HCI 2/25

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Hick's Law

- Similar to the other law whose name I can't remember but serves a different prupose
- Consideres the different aspect of using menues
  - How they're structured and organized, how they may change dynamically, and the physical traits
- Helps with making design choices about menu organization
- Menus can get really complicated so even though this sounds kinda dumb it's not
- Have you ever looked at a menu and wondered "why is this here and not over there? Why can't I find this thing I'm looking for?"
  - Every time I open excel
- Hick's Law helps with knowing
  - Which menus are needed
  - When you should create a new menu or submenu
  - If a menu for a set of functions should be broad, deep, or in between
- Time T to **choose** one out of n equally probable items is:

$$T = a + b \log_2(n + 1)$$

  - The $\log_2(n + 1)$ is H, the Hick's Law proportionality
  - The *familiarity assumption* presumes that the user knows/remembers the menu
  - The *uncertainty principle* is that T increases with uncertainty in choice
  - a and b are experimentally determined, but usually $a = 50ms$ and $b = 150ms$ are good rule-of-thumb values
- If you have multiple level menus, you add up the T for each level to get the total time
  - Not the actual movement, time, that's Fitts' Law. This is. . . some other time?
    * Oh probs the time it takes you to find what you're looking for

Principles of Design: Gestalt Theory

- I zoned out
- We can use the following categories to create interface designs that are aware of how humans look at things or something like that
  - proximity/contiguity
  - similarity
  - common fate
  - closure
  - continuity
  - area/smallness
  - symmetry
  - surroundedness
  - conciseness/incisiveness (pragnanz)
- UI components have internal characteristics that may make them not be similar to things that they are close to
  - There are ways to make things look like they're in a group together, not just proximity

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