Notes from 11/17/13 Meeting on Systems Class

Gabe & Tim

1. Construction of physical/mechanical objects to communicate system concepts
   1. Idea is that a framework is introduced, and then internalized by the physical experience of doing an exercise
   2. The station machine
      1. Idea of a series of stations, each person responsible for a station in which an object must be moved from one location to another (from an input location to an output location)
      2. the set of stations is a team
      3. teams compete to see which can move object (ping pong ball?) around the circuit fastest or most circuits in a given amount of time
   3. Pieces fitting together idea
      1. transportation system
         1. idea of building a system consisting of a vehicle, a track and a propulsion mechanism, but each part is made by separate people
         2. the only information that may be shared is specifications, e.g. the dimensions of my vehicle are x, so then the person making the track must build to those dimensions
      2. puzzle
         1. each person makes a puzzle piece, passes on details about the the connector to the next person
         2. can the puzzle fit together?
      3. for both of these ideas, some kind of process of iteration, a way to test the ‘fit’ and then learn how to improve the specification hand off so that next time the fit is better
      4. constraint is the handoff of information
   4. Build a catapult
2. Idea of a ‘stack
   1. The class ‘stack’ is theory>digital machine>wicked problems
   2. can each class touch on each part of this stack, instead of thinking of it only as a sequential stages as the course progresses?
   3. example: terminology exercise teaches importance of understanding the terminology in a system, but then can it be linked to question of labeling in an UI? (what would be extension to wicked problem part of the stack?)
3. Arcadia
   1. value
      1. serves as a case study
      2. has character sets and situations that can be treated as shared examples
      3. the present day story looking at the past story stands for common issue of stakeholders trying to understand user behavior
      4. explicitly treats a number of system concepts like entropy, time
      5. becomes a bonding experience (sort of)
   2. challenges
      1. language is difficult esp for non-native speakers
      2. 3 hours reading on second class is strange experience
      3. is it used enough as an example to justify the ‘cost?’
4. Wicked problem part of the course
   1. The experience should be
      1. research a subject
      2. interview stakeholders
      3. build a model
      4. create a simulation that demonstrates the model
      5. test & refine
   2. goals of the experience
      1. understanding of leverage points
      2. create software to play with the levers
      3. interacting with the levers (software) produces insight into the system
      4. goal is to explain the system by seeing how the input affects the output
      5. could produce a game that explains the problem
   3. The outcome is a UI for playing with scenarios
   4. Possible partners
      1. SPUR
      2. Jay Nash - SF Gov 2.0
      3. Code for America
   5. Possible areas
      1. SF rental market
      2. cost/benefit of solar power