

Human Computer Interaction

User Interface and User Interaction

Introduction

- User interface design and user interaction design are two closely related disciplines. One focuses on the design of the visual interface, the other more on the design of the global interaction behavior of the system.
- In other words, user interface is how the user faces the system and how the system faces the user. User interaction is how the user acts on the system and how the systems acts on the user.

User Interface

- User Interface design is the design of the system or interface with which a user has direct contact and with which they interact to conduct activities.
- User Interface Design refers to the aspects of hardware or software which can be seen (or heard or otherwise perceived) by the human user, and the commands and mechanisms the user uses to control its operation and input data.
- User interface design aims to enhance the visual, usability and technological qualities of an interface.
- It adds to the satisfaction of the person using a product or a service.

User Interaction

- Interaction design defines the structure and behaviors of interactive products and services, and user interactions with those products and services.
- Good interaction design effectively communicates a system's interactivity and functionality, defines behaviors that communicate a system's responses to user interactions, reveals both simple and complex workflows, informs users about system state changes, and prevents user error.
- Interaction design is grounded in an understanding of real users (goals, tasks, experiences, needs, and wants) and balances these needs with business goals and technological capabilities.

How is user interaction design related to user interface design?

- Three levels of interaction design: Conceptual, Behavioral and Interface.
- The interaction designer first investigates what is most valuable for users by thinking conceptually, after that the behaviour gets detailed; how should the user fulfil his goals and finally at an interface level. How should the interface look like to get this particular user experience?.
- In other words, interface design is one aspect (or design stage) of interaction design. We globally share this interpretation. However, we also believe, that sometimes innovation is made from just interface design. (Apple products are the best example of this)

- User interaction design can be achieved through tools like interactive mockup design or model-driven user interaction design languages, such as OMG's IFML (Interaction Flow Modeling Language).
- Interaction design is a discipline which examines the interaction via an interface between a system and its user.

UxI and UxID guidelines

- Software interface guidelines are made by larger organizations to insure consistency.
- User interaction guidelines are usually synonymous of usability guidelines. However, since user interaction and user interface designers look at the problem with different eyes, there exist specific kinds of guidelines.