Cognitive Fatigue and Information Overload

Do current interfaces make decision-making easier or more difficult for users?

Cognitive load is a term used to describe the effort that the user needs to complete a task and the memory he use to do it. When we talk of design, is very important to consider this efforts, and from this perspective we could say that this mean to simplify the UI and improve the usability, but from other perspectives it could mean other things. For example, a psychology would understand the cognitive load like the limitations of the human mind (FasterCapital).

Whatever, the overload of information is one of the causes of cognitive load and is very common in a lot of websites. In the news sites we can see a lot of articles, ads and links that make the user decision more difficult and make him mentally exhaust. Another reason is the complex navigation: complex menus, confusing navigation structures, etc. Currently, there is examples like the misunderstandings with voice assistance like Alexa, Google assistant, or Siri, that tire the user by make him repeat the instruction over and over (Salvo, 2024).

There exist strategies for reduce the cognitive load, some of these are: simplify navigation (limit the options and be the must clear as possible), use contextual help (displayable information, contextual assistance), take the focus "less is more" (reduce or eliminate the unnecessary elements), clear and coherent design (responsive design, well organized structure) (Izaguirre, 2025).

In my opinion, is true that the cognitive load increases when new technologies are presented and the number of companies grow. But, in the other hand, the mistakes that we make are constantly corrected; the internet has changed a lot in less than 10 years, just imagine what it will be in another 10. The cognitive load is something that the companies pay more attention to over time, and I'm very sure that all those frustration problems are going to be solved very soon.

References

Salvo, E. (2024, 28 junio). *Fatiga cognitiva en la tecnología: qué es y cómo mitigarla*. https://www.linkedin.com/pulse/fatiga-cognitiva-en-la-tecnolog%C3%ADa-qu%C3%A9-es-y-c%C3%B3mo-mitigarla-edu-salvo-sy4df/

Izaguirre, E. (2025, 24 febrero). Carga cognitiva en UX: qué es, tipos y cómo reducirla en tu sitio web. *Novicell*. https://www.novicell.es/es/blog/carga-cognitiva-en-ux-que-es-tipos-y-como-reducirla-en-tu-sitio-web

Reducción de la carga cognitiva en el diseño de la interfaz de usuario - FasterCapital. (s. f.). FasterCapital. https://fastercapital.com/es/contenido/Reduccion-de-la-carga-cognitiva-en-el-diseno-de-la-interfaz-de-usuario.html