

# WHY DESIGNERS AND PHILOSOPHERS SHOULD MEET IN SCHOOL

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## ABSTRACT

Many scholars who study user-technology relations have shown from different perspectives that such relations are mutually constructive: users shape technology, and technology shapes users. This awareness raises questions about the part a designer plays in the workings of society. Are designers responsible for the social role of their products? Can designers promote the well-being of users and society at large? These questions are still largely absent in design education. In this paper we argue the importance and benefit of integrating concepts from Philosophy of Technology and the related field of Science and Technology Studies (STS) in design education. We will discuss a threefold benefit of a combined approach that draws on both traditional design education (generally focused on individual users and objects) and theoretical approaches to technology (generally focused on how technology marks and transforms the way we live our lives). In the first place such an integrated approach enables a deeper insight in the social significance of design. Secondly, it allows for a better understanding of design theory and practice itself. Thirdly, it provides a basis for the development of new design perspectives that promote human well-being. To illustrate we will introduce the notion of ‘*open script design*’ as a new design perspective that was developed in a Capita Selecta design course based on insights from philosophy of technology and STS.

*Keywords: Design for Well-being, Philosophy of Technology, Science and Technology Studies, Design Theory, Open Script Design*

## 1 INTRODUCTION

Design is everywhere. Our daily lives are so deeply intertwined with design that it is hard to imagine any experiences that are free from its touch. At the same time it is difficult to see and understand the myriad ways in which design influences our lives – how it shapes daily practices, how it changes the way we interact with others and how it sets new social forms.

Dorrestijn and Verbeek [1] assert that implicitly or explicitly designers always affect the well-being and lives of users and society at large: in a direct sense because products fulfil existing needs, but also in a more indirect sense because products affect the behaviour, attitudes and needs of users. Facebook may fulfil a need to maintain contact with friends, but it may also consciously or unconsciously renegotiate the meaning of friendship and change the rules and practice of inter-personal relationships. Similarly, mp3 players have renegotiated the meaning of music by establishing new ways of listening, obtaining and owning music. Likewise, digital cameras renegotiated the meaning of memories, by changing how and what events we capture.

The awareness that technology guides and changes the way we live our lives raises critical questions; not only for governance and ethics, but – as will be the theme of this paper – also about the part that designers play in the workings of society. Are designers responsible for the social role of their products? What is the agency of a designer in shaping user behaviour, and in a larger context in shaping society? Can designers employ user-influencing effects to address the ills of contemporary society and promote human well-being? Although design discourse is becoming increasingly aware of these questions and their importance, in practice designers are still searching for footing when dealing with these issues. Dorrestijn [2] asserts that it is an important task and challenge for designers to understand and cope with the influences of technology on our lives and well-being. In pursuit of this challenge we aim to advance ‘design for well-being’, where we consider well-being in its broadest sense, as ‘what is ultimately good *for* a person’. In this paper we argue the importance and benefit of

integrating insights from theoretical approaches to technology in design education; especially from philosophy of technology and the related and interdisciplinary field of science and technology studies (STS).

What brings together design and theoretical, philosophical reflection on technology is the shared interest in the mutual adaptation of humans and technology [1]. However, designers and philosophers take on radically different perspectives [3, p.212]. While philosophers are principally concerned with *understanding*, and *reflecting on* human-technology relations, designers are more pragmatic and interested in *shaping* human-technology relations. We believe that to advance our understanding and practice of how humans and technology are best adapted to each other, both perspectives are essential. Therefore, in this paper we will discuss a threefold benefit of an integrated approach to design that draws on both traditional design education and theoretical approaches to technology. First we will discuss how an integrated approach enables a deeper insight in the social significance of design. Secondly we will show how socio-historical reflection allows a better understanding of (the development of) design theory and practice, and in the third section we will illustrate how an integrated approach can form a basis for the development of new design perspectives that promote human well-being.

## **2 SOCIAL SIGNIFICANCE OF DESIGN**

The examples in the introduction emphasize the importance of investigating the social role of design and the agency of designers to promote well-being. To be able to analyse and consciously cope with the social aspects of product design, it is important for designers to develop an understanding of how technologies guide and change our lives.

Philosophers of technology have offered insightful analysis of how technology helps to shape human existence. During the past couple of decades, philosophy of technology increasingly started to interact with fields like STS, culture studies and media and communication studies [4]. This led to a family of approaches to technology that is more empirically informed than classical approaches. Instead of studying technology in its entirety, contemporary approaches illuminate aspects of what can be called 'technical mediation' and focus on concrete technological artefacts and the part these play in shaping human actions and experiences. Examples of philosophers in this tradition are Don Ihde, Albert Borgmann, and Peter-Paul Verbeek [e.g. 5, 6, 7]. Their work is influenced by the field of STS, and according to Franssen et al. [8] by two ideas in particular: the idea that technological artefacts contain scripts, which can be understood as instruction manuals that are implicitly or explicitly inscribed in objects and influence human behaviour; and the idea that material objects must be considered as sources of morality and politics [e.g. 9, 10].

The 'empirical turn' has rendered contemporary approaches in philosophy of technology more suitable for application in design. Moreover, associated with the turn towards user-centred design we believe that present design theory and practice is quite receptive for the inclusion of concepts from philosophy of technology and STS. Since the 1980s usability is becoming an ever more important issue in product development. As a consequence of the focus shift from technology to the user, designers have moved away from technology-driven development and increasingly approach product development from the perspective of human-technology relations. Today's designers are well trained in shaping user-product relations, for example by applying techniques associated with Scenario Based Design [11]. In present-day design, instead of functionality, usability has become the central criterion of what is 'good design'. However, awareness is rising that 'good design' entails more, and that it can be captured by neither functionality nor usability alone.

This awareness has recently yielded several initiatives that aim to understand 'good design' in terms of well-being. Several design approaches have been developed that make well-being an explicit design concern. Value Sensitive Design was developed in the field of computer ethics and seeks to provide theory and method to account for human values throughout the design process [cf. 12]. Life-Based Design takes a holistic approach to human-technology interaction, looking at people's whole life and the role of technology in them [e.g. 13]. Furthermore capability approaches to design assume that well-being is dependent on a set of basic capabilities (e.g., capability to be adequately nourished) and that technology can extend human capabilities [e.g. 14]. However, most of these methodologies suffer the critique of being vague and still under-developed. Moreover, many of these initiatives are developed outside of traditional design disciplines and are as yet scarcely known to designers.

An exception is the family of design methodologies that can be referred to as *emotional design*. The past few years emotional design approaches have received growing attention in both design research and education. These approaches are concerned with how the physical design of products can induce positive feelings and emotions, or contribute to the experience of immersion, flow or mindfulness. Jordan [15] for example developed a design methodology based on the idea that designers should not just design for functionality and usability, but also for pleasure. And Norman [16] suggested that designers should take into account the emotional response of users to products and ensure that products evoke positive feelings.

What is promising is that these developments show that designers move away from the traditional, but obsolete premise that products are 'neutral carriers of will' that simply help to achieve a certain goal more effectively or efficiently. However, although the subject of design for well-being is gathering steam there are some important critiques that need consideration. An important critique to both usability and emotional approaches to design is that they predominantly focus on how products affect (the mental state of) users while products are being used and perceived. More lasting or in-direct consequences for well-being are generally not considered. For example, the design of new social media is predominantly focussed on usability concerns: making human communication easier, less risky and more immediately satisfying [17]. Accordingly there is much attention for improving accessibility and engagement of social media. More lasting or in-direct effects on the user's life as a whole or on a societal level are generally not considered, like the impact of new social media on the development of our character. Vallor notes how current studies predominantly focus on immediate psychological impact of social media, while they are indifferent to the impact of social media on the development of social and communicative virtues. She shows how the immediate nature of social media impedes the development of patience, honesty and empathy which are essential social virtues in developing and sustaining human connections. She comments that '*Today's technologies provide us with an ever-widening horizon of escape routes from any interaction that has lost its momentary appeal*' [17, p.196]. Vallor warns for the adverse effect on our well-being, and calls out to designers to acknowledge the importance of these virtues and to invest in building on them.

The fact that more in-direct and long-term social consequences of technology on our lives and well-being are often not considered can be associated with the inclination of contemporary design theory and practice to focus on individual objects and users [18]. There is little attention for the wider social context and significance of design. This is recognized by Poyner [19, p.178] who comments that: '*when the possibility is raised that design might have broader purposes, potential and meanings, designers who have grown up in a commercial climate often find this hard to believe*'. To underline this statement he quotes graphic designer and educator McCoy who asserts that: '*we have trained a profession that feels political or social concerns are either extraneous to our work or inappropriate*.' However, as the unavoidable nature of technical mediation implies, technologies always have a social role and will always affect the way we live our lives: the design of new social media will undoubtedly have a major impact on the communicative habits of future generations. Certainly, this is not necessarily a good or bad thing: throughout human existence we have always adapted and renegotiated ourselves in the light of new technologies. Yet, if we want to make well-being an explicit design consideration we must contemplate design choices in a wider social and political context. Moreover, we argue that our growing insight in the mediating power of technology and the awareness that we can actively employ user-influencing effects of technology in the physical design of products give designers the responsibility to consider the social roles of their designs. We acknowledge that technology will always have unintended consequences, and that the social role of design is determined by many actors, among whom users. This means that designers can never be solely responsible for the social role of their designs; they are however co-responsible.

Enriching design education with insights from philosophy of technology and STS will help designers to take this responsibility. A thorough understanding of technical mediation and developing sociological imagination will help designers to envision the social roles of their design. Interesting trajectories that can guide designers in understanding and deploying user influencing effects of technology are for example philosophy of technical mediation [cf. 7] and script-analysis [cf. 9]. Furthermore, the work of STS scholars is interesting for designers as it can contribute to their awareness of the mutual construction of technology and society. STS scholars have developed many theoretical frameworks that aim to understand the dynamic interweaving of activities between technology developers and users in the innovation process. Among such trajectories are the Social

Construction of Technology [cf. 20], Actor-Network Theory [cf. 21] and Domestication Theory [cf. 22]. Finally, as most these trajectories fall within its scope, we would like to emphasize the general importance of ethics of technology (especially in terms of well-being). We realize that asking designers to engage with public issues and social contexts unavoidably means that designers must take ethical and political stances on things. Therefore we believe it is important for designers to engage in the question of 'the good life' and develop basic skill in ethics and ethical reasoning.

### 3 SOCIAL SIGNIFICANCE OF DESIGN

Engaging in a dialogue with theoretical approaches to technology is furthermore valuable because it will help designers to develop socio-historical awareness which allows a better understanding of (the development of) design theory and practice itself. In this section we will try to show how the typical way in which we design cannot be understood in isolation of the characteristics of society, but that design theory and practice develop in a dialectic process with society.

Present-day design is characterized by a focus on individual objects and user. The fact that social and political concerns are generally not considered in the development of consumer products can be understood in view of our *Zeitgeist*. In our liberal democracy individual autonomy and protecting the rights of individuals is at the top of our agenda. Bauman [23] explains how our present-day situation emerged from aversion to the totalitarian, utopian tendencies of modern industrialized societies, which were accused of rigid discipline and social repression. The dystopian image of all-embracing, enforced homogeneity was a major drive to set out and liberate the individual from any constraints that could possibly limit his freedom to choose and act. However, Bauman also shows that the unparalleled freedom that today's society offers its members comes at considerable costs. Our postmodern society is marked by perpetual change and unprecedented uncertainty.

Design theory and practice developed much in correlation. Many modernist designers were driven by a strong utopian program and were explicitly concerned with improving people's way of living by means of design. Captured by his motto '*savoir d'habiter, savoir vivre*' Le Corbusier believed that the design of the dwelling would assist the people in the process of 'knowing how to live well' and in becoming capable members of utopia. This exemplifies the modernist belief that the built environment could (and should) mould human behaviour [24]. Also, in accordance with the belief in a grand narrative and universal truths, modernist designers followed the idea that for each product an ideal type exists. They designed for the *homo universalis* and denied the diversity of users which led to collective and anonymous designs.

Postmodernists strongly disapproved of utopian beliefs and strivings and rebelled against a totalizing world picture. They encouraged people to pursue their own ways of living. Accordingly, improving society would no longer be an explicit design consideration. The utterly repressing idea of the ideal type was rejected and diversity became the emancipatory theme in the postmodern design paradigm instead. According to Dorrestijn and Verbeek our contemporary design paradigm can be referred to as the paradigm of '*unhindered plurality*' that aims to support an '*unrestricted diversity of singular lifestyles*' [1, p.7]. Although the advent of postmodernism meant the end of paternalism and social repression, the contemporary design paradigm of unhindered plurality introduces its own set of problems fostering consumerism and hyperchoice [25].

This historical reflection shows how artefacts developed in a certain type of society reflect and reinforce the values that are inherent to that society. Our contemporary design paradigm fosters and preserves the structures of consumer society by emphasizing diversity, leading to increasing product segmentation, but also by promoting instant gratification. Facebook, mp3-players and digital cameras for example all embody immediacy and novelty: instant messages, instant photos and on-demand music heighten people's sense of urgency and need for instant gratification which encourages the consumerist attitude. Furthermore this historical reflection shows a development of increasing and decreasing social engagement in design. According to Dorrestijn and Verbeek [1, p.8] the underlying ethical and political theme is the struggle between human freedom and the power of technology to govern people's way of living. It seems that neither an exclusive focus on individual freedom, nor an exclusive focus on the collective and social cause is desirable in design practice. Dorrestijn and Verbeek pose the question '*whether, in the attempt to evade the dangers of domination by and via technology, the influences of technology have not come to be too much underestimated or neglected.*' And set the challenge '*to fully acknowledge the mediating of behaviour and ways of living by technology, and to employ this for enhancing well-being in a moderate and wise way [...].*'



## 4 OPEN SCRIPT DESIGN

The previous sections have both discussed how philosophical, theoretical reflection of technology has potential to enrich design education and advance design for well-being. Another advantage is that acknowledging technical mediation and sociological imagination will lead to new design approaches. To illustrate this argument we will introduce the concept of ‘*open script design*’ that was developed in a Capita Selecta course using concepts from philosophy of technology and STS [26].

Against the background of the unsustainability of contemporary life, the central theme of the Capita Selecta project was the relationship between consumer behaviour and well-being. One of the project’s objectives was to understand how design can make a difference in consumerism and establishing well-being as the purpose of consumption.

In today’s society consumption has become a goal in itself: we are caught in the infinite cycle of desire -desire, acquisition, reformulation of desire, *ad infinitum*. This cycle pressures us to continuously move on to ‘the next’, resulting in the ceaseless succession of goods. While, following Tiberius’ value fulfilment theory [27], not the succession of goods, but coming to care about our products is what contributes to our well-being. To regain focus on the things themselves, it is necessary to re-conceptualize our notion of consumption. Influenced by domestication theory, we argue that understanding consumption in the act of appropriation (making something your own), rather than in the act of buying, will help to establish well-being as the purpose of consumption. ‘Making something your own’ may include the act of buying, but comprises a broader set of actions such as giving the object a place in your home and in your routines.

So how can we support this re-conceptualization of consumption by means of design? In answer, elaborating Akrich’s concept of script, we proposed the notion of *open script design*. Designers, through anticipating future use, implicitly or explicitly build in use-prescriptions in the materiality of products. However, instead of inescapably following the designer’s script, users interpret the script in their own way. Employing open scripts means that designers deliberately increase the *interpretative flexibility* [20] and assign an active role to the consumer to appropriate the product. And, to discourage product segmentation, open script design challenges designers to address a wide as possible target group and use the actual differences between users to differentiate products. To illustrate, clay is the archetype of open script. As a toy, this substance has a wide social application - both boys and girls over a wide range of ages like to play with it. Clay depends on the diversity of users and their input to differentiate the play. Girls can play in a girl-like fashion with clay, and it can support them in their femininity without prescribing what femininity exactly is (e.g., in contrast with Barbie dolls).

Employing open scripts in product design encourages the consumer to see that products are not rigid entities, but that users are active agents in shaping their products by moulding them into their lives and daily routines. We believe that open script design can support an attitude change and convey that consumption reaches further than ‘pulling your wallet,’ but that it means to fit your products into your life in a way that is meaningful for you. As such, open script design might be a step towards establishing well-being as the purpose of consumption.

Although the concept of open script design is still under-developed we believe it is promising; not only in changing consumer behaviour, but as a new and interesting way to articulate the social importance of design. Open script design can guide designers in employing user-influencing effects to illicit positive social behaviour by means of scripts. At the same time the increased interpretative flexibility emphasizes the co-responsibility of users in shaping the social role of products.

## 5 CONCLUSION

In this paper we have argued that insights from philosophy of technology and STS have great potential to enrich design education and advance design for well-being. To make well-being an explicit design consideration it is important that designers contemplate their design choices in a wider social and political context. This emphasizes the importance to revive the discussion on how we can sensibly include ethics of technology and the subject of well-being in design education. Encouraging designers to engage with deeper philosophical issues about their practice and research will contribute to a more profound understanding of design, especially as a social and political force. Fully acknowledging technical mediation will help designers to learn how to moderately and wisely employ user-influencing effects of technology to enhance human well-being. While sociological imagination will make designers more aware of the power of design and help them to envision how their designs can contribute to a more desirable future.

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