C.

1. Miller's 7 +/– 2 items (capacity of short-term memory)

Miller’s original theory argues that people can keep no more than 7 (plus or minus 2) items in their short-term memory. On a webpage, however, the information is visually present, people don’t have to memorize anything and therefore can easily manage broader choices.

Also, I believe having so many options, more that 7+-2, may distract the users to find what they are looking for on a website even though they don’t necessarily remember the options. Below you can see a screenshot of drop-down memory on Amazon.com that has a lot more than Miller has suggested. The user doesn’t need to remember the options; however, looking for a desired option is not an easy task. I consider this a bad HCI since as a user it is not convenient and easy to look through the options. I agree with Miller’s theory that having fewer options has a better result.

A screenshot of a cell phone

Description automatically generated

1. Fitts' Law

Fitts's law (often cited as Fitts' law) is a predictive model of human movement primarily used in human–computer interaction and ergonomics. This scientific law predicts that the time required to rapidly move to a target area is a function of the ratio between the distance to the target and the width of the target. An example of that could be Windows’ menus.

Below you can see an example of it where for some options like “Interval between breaks” there is another menu where you can choose the time. The user is restricted in their movements the pointing device cannot move any further when they reach the outermost points of the screen, doing so would result in disappearing the second menu as the cursor is not in the “Interval between breaks” option area. This example, I believe is perfectly showcases this law, using the mouse to get to the target.

A screenshot of a computer

Description automatically generated

1. Affordances

Affordances are clues about how an object should be used, typically provided by the object itself or its context. For example, even if you’ve never seen a coffee mug before, its use is fairly natural.

On the other hand, Gatesnfences.com has a poor design, especially in its Affordances.

Below you can see a screen-shot of its home-page. As you can see its design is not trivial for the users to navigate around, especially if the user has never used the website. The font size and style are not good. The search bar is not obvious to find. The texts do not have title, so it is difficult to read through them and find what we want. The image grids are not proportionally sized. In general, it doesn’t have a good design so the users, especially the first-time users, can’t easily navigate through it.A screenshot of a cell phone

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d.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Number of Keystrokes | Type of Confirmation | How to Quite |
| Texting Someone in Contact | 6 | Send Keystroke/ Siri | Home Button |
| Calling via Contact List | 7 | Send Keystroke/ Siri | End call button |
| Calling via Typing Phone # | 4(counting inserting phone digits as one keystroke) | Send Keystroke/ Siri | End call button |
| Playing Music on iTunes | 4 | Play Button / Siri | Pause button/ Home button/ Siri |

e. 1

It is that on myucla.com there is no search bar so that the users can easily search for the item/options that they are looking for.