

Reflecting the Optimization Theory and Digitalization on Applied Arts

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Abstract:

The contemporary Applied Arts have encountered new types and techniques depending on digital applications. It was turning point to gain access to concepts and ideas of design and moreover design experiments processes, production, and prototype. Designers already depended on scale measures to express variables and values of design physical measures such as length, weight, strength of materials, textures..etc. It was not sufficient for other variables that high sought- after Applied Arts such as convenience, comfort, and beauty.

Whatever applied arts designer was looking for other applications which contribute to find design solutions. Designers relied applied ergonomics and human measurements applications programs. Furthermore, applied arts products have been linked with functions and their high performance rate. All these required high techniques and standard parameters lead to typical design. High techniques will achieve and increase design ideas and experimental processes. The designer has to rely on digital parameters of the design activities which devolve to non-random design.

The optimization theory corresponds to mathematical theory which commonly used in applied and engineering product design.

Digitalization techniques affect the traditional applied arts, but we wonder if these digital techniques affect the creativity negatively or positively.

The search is exposed to digitalization theory and mathematical theory concepts relating to design processes to achieve typical design and present samples of digital art.

The search recommends relying digital techniques in experimental design to decrease time and cost, moreover relying and conserving energy by mathematical applications in learning design.

Keywords:

Optimization theory, Mathematical Theory, Typical Design, Trail-and- error, Digital Art.