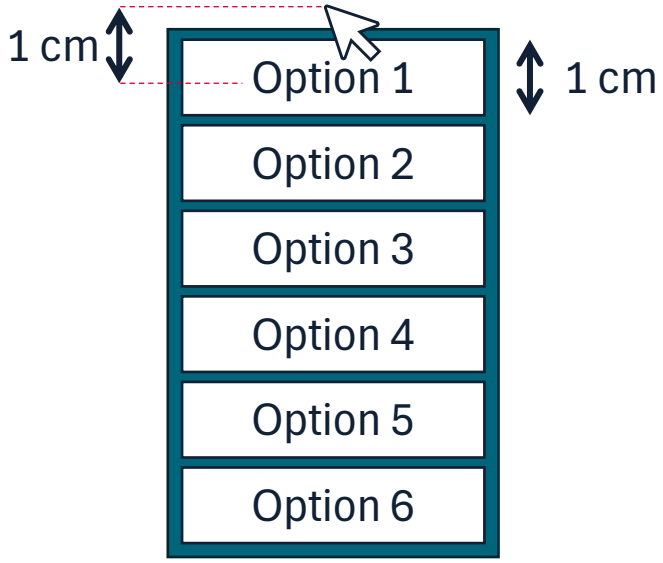
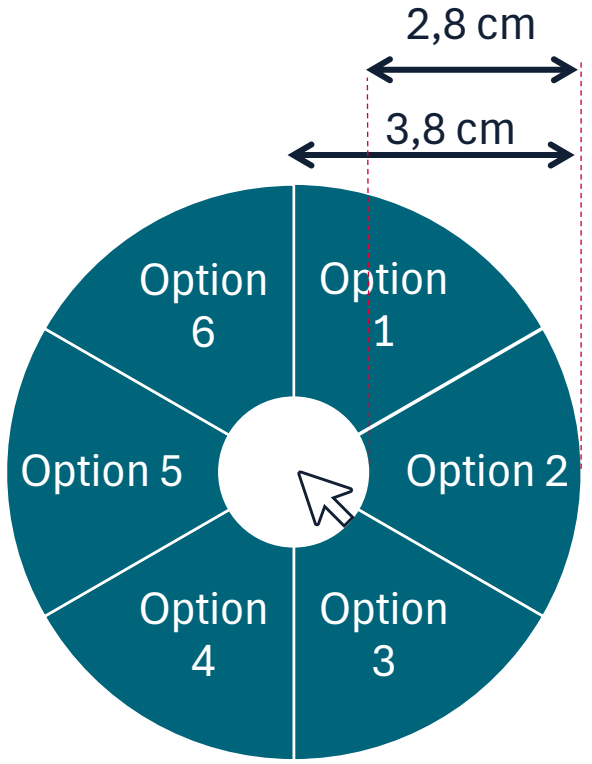
Fitt's Law: Applications

- Which will be **faster** on average?

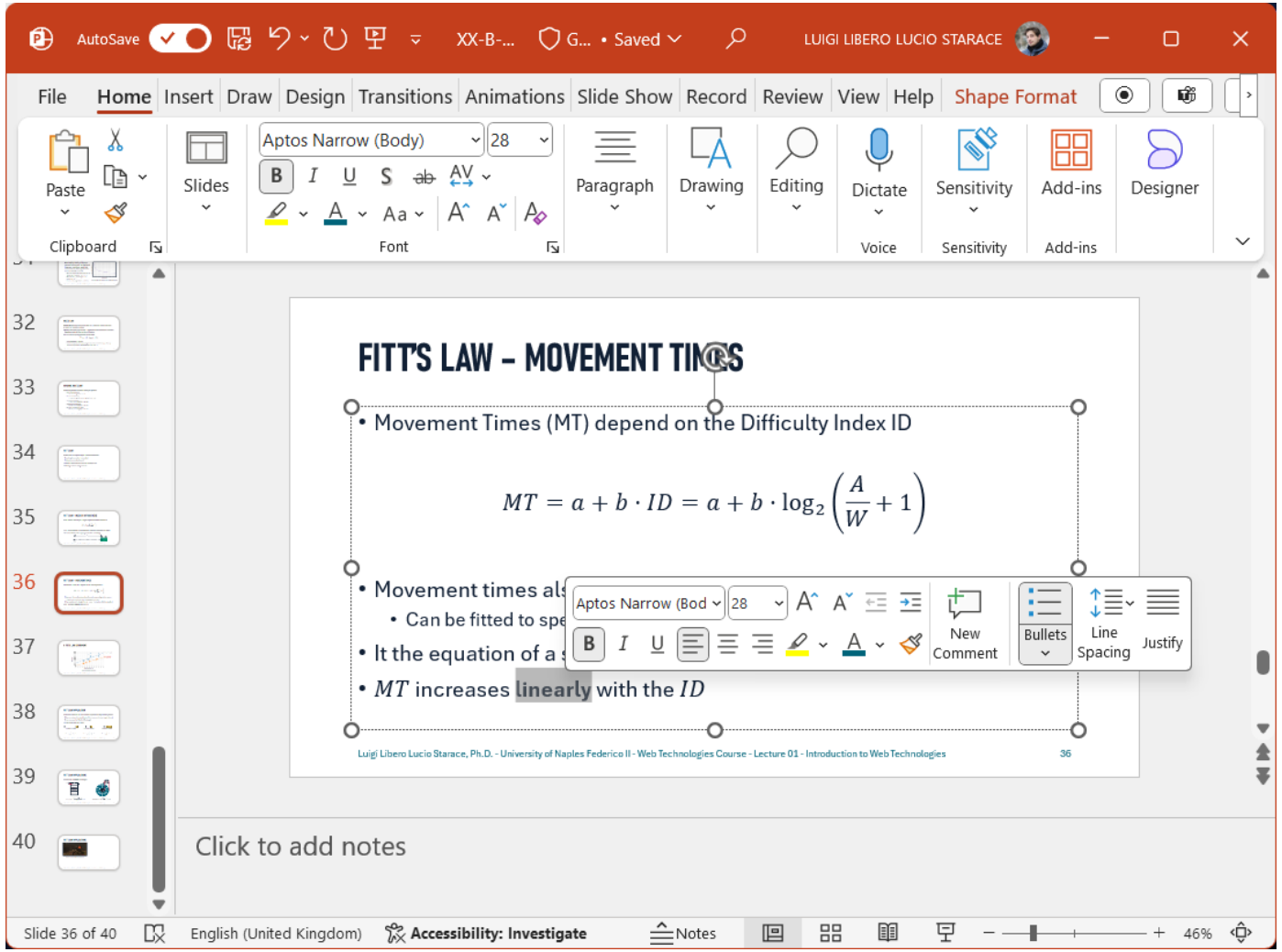


$$Average\ ID = \frac{\sum_{i=1}^{6} \log_2\left(\frac{i}{1} + 1\right)}{6} \approx 2{,}04$$



$$Average\ ID = \log_2\left(\frac{2{,}4}{2{,}8} + 1\right) \approx 0{,}89$$

Fitt's Law: Applications



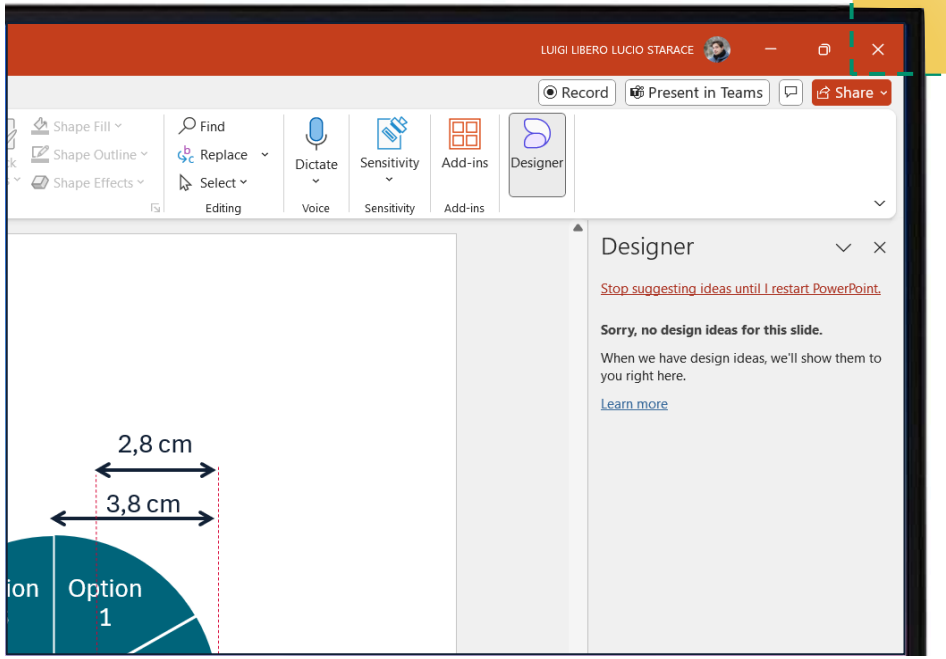
Fitt's Law: Applications

Shadow of the Tomb Raider
(videogame)

Grand Theft Auto: San Andreas – The Definitive Edition
(videogame)

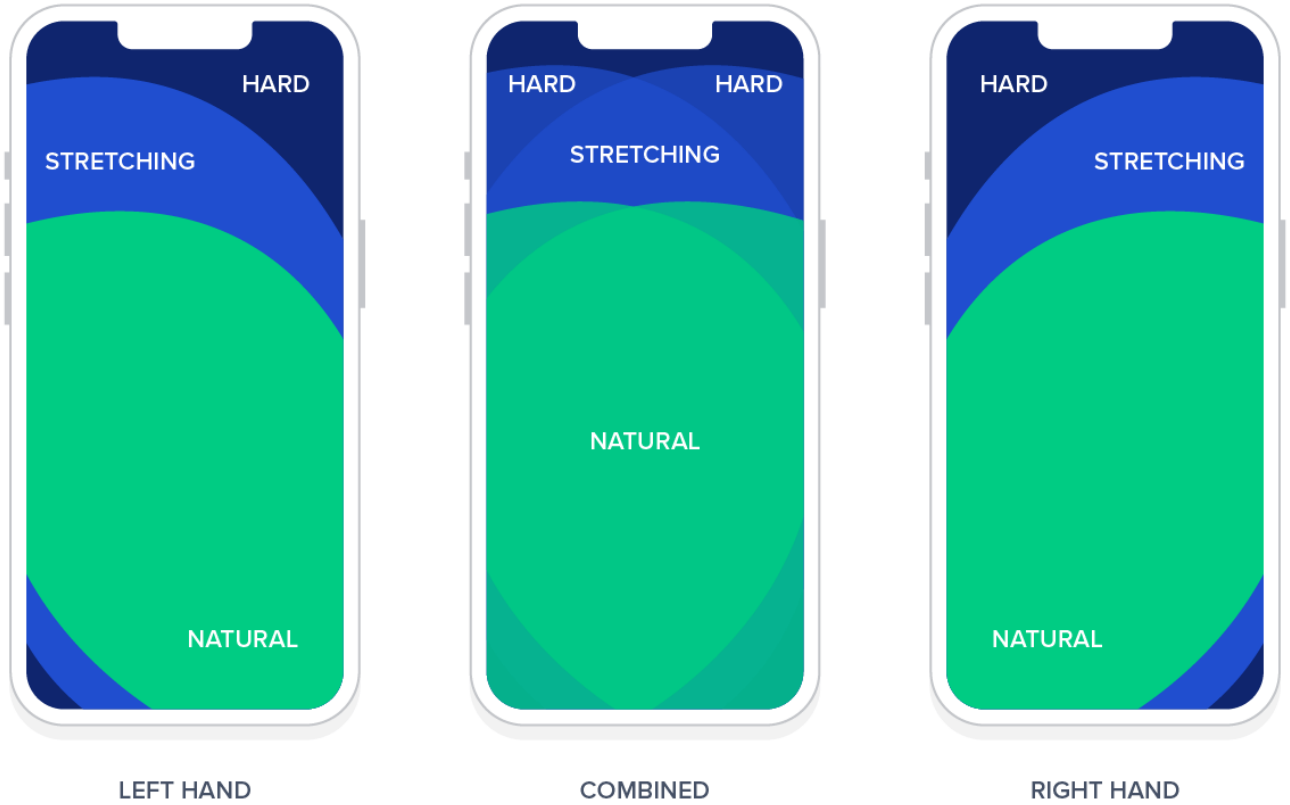
Fitt's Law: Infinite Widths

- With a pointing device, targets near the edges have an infinite width
- These targets are fairly easy to hit, as $ID = \log_2({}^{A}/_{\infty} + 1) = 0$!



Theoretical Effective Target Size

Fitt’s Law: Mobile Devices



https://www.toptal.com/designers/mobile-ui/fitts-law-user-interface-design

Readings and references

- Buxton, W. (1990). A Three-State Model of Graphical Input. In D. Diaper et al. (Eds), Human-Computer Interaction - INTERACT '90. Amsterdam: Elsevier Science Publishers B.V. (North-Holland), 449-456. https://www.dgp.toronto.edu/OTP/papers/bill.buxton/3state.html
- MacKenzie, I. S. (2003). Motor behaviour models for human-computer interaction. In *HCI models, theories, and frameworks: Toward a multidisciplinary science* https://www.yorku.ca/mack/mackenzie_chapter.html