King Saud University

College of Engineering

IE – 341: "Human Factors"

Fall – 2016 (1ˢᵗ Sem. 1437-8H)

*Chapter 3. Information Input and Processing*
Part – 2: Fitts's Law

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Fitts's Law

- Fitts's Law is used to reach a relation between
    - size of as well as distance to target
    - and speed (or response time, RT) to reach target
- Target can be button on screen or break pedal, etc.
- This has many (increasing) applications in HCI (human-computer interaction)
- The most important finding: edges of a screen are easiest (i.e. shortest time) to reach: can you show how?

Fitts's Law
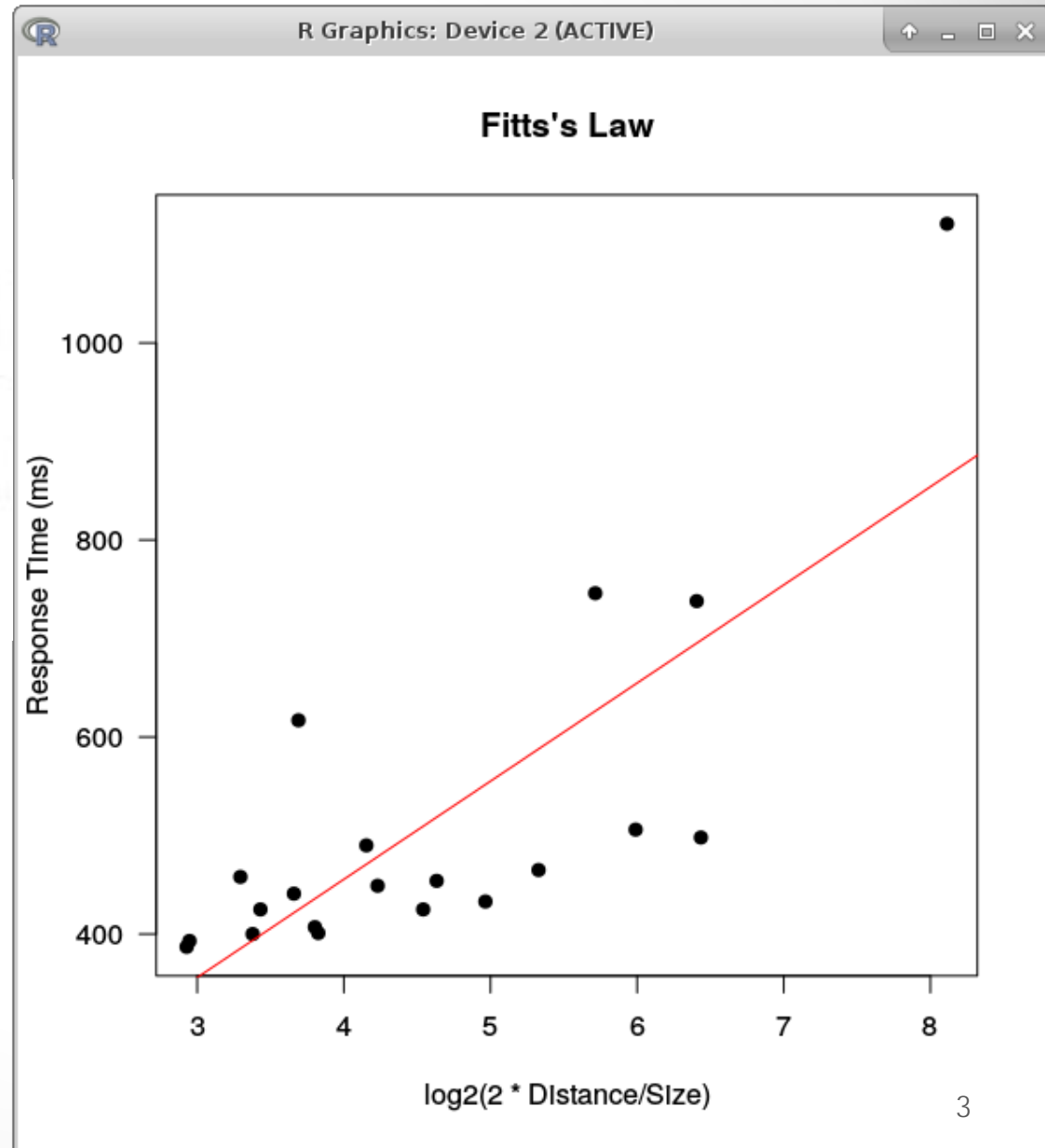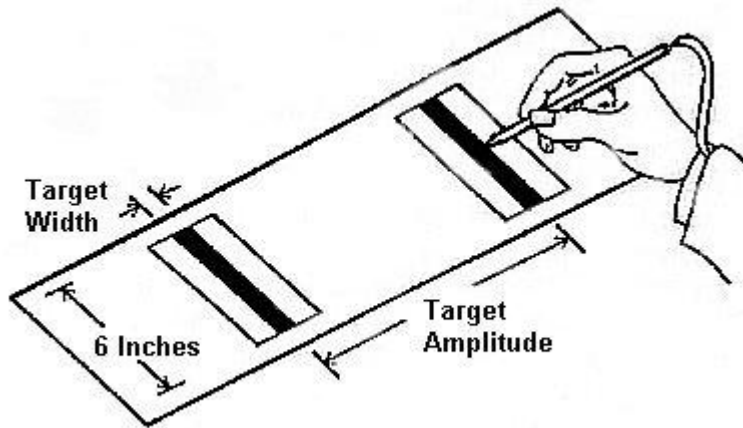
Fitts's Law

- Fitts's Law:

$$T = a + b \log_2 \left(\frac{D}{W} + 1 \right)$$

- D: distance to target (aka amplitude)
- W: width of target (i.e. target size, e.g. button)

- Note, there are different versions of Fitts's Law (e.g. 2D/W instead of D/W + 1)

Fitts's Law

- Link to good video on Fitts' (or Fitts's) Law
  https://youtu.be/E3gS9tjACwU

- Interactive Exercise on *Fitts's Law*
  http://fww.few.vu.nl/hci/interactive/fitts/

- Another interactive exercise and further explanation:
  http://www.psytoolkit.org/lessons/fitts.html