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A strategy for Human Factors/Ergonomics: Developing the discipline and profession

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Abstract

Human Factors/Ergonomics (HFE) has great potential to contribute to the design of all kinds of systems with people (work systems, product/service systems), but faces challenges in the readiness of its market and in the supply of high-quality applications. HFE has a unique combination of three fundamental characteristics: (1) it takes a systems approach (2) it is design driven and (3) it focuses on two closely related outcomes: performance and well-being. In order to contribute to future system design, HFE must demonstrate its value more successfully to the main stakeholders of system design. HFE already has a strong value proposition (mainly well-being) and interactivity with the stakeholder group of “system actors” (employees and product/service users). However, the value proposition (mainly performance) and relationships with the stakeholder groups of “system experts” (experts from technical and social sciences involved in system design), and “system decision makers” (managers and other decision makers involved in system design, purchase, implementation and use), who have a strong power to influence system design, need to be developed. Therefore, the first main strategic direction is to strengthen the demand for high-quality HFE by increasing awareness among powerful stakeholders of the value of high-quality HFE by *communicating with stakeholders, by building partnerships* and *by educating stakeholders*. The second main strategic direction is to strengthen the application of high-quality HFE *by promoting the education of HFE specialists, by ensuring high quality standards of HFE applications and HFE specialists, and by promoting HFE research excellence* at universities and other organisations. This strategy requires cooperation between the HFE community at large, consisting of the International Ergonomics Association (IEA), local (national and regional) HFE societies, and HFE specialists. We propose a joint world-wide HFE development plan, in which the IEA takes a leadership role.

Practitioner summary

Human Factors/Ergonomics (HFE) has much to offer addressing major business and societal challenges regarding work and product/service systems. HFE potential, however, is underexploited. This paper presents a strategy for the HFE community to strengthen demand and application of high-quality HFE, emphasising its key elements: systems approach, design driven, and performance and well-being goals.