

**Ergonomics in design: safety and user experience factors****Mahmut Ekşioğlu**

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Product/system design and development requires an interdisciplinary approach considering the lifecycles of products/systems. Traditionally, designers focus on functionality and perhaps economic aspects of the products/systems. However, safety of a product/system is also a very important factor that should be considered by the designers and modern engineers are required for this. Human life and health may be at stake and indeed, it is a liability issue as well. Most accident analysis reports indicate that accidents are related to human errors. However, careful analyses of such incidents reveal the real cause: Most of the accidents are due to equipment failure or design error. That is, human errors mostly originate from poor designs and for the case of user experience: the product should be useful, usable, findable, credible, desirable, accessible and valuable. The design stage offers the greatest opportunity and most cost-effective time to anticipate, analyze, eliminate, or control hazards, and examine and include the user experience aspects. Ergonomics is an applied science and engineering discipline concerned with these. In this paper, a critical examination of safety and user experience principles of product/system design and development is examined with examples from ergonomics perspective.

**Biography**

Mahmut Ekşioğlu is currently a Professor of Industrial Engineering and Director of Ergonomics Laboratory at Boğaziçi University. He received his PhD in Industrial Engineering and MS degrees in Industrial and Aerospace Engineering all in the US and a BS degree in Mechanical Engineering in Turkey. His area of expertise is in Ergonomics/Human Factors Engineering and he has been working in this area since 1992 as an Instructor, Researcher and Consultant both in the US and Turkey. He published over 70 articles in SCI journals and conference proceedings as well as several book chapters and developed an ergonomics assessment tool. He is also the inventor of the patented, Turkish E-Keyboards which is a Turkish Standard. He has memberships in several international professional societies.

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