5 AUGMENT

1. Lecture and discussion: Your virtual reality games suck.

2. Read

   - Greenspan, Brian. 2015. "Don't Make a Scene: Game Studies for an Uncertain World". Digital Studies/Le Champ numérique.

   - Davies, Hugh. 2015. "Towards an Ethics of Alternate Reality Games". Digital Studies/Le Champ numérique.

   - McGonigal, Jane. 2011. "More Satisfying Work." *Reality is Broken: Why Games Make Us Better and How They Can Change the World*. New York: The Penguin Press.

   - Morreale, Domenico. 2015. "Alternate Reality Game and Cultural Heritage: The 'Aequilibrium' Project". Digital Studies/Le Champ numérique.

3. Play

   - Ingress (Niantic, 2012)

   - Zombies, Run! (Six to Start, 2012)

   - Pokemon Go (Niantic, 2016)

Assignment Descriptions

Supplemental: These may change slightly as the semester wears on and we develop a better sense of what is interesting and useful to us as a class.

In addition to weekly readings, students will need to overcome a "game design challenge" every week. Some of the challenges are sequenced, carrying through from week to week, and gradually increasing in complexity.

We will typically devote the first half hour of class to students' informal presentation of their solution to that week's challenge. This discussion will give us ample opportunity to revisit the themes we introduced during the week prior.

Students may work individually on these projects or they may collaborate with others. Students may only collaborate with others on half the challenges or fewer. Students may not collaborate with the same partner more than twice.

Challenge: Casual Ethnography

tl/dr; an ethnography of game night.

NB: We'll convene a similar session during class so that we can discuss how ethnographic-style observation works.

To better understand how games give rise to certain kinds of experiences, we'll draw on pseudo-ethnographic fieldwork. For this assignment, bring together a group of friends for an evening of (say) Pandemic, Cards Against Humanity, or even Mario Kart 8. Instead of participating directly in gameplay, spend the evening discretely observing the players, making notes in your process book where you can. Of course, if someone asks, be honest about your goals, but volunteer as little information as possible: Our behavior changes significantly when we know others are watching.

Our goal is to understand better how games mediate experience for the player. Your observations and reflections should fill several pages of your process book; immediately after the event, sit down and reflect further on what you've seen. Be prepared to share these insights in class.

Challenge: Refreshing Kalah!

tl/dr; re-invent mancala with an eye towards its material and experiential nature.

Familiarize yourself with at least one variant of mancala. Read "Solving Kalah" by Irving et al. Kalah has been a popular (commercial) variant in the west since WWII. In Irving et al., we see evidence of the preoccupation (common to Computer Science and many academic game labs) with games as formal, extra-historical systems, as bounded fields of determinancy.

For this assignment: Play mancala often enough to get a "feel" for the experience. Now -- making use of items from your desk drawer, your game building kit, Legos, or whatever -- "redesign" mancala. Consider "what" mancala "is", how long it has survived and (in your estimation) why it has persisted. The materials you employ don't have to be the ones you propose to us in class, but your prototype should have some obvious relation to them (e.g, you propose to us a 20 meter-long playing field with stones the size of Volkswagens; but you present us with a little diorama, or a set of storyboards, or a digital visualization, etc.).

Again: Please conceive of your design with an eye towards fostering a specific kind of player experience. Prototype - test - iterate - *ad nauseum*.

Additional Guidance: As will be the case throughout the semester, this assignment means engaging with stuff and matter as well as abstract ideas like gameplay. You don't need to buy 'proper' game pieces, but if (for example) you want the stones that feel heavy in the player's hand, be sure that the stones in your prototype are heavy: Use heavy washers, or dense marbles, not plastic tokens or paper chits. You'll need to experiment with different approaches. Here are some ideas to get you started (I encourage you to move beyond these):

> *board -- Holes in the dirt; egg cartons; bowls; circles on paper; a photograph with superimposed shapes; a monitor laying flat; a whiteboard.*

> *stones -- cardboard chits; gravel; hard-boiled eggs; marbles; Legos*

Challenge: Meet the Meeples

The current global renaissance in games, digital and analog, is striking: More than just a glut of new themes and topics, however, many of these games are changing what we expect of games in terms of complexity, function, narrative and experience.

The only way to better understand how these work is to engage with them ourselves. For this week (and the other Meeple survey weeks), please pick at least one recently-published game

that you feel tackles something novel: Play style, experience, subject matter. Spend the week playing it, examining its rulesets, watching others play it on Youtube or Twitch (invaluable resources). In class, give us a very short overview of the game, and then pick ONE or TWO interesting and novel formal elements, game mechanics, or game systems to explain in detail. Be prepared to field questions and to defend the integrity of your choice.

Example: Let's say I wanted to talk about the game Carcassonne. During the week, I'd play it through a few times with friends; watch a few youtube videos about it; maybe even read one or two random articles I dug up myself. I find myself fascinated by two things: (1) the city-building theme and (2) an alternate set of rules that allows for a single-player game. Since the game proceeds as players build a loosely-cooperative map of a countryside by placing hex tiles on the table, I decide that I want to say something about how different the game would have been if the designers had used square tiles (à la most of the American midwest); I also want to talk briefly about the innovative optional rules that completely change the game while making use of the same hex tiles.

This will be a challenge -- most of us are not used to speaking seriously about ideas like game mechanics. Don't become obsessed with technical terms! Don't worry about using the "right" words or concepts. Talk about it from an intellectual, academic point of view: Talk about it like a 20-something grad student would.

Challenge: Code/Maze

NB This is the only assignment that *requires* you to work with code this semester.

This challenge is accompanied by an introduction to Construct 3 and Pico-8, together with supplemental videos.

Over a two-week period, students will design, implement, debug, and present a simple 2D maze game. When the game begins, the player is presented with a top-down view of a randomly-generated single-solution one-screen maze maze of trivial complexity. A countdown begins. Using cursor keys, player has to move from the left side of the screen to the right side of the screen before the timer expires. If she touches a wall (or anything else) the game ends. Students are welcome to attach narratives to this as they see fit.

Students are welcome to implement this in either Construct 3 or in the Pico-8 virtual console. Advanced students will have opportunity to learn about A *pathfinding and very simple AI; alternatively, advanced students can learn the nuances of incorporating complex sprite-based animation.*

Students should have a rough working version to show us after the first week: It will probably include a partial implementation of the maze; a moving protagonist; it will probably indicate (at

least) when the protagonist has accidentally touched a wall. For the second week, you will focus on improving the aesthetics and implementing suggestions as useful to you.

Challenge: Games4Good

tl/dr; Help me further develop one of two 'serious games.'

For this assignment, you will choose to work with one of two card-based games that I have been working on. You'll have the opportunity to playtest and to draw on our myriad vocabularies for critique. We'll look at tone, theme, audience, engagement, and utility.

1. "Thesis and the Minotaur" recognizes that when it comes to large-scale research projects, it is difficult to act as both producer and manager: Your mentors and your thesis supervisor will help, certainly, but even motivated students are at a loss to self-direct. TM draws on Suits' notion of a "ludic posture": A game-like instrument takes advantage of our willingess to submit to the authority of the game. Can we use a game like this -- and our willingness to cede authority to the game itself -- to improve our work? Short, focused scenarios with tangible outcomes and the ability to track your movement through the labyrinth make this interesting, at least.

2. "Minion!" Played in teams, using cards and diverse artifacts, "Minion!" introduces kids to the basics of object-oriented programming. Eschews standard-fare "build a robot" narrative in favor of programming helper-minions through the use of magical glyphs. Performance-heavy and silly, it doesn't feel like writing code...

Challenge: Worlding

tl/dr; design a game based on existing IP.

Story is more than what happens: In the virtual era, story testifies to world as a possibility space, where even narrowly-defined constraints may thicken and flourish. Think of how the world described in a single TV season of *Firefly* (Joss Whedon, 2002) continues to grow.

For this challenge, choose an Intellectual Property (IP) (a "franchise") that you know well. Identify a key moment, action, or dynamic from that franchise that can be meaningful on its own and might work well as the main action of a game.

Here are some fairly obvious examples:

- A championship horserace (*Seabiscuit*);

- Air combat over the English Channel (*Dunkirk*);

- An alien gradually kills an entire ship's crew (*Alien*);

- A kid sets up traps to defeat bumbling robbers (*Home Alone*);

- The Fellowship takes the Ring to MtDoom (*LoTR*);

These work well because they are key moments in favorite IPs that can be generalized or abstracted; their worlds are accessible, even recognizable, to anyone familiar with popular culture.

The vital thing here is to ensure that story the player is enacting when she plays is consistent with the what motivates the franchise. In the 80's and 90's, film studios were not interested in games as a source of revenue, and paid no attention to how developers made use of their IP. An object lesson in the dangers of this practice: *The Hunt for Red October* (for the Super Nintendo) (see https://www.youtube.com/watch?v=*V6VJ5qPB0M).*

Challenge: Process

tl/dr; build a working game mechanic that meaningfully abstracts (and makes playable) some process that interests you deeply.

Drawing on Bogost's ideas about process and proceduralism, together with my lecture on science and simulation, and the countless examples we've documented by now, create a compelling game mechanic that abstracts some process that interests you.

You might abstract the life-span of a single-celled organism, for example; or maybe the act of reviewing/approving visa applications; maybe the process of staffing a temp agency for the day. Maybe you could model the process of creating the perfect cup of coffee; or the process of growing an abundant garden.

For useful contrast, consider showing us models that represent less successful versions of the same process. For it to succeed, typically, the process must be minimalist, meaningful, and inhabitable. For now, it need not be especially pleasant or rewarding.

Challenge: Intervention

We typically expect games to wait on the other side of a threshold: They are in a state of suspension until conjured forth. For this design challenge, we will build a simple game that leverages the wealth of networks and the ubiquity of computation to make a game that becomes established and persistent in players' lives.

Academic Integrity

Plagiarism, Attribution, and Other Hackers' Code

The CCT Program requires that I direct you to the Graduate School's page on Academic Integrity, whereupon you are encouraged to download a "PDF copy of a booklet" on "The Fundamental Values of Academic Integrity."

Fundamental Values of Academic Integrity (2014)

This PDF raises important issues that we will address in class.

Weather

If we cannot meet in the Car Barn at our appointed hour due to the weather or some other Act of God, I will come up with an alternative plan based on our needs at the time. If, for example, we were going to spend the day in player testing and focus groups, I might encourage you to head to a coffee shop or a friend's apartment in order to recruit subjects on your own.

In any event, if the University is closed, you will get an email from me in the early morning that proposes one or more ways to make up for lost time.