VM420

Games and Social Change

Fall 2013

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# Course management

For all course material, assignments, and latest updates, please go to http://canvas.emerson.edu

# Course description

The video game industry is one of the largest sectors of the entertainment industry. But the importance of games goes well beyond industrial silos. Games and game mechanics are factoring into the experience of television, film and the web, and increasingly, into other institutions, including education, democracy and health. What's more, games are being deployed in these contexts to produce real world social change. This class provides students with an introduction to games and game design and gives them the opportunity to partner with an organization in designing games for real people to solve real problems. Students will work in groups, each with a specific geographic and content focus, to design board (or otherwise analog) games and digital prototypes that will be tested and deployed.

# Learning Objectives

This course will provide students a background in game design / game thinking and practical experience designing games for real-world settings. By the end of the semester, students should:

* Understand why games are effective for learning
* Understand the principles of gameful design and how to apply it to specific social problems
* Be able to research a geographical and social context and provide in-depth description and analysis
* Deconstruct the mechanics of good games and understand why they are fun/effective
* Be able to articulate the connections between game design and social process, understanding the relationship between learning, behavior change, and action.

# Course Partner

This semester, we will be partnering with the **Red Cross / Red Crescent** to produce games to be played by actual people. The challenge is to produce games that address ongoing issues of humanitarian concern. Example project areas include:

*SUPPORTING URBAN FLOOD MANAGEMENT*

 More and more cities in developing countries are experiencing unprecedented floods, often due to a combination of rapid urbanization and changing rainfall patterns. How can we use games to help people improve their understanding of the risks?  (mapping hazards, vulnerabilities and capacities),  How can digital games support families and organizations to reduce suffering and improve community cohesion through better decisions before, during and after extreme rains?  We may test the game ideas in Nairobi (Kenya), Saint-Louis (Senegal) and La Plata (Argentina). See short video of a relevant Red Cross project at <http://www.youtube.com/watch?v=l6VU67P0UD8>

*PROMOTING RAINFALL MEASUREMENT FOR RISK ANALYSIS*

 The Red Cross and other humanitarian organizations can better prepare for disaster management actions in developing countries if information is collected broadly about the occurrence of extreme rainfall (too much may lead to floods, too little may lead to drought and food insecurity). Automated weather stations are expensive. Manual rain gauges are affordable, but very often people in charge of measuring and communicating rainfall values get 'bored' and stop taking seriously their responsibility.  Can we design a game that provides incentives for people to reliably measure and communicate daily rainfall?

*FORECAST-BASED DISASTER PREPAREDNESS*

 Most of the climate-related disasters that the Red Cross has to manage, such as hurricanes, floods and famine due to drought, are fairly predictable (scientists can tell us that they are very likely to happen before they actually hit). Yet donors consistently prefer to not fund disaster preparedness measures that could reduce human suffering (such as evacuation or prepositioning of relief items like tents or medicine), instead waiting for the shock to happen and only then deploy financing for response measures. As a result, help often arrives too late. The Climate Center is exploring innovative mechanisms to trigger funding for disaster preparedness actions before the shock hits, after a science-based forecast indicates that the disaster is likely.  Can we design a game that will help donors understand the benefits of smart, forecast-based investments to reduce losses?

*EXAMINING THE POTENTIAL CONSEQUENCES OF GEOENGINEERING*

 As humans continue to (mostly inadvertently) cause global warming due to carbon emissions, the prospect of severe climate change is increasingly threatening. Methods for intentionally modifying our climate system to moderate greenhouse gas climate change — geoengineering methods — are now gaining traction among an expanding crowd. Some scientists, economists, and policy analysts are actively proposing for example to fill the upper atmosphere with sulfuric particles to bounce off sunlight, thus cooling the planet. While geoengineering can indeed reverse global warming, it may also have severe unintended consequences - especially for the most vulnerable sectors of the global population like subsistence farmers, fishermen and shantytown dwellers, who would play no role in the decision to deploy this allegedly magic bullet. Can we design a game that helps people understand the humanitarian implications of geoengineering?

For more info, see short article at <http://geoengineeringourclimate.com/2013/08/13/geoengineering-and-the-humanitarian-challenge-what-role-for-the-most-vulnerable/>

*INCREASING SAFETY OF BODA BODA DRIVERS IN UGANDA*

Another major hazard is traffic accidents. As a result of traffic accidents, approximately 550 people per year are sent to Gulu referral hospital, only one of eleven hospitals and major clinics in the city. Boda Boda riders are a primary cause of these high rates. A recent study in Kampala found that they are the direct cause of at least 25% of all accident with another reference showing that 41% of traffic injuries are Boda Boda related. Boda Bodas are essentially cheap motorcycle taxis with approximately 935 found in Gulu Municipality. Most operators have little to no training in regards to traffic regulations, defensive driving or motorcycle maintenance and many are not licensed, causing them to learn how to ride on the job.

# Required Reading:

Salen and Zimmerman (2004) *Rules of Play: Game Design Fundamentals*. Cambridge, MA: MIT Press.

All other reading is available online.

# Requirements

Game Analyses (x4) 20%

Game Project 1 and Design Book 25%

Game Project 2 and Design Book 40%

Participation 15%

**Assignment Descriptions**

***Game Analyses***

Four times throughout the semester, as marked on the syllabus, students will turn in a short analysis of an existing “serious game” of their choosing. The analysis will be divided into the following sections: mechanics, narrative, learning goals, learning outcomes (including commentary on how these are measured), action goals, and action outcomes (only if action is distinct from learning). The analyses will take the form of blog posts on student blogs within the course management system and be approximately 300-500 words. Images and examples are strongly encouraged.

***Game Project 1 and Design Book***

The first game is a group project and will take the form of an analog game (board, card, pervasive, etc.) designed for the group’s identified country, context, and identified problem. The game should be fully functional, with a completely realized design that is ready for beta testing. The completed project will include all game elements and instructions for both facilitators and players.

The design book is a documentation of process that includes iterations of the game, including early prototypes and design ideas. Along with completed games, groups will turn in bounded paper design books.

***Game Project 2 and Design Book***

The second group project is a digital game (functional prototype) that incorporates the affordances of mobility and digital networking into gameplay. The final project should be a presentation of a game (with playable components) that serves as a proof of concept. Games should be delivered as website. The details of the deliverable, however, depends on the game and context and will be worked out between the professor and the group prior to due date.

Like the first project, a design book must accompany the final game. Groups have the choice of creating a print book or integrating the design book into the game’s web presence.

***Participation***

This course is designed to be highly interactive. Students will be evaluated on their online and verbal participation. Students are expected to come prepared to class having done the reading and/or assignment and armed with good questions.

# Attendance

Students are required to attend all scheduled classes on time. More than twounexcused absence will result in a reduction of one full grade. More than two unexcused absences will result in a **failing** grade. And please show up on time. Arriving late three times to class translates to one absence.

# Late Work

All assignments are due at the beginning of class on the day listed in the syllabus. If assignments are not turned in at the beginning of class, they will be considered late. Grades will be reduced by 10 points for each class period beyond the due date. There will be no grace period for the final presentations. They must be turned in by the date specified in the syllabus.

Disability Statement

*If you believe you have a disability that may warrant accommodations in this class, I urge you to register with the disability services coordinator, Dr. Anthony Bashir at 216 Tremont Street, 5th Floor (617-824-8415), so that together you can work to develop methods of addressing needed accommodations in this class.*

Plagiarism

All information or content in papers and projects must include the proper attribution of its source. “Plagiarism is the act of using another person’s ideas or expression in your writing without acknowledging the source. The word comes from the Latin word plagiarius (‘kidnapper’), and Alexander Lindey defines it as ‘the false assumption of authorship: the wrongful act of taking the product of a person’s mind, and presenting it as one’s own’ (Plagiarism and Originality [New York: Harper, 1952] 2). It is also possible to plagiarize from yourself: turning in a project or paper from a previous class without asking both professors’ permission. So, careful acknowledgment and documentation is the best way to avoid plagiarism, a serious offence in the academy that can result in failure, suspension, or expulsion, depending on the situation and the degree of the act.

# Schedule

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| --- | --- | --- |
| Date | Class | Assignment |
| 9/4 | Introduction to Course; Explanation of studio context and partner  |  |
| 9/9 | What is a game? | Read: S&Z (1-9; 28-105) |
| 9/11 | The anatomy of serious games / games for change / direct action games / engagement games | **Read**: Engagement Game Lab (2013) *Engagement Games*Rooney, P. (2012). A Theoretical Framework for Serious Game Design  |
| 9/16 | Games for Humanitarian ReliefGuest: Pablo Suarez (Red Cross / Red Crescent) | Read: Suarez et. al. (2012). *Games for a New Climate* |
| 9/18 | Create groups and assign country contexts and problems / group discussion | Due: Game Analysis #1 |
| 9/23 | Understanding Rules and PlaySimple game design / game design process – brainstorm to playtesting | Read: S&Z (116-149; 300-311) |
| 9/25 | Emergent SystemsGroup work / brainstorming / organize conversations with stakeholders Guest: Julie Arrighi (Red Cross Uganda) | Read: S&Z (150-201) |
| 9/30 | Games as SystemsGroup work / design prototyping / play test early concepts / Is it fun?  | Read: S&Z (202-247) |
| 10/2 | Presentations on country contextPlay Session / play version of complete game / critique  | Due: Game Draft 1 / Context report |
| 10/7 | Group work / refine game concept / create or refine elements | Due: Game analysis #2 |
| 10/9 | Group work / fabricate board, material, etc. |  |
| 10/15 (Tues) | PLAY GAMES!! | Due: Game Project #1 along with design document |
| 10/16 | Introduce Game Project 2 / Parameters of digital game design / securing resources of the EGL |  |
| 10/21 | Pervasive games / location-based and mobile / Introduction to Game Maker | **Read**: Ruiz, S., Stokes, B., & Watson, J. (2003, January 1). The Civic Tripod for Mobile and Games. *International Journal of Learning and Media*. <http://civictripod.com> |
| 10/23 | Case Study: Community PlanIt | **Read:** Gordon, E., & Baldwin-Philippi, J. (2013). Playful Civic Learning: Enabling Lateral Trust and Reflection in Game-based Public Participation. |
| 10/28 | Conflict and CheatingAddressing access / digital divide / technology assessment of context | **Read:** S&Z (248-285) |
| 10/30 | Case Study: Half the Sky |  |
| 11/4 | Paper prototyping / play testing / Tech consultation | **Due:** Game Analysis #3 |
| 11/6 | Play, Experience and PleasureStoryboard / Wireframes - Balsamiq | **Read:** S&Z (312-361) |
| 11/13 (Wed) | Game Draft PresentationGuest: Pablo Suarez (Red Cross / Red Crescent) |  |
| 11/18 | Ludic NarrativeGroup Work / Production | **Read:** S&Z (362-419) |
| 11/20 | Group Work / Production | **Due:** Game Analysis #4 |
| 11/25 | Crit SessionGuest: TBD |  |
| 12/2 | Production / game elements and presentation |  |
| 12/4 | Finalize production |  |
| 12/9 | Final GAME PresentationGuest Panel TBD | **Due:** Functional game and design book |
| 12/133:30-5:30 | Review / Debrief / Next Steps |  |