**IT351 – Human Computer Interaction**

Assignment 2 – Hick Hyman's Law

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Hick Hyman's Law states that the time it takes to make a decision increases with the number and complexity of choices.

The formula for Hicks law is defined as follows:

where,

RT = Reaction Time

H = Entropy

a, b = constants which are empirically determined

H is calculated as where "n" is the number of choices to choose from.

A mobile interface was created to demonstrate this law. The user will be shown 3 different menu structures from which they will be ordering a "Sofa".

**FIRST MENU**

Graphical user interface, text

Description automatically generatedGraphical user interface, text

Description automatically generatedThe first menu is a simple drop down list with the items divided according to the rooms they are kept in.

Graphical user interface, text

Description automatically generated

Reaction Time: 5.24s

Entropy: = 3.459

**SECOND MENU**

Graphical user interface, text

Description automatically generatedGraphical user interface, text

Description automatically generatedThe second menu makes use of icons to indicate the different rooms and the icons are displayed on the menu bar instead of in a menu.

Reaction Time: 3.11s

Entropy: = 3

**THIRD MENU**

The third menu is a drop down list with the items divided according to the 4 alphabet groups(A-E, F-L, M-R, S-Z).

Graphical user interface, text

Description automatically generatedGraphical user interface, text

Description automatically generated

Reaction Time: 7.38s

Entropy: = 3.584

Chart, scatter chart

Description automatically generatedPlotting the RT-H graph for each test case is below. Reaction Time is along the Y-axis and the Entropy is along the X-axis.