

Influences in D&T Knowledge Organiser

How do developments in Design & Technology influence design decisions and practice?

The design decisions that a designer makes can have a significant impact on the end user and on society. The use of new and emerging technology in design needs to be critically evaluated, with careful consideration given to present and future use and scenarios.

Learning from Existing Products and Practice

Ethics

Ethics are a system of principles that help a person or society behave morally and covers the following:

- the way to live a good existence;
- our responsibilities and rights as humans;
- what is right and wrong;
- what is good and bad (moral decisions).

Designers have huge ethical responsibilities, as all design work ultimately influences human lives. The following is one simplified way of looking at a designer's role:

Human Rights

The work a designer does should be for the good of everybody, not just the few.

Products are designed with precision for those who will use them, regardless of race, religion or culture. Designers fully understand the needs of those for whom they are designing and are engaged in addressing those needs.

Human Effort

The work of the designer should deliver on performance.

Products are designed to be functional, convenient and reliable. Products should perform better than the previous iteration that the target market user owned and should not place demands on the user to provide anything extra to enable it to function.

Human Experience

The work of the designer should delight.

The users who interact with the product should be delighted with their experience, not merely satisfied. The product does not impede on the users lifestyle, rather blending into the background. It is intuitive and empowering.

The Environment

The life cycle of a product is important for a designer to evaluate critically to understand how existing products have contributed to environmental damage or conservation. The main stages to focus on are:

- raw materials;
- manufacturing;
- distribution;
- post-consumer use.

A designer can have a significant impact on each of these stages through critical analysis of their own work. A key feature of this is in the reduction of materials required in the manufacturing and packaging of a product.

New technologies, such as the use of drones for product distribution, could cut air pollution significantly. The reduction of weight of a product would also positively impact this form of distribution.



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Product Enhancement

A product enhancement is any change made to a product that gives it an increased capability beyond the original specification. In digital technology, this is a commonplace action by companies, as enhancements can be made through upgrading software. Hardware can also be changed to enhance a product; however, this requires changing the physical manufacturing process. Many phone manufacturers release upgraded versions of their products each year.

When similar products by competitors offer the enhanced feature on their products.



Lacking Features

When the first iPhone was introduced in 2007 it was considered to be a game-changing personal device. However, it lacked some key features that other smartphones offered as standard. Most significant of these was the capability to record video. Unsurprisingly, the iPhone released in 2009 incorporated video recording, bringing it in line with other smartphones. Can you imagine a smartphone that can't record video?

When consumers make the changes themselves and a manufacturer notices the opportunity to provide the enhancement.



Street Style

Trends in fashion can often come from the street, not the catwalk. Ripped denim jeans have been on sale in high street shops on and off for at least 30 years. Originally, all denim was dark blue and the washed out colours and rips happened through wear and tear. At some point in the late 1980s, one-by-one, all of the main jeans manufacturers began.

When new technology becomes available that was not present at the time of manufacture.



Plugging In

So many rechargeable devices use USB connectors to charge up. A few years ago, this would have meant powering up a computer to plug in, or taking a three-pin plug around with you in your pocket. Thankfully, manufacturers recognised that this new technology presented an opportunity for an enhancement of the existing plug socket fascia. Today, there are numerous versions of the socket available with two or more USB sockets in them.

