

Available online at www.sciencedirect.com**ScienceDirect**

Procedia CIRP 84 (2019) 930–935

www.elsevier.com/locate/procedia

29th CIRP Design 2019 (CIRP Design 2019)

Fashion communication in the digital age: findings from interviews with industry professionals and design recommendations

Ana Paula Faria^{a*}, Joana Cunha^a, Bernardo Providência^b^a*2C2T - Centre for Textile Science and Technology, University of Minho, 4800-058 Guimarães, Portugal*^b*Lab2PT - Landscape, Heritage and Territory Laboratory, University of Minho, 4710-057 Braga, Portugal** Corresponding author. Tel.: +351 912 610 947. E-mail address: anapaulafaria.design@gmail.com

Abstract

The increased usage of available technologies and communication tools provided by the digital age offers numerous opportunities for fashion brands to connect with consumers. Although this matter is known in the literature, there is still much to explore on how to design digital products and experiences for and with emotion. This study focuses on the experience of eight fashion industry professionals through the use of a semi-structured interview as a research method. The outcomes of this study allowed to identify strategies to elicit emotions and to attain knowledge with respect to digital disruption from the subjects' perspectives.

© 2019 The Authors. Published by Elsevier B.V.

Peer-review under responsibility of the scientific committee of the CIRP Design Conference 2019.

Keywords: fashion; digital communication; design strategies; design and emotions.

1. Introduction

Why fashion needs to think beyond technology? The relationship of people with technology is emotional, in the words of Pavliscak [1, p. 16]: “Technology shapes our emotions in ways that we are only beginning to understand”. Indeed, emotions are emerging as a new element in the technological evolution equation: one of the key takeaways from Web Summit 2018, the Europe's largest tech event, was that it is believed that the future of advertising lies in content powered up by creativity that is able to touch people more deeply [2]. Additionally, “Designing emotions” was also considered a macro trend that will define 2020, according to the trend experts at WGSN [3].

In the academy, researchers acknowledge that emotion is important and they are exploring design approaches to develop richer experiences based on scientific literature about emotion — this is illustrated in the studies of Delft Institute of Design [4], [5]. Besides, there is also an awareness that it is important to study the role of emotion in peoples' interactions with technologies. Namely, both researches of Bhandari *et al.* [6]

and Ding and Chai [7] accomplished that emotions influence consumers' decisions towards the product and affect continuance intentions of app usage. In the same way, Pantano's research [8] revealed that consumers' responses towards storefront windows enriched with technology were positive.

Meanwhile, brands are already starting to transform the retail experience by blurring the line of physical and digital. For instance, the “Nike Live” concept store in Los Angeles that has “an app that runs it all” [9] and Tommy Hilfiger's Regent store in central London with “digital showrooms” that can provide fashion advices by resorting to RFID technology. As portrayed by Lipovetsky [10] consumerism emerges as a theatre of continuous seduction resorting heavily to novelty, emotion and staging, among other resources.

In regards to the use of technologies in the fashion industry, Bonetti and Perry [11] conducted a review focusing on how technologies can improve and promote more engaging shopping experiences. The authors discuss the use of interactive touchscreens, RFID tags, beacon technology, magic mirrors and mobile apps. They conclude consumers should

play a central role and argue that it is important to understand their interactions with technologies. In the view of Straker, Wrigley, and Rosemann [12] all communication channels are vital to the consumer experience and they consider that this means new opportunities to design and engagement in the digital age.

In the light of the foregoing, some questions arise: which strategies are being employed for crafting deeper brand experiences? What is the role of visual merchandisers, photographers, stylists, web designers and other fashion communication intermediaries in the digital age?

Following this line of thought, the purpose of this research is twofold. On the one hand, to investigate how design and communication practices in the field of fashion are adapting to the media landscape. On the other hand, to reveal the ways designers elicit emotions through digital and traditional channels. As “a miner who unearths the valuable metal” [13, p. 3], the role of the researcher in this study was to uncover knowledge from the perspectives and practical experiences of industry professionals by using the interview as a research method. This data-collection strategy was chosen because it provides an understanding of the individuals’ stories. As Seidman [14, p. 9] points out “At the heart of interviewing research is an interest in other individuals’ stories because they are of worth”.

This paper is organized as follows: section 2 describes the methodology. Then, section 3 announces specific results of the study. Finally, the last two sections present a reflection about the results, a description of the research limitations and avenues for future research are mentioned as well.

2. Methodology

In this study, a qualitative analysis of semi-structured interviews with professionals of the fashion industry was conducted from September to November 2018 in Portugal. Eight people were recruited through the researchers’ personal networks.

Multiple-case analysis offer a means of determining “the ways in which variations in context shape the consequences of a common process” [15, p. 411]. Hence, creatives with knowledge in several design disciplines were included, *e.g.* Art Direction; Photography; Graphic design; Visual Merchandising; Web Design. The amount of experience of the interviewees was considered too.

With prior informed consent, the interviews were recorded with a mobile phone and lasted between 45 and 70 minutes. They were carried out in person in a quiet room, with the exception of one participant who had to be interviewed by phone due to its geographic location. A conversational guide was used to map the conversation and to point general directions — the guide was customized for each interview. The set of questions comprised open-ended questions about respondents’ experiences and working processes in order to lead them to speak about the aimed themes. For instance: “How do you usually approach a project?”; “Which particular aspects do you pay more attention in the product development process?”. Furthermore, three types of questions were used to allow flexibility to change questions and to maintain the overall

structure at the same type — main questions, probes and follow-up questions [13].

After, the recorded interviews were fully transcribed using the software F5 Transcription Free for Mac. A total of 86 pages of written texts were documented.

The analysis of the obtained data was assisted with QSR International's NVivo 12 Mac [16] — a specialized qualitative analysis software. The practical strategies for qualitative analysis proposed by Bazeley [15] were used as guidelines, as well as the methodological approaches focusing in NVivo suggested by Bazeley and Jackson [17].

In an early stage of the coding process, both broad codes and coding detail were applied to the passages as the researcher was working in the data. Moreover, ideas and passages that were considered relevant to revisit later were coded with a single code named “important citations”. In addition to this, multiple overlapping codes on text were used in order to capture all the dimensions of what it has been said. It is noteworthy to state that throughout the whole process, memos about the understanding of data were written such as reflections, patterns of association between codes and coding decisions.

After working for a considerable amount of time with the data, a coding system was created to help organizing the codes in a hierarchical code system in which higher level categories describe the contents in general terms of the items below it. The system was developed based on an iterative process which consisted in revising and refining the codes: the ones that appeared to be most important were underlined; those that were unclear or that were not considered relevant were deleted or archived; some codes were also renamed and the ones that had a similar meaning were merged.

The next step was to thoroughly describe the codes for further analysis in the context of analytical writing which involved indicating their relevance, variations, dimensions and parameters [15]. Then, in order to go beyond descriptions, comparative and relational analysis were conducted to reveal the existence and strength of patterns of associations between the elements of the data. The codes were explored by using specific tools from NVivo such as text-mining queries (word frequency and text search queries) and matrix coding queries. The coding system and the queries provided by NVivo allowed to search in and across data for answers to specific questions prompted in the previous stages of the analysis. For example, a text search query for the word “important” was used to find which aspects were considered relevant for the interviewees.

3. Results

This section is divided in two parts. Each of them addresses a specific purpose of the research. The first reveals what was found regarding how industry professionals are attempting to design for eliciting emotions, whereas the second part disclose their points of view on digital disruption.

3.1. Eliciting surprise and curiosity

A pattern emerged throughout the interview analysis — all the participants often referred to emotional dimensions, in particular curiosity and surprise.

Regarding the first emotional dimension, participants considered that sparking consumers' curiosity is important — “it clearly works as a strategy” (P6). In this respect, interviewee 5 mentioned that curiosity leads consumers' to the store and interviewee 1 and 3 believe that curiosity helps selling:

P1: *Our concern here is to raise curiosity about the brand. I am interested in awakening dreams and purchasing possibilities so that the purchase happens, so that the sale happens.*

Concerning surprise, it was argued that the end result of the design process should surprise, regardless of the communication being physical or digital. As interviewee 3 explained, the result should elicit consumers' desire to know the brand, to pay attention and to follow it. Ultimately, the role of the designer is to surprise — interviewee 5 firmly stated: “my job aims to surprise people”. Furthermore, interviewee 1 considered that one of his interest as a professional is to surprise people:

P1: *... I always want to surprise those who have never seen the project, the production, the ones who do not know that brand, that do not know that product and have to come to us.*

Indeed, designers can benefit from eliciting surprise. As observed by Ludden, Schifferstein and Hekkert [18], a surprise reaction can draw attention to products, leading to its recall and recognition.

Subsequently, communication strategies were progressively revealed in order to achieve the emotional dimensions above. For starters, interviewees 3, 5 and 6 suggest that getting attention and engaging curiosity can be achieved by revealing some details to create the perception of mystery:

P3: *...with a video, with details, with photographs with details such as drawings, or the dress, or the fashion designer, or who is behind the brands, with the creative process.*

P5: *Capture just a detail to entice curiosity so that people visit the store...*

P6: *... to reveal a little bit of something that people do not recognize, a raw cloth sketch, all this sparks curiosity and people will try to figure out what that is.*

Interviewee 6 also explained that in fashion shows it is important that people are aware of which celebrities are going to perform because it moves them to get to know more and even to attend the event. One of the examples provided by the interviewee referred that one invitation of a celebrity that was published on social media brought an unexpected number of people to a small village.

One of the identified dimensions across the discussed strategies was promoting unexpected contexts. This was transversal to both surprise and curiosity. Still, most strategies are tied to surprise. Referring to curiosity, interviewee 6 mentioned two projects that demonstrate the power of unexpected contexts. The first project was about a fashion show that took place in a parking lot — it had impact because both people and the client were expecting a noble space like a palace. The second project is described below:

P6: *It was a matter of going out into the street with people dressed in embroidery pieces and we walked through the street taking pictures. A mannequin with a piece that costs more than €5000 in the middle of the street and people trying to figure out*

what was happening, that caught their attention and they asked questions.

When it comes to surprise, unexpected aspects could be many-sided, and they can vary depending on the design discipline in question. In a broad sense, interviewee 6 explained that people can be surprised by beauty, unusual moments, mastery — a moment that makes people wonder “What is happening here?”, “This is so well done, what a wonderful thing!”.

Interviewees brought up several strategies ranging from editorial design to digital media. For instance, interviewee 2 and 3 mentioned that finishing and printing processes could make the difference when designing a lookbook, as well as the the combination of different materials (P3). The latter was also mentioned by interviewee 5 despite being in another context *i.e.* window displays. Another strategy that was pinpointed was changing the scale or the perspective of archetypes:

P1: *... as producers we can make the biggest blunders in the world: we can destroy the piece, we can turn a pair of shoes into a thing that is much more than what it is, heighten its importance or ridicule it.*

P3: *.... with broken words that are harder to understand.*

P5: *... it was a storefront where I moved the entire window display from a horizontal to a vertical plane: the window was all made in the vertical of a wall, as if there had been a twist.*

P7: *There is always the question of the lettering that can be avoided — sometimes we force it to read sideways.*

3.1.1. Design for emotions

It should be noted that when the interviewees faced specific questions about which strategies they adopt when they intended to communicate a specific emotion, they resort to references of visual and conceptual support such as color and movement:

P3: *... with a visual concept full of color, or fluorescent colors.*

P5: *Movement, storefronts with movement, which people love. Storefronts with holograms, pictures that appear and disappear.*

P8: *... with colors mainly, this has a lot to do with colors. Then with the elements they also ... usually it is always related to the catalog that they make for each collection — I see what elements they use. For example, they use a lot of soft things: cotton, clouds, sheets ... I already know that this is the concept that I have to communicate by the colors and by the type of elements that are added to the images, we communicate a certain sensation: comfort, softness ... We know that these are concepts that are very important for the brand, we have to look for elements that give people that type of sensation.*

During the interviews, it was highlighted the importance of the products' presentation too, as explained by interviewees 1 and 2:

P1: *We buy more for its ribbon, for its wrapping paper, rather than the quality of the product itself.*

P2: *... when people associate the brand, they associate the design and how the brand presents itself. In that sense, all care in the presentation is essential to us.*

Appearance plays an important role when it concerns to the initial reactions of how people perceive a product and how it

makes them feel — this corresponds to Visceral Design, one of Norman’s three levels of Design. If done well, it will appeal to the peoples’ aesthetic sense and can attract potential buyers [19].

Nonetheless, reading between the lines unveiled that participants are seeking to create experiences with meaning that go beyond “gift wraps”. Interviewee 3 and 6 stated that telling stories is part of their work and it adds value to projects. Moreover, interviewee 6 took part in a project where a factory atmosphere was recreated to host a fashion show and she expressed that telling that story was important to her:

P6: *That story is important to me because people are not only going to see a fashion show, they are going to absorb there some information and somehow I helped them reliving the moments of that factory. That was very important for me. That is the story that I try to tell.*

The importance of storytelling in Design has been highlighted by several authors such as Quesenbery and Brooks [20, p. 499] who outline that “When people listen to stories, their minds are engaged in the process of painting in the details”. Thus, the stage for persuasion or a call to action is set.

Further, interviewee 5 argued that in a world full of noise and information, communications should be created in order to be remembered — quality over quantity:

P5: *... when you post, post things that really have an impact, that are impactful, and that people will remember.*

Similarly, interviewee 3 strengthens the latter idea:

P3: *... we are in the age of content production and where the content has value (...) that is mission and our daily struggle is that.*

The previous comments support the assertion of Krippendorff [21] that Design is the creation of meaning.

3.1.2. Design recommendations

By focusing on what participants said about the design process, it was possible to track recommendations and ideas that can increase creativity. According to the interviewees, knowing the product that it is going to be advertised (e.g. clothing, jewelry) can benefit the communication strategy because the product could provide valuable hints that can be applied throughout the communication:

P3: *... all the communication was worked out from some details of the fabrics because the fabrics had flowers, almost in 3D and therefore we took advantage of that: as soon as we had a look at the fabrics, we said “The communication will be made out of this”.*

P5: *... the store allows creations due to the structure of the storefront and also by the pieces it sells — which is thick silver, animals that are made with a great artisan mastery, and it allows the creation of small sceneries.*

Understanding the products can also facilitate the work of the photographer, as explained by interviewee 6 who considers that it is important to have sensibility to notice the details that differentiate one piece from another to understand what it is important to highlight in a lookbook, for example.

Unplanned situations suggested by scenarios or even by an accident were outlined by interviewees 2 and 5 as paths that can raise new ideas to add value to projects:

P2: *Sometimes the place suggests other pictures — we have recently made a campaign that will be released, which was done in a school, in a kindergarten, and we photographed in the kitchen, the kids on the stove, in the hallways, we sought for props that we saw at the gym and they suddenly come in, and that is something that we cannot predict, but it is also a part of it, we never close the process...*

P5: *Sometimes the creative process unfolds like this: by paying attention to random chances and by taking advantage of unexpected things that do not go so well.*

3.2. The impact of digital disruption

Participants were very aware of the demands and new opportunities offered by digital channels — they all recognized the potential of its use for reaching consumers’.

There was an agreement that Instagram plays an important role. As a result, communication strategies are being shaped with social media in mind, as remarked by the following interviewees:

P2: *Instagram is a very strong tool and we are already making videos for the website thinking about Instagram.*

P3: *... one is increasingly thinking about this: to create storefronts so that they can be photographed and appear on social networks, because everyone realizes the added value of advertising on a social network.*

Social media channels and the website were suggested by the majority of participants. However, some participants also expressed enthusiasm towards other technologies: video mapping, augmented reality, holograms and drones were listed (Fig. 1.). Though, interviewees 5 and 6 acknowledge that in Portugal there are budget restraints that do not allow them to resort to that kind of technologies, at least for now.

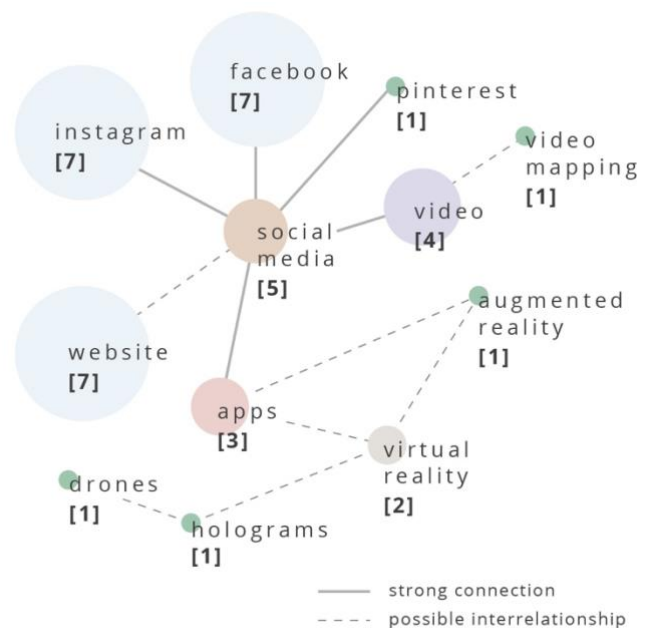


Fig. 1. Digital approaches and technologies identified from the interviews. The number below each key term refers to the participants who mentioned them.

Further, interviewee 5 remarked that technology is as a tool that can enhance communication when combined with other resources. This observation is in line with Hassenzahl [22] that considers that technologies are “canvas, colours, and brushes” for designers. However, interviewee 6 wondered to what extent the use of certain technologies makes sense for particular audiences. One cannot forget that Design is people driven, not driven by technology [23].

Nevertheless, negative insights about the digital age were unlocked too. The ease of access to information and their speed of circulation presents difficulties to control a brand crisis — two subjects gave the example of Celine because at the time of the interview, the brand was being negatively dragged and dissected on social networks. In addition to this, the amount of information available also poses challenges when it comes to achieve differentiation, as explained by interviewee 2:

P2: *It is almost like the one store in town where people bought clothes and suddenly another fifty stores opened up. So now we get to choose, in the digital era that is the same: Today, when I want to buy a book about photography, I have to choose which store I'm going to buy it from, it's not "Where I'm going to find it" and this applies to everything. It is no longer "Where do I find it?", it is "Where do I want to buy it?", "Who has the best price?"*.

Moreover, the immediacy of the contemporary society has implications for creatives, as interviewee 1 reflected,

P1: *It seems to me that everything else, all the other concerns such as making a movie, such as building a communication content, even a poster, ... is a response to this social speed. And all this social speed requires proper applications. It is all so synchronous, everything is so articulate.*

Creatives need to answer accordingly, and they must think at a fast pace. Regarding this matter, interviewee 3 considers that in the process, creativity might be lost. In order to keep up, professionals are constantly seeking for inspiration:

P8: *I don't think that anyone who is in this job can survive without doing a lot of research everyday, lots, lots of research.*

There was a consensus about the significance of the digital in peoples' lives— “... I think that everyone knows that the digital is here and it is not going anywhere” (P4). While interviewee 2 supports a return to the physical world, interviewee 4 predicts that the future would be a balance between physical and digital world.

4. Discussion

This research explored the implications of digital disruption through the eyes of industry professionals and provides an overlook of Design and emotions — an element that is increasingly being recognized in theory and in practice.

In the current study it were conducted semi-structured interviews with experienced professionals of the fashion industry. The results offered an understanding of which strategies are being used to elicit emotions. Besides, the qualitative analysis revealed the underlying emotions that participants' strive for when they are communicating a product or a brand. Also, insights about the subjects' perspectives regarding digital disruption were provided.

The findings are in general agreement with previous research confirming that designers use surprise as a strategy [18], [24]. The identified strategies described in this paper also corroborate prior studies which revealed that designers are applying several strategies to create surprise. Combining different materials, promoting unexpected contexts and changing the scale or the perspective of archetypes are the identified strategies that were remarkably similar to Ramírez' research [24]. In addition, the results indicate the relevance of curiosity — this lends support to Ramírez [24] that argues that it is important to study curiosity due to its impact on behavior. It should be noted that the existent literature reports on strategies to elicit surprise from the perspective of industrial designers. Most notably, to the knowledge of the authors, this is the first study that investigates the practices of people who work in the field of fashion.

Despite these contributions, some limitations are worth noting. Firstly, the interviewees were all Portuguese. Although this was not a concern, it would be beneficial to interview people from other countries to obtain more insights. Secondly, despite interviewees were all tied to Design, fashion Designers were not included. Notwithstanding, interviewees 1 and 6 fostered and encouraged interviewing fashion Designers to be acquainted with their point of view — this should also be worthwhile to explore.

5. Conclusion

In summary, the results showed that creatives are applying the following strategies for crafting deeper experiences: revealing some details to create the perception of mystery; promoting unexpected contexts by changing the scale or the perspective or archetypes; combining different materials; taking advantage of unplanned situations to boost creativity; resorting to visual and conceptual references of support such as color and movement.

The major contribution of this study was to unearth that the designers' role is to create surprise and to sparkle curiosity. This article also offers hints concerning the types of strategies that can be employed to elicit the intend reactions. Hassenzahl [22] believes that in order to create better experiences, it is necessary to put emotions upfront — context and functionality should only be considered after. To a certain extent, this was mirrored in the qualitative analysis.

Further, the participants' experience allowed to gather design recommendations such as taking advantage of unplanned situations to boost creativity. What is more, they believe that communication strategies could be enhanced and improved by knowing the advertised products. The recommendations, along with the strategies can be used as guidelines for practitioners and researchers.

Additionally, the interviews illustrate that digital media channels influences how designers communicate. The interviewees understand the impact of technologies and they are starting to adapt their creative practices. They also pointed out positive and negative aspects towards digital disruption.

Moreover, they recognized the potential of technologies similarly to fashion photographer Sundsbø [25] who considers that fashion must embrace the opportunities presented by the

digital age. Therefore, a question arises: how can designers take advantage of technologies to elicit surprise and curiosity?

The results are encouraging and the next stage is to explore how the identified strategies can be employed in emergent technology contexts, bearing in mind positive emotions.

Acknowledgements

This work is supported by FSE – European Social Fund, by national funds through FCT – Foundation for Science and Technology and POCH – Human Capital Operating Programme, within the scope of the project SFRH/BD/129900/2017; project UID/CTM/00264/2019 of 2C2T – Centre for Textile Science and Technology, funded by National Funds through FCT/MCTES and project Lab2PT - Landscapes, Heritage and Territory laboratory - AUR/04509.



References

- [1] P. Pavliscak, Emotionally Intelligent Design. Sebastopol: O'Reilly Media, 2019.
- [2] F. Balbino, "12 tendências para 2019," *Marketeer*, Lisboa, Nov-2018.
- [3] W. Vision, "The Vision 2020, Part 1: Designing Emotion," *WGSN*, 2018.
- [4] S. F. Fokkinga and P. M. A. Desmet, "Ten ways to design for disgust, sadness, and other enjoyments: A Design Approach to Enrich Product Experiences with Negative Emotions," *Int. J. Des.*, vol. 7, no. 1, pp. 19–36, Apr. 2013.
- [5] P. M. A. Desmet, "Design for Mood: Twenty Activity-Based Opportunities to Design for Mood Regulation," *Int. J. Des.*, vol. 9, no. 2, pp. 1–19, 2015.
- [6] U. Bhandari, K. Chang, and T. Neben, "Understanding the impact of perceived visual aesthetics on user evaluations: An emotional perspective," *Inf. Manag.*, vol. 56, no. 1, pp. 85–93, 2018.
- [7] Y. Ding and K. H. Chai, "Emotions and continued usage of mobile applications," *Ind. Manag. Data Syst.*, vol. 115, no. 5, pp. 883–852, 2015.
- [8] E. Pantano, "Engaging consumer through the storefront: Evidences from integrating interactive technologies," *J. Retail. Consum. Serv.*, vol. 28, no. October 2014, pp. 149–154, 2016.
- [9] J. S. Rebholz, "Nike Live," *design:retail*, pp. 30–37, Oct-2018.
- [10] G. Lipovetsky, *Da Leveza para uma civilização do ligeiro*. Lisboa: Edições 70, 2015.
- [11] F. Bonetti and P. Perry, "A Review of Consumer- Facing Digital Technologies Across Different Types of Fashion Store Formats," in *Advanced fashion technology and operations management*, vol. i, A. Vecchi, Ed. IGI Global, 2017, pp. 30–31.
- [12] K. Straker, C. Wrigley, and M. Rosemann, "The role of design in the future of digital channels: Conceptual insights and future research directions," *J. Retail. Consum. Serv.*, vol. 26, pp. 133–140, 2015.
- [13] S. Kvale, *InterViews: an introduction to qualitative research interviewing*. Thousand Oaks: Sage Publications, 1996.
- [14] I. Seidman, *Interviewing as qualitative research: A guide for researchers in education and the social sciences*, 3rd ed. New York: Teachers College Press, 2006.
- [15] P. Bazeley, *Qualitative data analysis: Practical strategies*. Sage Publications, 2013.
- [16] Q. I. P. Ltd, "NVivo 12 Mac." 2018.
- [17] P. Bazeley and K. Jackson, *Qualitative data analysis with NVivo*, 2nd ed. Sage Publications, 2013.
- [18] G. D. S. Ludden, H. N. J. Schifferstein, and P. Hekkert, "Surprise As a Design Strategy," *Des. Issues*, vol. 24, no. 2, pp. 28–38, Apr. 2008.
- [19] D. A. Norman, *Emotional design: why we love (or hate) everyday things*. New York: Basic Books, 2004.
- [20] W. Quesenbery and K. Brooks, *Storytelling for user experience: Crafting stories for better design*. Rosenfeld Media, 2010.
- [21] K. Krippendorff, *The Semantic Turn*. Boca Raton: CRC Press, 2006.
- [22] M. Hassenzahl, "User Experience and Experience Design," *The Encyclopedia of Human-Computer Interaction*. [Online]. Available: <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/user-experience-and-experience-design>. [Accessed: 11-Dec-2018].
- [23] D. A. Norman, "People-Centered (Not Tech-Driven) Design," *Encyclopædia Britannica*, May-2018. [Online]. Available: <https://www.britannica.com/topic/People-Centered-Not-Tech-Driven-Design-2118618>. [Accessed: 22-Feb-2019].
- [24] E. R. R. Ramirez, "Industrial design strategies for eliciting surprise," *Des. Stud.*, vol. 35, no. 3, pp. 273–297, May 2014.
- [25] S. Sundsbø, "Op-Ed: Why Fashion Needs to Think Beyond the Photo," *The Business of Fashion*, Nov-2018. [Online]. Available: <https://www.businessoffashion.com/articles/opinion/op-ed-why-fashion-needs-to-think-beyond-the-photo>. [Accessed: 03-Dec-2018].