Systemic Design for User Experience   Fall-2016

(SD4UX – CCTP611)

Mondays 2:00pm – 4:30pm in the CCT Studio and Car Barn 300 (overflow room)

Prof. Evan Barba (eb892@georgetown.edu)
        Office Hours: Wed 10am Car Barn 311E or by appointment

**NOTE: the syllabus is rough outline of topics and timeline. The instructor reserves the right to alter these contents if speaker schedules change, new topics are requested, or as the need arises.

Summary

The emerging interdiscipline of Systemic Design aims to integrate Systems Science and Design in both theory and practice. Systems science, which has been a developing meta-discipline for more than fifty years, represents a holistic worldview and new paradigm for scientific exploration. The combination of systems approaches and ever-increasing computational power has led to numerous breakthroughs in biological, physical, and social sciences as well as the humanities. Design as a practice is quite a bit older, dating back to ancient Greece in the West, but it is still relatively recently that Design has become an academic discipline as well as a practical one. Systems and Design both embrace core concepts such as holism, feedback, iteration, and intentional evolution; however, the two disciplines operate on very different scales. Systems tends to focus on large groups or geographic areas and long time-frames. Design, on the other hand, strives to be human-centered and values deep empathy and improvement of the immediate circumstances. How can these two be reconciled within the field of Systemic Design? This course will focus on User Experience as an area for the rich exploration of the intersections between Systems and Design Thinking. Students should expect to do substantial reading on both the origins and contemporary understandings of both fields in order to identify areas of overlap and conflict and to develop original theoretical approaches that bridge these gaps. Class meetings will be divided into hour-long discussions of readings followed by practical exercises intended to sharpen design skills and provide practical experience in User Experience design.

Instructional Continuity: Should there be a disruption in regularly scheduled meetings the instructor will determine how best to reintegrate missed coursework. Students will be asked for input and preferences when making this determination.

Course Goals

By the end of the semester, students should have:

- A well-developed understanding of the core principles of Systemic Design
- Familiarity with basic user experience methods

Expectations

Responsibilities for the class include completing all homework assignments and completing projects. Students will be expected to post documentation to the course blog. Students will be expected to help each other learn both inside and outside of the classroom. Attendance and participation in this class are required and attendance policies will be enforced. Any excused absence requires at least TWO WEEKS NOTICE (excepting emergencies) in writing explaining why you will miss the class and how you will make up the work you miss. Two unexcused absences will result in a penalty to your final grade. There will be a 5 minute grace period at the beginning of class for tardiness. If you are more than 5 minutes late you will be marked as such. If you are late twice it will count as an absence. If you are more than 20 minutes late you will be marked absent.

ALL work MUST be completed and submitted by the due date to receive credit unless prior arrangements are made with the instructor. **Late assignments will not be accepted.**

Honor Statement

All students are expected to be familiar with and will be held to the Georgetown University Honor Policy outlined in: https://honorcouncil.georgetown.edu

Grading

Participation: 30% - contribute during discussion, do all assignments, and engage in exercises.

Minor assignments: 30% - 1-week homeworks and exercises are graded on a 10 point scale. A student's total score on all of these is added together and dived by the total for a perfect score. This number is then multiplied by 0.3 and added to scores in the other categories.

Major Assignments: 40% - Usability study, Focus group study, presentations. Graded out of 100, and calculated according to the algorithm above.

Week 1 – August 31

Introduction

What is Systems Science? What is Design? What is UX? What are they together?

Read for next week:

Rules of Play

https://gamifique.files.wordpress.com/2011/11/1-rules-of-play-game-design-fundamentals.pdf

> Katie Salen and Eric Zimmerman. 2003. Rules of Play: Game Design Fundamentals. The MIT Press.

Meaningful Play ch 3 - 31-36 (5pp)

Design ch 4 39-47 (8pp)

Systems ch 5 49-55 (6pp)

Interactivity ch 6 57-69 (12pp)

Games as Emergent Systems ch-14 pp.151-169 (18pp)

Games as Information Theory Systems ch-16 pp.191-201 (10pp)

Games as Systems of Information ch-17 203-211 (9pp)

Games as Cybernetic Systems ch 18 213-228 (15pp)

80 pages total

You don't need to read these that closely, you do not need to memorize all the terms and concepts. Make sure you understand what is being described in these chapters and identify a few concepts that are interesting to you personally. We will be deploying these concepts in the next class to analyze a game.

Week 2 – September 12

Games – Analysis

Exercises: Game analysis and the Exquisite Corpse

Homework: create a card game based on the rules your team defined.

Make sketches for each of your cards and create a "gameplay rules" card that explains how to play your game. Print these and bring them to class to playtest. Games should last around 10 minutes.

**Each team member should also write down one question to use in a focus group next week.

Read for next week:

https://www.interaction-design.org/literature/article/how-to-conduct-focus-groups

Week 3- Sept 19

Games – Focus Groups

Exercise: Running a focus group

Homework:

Write up the findings from your focus group study. Turn this in along with your notes and a digital record of your game materials (cards and rules)

Read for next week

https://www.interaction-design.org/literature/article/user-experience-and-customer-experience-what-s-the-difference

https://www.interaction-design.org/literature/article/customer-touchpoints-the-point-of-interaction-between-brands-businesses-products-and-customers

https://www.interaction-design.org/literature/article/customer-journey-maps-walking-a-mile-in-your-customer-s-shoes

https://www.interaction-design.org/literature/article/customer-lifecycle-mapping-getting-to-grips-with-customers

https://www.nngroup.com/articles/card-sorting-how-many-users-to-test/

Week 4 – September 26

UX vs CX – The Question of Scale

Exercise: Journey Mapping

Homework:

Read: http://writing.colostate.edu/guides/guide.cfm?guideid=61

> Carol Busch, Paul S. De Maret, Teresa Flynn, Rachel Kellum , Sheri Le, Brad Meyers, Matt Saunders, Robert White, and Mike Palmquist.. (1994 - 2012). Content Analysis. Writing@CSU. Colorado State University. Available at http://writing.colostate.edu/guides/guide.cfm?guideid=61.

Week 5 – October 3

Content analysis

Exercise: Amazon case study

Homework:

Go to amazon and categorize customer comments

http://www.measuringu.com/blog/quantify-comments.php

Look at each star rating individually and identify the common reasons why these scores were given. Prepare a report that explains your method and findings (1000 words). Why were the ratings given? Are similar dislikes/likes given different ratings by different users? Can you explain why this might happen? What advice can you offer to product developers?

Week OFF – Columbus Day Oct 10

Week 6- October 17
Personas
Exercise: creating a persona
Homework: Polish off your persona
Read: http://www.romanpichler.com/blog/10-tips-writing-good-user-stories/

Week 7 – October 24
User Stories
Exercise: Storyboard a user story
Homework: Write your user story (Follow the sample)

Week 8 – October 31
Wireframes
Exercise: Wireframe
Choose one of these tools: http://mashable.com/2010/07/15/wireframing-tools/#QoKnrV7j8gqT
Homework: Wireframe a new design for Content Depot. Discuss the usability rationale for your design choices.

Week 9 – November 7
Accessibility I - Design for the visually impaired
Read: Universal Design TBD
Visit from Mike Ullman
Homework: Choose something to redesign for the visually impaired and redesign it. Be ready to present it next week in one or two slides.

Week 10 – November 14
Accessibility II
visit from Lesley Kadish
Present accessibility redesigns
Homework: identify a quantitative concept to present
Khan Academy and Lynda have good resources on basic statistics

Week 11 – November 21

Quantifying User Experience
Roll call of statistical methods chosen
Data Exercise – time on task
Homework: Create a presentation on a statistical method ~20min

Week 12 – November 28

Quantitative Methods
Student presentations 5 groups of 3 present a statistical technique
Read: http://www.balancedscorecard.org/portals/0/pdf/affinity.pdf

Week 13 – December 5

Affinity Diagramming
Exercise: Interview Practice and Affinity Diagramming
Choose a partner to interview. Ask them about their bag. How do they use it? Why did they choose it? Write down the features and functions that they like and don't like about their bag on individual index cards.
Collect the cards – It's time to categorize and diagram!
Homework: Formalize the affinity diagram we made in class

TURN IN THE FINAL HOMEWORK ASSIGNMENT TO PROF. BARBA BY EMAIL BEFORE FINALS BEGIN