

A vision for the future of human factors

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Abstract

Human factors is now well integrated within the design process of many organisations. The profession has become adept at assuring product usability. This has been achieved through an understanding of the design properties associated with usability and the accumulation of a battery of methods for usability evaluation and requirements capture.

Nevertheless, a usability based approach is limited. Products have the potential to bring a wide range of emotional benefits — to bring pleasure. Ensuring that these benefits are delivered requires attention to more than simply usability.

If human factors is to take the lead in assuring pleasure with products, then the discipline must meet three major challenges. Firstly, users must be ‘humanised’ — be understood as rational *and* emotional beings rather than being regarded as just physical and cognitive components of a system. Secondly, links must be established between properties of products and the emotional responses they elicit. Thirdly, methods, metrics and tools are required that enable pleasure with products to be quantified and which facilitate requirements specification with respect to pleasure.

Introduction

Human factors has come to increased prominence over recent years. This is reflected, for example, in the growing human factors literature and the host of national and international conferences dedicated to human factors issues. However, the most significant indication of this is the ever increasing number of human factors specialists that are now employed by industry.

This paper is focused on the role that human factors has played in product design. This is as opposed to, for example, physical ergonomics in the workplace and health and safety issues. In relation to product design, human factors appears to have gone through three phases over the last couple of decades.

Phase 1 — Being ignored. Going back ten years and more, few manufacturing organisations employed human factors specialists, even amongst the larger companies. Those companies who did were more likely to be involved in defence work. Certainly human factors was not much of a consideration for companies making consumer products.

Brookhuis, De Waard & Weikert (Eds.) 1997. *Simulators and Traffic Psychology* HFES Europe Chapter