

The future of industrial design in view of “machine learning

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Abstract:

Artificial Intelligence (AI) is considered one of the most advanced sciences which currently utilized by the designers to improve human life through their novelties. In recent decades, many researchers have been focused on studying the impact of information technology and software implementation in product design processes. Moreover, the technology of artificial intelligence and the designer responsibility in the application of this technology have been illustrated. The drought of Arab Library's from such researches encourages researchers to explore the impact of machine learning concept on the future of industrial design. In this work, a brief summary of artificial intelligence and machine learning concepts are presented. On the other hand, their relationship with the design's future is discussed. Survey and questionnaire methods are exploited to collect a set of expectations for future life and product shapes as well as the anticipation of the role of the designer and the shape of the process of learning and teaching design. Finally, the expected future risks that may be resulted from the immersion of machine learning science in the individual life is investigated. **Research Problem:** The problem of research lies in the scarcity researches in the field of the impact of machine learning concept on the industrial design future. As the principle of standardization completely disappears in design and the principle of customization diminish, products personalization will be take place. Consequently, the style and the way of designing and manufacturing products will be affected. No doubt that, user experience is absolutely essential factor to guarantee brand survival, which makes artificial intelligence the main engine for personalizing the products of industrial design. **Research Objectives** Analysis the impact of the machine learning concept on the design future in light of the technology of artificial intelligence and machine learning as well as its role in the full shift towards the design of personalized products. Artificial intelligence makes the product a partner in decision-making and not only to interact with the user as in interactive products in its contemporary image. **Research Methodology :** Inductive approach and Deductive approach, qualitative approach and the quantitative approach, **Major Results:** Artificial intelligence and machine learning help to predict user behavior and design useful insights to improve user experience. Machine learning is the backbone of UX design because it is a very powerful source of real information which is a fruitful addition to the design of smarter products. Interaction with users is at the heart of the development cycle. It is expected that in the next 10 years' machine learning will become the norm responsible for the data used by the designers of the user's products and user experiences, ultimately making the end-user experience better.

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