Technology, Wellbeing, and Freedom:
The Legacy of Utopian Design

Steven Dorrestijn [1,*], and Peter-Paul Verbeek [2]

[1] Department of Industrial Design, University of Twente, Enschede, The Netherlands
[2] Department of Philosophy, University of Twente, Enschede, The Netherlands

This paper is about the application of user-influencing design for improving wellbeing, focusing on the ethical issue of finding the right balance between determination and freedom. Two contemporary approaches for user-influencing design, "Persuasive Technology" and "Nudge," are discussed against the background of social engagement in the history of design. What can be learned from the past? The most explicit but also contested examples of improving people's lives by means of design can be found in movements of "utopian design." We discuss the utopian aspirations in Arts and Crafts, New Objectivity, Gute Form, and Postmodernism. The major lesson to be learned is that it is necessary to find a way out of the repeated ethical dilemma between coercing human behavior on the one hand and fostering human freedom on the other. Following Michel Foucault, we will conceptualize freedom not as the absence of influences on people, but as a practice of shaping one's life in interaction with these influences. User-influencing design methods can help to prolong the tradition of socially engaged design, with tempered, non-utopian goals, but at the same time with improved understanding and more effective tools concerning how technology mediates our existence.

Keywords – Design for Wellbeing, Ethics, Freedom, Nudge, Persuasive Technology, User-influencing Technology, Utopian Design.

Relevance to Design Practice – This paper offers design practitioners understanding of how user-influencing technology is helpful for advancing wellbeing, while also raising awareness of the ethical and political concerns. It discusses the themes of wellbeing, freedom and user-influencing technology in the history of "utopian design" and the contemporary approaches of "Nudge" and "Persuasive Technology."

Introduction

Implicitly or explicitly, designers always affect the lives and wellbeing of users and of society at large. This is true in a trivial sense, since products are meant to fulfill existing and conscious needs. But it is also true in a less obvious way, since designers also affect the lives of users because of the various influences products have on people's behavior, attitudes and needs. Such influences are often unintended, but designers can also deliberately attempt to influence and steer users' activities and way of living (Latour, 1992; Winner, 1986; see also Dorrestijn, 2012a; Tromp, Hekkert, & Verbeek, 2011). Obviously, it is a good thing when designers care about the effects of their designs and the wellbeing of users. But when design for wellbeing implies an explicit and intended interference with how users live their lives, this raises political and ethical questions. How desirable is it that designers can intervene in the personal lives of consumers? Should designer influence on user behavior be avoided at all times, or should we rather see it as a core responsibility of designers?

In this paper we will focus on the application of user-influencing design for improving wellbeing, by focusing on the ethical issue of finding the right balance between domination and freedom, manipulation and support of users. When the influence of products on consumers is unavoidable, as the approach of "technical mediation" holds (Ihde, 1990; Latour, 1994; Verbeek, 2005), should this aspect of design be left to the individual designer's responsibility, or should it rather become a political issue? Is "moralizing technology" (Achterhuis, 1998; see also Verbeek, 2011) a desirable and promising expression of socially engaged design, or is it rather a dangerous approach that threatens individual freedom and disrespects politics and ethics? Where should one draw the boundary between service and support on the one hand and paternalism or manipulation on the other hand?

In order to answer these questions, this paper will discuss two significant contemporary approaches to user-influencing design against the background of some central examples of strong social engagement in the history of design. The two contemporary approaches are the "Persuasive Technology" approach of BJ Fogg (2003) and the "Nudge" approach of Richard Thaler and Cass Sunstein (2008). Both approaches aim to develop methods to influence human behavior by design, in desirable directions. And both approaches raise ethical issues, which can be clarified in relation to design ambitions and approaches from the past. For

*Corresponding Author: s.dorrestijn@utwente.nl

our concise historical sketch we have chosen to focus on utopian design movements, because in these movements designers seem to have been most explicitly concerned with improving people's way of living by means of design. We will focus on four periods: Arts and Crafts, New Objectivity, Gute Form, and Postmodernism. On the basis of a review of the "legacy of utopian design"—which is a deliberate reference to "The legacy of utopia" by Hans Achterhuis (1998)—this article will investigate the lessons that "design for wellbeing" can draw from the past.

Making good, helpful products, and thus contributing to the quality of life, has always been an important drive of engineers and designers. Ever since the Scientific Revolution and the Enlightenment, there has been a widespread and sometimes utopian belief that progress in science and technology would inaugurate a new period in world history, solving the problem of scarcity and bringing richness and wellbeing for everybody. Engineers and designers believed that their scientific and technical expertise could lead society into a better future. Since the advent of Postmodernism, however, utopian beliefs and strivings have lost much of their attraction, or even have come to be seen as suspect. The postmodern breakdown of totalizing world pictures was a reaction to a growing awareness that modern, industrialized societies were full of rigid discipline and social repression. The emergence of enormous environmental problems brought a further shock to the belief in the wonders of technical progress. The end of utopian thinking is to be welcomed insofar as it means an end to paternalism and social repression. But the equally evident and often regretted downside of the departure from utopia is that there is no longer a shared spirit that guides and nourishes social engagement.

To what extent do current approaches in "design for wellbeing" revive part of this utopian thinking? And what can they learn from the past? We will argue that the major dynamic in the utopian past was the tension between freedom and determination. The major lesson to be learned, then, appears

to be that design for wellbeing has to find an alternative to the repeated dilemma between coercing human behavior on the one hand and fostering human autonomy on the other. In order to find a way out of this dilemma, we will develop an alternative conceptualization of the relationship between design and freedom, which can guide contemporary activities in design for wellbeing. Following Michel Foucault, we will conceptualize freedom not as the absence of influences on users, but as a practice of shaping one's life in interaction with these influences. This alternative conceptualization of freedom, then, can guide activities in design for wellbeing.

Nudges and Persuasive Technologies for Wellbeing

Within the field of behavior-influencing design for wellbeing, two approaches currently stand out that explicitly aim to change people's way of living and to improve wellbeing. A first approach is the Persuasive Technology approach, as developed by BJ Fogg (2003). The term persuasion, as taken from the tradition of rhetoric, is meant to express that just like discursive arguments, technologies too can persuade people to change their behavior and attitudes. Fogg has developed IT applications that explicitly persuade people to behave in specific ways. The HygieneGuard, developed in his Persuasive Technology Lab, for instance, detects whether children have washed their hands after using the toilet and reminds them to do so if they forget. And the FoodPhone helps people to lose weight by giving feedback on the calories in the food they consume, on the basis of pictures they take of the food. Persuasive technologies aim to guide the behavior of users in desirable directions, and are often concerned with issues in wellbeing, like health, hygiene, and environmental issues.

Dr. **Steven Dorrestijn** is assistant professor in the Industrial Design Department of the University of Twente, The Netherlands. Dorrestijn graduated in 2004 from the University of Twente and in 2005–2006 he completed a Master in Philosophy in Paris with the support of a grant from the French government. In 2012 Dorrestijn finished his PhD thesis, *The design of our own lives*, at the University of Twente, Department of Philosophy (download via www.stevendorrestijn.nl). In his research Dorrestijn contrived a model and repertoire of effects of technologies on people, and also focused on people's practices when accommodating new technologies in their lives. This approach to the role of technologies in people's everyday practices is a much-needed complement to theoretical approaches in ethics. At the same time it is helpful for user-centered design in improving product usability and acceptance.

Dr. **Peter-Paul Verbeek** is professor of philosophy of technology and chair of the Department of Philosophy, University of Twente, The Netherlands. Verbeek is the author of several books focusing on the social and cultural roles of technology and the ethical and anthropological aspects of human-technology relations. In *Moralizing Technology* (2011), he analyzes the moral significance of technologies, and its implications for ethical theory and for design practices. *What Things Do* (2005) investigates how technologies mediate human actions and experiences, with applications to industrial design. He is also co-editor of the volume *User Behavior and Technology Design* (2006), about the interaction between technology and behavior and its relevance to technology design and environmental policy. Industrial design has been an important research domain for Verbeek, while he recently has also been working on technology in healthcare, especially focusing on the theme of human enhancement.

Figure 1. Speedometer as a persuasive technology.

The speedometer at the side of the road is a nice example of a user-influencing technology that can be analyzed particularly well with the help of the concept of Persuasive Technology. The device does not just give neutral feedback, but also teaches a lesson. It calls into memory norms and values concerning speed and is intended to persuade drivers to moderate their speed.

Ethical considerations have a central place in the Persuasive Technology approach. Based on the work of Berdichevsky and Neuenschwander (1999), the central focus for designing persuasive technologies is on the quality of the motives of the designer, of the methods of persuasion, and of the outcomes of the persuasion. Persuasive technologies always have intended, reasonably predictable and unintended outcomes. All of these outcomes need to be taken into account when designing these technologies. For designers working in the field of Persuasive Technology, openness about the persuasive forces that are exerted upon people is crucial: it should always be possible to understand the character of the persuasion to which one is exposed. Influencing people without their awareness and consent is not seen as a sound form of persuasive technology.

A second contemporary approach to behavior-influencing design for wellbeing was developed by Richard Thaler and Cass Sunstein. In their book *Nudge* (Thaler & Sunstein, 2008), the authors make a case for designing our material surroundings in such a way that they influence us in a positive sense, without taking control away from us. The central idea in their approach is that the choices people make are to a considerable extent organized and pre-structured by our material environment. People often show behavior in practice that differs from the values they hold. Actual behavior is to a large degree regulated by what Thaler and Sunstein call the "automatic system" of our cognition, instead of by the "reflexive system" with which we can consciously deliberate about our actions. If the automatic system makes us follow pre-structured choices in the material environment, then it would be wise to deliberately consider the design of those "nudges," and engage in what they also term "choice architecture."

One example is the display of foods in school cafeterias. Thaler and Sunstein (2008) suggest that the way in which foods are displayed has an effect on students' choices. Are healthy foods placed centrally in the display or is it fast food? When this is acknowledged, it must become a design consideration, Thaler and Sunstein affirm, especially when it concerns commonly shared values such as health. Nudges in design can also help to move people towards behavior that respects the environment better—for instance, by making double-sided copying the default setting of our photocopying machines. Thaler and Sunstein state that we need careful design of the ways in which choice situations are organized and our choices are pre-structured. By giving healthy food a different place in canteens and stores. Or making double-sided copying the default setting.

Applying nudges in design is a delicate affair, since it inevitably involves interference in people's behavior. Aware of the ethical issue that this could lead to manipulation and domination, Thaler and Sunstein (2008) define good nudges as choice advisors that should never be coercive. It is crucial that the built-in nudges always remain open to discussion. Our reflexive decision-making system should always remain able to overrule the nudges functioning in the automatic system. For this reason, they indicate their ethics of nudge application as "libertarian paternalism." On the one hand it is paternalistic because it exposes people to well-intended nudges in a direction that is widely considered desirable. But on the other hand it is libertarian, because these nudges can always be ignored or undone. Default settings for double-sided copying do not make it impossible to copy single-sided, after all. As long as well-intended paternalistic interventions do not obstruct libertarianism, they can be defended adequately.

The approaches of Persuasive Technology and Nudge both advance the application of user-influencing effects of technology in the service of wellbeing, and in both approaches the urge to address the ethical issue of freedom and domination is manifest. The aim of improving people's lives by means of user-influencing technology, however, is not new. These approaches can be placed in a tradition of social engagement in design, with utopian design as the strongest variety. In the history of utopian design the struggle between domination and freedom—which is at the core of libertarian paternalism and the ethics of Persuasive Technology—can be clearly recognized as a central theme. By analyzing the various dimensions of this struggle, we hope to further trace and elaborate the ethical issues concerning user-influencing design for wellbeing.

Utopian Design Movements[1]

The history of design (overlapping with architecture and engineering) shows many examples of engagement of designers with wellbeing and with the social cause, sometimes with utopian dimensions. The theme of utopian design is regularly mentioned in histories of design (e.g., Bürdek, 2005), and it is the central notion in *Ideologie und Utopie im Design* by Gert Selle (1973). Selle provides an overview of design history explicitly from the perspective of social critique, and of what he terms the "social agency" of design. Beginning with the Arts and Crafts movement in Britain in the 19th century, the relationship between design and social issues was a main concern, asserts Selle. Dutch design historian JW Drukker (2004a) equally affirms this view that social engagement was a main driver of design theory from the time of the emergence of the profession of designer in the context of industrialization.

The zenith of utopian design came later, with the rise of Modernism in the 1920s and 1930s. Selle singles out the strong social program of modernist designers such as Mohoy-Nagy, Mart Stam, and Le Corbusier. In *The Struggle for Utopia* (1997), Victor Margolin (1997) also analyzes that a utopian program in design was a typical characteristic of modernist designers. Correspondingly, recent socio-historical studies of technology and culture also pay attention to modernist design as a showcase for technology being used as a driver for social change (Hughes, 2004; Misa, 2004).

Selle feared (in 1973) that the utopian design tradition was perishing. In contrast, Drukker more recently observed that in the period in which Selle estimated that utopian design was in crisis, actually for the first time some of the utopian strivings came true, because society at large was to benefit from technical progress: the consumer society (Drukker, 2004a). With hindsight Selle's book was clearly an attempt to prolong and revitalize utopian design.

Drukker too, speaks of a "crisis in design," but he associates this crisis with the advent, around 1980, of postmodern design. Postmodernism lacks the emphasis on improving society as a main driver, but does this also mean that it has altogether lost its utopian aspirations? Not according to José Gámez and Susan Rogers (2008), who claim that postmodern design does still bear the promise of utopia and call for a renewed "architecture of change." The postmodern utopian hopes and strivings for a radically different society are however no longer directed at a unified world picture, but instead concern a society where individuals are totally free to pursue singular lifestyles.

Following this outline we will first discuss the Arts and Crafts movement, with William Morris as its central figure. Second follows New Objectivity, focusing on Le Corbusier. The third stage is Gute Form with the related social design theory of Gert Selle. Finally, we will discuss Postmodernism and the relationships it may still entertain with the social program of striving for utopia.

Arts and Crafts

The beginning of the development of industrial design as a discipline is strongly connected with the Industrial Revolution. The emergence of the design profession was related to the division of labor. Concerns about labor conditions in industrial production and the poor quality of industrial products were at the base of design theory and education. This situation is exemplified in the person of Henry Cole, chief organizer of the Great Exhibition of 1851, who was a long-time promoter of design education in England. The concern for the quality of industrially produced products was widely shared and this gave rise to the "Arts and Crafts" movement, also beginning in England halfway through the 19th century. The movement is closely associated with the names of art and architecture critic John Ruskin and the designer, socialist and novelist William Morris (Drukker, 2004c; Selle, 1973, p. 47). Both of them were worried about the poor and dangerous working and living circumstances of factory workers as well as about the poor quality of industrial products.

To counter these problems the Arts and Crafts movement was suspicious about industrial production and called for a revaluation of handicrafts (see Figure 2). It promoted good-quality products, in a style more rural than industrial. Ruskin took inspiration from the gothic cathedral as an historical example and called for a neo-gothic aesthetics (Ruskin, 1853/2003). The Arts and Crafts movement had a huge influence for several decades, well into the twentieth century. Design theory and education in a way developed from the social and aesthetic concerns as articulated by the Arts and Crafts movement. Designer associations and movements throughout Europe around the turn of the twentieth century were marked by Arts and Crafts' appeal for high-quality handicraft product design. An example is the Deutscher Werkbund, a German design association that from 1906 strived for collaboration between art and industry.

The Arts and Crafts movement's relationship to politics and design is exemplified in the person of William Morris. Morris was actively engaged in politics and was a supporter of socialism. He recognized that social improvement was connected with the quality of design. Promoting improvement in design was for him one element of his socialist politics.

The utopian aspect of Arts and Crafts is exemplified in Morris' utopian novel *News from Nowhere*, published in 1890. In contrast with the problems faced by the working class of Britain of his time, Morris imagines a utopia where the problems of labor have been solved. People are liberated from the need to work against their will; their deliberate contribution to the common good suffices. The result is that people continuously "feel so happy." This, by the way, makes *News from Nowhere* one of the most boring novels of the utopian genre, according to Achterhuis (1998, p. 210).

Gert Selle characterizes Arts and Crafts as a "utopia of restoration" (Selle, 1973, p. 48)—and this, then, is the first utopian figure of design for wellbeing we encounter. Against industrial alienation, design should bring about a material environment that can be experienced as "natural" and that comes about in an engaged way. Design should restore a natural state, rather than bringing about a new one.
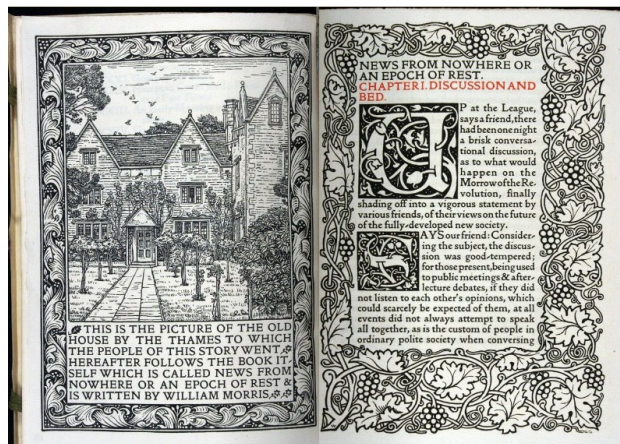

Figure 2. Woodblock printing of textiles by Morris & Co.

Figure 3. Frontispiece of Morris's utopian novel.

New Objectivity

In the Jugendstil (or Art Nouveau) aesthetic style that flourished at the beginning of the twentieth century, design theory and practice were primarily aesthetic and bourgeois rather than socialist, criticizes Selle (1973, pp. 56-57). The social engagement and utopian aspirations characteristic of the Arts and Crafts movement were largely disregarded. The advent of Modernism around the 1920s and 1930s meant a radical break with the esteem of handicraft and styling inspired by nature, and brought back an explicit and strong emphasis on the association between social aims and design. Modernist movements under the names of "New Objectivity" and "Functionalism" heavily marked theory and education in design architecture and design. This was the heyday of utopian design.

Around 1920 there was a confluence of modern art, technology and socialism. Avant-garde art movements such as Constructivism and De Stijl strongly helped to define functionalist architecture and design theory. Victor Margolin (1997) describes in *The Struggle for Utopia* how artists such as Alexander Rodchenko, Laszlo Moholy-Nagy, and Theo van Doesburg began to ascribe political relevance to their art. With the purpose of serving their often strongly socialist political goals, many artists made the choice to exchange pure art for the design of utilitarian objects.

The utopian aspect of the New Objectivity movement is evident from the association of many architects and designers with the construction of the Russian socialist state. Margolin singles out Alexander Rodchenko, Moholy-Nagy and El Lissitzky. All three were formed and influenced by Marxism, and they dealt with the communist revolution in Russia in different ways. Rodchenko and Lissitzky worked in the service of the Russian communist state, "struggling for utopia," whereas Moholy-Nagy worked at the Bauhaus school in Germany and after World War II ended up in the USA struggling to convey his ideals of "design for life" in a business-oriented environment.

Figure 4. Unité d'habitation by Le Corbusier (Marseille)**.**

Many Western European designers also were radical socialists. A central place where people and ideas met was the famous Bauhaus. Selle admires Hannes Meyer, the most political of its directors, for his radicalism (Selle, 1973, pp. 96-99). Meyer later moved to the USSR to work on the planning of new cities, together with Dutch designer and architect Mart Stam, another socialist designer (see van Bergeijk & Máčel, 1999). The developments in the communist Soviet Union also inspired the urbanism of Le Corbusier. One of his contributions to technology for a social cause is his utopian city project Ville Radieuse (Radiant City) conceived in the 1920s.

Unlike the Arts and Crafts movement, New Objectivity (and Modernism at large) embraced the technical possibilities of the industrial age for realizing social goals. Technology and industrial production are no longer perceived as a threat, as with Morris and Ruskin, but promise new ways of achieving a radically better society. The belief in technology is also expressed in the dictum that technology should replace style. The now famous minimalistic "style," although inspired by basic colors and forms, originated just as much from the social ideal of low-price mass production (even if in reality the modernist designs of that time never were cheap). This is why houses were built as blocks and chairs were constructed out of one-piece cantilever tubes.

Figure 5. Metal tube chair by Mart Stam.

Le Corbusier (1923/2005, p. 227) asserted in *Vers une architecture* that new technical developments were fascinating and promising in many aspects. However, the problem was still that many people did not experience the promising benefits of technology while they did suffer from the negative impacts of industrialization on their working and living circumstances. For Le Corbusier technology is however also the means for repairing societal unrest. Architecture can and should be applied for the political cause of restoring equilibrium in society. For Le Corbusier this is an urgent matter, as becomes clear when he states that the choice is either "architecture or revolution."

It should be mentioned that not only socialist political movements sought to advance themselves by means of architecture and design. Albert Speer, architect of the Nazi regime, could equally be discussed as an architect for societal transformation. And Le Corbusier, eager to have his ideas and grandiose projects realized, worked for the Vichy government in France during wartime and accepted an invitation from Mussolini to lecture on architecture (see Benton, 2009, pp. 272-273).

In the views of Le Corbusier and other designers and architects associated with New Objectivity, "the social" can be influenced directly by means of architecture and design. Society is a function of design. Therefore Selle characterizes the utopian aspect of pre-World War II Modernism as "social-functionalist" utopian design (Selle, 1973, pp. 98-99). Rather than restoring a natural state, as the Arts and Crafts movement wanted it, New Objectivity aims to design a rational, new material environment in order to produce a new kind of society.

Gute Form

A third design movement with utopian elements is the later Modernism of the Gute Form. This movement is closely associated with the Ulm School of Design (Hochschule für Gestaltung Ulm, HfG Ulm) of Ulm, Germany, which dictated to a great extent what was to be called "good form" in the 1960s and 1970s (Drukker, 2004c). The Ulm School of Design is widely regarded as a successor to the Bauhaus, as it prolonged the search for a rigidly functionalistic design method anchored in a strong engagement with the social cause.

The design of Gute Form is in many ways a prolongation of the functionalist style of earlier Modernism: design that honestly shows the product's function and the materials used, without useless decoration. World-famous examples are the designs for Braun made by Gerd Alfred Müller, Hans Gugelot, and Dieter Rams. Another example of functionalist design from the later modern period and a showcase of a more detailed, scientific approach to matching human needs and capacities is the series of Dutch coins (guilders) designed by Ninaber van Eyben. The coins were designed in such a way that the shapes, sizes and graphics enabled coins of different values to be easily distinguished.

Gert Selle, whose work has been helpful in understanding the utopian aspects of earlier movements, is himself a clear example of the social engagement in Gute Form. He tried to connect design theory with the critical theory of philosophers such as Herbert Marcuse and Jürgen Habermas. Technology is seen as an important element of societal development. It can and should help to liberate people and realize their potential, but it can also dominate people when it is not embedded in a political system with democratic control. The difference compared to early Modernism is that the rather naive belief in obvious and universal needs was replaced by an attempt at scientific research into "real" user needs. Later

critical thinkers like Ulrich Beck have introduced the notion of "reflexive modernization" for this transition from a "paternalistic" form of Modernism into a reflexive form where there is awareness of unintended consequences and the need for continual evaluation and corrections (Beck, Giddens, & Lash, 1994).

Drukker (2004b) points out that in the period of Gute Form, for the first time functionalistic design principles were actually applied to mass-produced products. Enterprises such as IKEA succeeded in making useful products at prices easily affordable for almost everybody. Previously, the ideals of the socially engaged design movements had not been realized, as the results were mostly expensive avant-garde designs. Selle, however, criticized Gute Form for just this association with the consumer society, like in the collaboration of Braun and the Ulm School of Design. He feared that marketing and product image were becoming predominant, whereas attention to the "social agency" of design was diminishing (Selle, 1973, p. 108).

The utopian aspect of Gute Form appears in Gert Selle's work when he asserts that consumerism threatens to eliminate the "last remnants of social utopianism in design, once prevalent in all design" (Selle, 1973, p. 113). To reverse this trend Selle calls for a "radical politicizing of design theory" (p. 155).

Selle's project could be characterized as utopian design of "re-humanization," because the aim is to readapt technology to the social cause and human measure. Rather than restoring a natural state unaffected by technology, or letting technical rationality and design dictate the construction of an all-new society, he proposes to readapt technology to human guidance. His ambition is to use the social agency of technology for improvement and progress in society, but along properly human lines.

Postmodernism

Writing some decades later than Selle, design historian Drukker (2004b) shares Selle's concern for the decrease in social awareness in design. However, he feels that the movement of Gute Form, which was already suspect for Selle, in fact exemplified the substantial realization of design for the social cause, because for the first time functionalistic principles actually resulted in products that were available to the masses. The real ending of social engagement in design, according to Drukker, came with the advent of Postmodernism around 1980. Postmodern design brought the return of explicit decorative elements, a revival of
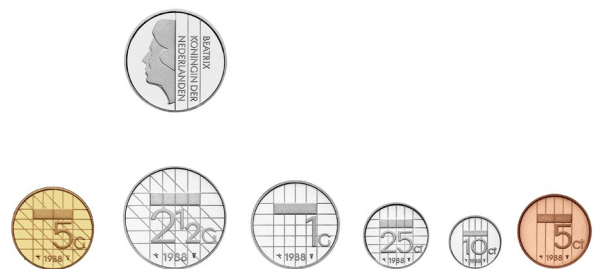
Figure 6. Braun electric shaver.

Figure 7. Dutch guilder coins by Bruno Ninaber van Eyben.

historical styles in the form of reference and pastiche, and emphasis on often ironic or scandalous symbolic messages. Products were made more to make a statement than to have a proper function in everyday life (see Eggink, 2009).
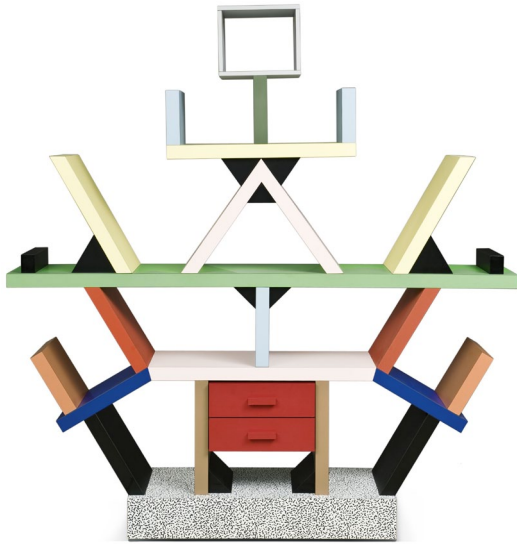

Figure 8. Carlton bookcase by Ettore Sottsass.

Drukker (2004b) asserts that the postmodern criticism of Modernism was partly right. The modernistic worldview was confronted with the student protests of 1968 and a series of technical disasters. Belief in technology and universalistic and paternalistic pretensions became very much contested. Drukker's concern is, however, that design theory has not been able to articulate the social importance of design in a new, appropriate way. Design education again became centered on elitist, avant-garde artistic design.

Figure 9. Chest of drawers XS for Droog by Tejo Remy #2/13.

But is it true that postmodern design is indeed void of any utopian motives? José Gámez and Susan Rogers share many of the insights of Drukker, but think that it is still possible to revive the utopian design tradition. They call for an "architecture of change." This is not something new, they rightly assert, but "it has fallen out of favor" (Gámez & Rogers, 2008, p. 19). The modern period's emancipatory promise of liberation by rational

progress has become discredited. The utopian musings of the modernist project have proven to be easily subject to the whims of totalitarianism. However, Gámez and Rogers recognize diversity as a new emancipatory theme that has arisen in postmodern design and design critique: "Freed at last from the hegemony of modernity, society would rise up to show its intrinsic diversity" (p. 20). This entails a new "utopian goal," namely that of "equity, fruitful diversity, and a critically engaged process of cultural production" (p. 22).

The utopian aspirations of their project become evident when Gámez and Rogers claim that this project of an architecture of change is in need of a "foundational theory" (p. 23), and should entail a "complete reconstruction of the current system of education and practice" (p. 24). Today's challenge would be "to reconsider the power of utopian thinking as a way to form a unified front" (p. 24), while avoiding the "naivety" of early Modernism in thinking that architectural practices comprised the necessary and sufficient mover of social change. Society should not be seen as a totality, but instead the plurality and diversity of society should be acknowledged. The proliferation of a plurality of lifestyles, surprisingly and paradoxically appears to inspire a new, shared vision and hope of a new "united front".

This call for an architecture of change is part of the introduction to *Expanding Architecture: Design as Activism* (Bell & Wakeford, 2008). The book contains a large collection of socially engaged design projects. The projects are rubricated in sections such as: "Social, economic and environmental design," "Participatory design," "Housing for the 98%: Mainstream good design in affordable housing," and "Meshing with market forces." The propagated "activist design" concerns no longer the design of one technical system that constitutes a new society, but differentiated technologies that support humans in different cultures and situations for their situated problems and concerns.

Thus, after all, postmodern metaphorical design and its critique of a unified world picture still can be seen as pursuing a social project, even of utopian grandeur. To the degree that there exists a postmodern utopian project it is characterized by a belief in the possibility that such technology exists that supports people in the pursuit of their own ways of living. The postmodern design utopia could be referred to as the utopia of "unhindered plurality," for the belief is that technology can support an unrestricted diversity of singular lifestyles.

The Legacy of Utopian Design

The historical overview above brings to the fore a tradition of user-influencing design for wellbeing. There appears to have been a development of increasing and decreasing social engagement and we have reviewed movements of outspoken utopian belief in technology for social improvement. Employing technology for societal change, these utopian design movements, be it explicitly or implicitly, reflect a conception of how technology helps to shape human existence. In other words: these movements all embody a certain understanding of technical mediation. Moreover, a main ethical and political theme in utopian design traditions is the struggle between human freedom on the one hand and the power of technology to govern people's way of living on the other.

We can review the utopian movements from this perspective. The Arts and Crafts movement saw the quality of technical products as a marker for the condition of society as a whole, and tried to avoid too much influence of new industrial technology. New Objectivity trusted both in technology as a driver of social transformation and in the value of technical rationality for providing directions for a desirable future. Gute Form was concerned with readapting the direction of technically conditioned social improvement to the outlines of properly human needs and values. Postmodernism, finally, set its hopes in the possibility of a universe of unlimited human plurality, where products would adapt to and facilitate any singular way of living.

In the history of design it is in utopian design movements that attention to the user-influencing effects of technology was most pronounced. However, this utopian tradition has also appeared to be dangerous, and has become contested. Technical progress has proven not to be the self-evident highway to utopia it was believed to be. A dystopian countermovement developed and became interwoven with utopian thinking. Apart from the emergence of outright anti-utopian and also anti-technical attitudes, this also reconfigured design-utopian thinking itself. But the question is 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. Especially the postmodern understanding of the character of technology, with technology for unhindered development of singular lifestyles as the utopian extreme, must be judged rather poor and naive from the perspective of technical mediation.

The central question, therefore, is whether another, more moderate understanding and application of the user-influencing effects of technology would be possible. The challenge is to fully acknowledge the mediation of behavior and ways of living by technology, and to employ this for enhancing wellbeing in a moderate and wise way that does not get trapped in the scheme of utopian beliefs and dystopian fears. It would be necessary to employ and further develop a more precise and nuanced understanding of how artifacts help to shape human existence, and especially of the meaning of freedom in relation to technical mediation.

Nudge and Persuasion between Freedom and Domination

Now the question is to what extent the current design approaches of Nudge and of Persuasive Technology can qualify as such more moderate approaches to user-influencing design for wellbeing. Both approaches apply behavior-mediating effects of technology in the context of improving wellbeing and are aware of the ethical issues concerning the influencing of human behavior. Interestingly, both approaches have developed their own way of dealing with this struggle between domination and freedom. Rather than simply coercing people's behavior, they aim to offer people either a decent "opt-out," as Thaler and Sunstein (2008) do, or a well-elaborated ethical method to make sure that only well-defendable designs will be developed.

As mentioned in the introduction about Persuasive Technology, the approach comes with an extensive ethical framework for the design of persuasive technologies. In this framework, the "motivations of designers," the "persuasive methods" used, and the "outcomes of persuasion" are analyzed. The central idea is that designers always need to be entirely open about these three dimensions of their work, in order to avoid an authoritarian influencing of users. By ensuring transparency about persuasive effects of technology, freedom would be retained and domination by technology avoided.

This ambition of complete openness and explicit normative reflection, though, does not take away the fact that any design will have unforeseen mediating effects. A FoodPhone may be designed as transparently as possible, with all implicit normative assumptions made explicit, but as soon as it is in use, it will inevitably have an impact on its users beyond the intentions of the designer. People's relation to their eating pattern, the social relations in which one is involved, people's interpretation and understanding of food—all of these things will be affected by the FoodPhone, no matter how transparently it was designed.

Thaler and Sunstein's (2008) Nudge approach equally aims to offer a way out of the dilemma between domination and freedom. Their central idea is that interventions in our "choice architecture" can always be overruled by conscious reflection and decision-making. There is always an opt-out: by drawing on our "reflexive system," we can step out of the mechanisms that steer our "automatic system." The Nudge approach does not intend to shut off our reflexive system, but to change the "settings" of our automatic system in a desirable way. The "paternalism" that inevitably comes with the influences to which we subject ourselves is thus always compensated by the "libertarian" way in which this paternalism is implemented. Therefore, as mentioned earlier, they term their approach "libertarian paternalism."

Nevertheless, the question remains to what extent Thaler and Sunstein (2008) have really found a way out of the tension between freedom and constraint. Pragmatically, this seems indeed a feasible and helpful middle position with regard to freedom and technical mediation. Philosophically, there remains the problem that there is no clear distinction between nudges that set people free and nudges that compel. The appeal to the possibility of an opt-out just does not make explicit that freedom in relation to technical mediation cannot mean avoiding the influences of technology, but should mean some sort of coping with such influences. By suggesting that it is possible for there to be nudges that people could entirely avoid, Thaler and Sunstein in fact fail to appreciate how fundamental choice architecture is to every technical design.

The suggestion of a fundamental opt-out possibility in the Nudge approach, just as the appeal to transparency in relation to Persuasive Technology, therefore, is paradoxical. Both approaches are based in a notion of freedom that is not fully compatible with the behavior-influencing effects of technology that these very approaches employ.

Technology, Wellbeing, and Freedom

What does this imply for contemporary design for wellbeing? The unavoidable character of technical mediations seems to imply that we are thrown back into the dangers of utopia: any attempt to design for a better world, no matter in how libertarian and transparent a manner it takes shape, will have an implicit impact on people's actions and decisions. Does this mean that the application of user-influencing effects of technology is suspect and dangerous? Must attempts to design nudges and persuasions be feared and abandoned, or rather advanced and improved for a better, more moderate application?

Recognizing the fundamentally mediating role of technical products in our daily lives, after all, does not mean that we are playthings of our devices, with no will of our own. The inevitably mediated character of our existence does not necessarily imply a reduction of human freedom. Isaiah Berlin (1979) famously distinguished between negative and positive freedom. An understanding of freedom that fully acknowledges the technically mediated character of our lives, cannot define freedom as independence from technology (i.e., as negative freedom), but must be a form of positive freedom. How can we understand and foster the freedom that we have beyond the influences technology has on us?

In this context, the notion of "freedom as practice," coined by Michel Foucault (2000), is helpful. Foucault extensively investigated how a false understanding of freedom haunts modern thinking, as human existence appears to be fundamentally shaped and governed by the institutions, procedures and technologies of modern society ("disciplinary power"). In his late work on ethics he interestingly complemented this research by investigating how people in practice cope with these influences and circumstances. Foucault came to understand freedom not as a state of independence from influences, but as a practice, of reflecting upon and seeking the transformation of the conditions of one's existence. This development is highly relevant for the philosophy and ethics of technology (see Dorrestijn, 2012b).

Applying Foucault's idea of freedom as practice means that freedom is no longer a given state of independence from technology, but rather is the practice of coping with the technical influences on our existence. Important aspects are that this freedom only emerges when it is practiced, and that it does not ultimately mean a liberation from technology, but rather the conscious choosing and elaborating of attachment to technologies. In a similar vein, Bruno Latour (2005, p. 218) expressed that freedom in relation to our conditioning circumstances cannot mean being "freed from bonds" but should rather be understood as being "well-attached." Striving for freedom in relation to technology, then, should be understood as care for the "quality of our interactions and fusions with technology," rather than as independence from technology (Dorrestijn, 2012c, p. 142; see also Verbeek, 2011, p. 156). Ethics should not only concern the possibility of an opt-out, but should as much be about caring about how to opt in.

Within the framework of technical mediation, total transparency with regard to the influences of technology or the possibility to opt out cannot function as fundamental ethical conditions that should always be assured and respected. We can reformulate these ambitions as developing a critical attitude towards technology, from which freedom can take shape as a practice of acknowledging and applying technical mediation. Even though there is no way to avoid the impact of nudges or persuasions, human beings, after all, can always develop an active and critical relation to them. Design for wellbeing, then, requires that attempts to design behavior-influencing technologies are complemented with ways to equip users with the means to develop a creative relationship with the technologies that affect their lives.

This is how technology, wellbeing and freedom are in an intimate relationship. Technology does give directions to our way of living and can enhance our wellbeing. But freedom is also a fundamental aspect of wellbeing that seems in conflict with the dominating aspects of technology. The challenge is to understand that user-influencing technology does not negate freedom, but that designing technology that mediates our lives means giving specific content to freedom.

Ethics and the Question of the Good Life

This focus on designing our ways of living via technology intricately connects design with the classical ethical question of the good life: what is a good way of living life? And this raises a complication. Through the back door, this question brings us back to the tension between freedom and determination. Looking for answers to the question of what a good life is, after all, has become a suspect enterprise in our liberal democracy, since it seems to open the door to totalitarianism. Since the Enlightenment, we would not want a church, state or monarch to answer for us the question of what a good way of living life would be. Yet the insight that technological products have a profound influence on the way we live our lives, takes this liberalist ideal to its limits. By helping to shape how we live, technologies in fact seem to suggest answers to the question of what a good way of living life would be (see Borgmann, 1984; Swierstra, 2002).

In order to discuss the ethics of design for wellbeing, therefore, we cannot avoid discussing issues of the good life. Yet, this would only be a threat to the liberal character of our society if we were to aim at organizing an overarching, uniform answer to the question of what makes a good life. When we follow Hannah Arendt's (1958) interpretation of classical Greek politics, though, an alternative approach to the ethics of the good life emerges. In her view, discussions of the good life were rooted in plurality. It was not the desire to develop overarching frameworks for one single answer to this question that was the drive behind political action, but rather inter-action: acting with others, shaping one's existence in the encounter with others and with other ways of living one's life. The question of how to live can be answered in various ways that can exist next to each other.

What could this ethics of the good life imply for design for wellbeing? Ethical discussions in design have typically focused on the question whether a specific form of behavior-influencing technology can be allowed or not. Focusing on the question of the good life, though, shifts the attention to the question of how to integrate specific technologies into our everyday lives. In a conception of ethics that allows for a plurality of answers to the question of the good life, and therefore advancing a better understanding of technical mediation and the meaning of freedom and conducting one's life in relation to technology is an important task.

We therefore propose an ethical approach that does not focus on the "assessment" of technological products in order to give a "yes" or "no" to their introduction into society, but rather on the "accompaniment" of processes of technology design and use, in order to help answer the question of "how" to live with technology (see also Dorrestijn, 2012c, p. 145; Verbeek, 2011, p. 153). We borrow the term "accompaniment" from Gilbert Hottois (1996), and from the recent work of Paul Rabinow (2011), who also speaks of the philosophical and anthropological "accompaniment" of the endeavors of science and technology. Such an ethics of accompaniment brings ethical reflection closer to the actual design and use of technologies. Traditionally, the ethics of technology has often fulfilled the task of warning against technological intrusions into human life and human freedom. The ethics of accompaniment remains equally alert to such intrusions. But it does not see guarding existing limits as its ultimate or only task. Rather, the task of ethics is to bring to the fore the ethical challenge of improving the quality of fusions and interactions with technology by helping designers, users, and our culture at large to acknowledge and assess the transformative effects of technology on our lives.

Post-utopian Design for Wellbeing

These questions, finally, bring us to the legacy of utopian design. If one lesson can be learned from the utopian tradition, it is that neither an exclusive focus on determination nor one on absolute human freedom is desirable. The uniform and totalizing utopian projects (especially at the time of New Objectivity) are now seen as repressive. But the postmodern design utopia of unhindered plurality neglects the inescapable user-influencing effects of technology. How can the phenomenon of mediation of our existence by technology be acknowledged and coped with for the benefit of improving human wellbeing?

The approaches of Persuasive Technology and Nudge, and of user-influencing design in general, are useful and necessary contributions to design for wellbeing, but we have emphasized that an appropriate understanding of freedom is a necessary ethical complement. Wellbeing only comes about when users of technologies have the ability to formulate their own answers to the question of the good life, in close interaction with and yet distinct from all the well-intended mediating forces that design for wellbeing exerts on them. Only then can the dialectic between coercion by design on the one hand versus human autonomy on the other be replaced with a conception of freedom that combines with our technically mediated mode of being. Not a negative freedom, as an absence of powers and influences, but a positive freedom which must be practiced and which consists in dealing creatively and critically with the visions of the good life that are implicit in many designs.

Design for wellbeing, then, should attempt not only to influence human actions and decisions in desirable directions, but also to make it possible for users to develop an active and critical relationship with these influences. Rather than designing possibilities to opt out, it is important to think about multiple ways to opt in. And beyond creating transparency about designer intentions, and the methods and effects of persuasion, it is important to enable people to develop a critical relationship with these intentions, methods, and effects. In post-utopia, the struggle between technical determination and human autonomy is replaced with a critical and creative appropriation of technical mediations. Designs should allow for these appropriations, and at the same time users should be educated and equipped to understand the mediating roles of designed products in their lives, by learning to understand the phenomenon of technical mediation and recognizing it in their everyday environment (for how this could be done, see Verbeek, 2013).

User-influencing design methods can help to prolong a tradition of socially engaged design, with tempered non-utopian goals, but at the same time with improved understanding and more effective tools concerning how technology mediates our existence. A more moderate social program for design, that seeks to avoid the totalitarian aspects of utopia's heritage, should rather focus on the quality of the integration of mundane technologies into people's lives. A post-utopian social engagement would concern the tuning of technology and humans, that is, a conscious and meaningful integration of technology into people's ways of living. And this may, in the end, be more about the interplay between technical mediation and creative appropriation than about the struggle between domination and freedom.

Endnote

1. This section is a reworked version of parts of Chapter 2 of *The design of our own lives* (Dorrestijn, 2012c).

Picture Acknowledgements

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