



Beneath the glossy surface of official design lurks a dark and strange world driven by real human needs. A place where electronic objects co-star in a noir thriller, working with like-minded individuals to escape normalisation and ensure that even a totally manufactured environment has room for danger, adventure and transgression. We don't think that design can ever fully anticipate the richness of this unofficial world and neither should it. But it can draw inspiration from it and develop new design approaches and roles so that as our new environment evolves, there is still scope for rich and complex human pleasure.

Corporate futurologists force-feed us a 'happy-ever-after' portrayal of life where technology is the solution to every problem. There is no room for doubt or complexity in their techno-utopian visions. Everyone is a stereotype, and social and cultural roles remain unchanged. Despite the fact that technology is evolving, the imagined products that feature in their fantasies reassure us that nothing essential will change, everything will stay the same. These future forecasters have a conservative role, predicting patterns of behaviour in relation to technological developments. They draw from what we already know about people, and weave new ideas into existing realities. The resulting scenarios extend pre-existent reality into the future and so reinforce the status quo rather than challenging it. Their slick surface distracts us from the dystopian vision of life they wish for. By designing the props for the videos produced to show us what the future could be like, design works to keep official values in place.

An occasional glance through almost any newspaper reveals a very different view of everyday life, where complex emotions, desires and needs are played out through the misuse and abuse of electronic products and systems. A mother shoots her son after an argument over which television channel to watch; a parent is outraged by a speaking doll made in China which sounds like it swears; the police set a trap for scanner snoopers – people who listen in to emergency radio frequencies illegally – by broadcasting a message that a UFO has landed in a local forest, within minutes several cars arrive and their scanners are confiscated. Many of these stories illustrate the narrative space entered by using and misusing a simple electronic product, how interaction with everyday electronic technologies can generate rich narratives that challenge the conformity of everyday life by short-circuiting our emotions and states of mind. These stories blend the physical reality of place with electronically mediated experience and mental affect. They form part of a pathology of material culture that includes aberrations, transgressions and obsessions, the consequences of and motivations for the misuse of objects, and object malfunctions. They provide glimpses of another more complex reality hidden beneath the slick surface of electronic consumerism.

Amateur subversions and beta-testers

When an object's use is subverted, it is as though the protagonist is cheating the system and deriving more pleasure than is his or her due. The subversion of function relates to a breakdown of order; something else becomes visible, unnameable, unable to find a correspondence in the material world. This subversion of function is related to not being able to find the right word, leading to the coining of neologisms that bend language to accommodate something new. Desire leads to a subversion of the

environment creating an opportunity to reconfigure it to suit our 'illegitimate' needs, establishing new and unofficial narratives.

Some people already exploit the potentially subversive possibilities of this parallel world of illicit pleasures stolen from commodified experience. They seek out (ab)user-friendly products that lend themselves to imaginative possibilities for short-circuiting the combinatorial limits suggested by electronic products. This ranges from terrorists fashioning bombs and weapons out of mundane everyday objects, many of which are listed in the Anarchist Cookbook, to Otaku magazines showing Japanese gadget geeks how to modify standard electronic products to squeeze extra functionality out of them. There are no futurologists at work here. The main players in this world are beta-testers, tweaking and adjusting reality on a day-to-day basis. They are dissatisfied with the version of reality on offer, but rather than escaping or dropping out, they adjust it to suit themselves. Concerned with software not hardware, they invent new uses for existing technologies and promote interaction with 'designed' objects that subvert their anticipated uses. In doing so, they challenge the mechanisms that legitimise the conceptual models embodied in the design of the product or system and demonstrate behaviours towards technology that invite others to follow.

Beta-testers have learnt how to derive enjoyment from electronic materiality, from rejecting the material realities on offer and constructing their own. They display a level of pleasure in customisation currently limited to home DIY and custom car hobbyists. Many specialist magazines and books are already available that show readers how to modify or tweak everyday electronic products. Most of them are a little technical, but only because knowledge of electronics is still not as common as other forms of practical know-how. After all, an ever-growing number of home improvement magazines and TV programmes thrive on the pleasure people get from modifying their environments themselves – of customising reality. Maybe in the future we will see popular electronics magazines that show us how to turn our mobile phones into eavesdropping devices in three easy steps?

Consumers as anti-heroes: some cautionary tales

The almost unbelievable stories reported in newspapers testify to the unpredictable potential of human beings to establish new situations despite the constraints on everyday life imposed through electronic objects. We are interested in people who have assimilated electronic technologies so fully into their lives that they feel comfortable doing things others would think of as almost too sacred or highly charged for technology. These individuals can be thought of as sad, based on the view that playing out deeply human narratives through technological objects is degrading and inferior to more traditional media. Or they can be seen as early adopters, able to find meaning and recognise the potential of new technologies for supporting complex human emotions and desires.

Teenagers are now using their mobile phones to intimidate each other. A new form of bullying has emerged since Christmas 1999, when a huge number of teenagers in Britain received pre-paid mobile phones as gifts. Earlier in the year, a 15-year-old was driven to suicide after receiving up to 20 silent calls in half an hour. The teenager left a suicide text message on her mobile phone the night before she died. The fact that her suicide note was in the form of a text message rather than handwritten will seem even more tragic to some, but to this girl text messages played a more vital role in her life than letters.

As a society we are struggling to define and communicate the safe use of new media to teenagers. Just as we have developed models of safe behaviour for the street and for dealing with strangers in cars, we will have to do so for phones and computers. It is not that these technologies are in themselves harmful, it is their use and misuse that we need to understand. Another distressing example is that of the 16-year-old schoolgirl raped by a man she chatted up with phone text messages. She swapped messages for weeks before agreeing to meet the stranger in a car park. For many teenagers, the mobile phone is a gateway to romance, and new hybrid services are fusing the lonely hearts column with text messaging. It is only a matter of time before purely text-based romancing matures as a genre of its own.

A more humorous example is the man in Australia who married his TV. During the ceremony, he placed a gold wedding ring on top of the TV set and one on his finger. He even promised to 'love, honour and obey' the product. One day it just occurred to him that his TV was the best companion he had ever had – he watched up to ten hours a day. It is easy to criticise people who watch so much TV, but in many ways this form of happiness shows what might be in store for the rest of us as society becomes even more electronically mediated. Though it is not necessarily a good thing, some people clearly find the company of electronic products more satisfying than that of people. These individuals are not rejecting other people because of technology; they have found happiness with technology instead. Before the advent of television and the web, they might have been lonely.

Maybe these obsessive behaviours provide glimpses of a future where electronic products have been fully assimilated into everyday culture and our psyche. They are cautionary tales; they push our relationship with the medium of electronic technology to the limit. This is despite the design of the products: in fact there is a contrast between the banal design of many electronic products and the extreme misuses they are subjected to. Products could offer more complex and demanding aesthetic experiences if designers referred to this bizarre world of the 'infra-ordinary', where stories show that truth is indeed stranger than fiction, and prove that our experience of everyday day life lived through conventional electronic products is aesthetically impoverished.

When objects dream...

Electronic objects, from mobile phones to washing machines, are often described as 'smart'. But using this term to describe objects with enhanced electronic functionality encourages a bland interpretation of the things that are an integral part of our daily lives. Electronic objects are not only 'smart', they 'dream' – in the sense that they leak radiation into the space and objects surrounding them, including our bodies. Despite the images of control and efficiency conveyed through a beige visual language of intelligibility and smartness, electronic objects, it might be imagined, are irrational – or at least they allow their thoughts to wander. Thinking of them in terms of dreaminess rather than smartness opens them up to more interesting interpretations.

The dreams of electronic objects are made from electromagnetic radiation. These dreams radiate outwards from the object, creating a new, invisible but physical environment that we call hertzian space. It is here that the secret life of electronic objects is played out, secret not only because we rarely glimpse it, but also because we are only just beginning to understand it. The electromagnetic spectrum covers an enormous spread of frequencies, ranging from the fields given off by electrical wiring (50 Hz),