Positive Design:
New Challenges, Opportunities,
and Responsibilities for Design

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Abstract. In recent years, there has been an increasing interest in the scientific study of happiness and wellbeing. However, so far, there has been only little discussion about the relevance and applicability for design. This paper provides a brief overview of related developments in the field of psychology and user experience, before it introduces and illustrates the emerging field of positive design. Positive design builds on insights from positive psychology to create and improve products and/or services that increase human flourishing.

Keywords: Positive Design, Human Flourishing, Subjective Wellbeing, Experience Design.

1 Introduction

In 2011, a resolution of the United Nations (UN) on happiness was adopted unanimously in a General Assembly meeting [1] and a UN high-level meeting on happiness and wellbeing followed in 2012, emphasizing its importance for public policy and associated development measures. The resolution not only regards the pursuit of happiness as a fundamental human goal, but also recognizes that happiness captures the spirit of the Millennium Development Goals. In other words, the focus on happiness is motivated by personal aspirations of individuals as well as by challenges that affect society as a whole.

In a way, these two go hand in hand. Happiness has been positively associated with health, productivity and success at the workplace, as well as prosocial behavior, e.g. acts of kindness and charity (for overviews see [2, 3]). It can be seen as an "*emotional capital we can spend in the pursuit of other attractive outcomes*" ([2], p.20).

Consequently, plenty reasons suggest it might be worthwhile – perhaps even necessary – to explicitly focus on happiness in the discipline of design as well. In the end, we all strive for happiness in our lives. The focus in this paper will be on *subjective* wellbeing and happiness and the following definition will be used as a reference to ensure a shared understanding: "*I use the term 'happiness' to refer to the*

experience of joy, contentment or positive well-being, combined with a sense that one's life is good, meaningful and worthwhile." ([4], p. 32). As indicated by this quote, happiness (in the following also referred to as subjective wellbeing) is a multi-faceted concept that comprises an affective component (a hedonic balance of high positive and low negative emotions) as well as a cognitive component (life satisfaction) [2]. According to Seligman, one of the founders of positive psychology, elements of subjective wellbeing that contribute to human flourishing are positive emotions, relationships with others, engaging activities that optimally challenge one's skills, meaningful contributions for a greater good, and achievement [5].

This paper will introduce and illustrate the newly arising field of positive design. Positive design builds on insights from positive psychology to create and improve products and/or services that increase human flourishing.

2 Recent Developments

Two research streams of recent years are indispensable for this future challenge: *User Experience (UX)* and *Positive Psychology*. Firstly, from a technological point of view, UX has advanced the field of HCI by moving beyond mere task-oriented approaches and encompassing emotional and more pleasure-oriented aspects [6-9] as well as shifting the focus from products to experiences [10].

In parallel, a movement within the scientific community of psychologists entitled positive psychology emerged that studies the underpinnings as well as consequences of positive human development [11].

Both disciplines have undergone two major developments: a focus on the positive (1) and on activities (2).

2.1 Seeking the Positive

In Positive Psychology. The logic behind positive psychology is that reducing and preventing pain is no guarantee for wellbeing. A solely problem-oriented approach might succeed in offering a state of neutrality (e.g. drying one's tears), but moving into the positive zone (e.g. laughing) requires a different strategy. Thus, in contrast to more traditional approaches in psychology that center around human weaknesses and their treatment, positive psychologists investigate optimal human functioning and the promotion of subjective wellbeing to reach a point beyond the neutral.

Already in 1946, the World Health Organization defined health as "*a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity*" [12]. This definition is noteworthy in two ways: for one, it acknowledges a holistic understanding of health and secondly, it recognizes that being healthy is more than simply not being ill.

Antonovsky [13] coined the term 'salutogenesis', which stands for an approach highlighting the promotion of health and wellbeing as an alternative to the dominant pathogenic model that focuses on the cure of illnesses. It is important to note, that

positive psychology and the salutogenic model are not meant to replace the pathogenic model, but rather to function as a valuable extension.

In UX. A positive, possibility-oriented approach in addition to a mindset of fixing problems could also be of benefit to the world of design and engineering [14]. Furthermore, as mentioned above, UX has achieved the integration of hedonic aspects of human-product interactions in the respective design, development, and evaluation (e.g. [6, 8]). In particular, these days interactive products focus not only on the pragmatic value in terms of efficiency and effectiveness as has been the emphasis for many years of usability research, but consider also emotional aspects and pleasurable experiences [6, 9]. Hence, in addition to the outlook of a possibility-oriented culture in design and innovation, positive emotions have been embraced as important elements in the field of UX.

2.2   Towards Activities and Experiences

In Positive Psychology. What determines our level of happiness? To some extent, the level of people's happiness is genetically determined [15]. We tend to fluctuate within a given range of happiness ups and downs in everyday life. However, there is reason to believe, that other factors can be influenced to reach a sustainable increase in happiness: Lyubomirsky, Sheldon, and Schkade [15] argue that 50% of individual differences in happiness can be explained by a genetic set point, surprisingly only 10% by circumstantial factors (e.g. demographic variables such as age, gender, marital status, region of residence, income), and substantial 40% by intentional activities. In other words, we have better chances to enhance our wellbeing if we change our behavior than by trying to change our circumstances. Lyubomirsky [4] identified and empirically validated twelve activities and cognitive strategies that can lastingly increase subjective wellbeing, e.g. increasing flow experiences, expressing gratitude, and cultivating optimism.

We rise and fall back to our individual set point upon changes in affect if these are not complemented by constructive activities (or thoughts). This automatic habituation process, or hedonic adaptation, is nothing bad per se – to the contrary, it helps us recover from unfavorable experiences in life [2]. However, if we try to increase our happiness without putting effort into it by adopting positive activities, we might get trapped in a 'hedonic treadmill' [4, 16, 17]. A hedonic approach of seeking positive emotions and pleasures while avoiding negative emotions and reducing displeasure certainly contributes to one's wellbeing. However, to avoid hedonic adaptation, a second approach to wellbeing, called eudaimonia can be pursued. Eudaimonia relates less to a specific outcome, but more to a way of (virtuous) living and flourishing, e.g. pursuing intrinsic values and goals as well as meeting basic psychological needs of relatedness, competence, and autonomy [18]. Simply put, the two approaches to wellbeing – hedonia and eudaimonia – can be differentiated as feeling good vs. living well [18]. In sum, there is no shortcut to happiness, in fact, it should not be seen as an 'end state' at all, but rather as a way of living [2, 4, 5].

In UX. A new emphasis on experiences over products can be observed in the design world. User experience emerged in the field of HCI focusing on experiential aspects of technology use from the user's perspective [7]. In experience design, the experience evoked receives a higher priority than the product itself [10], or put differently, a positive experience is the aim, while technology is simply the means to reach it. Hassenzahl [10] illustrates in a three level hierarchy of goals that motor-goals in a human-product interaction are most basic and relevant in terms of *how* to use a product, while do-goals guide *what* we can actually do with the product, and be-goals motivate *why* this is of interest to the user's self. Someone might want a car to *be* independent while someone else might desire it to *be* connected to a loved one. While efforts in HCI oftentimes center on practical issues of the *what* and the *how*, experience design incorporates all three levels. If a product is able to meet a psychological need, it can enable personally meaningful experiences. Instead of referring to positive experiences, Hassenzahl [10] suggests to use the term 'worthwhile' or 'valuable' as some negative experiences can result to be worthwhile in a long-term perspective, if they serve a higher goal.

3   Positive Design

Positive psychology studies the elements of wellbeing and strategies that support the pursuit to live not only a good – but also a fulfilling life. Positive design translates these into actionable design solutions.

Creating means for human flourishing offers numerous opportunities for innovative design. Apart from minimizing sources of displeasure, design can also proactively target the promotion of subjective wellbeing by evoking valuable experiences [14]. In the following, some design examples from the field of HCI will be given to exemplify this approach. It is important to note that design should not be seen as merely a direct source of pleasure, but rather as a medium that can address different components of wellbeing in multiple ways. Technology can, but does not have to be, center-stage in this endeavor – instead, prior attention is devoted to the activities supported and experiences evoked.

A Design Wellbeing Matrix has been proposed [19] that illustrates the diversity of Design for Subjective Wellbeing touch points. It comprises two dimensions: (1) roles that design can play and (2) elements of subjective wellbeing ('ingredients'). Noteworthy, multiple role-ingredient combinations can be integrated simultaneously. The matrix is intended to provide an overview of possible starting points, strategies, and classification criteria for a wellbeing-oriented design process.

Firstly, design can have multiple roles. It can be the direct *source* of happiness, both as a source of hedonic pleasure as well as manifestations of eudaimonia. Furthermore, as noted earlier, our activities are pivotal for our wellbeing and by shifting the focus from the product itself to the activities and experiences it enables, many more possibilities to enhance wellbeing open up. *Enablement* is an indirect approach to design for wellbeing; the effect on our happiness level is the result of an activity, which in turn is mediated through a product or service. *Symbolic*

representations of what is important to people is a third role that design can play. Diener and Biswas-Diener [2] emphasize the influence of attention, interpretation, and memory on how we perceive the world and consequently appreciate our lives. By attracting attention and acting as a reminder, symbolic artifacts serve as a cognitive strategy to strengthen subjective wellbeing. Design as a means of *support* is an approach to coach the user in happiness-enhancing activities. Thus, it is neither something that makes the user happy by itself, nor does it enable an activity that would do so, but it can motivate, consult, and guide the user in living a healthy and fulfilling life. Hence, it can support initiation, maintenance, and commitment to happiness-enhancing activities and reflection. For example, Jane McGonigal [20] is a forerunner in the field of gaming, in particular of alternate reality games that interconnect online tasks with real-life challenges. She shows that games can be used to improve wellbeing holistically by incorporating physical, mental, emotional, and social challenges, e.g. one of the multi-player, online games she invented, 'SuperBetter', helps people build resilience, i.e. persistence even in the face of obstacles.

The four roles of design presented above widen the scope of possibilities from a mere product focus to enablement of activities, cognitive cues, as well as to supervisory support [19].

On the second dimension of the matrix, different elements of subjective wellbeing can be targeted in combination as well as in isolation, exemplified by Seligman's proposed five elements – positive emotions, engagement, relationships, meaning, and accomplishment (PERMA) [5]. Preferably, the profile matches the values and talents of the user as not all elements of subjective wellbeing are of equal importance to everyone and because the person's strengths should be recognized [4, 5] in order to facilitate and amplify the design's impact.

Positive emotions are likely to appear in all elements in some form and at some point in time or another. For example, having achieved a personal goal will evoke pride, intimate relationships involve love and affection, and committing to a project for a greater cause is accompanied by hope. However, the activities related to these situations are not sought for merely the sake of experiencing positive emotions. On the other hand, pleasurable experiences can indeed also be pursued for their own sake, e.g. taking a warm bath, riding a rollercoaster, watching a comedy, appreciating the beauty of a painting. To give a design example, The Happiness Cube [21] is an installation that was created, explicitly aimed to evoke happiness through pleasurable, multi-sensory experiences. Light, sound, odor, and video were orchestrated to please the senses. Hence, the Happiness Cube is a *source* of positive emotions.

The past years of UX research have shown that non-instrumental attributes can be vital in human-product interaction [7]. This also holds for positive design and should be considered in all cases. However, please note that to be delighted, motivated, or even inspired by hedonic features of an artifact is very different from basing one's happiness on hedonic gratification. Such an approach to happiness bears the risk of getting into a hedonic treadmill [16, 17]. In sum, despite the undeniable value of feeling good, there is more to life that makes it worthwhile and that can increase the

level of subjective wellbeing. Design will need to address these factors to have a lasting effect.

Engagement refers to Csikszentmihalyi's concept of flow experiences [22], thus, being fully immersed in an activity that is engaging and self-actualizing. The activity is intrinsically motivated and rewarding, which means that it is performed for its own sake and because the person wants to do so, and not because of external incentives. It is not about the activity's outcome, but about the activity itself and about the possibility to improve one's skills. The perceived challenge of the activity should be high, but still realistic with regards to the skills of the performer; ideally the task fits the person's talents and strengths. Interestingly, the feeling of happiness might only arise afterwards, but not in the moment of flow, as the person has devoted undivided attention to the activity at hand.

Playing a musical instrument is a good example of a potential flow experience. Unfortunately, some people might not be able to play an instrument due to a disability. With the 'MotionComposer', Wechsler [23] created a musical environment for people with disabilities that allows them to artistically express themselves. The system tracks their movement and generates sounds based on musical algorithms.

In contrast, achievement, success, winning, and accumulation of wealth can be a driving force of its own [5]. Put differently, satisfaction is not necessarily derived from the activity performed, but based on the end result. In this case, design can function as a *source* and *symbol* of accomplishment. However, it can also *enable* an optimization of performance, for instance, by providing appropriate tools (e.g. climbing equipment) or (sensor-based) feedback of the progress.

Meaning is attained by belonging to or serving something that is greater than the self is [5]. For instance, many find a sense of purpose in life through spirituality or religion [4]. However, it can also be derived by, for example, investing in a better future (e.g. environmental, political) or by being active in the neighborhood. Many designed artifacts related to meaning are *symbolic* representations (e.g. religious symbolism), but they can also *enable* meaningful behavior. For example, the web-based platform kiva.org enables people around the world to support entrepreneurs in developing countries or otherwise challenged regions to build their business via microloans.

Finally, according to Seligman [5] and others (e.g. [4, 18]) relatedness is a pivotal element of wellbeing. We are social beings and much of our happiness is derived through social relationships. Even sharing life's experiences with other people often make these events worthwhile in the first place. However, relationships also need to be nurtured [4]. In this line, Hassenzahl et al. [24] recently collected and classified 143 examples of technologies that were designed to mediate intimate and co-located relationships. The six strategies of awareness, expressivity, physicalness, gift giving, joint action, and memory were identified [24] and demonstrate different possibilities of *enablement* (e.g. joint action) and *symbolic* representations (e.g. memory).

Design holds the potential to contribute in meaningful ways to people's happiness once it is freed from the constraining view of material value and mere hedonic pleasures. In particular, HCI has the capability to globally interconnect people, to

provide means and tools for living an engaged and meaningful life as well as to persuade behavior change for a personal and societal good.

The following Positive Design Manifest by the Delft Institute of Positive Design [25] highlights the core aims of this discipline and captures the key points of this paper:

Positive Design
× creates possibilities
× supports human flourishing
× enables meaningful activities
× embraces rich experiences
× accepts responsibility

Fig. 1. Five Headings of the Positive Design Manifest [25]

4   Concluding Remark

What are the responsibilities of design? What do we design for? Functional tools can amplify our physical capabilities, and with the progression of smart technologies even cognitive limitations can be compensated. In this paper, it is being argued that the possibilities and the resultant responsibilities of design go even further: design holds the potential of empowering people to thrive intellectually, socially, and emotionally.

In the critical words of Daniel Fallman ([26], p.305): "*To continue to be relevant, it is important for HCI to understand that it is also leaving the comforting moral aimlessness of traditional usability.*" Fallman calls for a philosophy of technology, that dares to raise the question of what is "good design" and thus also the question of the associated responsibility in design. This not only entails crucial issues of what not to design, but also what to design (for).

Instead of limiting itself to the classic approach aimed solely at achieving user satisfaction, the design community is invited to join the current momentum of research on happiness and wellbeing, and to accept the challenge to design for lasting wellbeing by targeting eudaimonic elements of products, services, or the activities they enable. Positive design offers the framework for this endeavor.

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