Industrial design

Profession

Industrial design is an applied art whereby the aesthetics and usability of products may be improved for marketability and production. The role of an Industrial Designer is to create and execute design solutions towards problems of engineering, usability, marketing, brand development and sales. Definition of industrial design General Industrial Designers are a cross between a mechanical engineer and an artist. They study both function and form, and the connection between product and the user. They do not design the gears or motors that make machines move, or the circuits that control the movement.

And usually, they partner with engineers and marketers, to identify and fulfill needs, wants and expectations. In Depth " Industrial Design (ID) is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer. " According to the IDSA (Industrial Design Society of America) Design, itself, is often difficult to define to non-designers because the meaning accepted by the design community is not one made of words.

Instead, the definition is created as a result of acquiring a critical framework for the analysis and creation of artifacts. One of the many accepted (but intentionally unspecific) definitions of design originates from Carnegie Mellon's School of Design, " Design is the process of taking something from its existing state and moving it to a preferred state". This applies to new artifacts, whose existing state is undefined and previously created artifacts, whose state stands to be improved.

According to the (Chartered Society of Designers) design is a force that delivers innovation that in turn has exploited creativity. Their design framework known as the Design Genetic Matrix (TM) determines a set of competences in 4 key genes that are identified to define the make up of designers and communicate to a wide audience what they do. Within these genes the designer demonstrates the core competences of a designer and specific competences determine the designer as an 'industrial designer'.

This is normally within the context of delivering innovation in the form of a three dimensional product that is produced in quantity. However the definition also extends to products that have been produced using an industrial process. Industrial design is rapidly becoming an obsolete term as 'products' can now be industrially produced as 'one-offs' by the use of Rapid Prototyping Machines. In a post-industrial era and with the emergence of strategic design definitions such as this are incumbering designers and the advancement of design practice.

According to the ICSID, (International Council of Societies of Industrial Design) " Design is a creative activity whose aim is to establish the multi-faceted qualities of objects, processes, services and their systems in whole life-cycles. Therefore, design is the central factor of innovative humanization of technologies and the crucial factor of cultural and economic exchange. Process of design Although the process of design may be considered 'creative', many analytical processes also take place. In fact, many industrial designers often use various design methodologies in their creative process.

Some of the processes that are commonly used are user research, sketching, comparative product research, model making, prototyping and testing.

These processes can be chronological, or as best defined by the designers and/or other team members. Industrial Designers often utilize 3D software, Computer-aided industrial design and CAD programs to move from concept to production. Product characteristics specified by the industrial designer may include the overall form of the object, the location of details withrespectto one another, colors, texture, sounds, and aspects concerning the use of the product ergonomics.

Additionally the industrial designer may specify aspects concerning the production process, choice of materials and the way the product is presented to the consumer at the point of sale. The use of industrial designers in a product development process may lead to added values by improved usability, lowered production costs and more appealing products. However, some classic industrial designs are considered as much works of art as works of engineering: the iPod, Coke bottle, and VW Beetle are frequently-cited examples.

Industrial design has no focus on technical concepts, products and processes. In addition to considering aesthetics, usability, and ergonomics, it can also encompass the engineering of objects, usefulness as well as usability, market placement, and other concerns such as seduction, psychology, desire, and the sexual or affectionate attachment of the user to the object. These values and accompanying aspects on which industrial design is based can vary, both between different schools of thought and among practicing designers.

Product design and industrial design can overlap into the fields of user interface design, information design and interaction design. Various schools

of industrial design and/or product design may specialize in one of these aspects, ranging from pure art colleges (product styling) to mixed programs of engineering and design, to related disciplines like exhibit design and interior design. Also used to describe a technically competent product designer or industrial designer is the term Industrial Design Engineer.

The Cyclone vacuum cleaner inventor James Dyson for example could be considered to be in this category (see hisautobiographyAgainst The Odds, Pub Thomson 2002). Industrial design rights Industrial design rights are intellectual property rights that make exclusive the visual design of objects that are not purely utilitarian. An industrial design consists of the creation of a shape, configuration or composition of pattern or color, or combination of pattern and color in three dimensional form containing aesthetic value.

An industrial design can be a two- or three-dimensional pattern used to produce a product, industrial commodity or handicraft. Under the Hague Agreement Concerning the International Deposit of Industrial Designs, a WIPO-administered treaty, a procedure for an international registration exists. An applicant can file for a single international deposit with WIPO or with the national office in a country party to the treaty. The design will then be protected in as many member countries of the treaty as desired.