



Human-Computer Interaction

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For the recent decades, computers have quickly and dramatically entered and changed the world. Technologies penetrate into traditional spheres of people's activity and are winning superiority there. These changes have happened due to the emergence and development of computer technologies. This refers to the most widespread fields of work, namely, to the commerce - one of the most important branches on which sustainability of modern economy rests. People need to have business relationships with each other, and computers have been applied for more effective trading experience. This is why HCI (human-computer interaction) has become so important for effective trading and commercial interactions.

The term itself was promoted and put to general use by Card, Moran, and Newell (1980) in early 1980s. However, the term is known to appear for the first time as early as in 1975 (Carlisle, 1976, p. 611). Though information technologies were not as popular at those times as they are now, this term and the concept behind it have become evidently important and attracted attention of numerous scholars. Nowadays computers are used by the wide variety of people. At those times, forty years ago, computers were mainly used by the specialists; they were either highly professional tools, or just very expensive toys, rather funny than useful instruments. HCI at that stage used to be more of theoretical interest, and this issue was considered interesting only by a limited number of IT specialists. In modern times, the situation is much different, and the problem has moved to the applied field.

This issue has got a number of dimensions, and now computers are used in different spheres of commerce. They help end users find and order desired goods and services, pay for them, and, in some cases, even receive them (for instance, a purchase of electronic book). Firstly, the user searches for the necessary file, then places an order, makes their payment, chooses the format and receives it.

On the side of the seller, computers help put goods and services to sale, then advertise them, receive orders, structure them, keep information about the orders and bookkeeping, etc. This shows that the majority of people in the world are engaged in this process. Some of them are selling and the others are buying. This is why it is so important to take into consideration the diversity of people involved in the process. Currently businesses have come to the understanding that meeting the interests of each customer is much more important than meeting the interests of the majority. This allows not only to increase the sales, but also to improve the overall satisfaction level of the customers, and thus to initiate the most effective kind of advertising campaign – word of mouth advertisements. There are numerous factors which need to be taken into consideration when developing a software product for HCI. And some of those factors may include psychological state of a person, personal cognitive abilities, diversities in culture and education, various disabilities, background knowledge, and many others. All of those need to be regarded, and the interface available to the end user needs to be user-friendly. The whole effectiveness of a commercial operation depends on this user-friendliness. If something is not clearly understood, the client is likely to leave the web site and look for easier solutions. If accessibility features are not considered, a user will also try to find a better way of solving their tasks, and, thus, will look for more accessible web site. Too complex language of the interface may lead to failure of understanding by the client, who does not speak the language of the interface, is in a hurry, or has got low level of background knowledge.

One of the most important elements of HCI is the display design. Wickens et al. (2003) offered a set of principles utilized for display design. Applying some of these principles proves to lead to an increased level of efficiency, as well as user satisfaction. On the other hand, they allow users to decrease the number of errors made and the time spent on training.

It is quite obvious that all the principles of effective HCI cannot be considered within each and every project. And, definitely, there should not be such a goal set. However, it is important to define the priorities in each particular case, and to take into account those high priority factors. And it is critically important, as the overall success of the company and business process depends on the quality of HCI nowadays. Previously, the quality of goods or services offered, advertisement campaign and many other factors were traditionally considered key factors to the business success. However, the situation has rapidly changed. A ticket for success is now a good user-friendly web site with attractive and explanatory images, clear structure that works without delays. This situation shows how serious the responsibility and how significant the role of software developer is.

In conclusion, the use of computer technologies within commercial projects continues to intensify, and the importance of HCI in business sphere keeps growing. Thus, the competition grows tighter as well. Therefore, the IT specialists working on HCI interfaces and mechanisms need to constantly advance as professionals and be ready for new challenges upcoming.

References

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