

Evaluation of persuasion in Human-Computer Interface: a validation of a criteria-based approach

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Today the user experience covers areas such as usability, satisfaction and accessibility which are known as critical factors for success. However, studies about persuasion, relying on credibility of the product for instance, are less recognized. Our goal is to promote the introduction of persuasive methods in software elaboration through psychosocial theories, especially in the Business Intelligence area. Currently, we are proposing a grid measuring persuasive criteria in interface.

1. Theoretical point of view

Fogg (2003) has established the science of captology, based on the acronym "Computer As Persuasive Technology". In a first step, we will define the persuasive technology and then present the framework for the persuasive elements analysis. According to us, persuasive technology can therefore be seen as a vehicle to influence and persuade people through ICT. The impact of persuasion technology affects the field of social work, psychology and ethics. Indeed, the technology becomes persuasive when people attribute qualities and properties to the technology that may increase the legitimacy, reliability and perceived credibility. Persuasive technology is characterized by the fact that the intention of changing the attitude and behavior is subtle, hidden and sometimes pernicious.

2. Proposed Criteria

Our proposal is based on a bibliographic analysis and draws up a grid that distinguishes forms and processes of social influence, respectively the static and dynamic aspects of the interface (Table 1).

<p>Static aspects of the interface (criteria based on the content of technological influence)</p>	<p>1. Credibility of the interaction (Fogg, 2003), 2. Guaranty of the privacy (Berdichevsky & Neuenschwaner, 1999), 3. Personalisation (Peppers & Rogers, 1998), 4. Displaying format that may reinforce behaviours (Redström, 2006).</p>
<p>Dynamic aspects of the interface (criteria for the implementation of the influence process)</p>	<p>8. Priming, Initiation of the users. (Joule & Beauvois, 1987) 9. Commitment (Kiesler, 1971) 10. Freely accepted compliance (Joule & Beauvois, 1998) 11. Ascendency and possibility of addiction, (Suler, 2005)</p>

Table 1: General articulation of criteria.

This distinction between static / dynamic introduces a gap between the surface property and the chronological organization of the interaction that progressively leads the user to do what is expected.

3. Discussion

We would like to discuss some points related to persuasive technology issues in contemporary ergonomics. Persuasion technology, like any persuasive method, is not unethical by itself; it depends on the way it is used). To address these problems, Berdichevsky and Neuenschwaner (1999) have proposed ethical principles of persuasive design. The most important principals explain that designers of persuasive technology should never seek to persuade one or several persons to do something they would not consent themselves to be persuaded to do.

4. Conclusion

This communication allows us to explain 8 criteria divided into 2 dimensions - static and dynamic aspects of the interface -seeking to improve the performance evaluation of persuasive elements in interfaces. These criteria can also serve as guidelines or rules guiding the choice of design. Moreover, classically inspect ergonomics software is judging one's ability to be effective, efficient, error tolerant, easy to learn and satisfying for its users; persuasion is generally outside the scope of the inspection. However, the intrusive aspects, ethical handling of certain domestic or professional interactions cannot remain outside the ergonomic analysis, particularly as these factors affect the attitudes of users to technology. Our approach presupposes the existence of a relatively generic model of the human. However, the diversity of users and situations of use belies this narrow conception of human. For this reason, the performance of inspection techniques may be minimal. In any event, they should be supplemented by other evaluation methods. Therefore, the validation phase of this grid is to be achieved.

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