The reading had two bad definitions of “information”
- In the future, don’t use the word “information” … unless you’re trying to deliberately confuse

‘Information’ as a measure of uncertainty
- In the Shannon-Weaver model, information is the range of possibilities
- So in game design, the perimeter of all moves that the players can make is the possibility space
  - Degrees of freedom, range of choice
- One important difference between information and uncertainty is NOISE
- Noise is a part of the information that is not controllable by the source
- This fits in with the idea of games as purposely inefficient systems
  - Being unable to clearly communicate in Charades or Pictionary is the point of the game
- It can be more fun, or it can be just frustrating
- Game state and player knowledge can be obfuscated
- A particular signal can mean more than one thing
  - Can happen in many ways – for example, low sampling rate
- Are there games where you’re trying to communicate to some people but not others?
  - Canadian Fish, Kemps, Bridge, sports signals
- There’s misdirection, obfuscation, encoding
- Noise cancellation is redundancy is error correction
- Are there games with error correction?
  - Sudoku, Picross, any game with multiple referees, photo-finish for races
  - Even in video games, if you get shot, there are multiple signals: sound effects, red flash, stats drop, other visual effects…

Perfect vs. Imperfect knowledge
- Most board games have perfect knowledge
- Are there card games with perfect knowledge?
  - Freecell,
  - Blackjack? Is the state of the deck knowledge?
  - Hard to find, because cards are designed for hiding information
- There are games with too much knowledge as well as too little knowledge
- There are games where the rules are the commodity
  - Flux, Mao
- Computer games can be generally slow to introduce rules, since the rules are hard coded in, so the players don’t need to understand every nuance to play
- Over the course of play, the range of uncertainty generally decreases
- Are there games where uncertainty increases?
  - Mario Kart?
  - Strategy games where the effects multiply
Managing information, I mean knowledge, overload
- Player memory and player computation power
- Many games (especially German computer simulations!) throw a matrix of information at you – too much!
- But too little information, like a text adventure, can be bad too
- Overall, decisions should be easy to make and execute
- The data can be obscured (and should be sometimes!)

- Objective vs. perceived information (warning: bad definition in book!)
- Is perceived information the stuff you the player know and the objective info what’s there in the game?