

Spacetime and interactive product design

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Abstract

● Phenomenon of Research:

Recent term (spacetime) and this term is not new, but he appeared with zhoraalm peerless genius impact in our lives so far with his theories and sisal affects us several years to come, the world is ' Einstein and his theory of relativity, and may collect the time and place of the movement in one term is ' space ' was For the term close connection and basic with everything in our lives and his close relationship with industrial design product design, where everything is doing better with time, and the time since the beginning of time influence our life, and that is what petitioners would explain search.

Key Words: Spacetime - Interactive design - Four-dimensional techniques.

● Claim of Research:

Claims that there is a close relationship between factor (time) ' fourth dimension ' and industrial design products to detect this relationship will improve and develop product design.

● Objective Of Research:

Detect relationship between the fourth dimension (time) and designing products which contribute to improve and develop the design process, clarify and detect four-dimensional techniques and add it at the stage of product and determine design alternatives.

● Problematic of Research:

There is a relationship between time and product and are opaque relationship need to clarify and prove with evidence, and that there were four-dimensional techniques techniques rely on ' time ' featured related product design almost a fantasy. What are those techniques and how pragmatism in the process showing and modeling product.

● Methodology of Research:

Exploratory curriculum.

● Plan of Research:

To prove the prosecution must follow a plan to reach the goal:

human thinking when faced with problematic, if some information concerning problematic the seeker based on this information, and more may be required to reach the unknown elements in problematic, and pass on this in the language of logic by saying: the thinker Moving from the introductions to the results, this is inferred. So the conclusion in General is a mental process which is done by her transition from the unknown to the known, you must first identify the date when the term ' space '. And to clarify its relationship to products. As follows:

First: the origins of the term ' spacetime ':

1. three basic dimensions (physical dimensions) visible:
2. ' Einstein ' and the emergence of the term:
- 3-' time ' as a creature:
- 4-' time ' and its relationship to the product:
- 5-' place ' and its relationship to the product:

Scod: effect of the fourth dimension ' space ':**1. the influence of ' time ' to a user of the product:**

1-1-evolution of the human mind with time, technological progress and its impact on the product.

1-2-interactive design adds the element of time.

2. the relationship of ' time ' with the product: the product life cycle and its relationship to time:**3. relationship of ' time ' product design process:**

3-1-evolution and design theories change over time.

3-2-four-dimensional views of product modeling based on agent ' time ':

3-2-1- 4d printers

3-2-2- clytronics

3-2-3- Heads up Virtual Reality

3-2-4- Augmented reality 4d

3-2-5- Hologram

● Basic concepts:**First: spacetime:**

Spacetime (space and time) or relatively recent term in spatial temporal physics. English is the Spacetime chiseled the words space and 4-dimensional space, signifying you entered ' relativity ' to be event space instead of place empty absolute in classical mechanics and quantum theory. In 4-dimensional space that characterize each point (x, y, z) where (q, p, r) to spatial coordinates and symbolizes (g) to coordinate schedule. It is a combination of time and space in one window so that it is not their separation when physical calculations.

Second: Interactive design:

Interact more things that need to be considered in the user experience, no doubt, intended product interacts with the person who will use it. Or is the conversation between the producer and the user, and whenever be boring conversation whenever the user moves away from the product and the product more interesting. Interactive design, fascinating way to make people interact with devices and other digital products, combining everything we know about design and function in one concept.

Therd: Four-dimensional techniques:

Define Quad 4D Technology as a system that works on display images or elements in the form actually appears in real time in the form of a specific structure to include dimensions, width, height, and depth, and time. A technique works to make four-dimensional images interactive, so users feel they've simulated scene, which is called the 4-dimensional virtual reality.

● Results:

Search found the following results:

1. explain what the meaning of ' space ' as the word or term recently appeared in the third millennium.
2. clarify the relationship of time and space ' fourth dimension ' product design.
3. definition of the industrial designer's recent technology and a technology ' fourth dimension ' and to clarify its relationship with industrial design.
4. clarify what ' interactive design ' and its relevance to the design of the product.

● Recommendations:

Industrial designer has always informed of all that is new in the theme of appearance of new science related to product design and especially material science and physical dimensions, because this science has profound philosophies that will raise the quality of the product and attract the user.

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