A consideration of the nature of work and the consequences for the human-oriented design of production and products

Abstract:
In this article, it is shown that human work can be understood as a process of creating order, and that order can be seen as a form of information. Since information can be considered as negative entropy, work is associated with energy consumption. Therefore, it is important to investigate the nature of human necessities in more detail in order to meet the desire for comfort through the efficient application of energy. Temporary increases of information cause accelerated increases in entropy. This explains the appearance of living organisms, and the historic development of increasingly complex technology. Through technical progress, repetitive human work is being replaced by automation, so that primarily creative work remains. Now the question arises of how much creative work a human can manage. In addition, one goal of automation should be the reduction of human errors, but in doing so, an optimal balance should be found between supporting the operator both during normal procedures and during unforeseen circumstances.