

# Design Delight: An Experiential Quality Framework



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**Abstract** Delight is a powerful emotion that can alter the perception of a product and its experience of use. Nevertheless, operationalizing delight for design practice and research is a complicated task. Derived from years of design analysis, *design delight* is presented as a combination of *engagement, surprise, liveliness, cuteness, serendipity, and reassurance*. The theoretical underpinnings, key aspects, and the six qualities of design delight are discussed. This framework posits that delight is a persuasive element of the user experience and that delightful products work as multimodal arguments that *argue by experience*. Consequently, design delight urges designers to be ethical when it comes to creating such products and to consider how these products can help users live a happy and flourishing life.

**Keywords** Design delight · Experiential quality · Design theory · Delightful user experience · Semiotics · Rhetoric · Aesthetics · Argument by experience

## 1 Introduction

Delight is broadly understood as a high degree of gratification or pleasure [1]. Many of us recognize the relevance of delight in people's lives as a result of experiencing it and how it marks events in our lives. For example, delight arises when an excited child opens a Christmas present and discovers her wish came true. As a positive emotion, delight has the power of altering our thinking and actions, and of becoming an instrument to regulate our negative emotions and pursuit of happiness [2]. Although it is possible to admit and recognize the presence of delight when it happens, the specificities of delight are difficult to describe for any person. Broadly, delight is understood as an instantaneous emotion related to joy and pleasure. However, in practice, designers need to specify what designing for delight is and how this directive differs from provoking other positive affects during the user experience.

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This paper introduces an approach to designing for delight. Rather than scrutinizing the differences between delight and other positive emotions, this work proposes utilizing *design delight* as an umbrella term that comprises experiential qualities that are capable of creating delight—a significant moment involving high pleasure and arousal [3]. This formulation of design delight is concerned with six particular qualities, namely, *engagement*, *surprise*, *liveliness*, *cuteness*, *serendipity*, and *reassurance*. This work describes the theoretical underpinnings of this formulation, which connects with design theory, rhetoric, semiotics, and the aesthetics of interaction. Later, it presents design delight as a conceptual framework, elaborating on its key aspects and six experiential qualities. The paper closes with a brief discussion of some implications of design delight for design practice and scholarship, and an outline of next steps for its further development.

## 2 Delight as an Object of Study

The recognition of delight as an element of human experience and its effects have motivated academics to investigate the relationship between delight and the design of products and services. Particularly, marketing researchers have investigated the notion of delight for more than twenty years [4]. Researchers and practitioners of marketing alike realized that satisfying the customer was insufficient. Products and services should be delightful in order to become remarkable. Consequently, *customer delight* became a matter of concern for marketers. Customer delight means a higher level of satisfaction and involves a strong, positive, emotional reaction to a product or service [5, p. 314]. Marketers often associate such a reaction with a surprising or unexpected element in the experience. Pioneers of the study of delight in marketing, Oliver et al. [5] regard delight as a result of a discrepancy between what the customer expects the product to do and unexpected outcomes of the product. This formulation of delight relates to how a product and service produces a positive disconfirmation, meaning that the product or service turns out better than the customer expected. This formulation complies with the expectancy disconfirmation model [5]. Delight is a result of a positive disconfirmation of the customer's expectations in such a way that this disconfirmation activates an aroused state in the customer that is quite positive [4, p. 41]. Oliver et al. thus relate delight to encountering a pleasant surprise from the product or service [5, p. 136], providing a pleasing unexpected performance [5, p. 330]. This viewpoint, which emphasizes the relation between delight and surprise, has predominated the research on customer delight [4].

However, other marketing researchers investigate delight without the presence of surprise [6–8]. Kumar et al. [7] regard delight as a result of experiencing a higher degree of pleasure, which they refer to as joy. Kumar et al. [7] argue that joy comes in two kinds, “magic” joy and “real” joy. Magic joy is a result of a short-lived experience that involves the fulfilment of a wish or need that can change a person's situation. Real joy happens when an ongoing activity makes the person connect with some aspect of the world around her, whether this connection is mental or physical.

Dey et al. [8] argue that delight is about captivating the customer. Schneider and Bowen focus on the customer's needs, relating delight to security, justice, and self-esteem [4]. Ball and Barnes [9] broaden the notion of delight, arguing that gratitude has an impact in customer delight. Liu and Keh [10] suggest that delight without surprise is possible through novelty. Chitturri, Raghunathan, and Mahajan regard delight as a result of meeting or exceeding the customer's desires as well as of fulfilling the customer's goals [11]. Chitturri et al. define two types of benefits that a customer gets from a product or service, namely utilitarian and hedonic. Delight occurs when the hedonic benefits promote cheerfulness and excitement [11]. Berman associates delight with events. Berman argues that delight happens as a result of fulfilling unexpected, valuable, memorable, and positive reproducible events [12, p. 132]. When surprise is disregarded, the major theme in these researchers' work is fulfillment. Delightful products or services are those not only introducing unexpected features but also capable of fulfilling the customer's needs.

Whether it involves surprise or not, delight has become a relevant matter in marketing because of its major implications in the experience of the customer. Products and services that are delightful generate a feeling of loyalty in the customer. Delight helps to create an emotional connection with products and services, and therefore, with their brands. Delight contributes to the creation of strong memories during the customer experience. Delight also works as a motivator for repurchase and promotion by word of mouth [4, 7, 11, 13–15]. Although delight plays a crucial role in customer experiences, researchers still find difficulties in its characterization [16]. This task becomes more complicated if the intention is to follow a design-oriented approach since design deals with the creation of particulars subjected not only to the circumstances of the design situation but the set of competences and expertise of the designer [17]. The idea of *designing delight* is unattainable as the design process is not only concerned with form but also with function, meaning, pertinence, and the effect of its principal outcome (hereafter referred to as the *design product*). Rather, I posit to draw on knowledge pertinent to delight that has been produced in other disciplines while considering the peculiarities of design practice to devise *design delight*: how design products engender significant moments of high pleasure and arousal during the experience of use.

### 3 Theoretical Underpinnings

#### 3.1 *Design as Meta-Communication*

This investigation draws on Semiotic Engineering (SE), a theory of human–computer interaction (HCI) which regards the interactions between a computer system and the user as a meta-communication act in which the interface serves as the message [18]. SE defines the design of an interface as a composition of static, dynamic, and meta-linguistic signs. A successful design entails a correct interpretation of these signs.

SE is concerned with the user's semiosis, the production of meaning derived from this interpretation, which relies on abductive reasoning, the construction of plausible hypothesis from partial evidence provided by readily observable phenomena [19]. A major goal for the designer is therefore to devise the appropriate combination of signs that will lead to a consistent production of meanings for any user of a system.

The foundations of SE are crucial in this formulation of design delight. Instead of struggling with "adding more delight" to a design product, a designer can be thoughtful about the signs that not only lead to a consistent production of meaning but also have the potential for delight (as defined above), and ideally, show consistency in how they affect any user of a design product. Design delight connects meaning with high arousal and pleasure. A proper comprehension and interpretation of the static, dynamic, and meta-linguistic signs composing the design of a product are therefore necessary to experience delight. For design delight, not only does the stimuli lead to delight but also the outcome of the meaning-making process at a specific moment of the user experience.

### 3.2 *Design as Argumentation*

Design delight also draws on the notion of design as a reified argument developed by Buchanan [20, 21] and design as rhetoric by Ehses [22, 23]. These scholars connected rhetoric and design by considering that both are arts dealing with human affairs that urge taking action. The notion of *art* plays a fundamental role in design delight. From the Aristotelian perspective, an art deals with probabilities, not universal truths as science does [24]. Design delight considers designing for delight as an art. Buchanan's work accounts for how design produces lively, embodied arguments that shape people's everyday life. For Buchanan, design is a kind of rhetoric for this technological age. Such a rhetoric deals with symbols and images, physical artifacts, actions and activities, and environments and systems. Design delight applies to all of them.

Ehses situates design as a practice in service of human needs, suggesting an interesting connection between delight and fulfilling these needs. For Ehses, a visual communication design product is a composition based on signs that are intended to address a public audience being affected by a situation. Ehses builds on the intrinsic relationship between semiotics and rhetoric, regarded as the effect of these signs, to expand the notion of rhetoric and include any form of modern communication, including visual identities, navigation systems, exhibitions, websites, and fashion. This perspective underscores the connection of design delight with communication design products. Moreover, Ehses demonstrates the application of rhetorical theory for both generative and analytical purposes. Particularly, Ehses accounts for how the figures of speech, namely tropes and schemes, work efficiently for these tasks, including the creation and interpretation of *the concept* behind a design product. Design delight appears thus connected with these compositional patterns and the effect they might produce.

Buchanan and Ehse demonstrate how design is a rhetorical endeavor applicable to any media. Consequently, any design product ends up producing rhetoric (working argumentatively) regardless being visual, static, dynamic, tangible, or intangible. Design delight leverages this semiotic-rhetorical perspective of design to expand the use of the notion of sign from SE into any possible *multimodal composition*, that is, any design product. Design delight thus relates the delight that arises in an experience of use to the semantic and affective effects of the signs the designer selects to shape the multimodal patterns or features of a design product. Such a delight is a rhetorical force, an element of the user experience that can influence the behaviors, beliefs, and attitudes of the user.

### 3.3 *Experiential Quality and Interaction Aesthetics*

The concept of experiential quality gained traction in HCI as a result of a paradigmatic shift towards the notion of experience [25]. Researchers and scholars of HCI started paying attention to the experiential qualities that systems convey and how they work as elements of pleasurable experiences. An *experiential quality* is a property or trait that characterizes the experience of the user interacting with a design product. Examples of such qualities are pliability, rhythm, or fluency [26]. Formulating an experiential quality involves the understanding, critical perspective, and experiential knowledge of the one who recognizes it in a design product. Rather than offering a universal characterization of the trait, an experiential quality is formulated to serve as a conceptual tool for designers to appropriate in order to develop design judgment, and to elaborate or modify this formulation as a result of their own experience [27, p. 2].

Löwgren states that an experiential quality is neither a property of a design product itself nor a psychological or physiological property of the user. Rather, it is an effect of using the product in context [27]. A designer cannot design products with a specific experiential quality but can imagine the conditions that are conducive to the experiential quality of interest in the subsequent use of the product. Löwgren describes the goal of the designer in this regard is to increase the chances that the use of the product will be experienced in a certain way. A designer can utilize experiential qualities to formulate desirable directions for concept design in the early stages of the design process. They are also useful to identify promising candidates among a set of early design concepts [27].

Löwgren demonstrates how the formulation of experiential qualities contributes to the production of knowledge and discourse around interaction design practices, particularly, about *interaction aesthetics*. Löwgren proposes *interaction criticism* as the method for this formulation [26]. Bardzell defines interaction criticism as performing rigorous interpretive interrogations of the complex relationships between the interface and the user experience [28]. This humanistic method pays attention to the interface's material and perceptual qualities, and broader situatedness in visual languages and culture. Concerning the user experience, interaction criticism pays

attention to meanings, behaviors, perceptions, affects, insights, and social sensibilities that arise in the context of interaction and its outcomes [28, p. 604]. The type of knowledge that interaction criticism produces is intermediate, meaning that the formulation of an experiential quality goes beyond the particularities of a design product but without reaching the level of a universal theory.

## 4 Derivation of Design Delight from Interpretive Analysis

Specifying what delight is and how it differs from other positive emotions is a daunting task. Delight manifests without notice and lasts briefly. As marketing research indicates, delight connects with surprise and unexpectedness, but not all the time. Captivation, novelty, and gratitude connect with delight as well. It is possible to note that these antecedents can be regarded as traits derived from usage besides perception, meaning that it is possible to frame antecedents of delight as experiential qualities. Instead of struggling with the impossible task of determining how to imbue delight in a product's composition, exploring qualities associated with delight is a reasonable alternative. Certainly, it is possible to frame delight as an experiential quality itself. However, this approach requires going back to the starting point in which the specificities of delight need definition.

The quality of surprise or unexpectedness represented the initial quality in this investigation as a result of a review on existing research on delight and pleasure produced in marketing, philosophy, design, and HCI. This review revealed serendipity as a trait closely connected with surprise and delight as well. After the identification of surprise and serendipity as potential experiential qualities to formulate design delight, this investigation focused on performing interaction criticism on products from different design genres and based on the theoretical underpinnings introduced above. This stage took about seven years. The objective was to gain a deeper understanding of delight based on existing products and to identify qualities in them that connect with this combined perspective involving design, rhetoric, semiotics, and pragmatic aesthetics [18, 21, 23, 26, 28]. Careful attention was paid to the appearance and behavior of the signs composing a product's design features and how these engender delight—a notion abstracted from the review—in different periods of the user experience. The abductive nature of interaction criticism led to settle a notion of delight as a remarkable moment of pleasure and arousal within an aesthetic experience. *Design delight* then emerged as a term more suitable for discussing delight from a perspective focused on human-made artifacts and their usage. Other qualities emerged. These qualities appeared significant for their frequency and the existence of research around them or related to some of their aspects. These qualities are *engagement*, *surprise*, *liveliness*, *cuteness*, *serendipity*, and *reassurance*. *Design delight* is the name given to the synthesis of the observations and reflections of this longitudinal analysis and that includes these six qualities.

## 5 Design Delight

### 5.1 Fundamentals

*Design delight* is concerned with six experiential qualities, namely *engagement*, *surprise*, *liveliness*, *cuteness*, *serendipity*, and *reassurance*. The purpose of design delight is to help a design practitioner or scholar account for how the composition of the features of a design product engender remarkable moments of pleasure and arousal within an experience of use. Design delight regards a design product as a set of features which are composed in turn by a set of functionally and semantically related signs. The features and signs shape the appearance and behavior of the product. Each sign is multimodal, meaning that it represents a conceptual composite of six elements: visual, verbal, aural, olfactory, tactile, and temporal elements. The first five elements represent the modes associated with the major human senses [29]. One or several of these elements might be sensed as more or less prominent, or even null, at all or specific times of the experience. The temporal element is the backdrop against which a sign's first five elements fluctuate at different moments of the user experience. Through this notion of a sign as a multimodal composite, design delight connects design semiotics with the field of multimodal argumentation [29], which in turn relates to rhetoric, and consequently, with the notion of design as a volitional art. Design delight therefore lies at the intersection of design, rhetoric, semiotics, multimodal argumentation, and aesthetics. A key notion in multimodal argumentation is *arguing by experience* [29], which design delight interprets as the designer's purposeful utilization of the visual, verbal, aural, oral, tactile, and temporal elements to propose and shape design features that can induce a behavioral, attitudinal, or belief change in the user through the delight provoked by these features. Particularly, design delight asks the designer to leverage engagement, liveliness, cuteness, serendipity, and reassurance to devise and construct this kind of argument.

Design delight focuses on the moments of the user experience that leave an emotional mark, acknowledging their potential for the creation of positive memories and motivation for the user to continue using the product. Design delight specifically cares about those moments that support a happy and flourishing life, referred to as a *good life*. Design delight is therefore about how design supports living a good life. Nevertheless, design delight acknowledges the gap between the designer's intent and the use of a product in context. What the designer intended to make the user feel might be different from what the user feels while using the product. There will be always a gap between the *intended design delight* and the *experienced design delight*. The ideal case is that such a gap does not exist. However, design delight embraces this gap, and acknowledges how the user's motivations and capabilities, experiential knowledge, current circumstances in the context of use, and the different ecologies of design products participating in the user's life can affect the user's semiotic and affective processes in each experience of use for a single product.

To devise the different ways a product can engender the six experiential qualities of design delight, the designer needs to understand not only the user but also how people

in the context of use construe the notion of pleasure [30]. However, design delight acknowledges the value of the designer's first-hand experiences, and considers that a savvy designer knows how utilize their experiential knowledge to be empathetic with the user and have a sense of when when it would be a good time (*kairos*) for engendering the experiential qualities at different points of the user experience. As the agent in charge of constructing an effective multimodal argument, the designer's *design judgment* and *set of competences* [17] are crucial to determine why, how, and when the product's features would engender any of the six design delight qualities.

## 5.2 The Six Elements of Design Delight

**Engagement** takes place when a design product becomes the user's center of attention during its deliberative use. Engagement prepares the user to feel delight by creating immersion and minimizing external noise or stimuli in the context of use. Once engaged, the user can reach a state of *flow* as a result of a balanced combination between the challenges posited by the use of the product and the skills of the user [31]. Design delight considers engagement and flow closely connected. When engaged in using a product, and ideally in a state of flow, any instance of surprise, liveliness, cuteness, serendipity, and reassurance might be disruptive. Hence design delight urges the designer to the product be attentive to introduce features whose disruption is perceived as subtle or positive and that can efficiently help the user re-engage with the product or return to a state of flow. A product's engagement can be seen as its potential for captivation or attraction. However, engagement does not necessarily refer to introducing flamboyant features in order to captivate or attract the user. In design delight, the quality of engagement is mostly derived from smooth use of a product.

**Surprise** occurs when a feature of a product appears or behaves differently from what the user's mental model for that kind of product or similar feature dictates. The expectation inherent in this model is also a result of the formative experiences of the user with the real world, whether or not they involve using design products, which have led to the creation of *image-schematic metaphors* in the user's mind [32]. The boundary between engagement and surprise blurs when the main objective of surprise is to catch the user's attention while elevating the level of arousal in the user. Nevertheless, design delight urges the designer to utilize surprise as a differentiator that motivates the user to reflect and reconsider their current mental model and recognize how the product differs from others. The designer can consider surprise to mark starting and end points in intervals of the experience, incentivizing the user to carry on. Moreover, the designer can make use of surprise to convey some non-functional aspects that help set the rhythm of the experience [26], the product's liveliness and cuteness, or values associated with the product's brand.

**Liveliness** happens when a design feature conveys energy, autonomy, whim, excitement, and dynamism, either by form or behavior. Anthropomorphizing the



product is one approach to liveliness. However, the designer can leverage socio-cultural conventions, including those on how pleasure operates in the context of use, to find ways to denote and connote these characteristics without the need to follow this approach. This quality complements surprise and engagement, especially when it helps the product come across alive, cognizant, intelligent, and having agency. Products involving a null or a minimal level of interactivity with the user heavily rely on features that come across swift and bold. Products involving a noticeable level of interactivity might also need to give the impression of a living creature at different points of the user experience in order to reinforce their liveliness. Either way, design delight connects a product's personality with its liveliness, and sees this connection as a factor that contributes to make the product distinct from others in the same category or that have similar features. Consequently, design delight urges the designer to leverage this connection, especially to make the user identify with the product and set the diegetic tone of the experience.

**Cuteness** takes place when a product's features come across not only pretty but also vulnerable, tender, innocent, harmless, or helpless. The objective of cuteness is to facilitate the user's desire to use the product and perceive it as a non-intrusive, non-judgmental, naïve companion that can help the user achieve a goal, fulfill a need, or even define their personality. A cute product leverages infantile appearance and behavior expecting to develop in the user an urge to take care and protect the product. A product's engagement and liveliness can affect or be affected by cuteness. Design delight urges the designer to be ethical concerning a product's cuteness as this quality can make the user be vulnerable and uncritical regarding the purpose and effects of the product. However, the designer can make use of this situation to induce change in the user.

**Serendipity** is a result of unsolicited content or functionality that produces a fortunate, grateful, valuable outcome for the user. Design delight urges the designer to leverage widely-known use patterns and image-schematic metaphors [32], as well as anecdotal evidence, to consider how the product's features can introduce such content or functionality without disturbing the user's state of flow. Moreover, design delight encourages the designer to envision serendipitous features that promote the re-purposing of the product, meaning that such content or functionality enables the user to do things differently, better, or more efficiently. Design delight regards serendipity as a function of goal achievement and need fulfillment, connecting it with engagement, surprise, and reassurance. Goals can be pragmatic or hedonic. Needs can be personal or social, private or public. However, serendipity inspires the user to feel a sense of agency and that their actions are leading or can lead to a desirable future state not considered previously.

**Reassurance** manifests when one or several design features involved in one moment of the experience remove uncertainty, disorientation, ignorance, or anxiety in the user about events in the experience and their outcomes. Such events include the ones previous to this moment and those which could come next. The focus is on the current moment and its outcome. Reassurance is therefore concerned with how the user makes sense of their recent actions concerning the use of the product and the experience developed as a result. Design delight regards reassurance as a result of

clarity, certainty, and direction, all of them directed towards provoking delight. The designer can leverage reassurance to mark milestones in the experience, expecting to re-engage the user, and hopefully, take them into a state of flow. Design delight urges the designer to utilize reassurance as a means to give closure to these milestones, especially to the end of the experience. After previous and opportune manifestations of the other qualities, engendering reassurance at the end of the experience can contribute to a positive evaluation of the product and the creation of pleasant memories around its use.

## 6 Discussion

Delight is a powerful emotion that can alter the perception of users about a design product and its experience of use. This paper introduces *design delight*, an approach to designing for delight, positing that this endeavor becomes more manageable when delight—a remarkable moment of pleasure and arousal within an experience of use—is regarded as a result of how the features of a design product engender one or a combination of six experiential qualities, namely *engagement*, *surprise*, *liveliness*, *cuteness*, *serendipity*, and *reassurance*. Design delight regards these features as compositions of functionally and semantically related signs that involve visual, verbal, aural, tactile, and olfactory elements over time. In this approach, this formulation is to be used as a critical vocabulary either to inspect or ideate how a product's features engender one or a combination of the six qualities. Within a moment of an experience, the boundaries among these qualities can become blurred. This approach acknowledges and embraces this fuzziness as a characteristic of the *experienced design delight*. Engagement, surprise, liveliness, cuteness, serendipity, and reassurance are not to be regarded as parameters of delight but as a conceptual framework to guide the *intended design delight* through design judgment and reflection [17], which would be informed by experiential knowledge and scholarship on the six qualities and aimed at assessing the potential for delight of a product based on its features.

Design delight seeks to bring attention to the rhetorical or argumentative character of delight and the six experiential qualities besides their aesthetic dimension. This framework urges the designer to consider the significance of this rhetorical dimension when inspecting or creating a design product. The intended design delight entails the construction of a multimodal argument [29] to affect the user's behaviors, attitudes, and beliefs. The experienced design delight carries a rhetorical dimension as well. The designer's persuasive intent can only define such a dimension partially. Unintended consequences, including some negative, might emerge from using the product. One possible unintended consequence is the appropriation of the product by the user for persuasive purposes [33]. The user might discover value in utilizing the product to induce change in themselves or others. The differences in how the designer and user might devise and utilize the product as a multimodal argument indicates a variable persuasive impact for the six qualities. The particular conditions of each experience of use affect this impact as well.

Although the complexity inherent in the intended design delight obstructs the designer's ability to foresee any unintended consequence or argumentative use of the product, they are still responsible for it. Therefore, adopting a critical perspective and becoming ethically aware are two desirable characteristics in a designer pursuing design delight. This requirement applies to design scholars investigating how existing products enable design delight as well. Both design practitioners and scholars must keep in mind that the intended design delight aims to help the user live a happy and flourishing life. Design delight rejects thoughtless deployment of products and consumerism. The critical perspective and ethical awareness included in the intended design delight is to influence design practice and scholarship and to promote outcomes demonstrating the connection between delight and living a good life. The experienced design delight attains its primary goal when it contributes to enabling a good life.

Design delight supports the notion of design as a practice focused on the creation of *ultimate particulars* [17]. Design delight also supports design criticism as a method to produce knowledge [26, 28]. Designers can utilize the six qualities described above to shape the *intended design delight* for new products. Moreover, designers can utilize them to inspect the *experienced design delight* of existing products. Both applications lead to a deeper understanding of design delight, including how these qualities help a designer *argue by experience*. Nevertheless, design delight can still benefit from empirical research to triangulate the observations that led to its formulation as well as to elicit other significant qualities from designers and users alike.

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