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Study on digital communication strategies of Fashion brands based on Emotional Design













Universidade do Minho

Escola de Engenharia

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Tese de Doutoramento Design de Moda

Trabalho efectuado sob a orientação de:

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University of Minho, 1 April 2021

Ana Paula Barroso Faria

Ana Paula Barroso faria

Estudo de estratégias de comunicação digital de marcas de Moda baseadas no Design Emocional

Resumo

Num mundo hiperconectado, a indústria da moda está a adotar uma mentalidade focada no digital através da exploração das várias oportunidades cedidas pelas tecnologias para a apresentação de conteúdos. O maior desafio para as marcas de moda é estabelecer relações com consumidores que são cada vez mais exigentes e que estão sobrecarregados com informação. Para despertar desejos e atrair, as marcas precisam de inspirar e focar-se na criação de vínculos emocionais através dos canais digitais. Consequentemente, a presente tese teve como objetivo responder à seguinte questão de investigação: Como é que a simbiose entre o design e a emoção pode potenciar as estratégias de moda digitais para promover experiências envolventes? Por conseguinte, esta tese começa com uma revisão abrangente sobre Comunicação Digital de Moda e Design Emocional, seguida por quatro estudos exploratórios. O primeiro estudo explorou os pontos de vista de profissionais experientes da indústria da moda através de entrevistas semiestruturadas. Em seguida, o segundo estudo examinou uma revista digital para iPad segundo a perspetiva dos consumidores e da diretora criativa para perceber o que está por detrás da revista. Para o efeito foram realizados grupos focais para analisar as perceções dos consumidores, e a entrevista por e-mail foi o método escolhido para dialogar com a criadora. O terceiro e quarto estudos referem-se a um protótipo de uma aplicação móvel que resultou de uma parceria com uma empresa de moda online. O produto digital foi analisado através de testes de usabilidade com potenciais consumidores e entrevistas com representantes de marcas de moda. O conhecimento derivado da literatura, bem como os resultados dos estudos foram incorporados numa ferramenta para auxiliar os designers a aplicarem processos de Design Emocional no desenvolvimento de estratégias digitais para a promoção de conteúdo de moda. A ferramenta fornece recomendações práticas e orientações que podem beneficiar profissionais e estudantes de moda no domínio digital. Os resultados foram encorajadores, e trabalhos futuros deverão abordar a implementação da ferramenta em empresas de moda, bem como a sua inserção no meio académico. Em adição, os resultados dos estudos destacaram o potencial da narrativa digital e do entretenimento interativo para envolver os consumidores. Além disso, as estratégias para desenhar emoções que foram identificadas nos estudos podem ser aplicadas em contextos online e offline. Os resultados desta tese são um contributo para uma área crescente de literatura em Comunicação Digital de Moda. Oferece inclusivamente uma visão sobre o papel desempenhado pela curiosidade e pela surpresa na comunicação de moda, demonstrando que os recursos visuais e a interatividade podem ser usados estrategicamente para atrair, seduzir e estabelecer ligações significativas com os consumidores.

Palavras-chave: comunicação de moda, emoção, experiências interativas, notoriedade da marca.

Study on digital communication strategies of Fashion brands based on Emotional Design

Abstract

In a hyper-connected world, the fashion industry is currently embracing a digitally-focused mindset, exploring the wide range of opportunities provided by technologies to showcase content. The ultimate challenge for fashion brands is to connect with increasingly demanding and overwhelmed consumers. To arouse desire and appeal, brands need to inspire and focus on building emotional connections with consumers through digital channels. Consequently, the present thesis aimed to answer the following research question: How can the symbiosis between design and emotion enhance digital fashion strategies to promote engaging experiences? Therefore, this thesis starts with a comprehensive review of Digital Fashion Communication and Emotional Design, followed by four exploratory studies. The first study explored the viewpoints of experienced professionals from the fashion industry through semi-structured interviews. Then, the second study examined an iPad digital magazine from the lens of consumers and its creative director to capture the behind-thescenes. To that end, focus group sessions were undertaken to analyze consumers' perceptions, and email interviewing was the selected method to dialogue with the maker. The third and fourth studies relate to a mobile app prototype that resulted from a partnership with an online fashion retailer. The digital product was analyzed through usability tests with potential consumers and interviews with fashion brand representatives. The knowledge derived from the literature and the findings from the studies were incorporated into a tool to assist designers in applying emotional design processes in the development of digital strategies to promote fashion content. The tool provides practical recommendations and guidance that can benefit fashion professionals and students in the digital realm. The results were encouraging, and future work should discuss the implementation process of the tool in fashion companies and its inclusion in academia. Moreover, the results highlighted the potential of digital storytelling and interactive entertainment to engage consumers. Also, the strategies to design for emotions uncovered in the studies can be implemented in online and offline contexts. Altogether, the findings from this thesis add to a growing body of literature on Digital Fashion Communication. Additionally, it offers an understanding of the role of curiosity and surprise in fashion advertising, demonstrating that visuals and interactivity can be used as strategic assets to attract, seduce and establish meaningful connections with consumers.

Keywords: brand awareness, emotion, fashion communication, interactive experiences.

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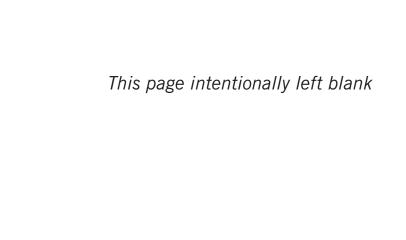
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1 Introduction

This chapter makes an opening for a better understanding of the research undertaken. The theoretical background of this thesis is presented and the relevance of the topic, followed by the purpose of the study and the research questions. It also describes the methodological procedures and contains an outline of the thesis.

Partial results of the presented work have been published in:

Faria, A. P., Providência, B., & Cunha, J. (2020). The Foreseeable Future of Digital Fashion Communication After Coronavirus: Designing for Emotions. In *International Conference on Design and Digital Communication* (pp. 510–515). Springer. https://doi.org/10.1007/978-3-030-61671-7_47

1.1 Motivation

This doctoral research is a follow-up to the master's work developed at the MA in Fashion Communication Design at University of Minho in Guimarães. The study focused on taking advantage of technology to create an experience that would cause an emotional impact on people (Faria, 2014). Thus, an iPad application was developed to promote a fashion collection, which was further analyzed with a small sample of participants. The results were encouraging and revealed that mobile apps could elicit emotions: the interactions aroused participants' curiosity, provided fun moments, and triggered difficulties in performing some gestures. The findings clarified the need for further research with new in-depth studies.

Another reason that led to this Ph.D. was how the MA unfolded. During the research project, it was possible to conduct research studies and attend international scientific conferences to present the results. The positive feedback obtained in the events fostered an increased interest in the field of study. Finally, this thesis was possible thanks to a scholarship granted by FCT – Foundation for Science and Technology.

1.2 Theoretical background

The popularity of digital environments has steadily grown over time due to their influence on consumers. Consequently, digital strategies have been in the spotlight of fashion brands. As a consequence of the coronavirus pandemic, the paramount importance of digital channels was amplified. More than ever, the fashion industry is embracing digital media and adapting marketing strategies to the current reality accordingly. Theunissen (2019) remarks,

Fashion is, first and foremost, a reflection of the times we live in, a visual representation of emerging themes and moods that are reverberating through society and as a result, the challenges and triumphs of the digital age are very much aligned with those of the fashion industry. (Theunissen, 2019, para. 1)

The interest in Digital Fashion Communication is increasingly arousing the interest of researchers and practitioners since the last decade and it is expected to continue to grow (Noris, Nobile, Kalbaska, & Cantoni, 2021). Indeed, in academia, scientific events in the field are relatively recent — the Fashion Communication Conference (FACTUM), focused on the impact of communication practices on Fashion, dates from 2019.

In-store technologies, social media, video, augmented reality, virtual reality, and mobile apps are part of a broad repertoire of touchpoints that brands have at their disposal to promote fashion content and connect with consumers. In visually-oriented sectors like fashion, delivering engaging experiences may give visibility in a world of content overload. Exploiting digital technologies is a matter of survival, as Court (2015) observed in the Business of Fashion. Nonetheless, several fashion brands have not grasped the opportunities provided by digital media (Miralles, Rinaldi, & Bandinelli, 2016).

Furthermore, Taylor and Costello (2017) showed that print advertising has been the main focus of fashion advertising research and highlighted that the impact of other advertising formats should be examined, such as in-store, digital and mobile. The authors also argued that audio, video, interactivity, storylines in fashion advertisements and consumers' perceptions of a brand should be considered to assess advertising effectiveness.

Successfully capturing consumers' attention in the digital environment, however, is insufficient as consumers are more demanding. To bewitch, fashion brands need to inspire and establish emotional connections with consumers. Regardless of the technology in use, the emotional responses experienced while interacting with a digital product play a significant role: they will affect consumers' decisions, motivations, and behavior (van Gorp & Adams, 2012). Besides, establishing deeper connections with the consumer will add value to fashion brands and increase the chances of achieving a competitive advantage.

Thus, research that goes deeper than online sales is needed to help brands adapt their strategies, innovate, and address consumers' needs simultaneously. The ultimate challenge for fashion is to understand the ongoing shifts of the online environment and develop new theories, models and methods to aid companies evolving (Straker, Wrigley, & Rosemann, 2015). The document written during the conference FACTUM19 reinforces other areas that need further investigation, namely, studies focused on user experience and multimedia practices through the analysis of textual elements, images, videos, and sounds (Cantoni et al., 2020).

This thesis contributes to the field of Digital Fashion Communication by elucidating how emotions can add value to the design process in the development of digital strategies. Moreover, the research has generated a tool that professionals from the industry can use to showcase fashion content considering emotions. Figure 1 provides a visual conceptualization of the main fields involved in Fashion Communication that were explored in the research project.

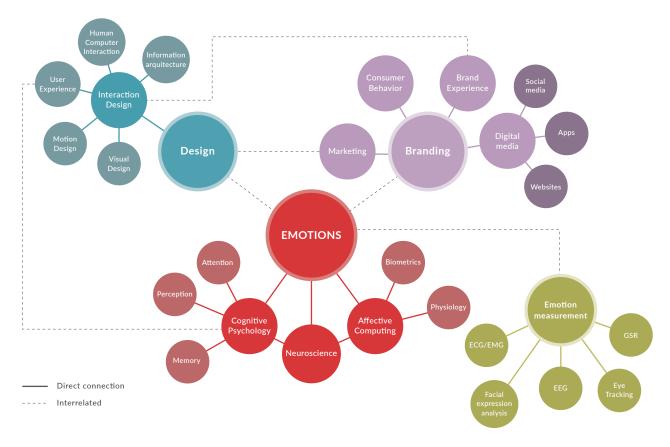


Figure 1. Main topics explored.

1.3 Aim and research questions

Aware of the importance of emotions to establish deep and long-lasting connections with consumers, this thesis aims to develop a sustainable and practical framework to help designers trigger emotional responses through digital media based on the intersection of Digital Fashion Communication and Emotional Design. Hence, the central research question of this project is:

How can the symbiosis between design and emotion enhance digital fashion strategies to promote engaging experiences?

As a means of answering the central question, the following subquestions were raised to narrow the focus of the study according to distinct objectives:

- 1. Understanding the contemporary fashion digital media landscape and current design practices: Which fashion communication strategies are being adopted? Which techniques do designers apply to create digital products?
- 2. Exploring the relationship of people with digital media: How can designers take advantage of the kinetic properties of technology to elicit consumers' emotional responses?
- 3. Discovering the contribution of emotions to create meaningful interactions: How can emotion be used as a strategic asset to create digital experiences?

Despite the importance of emotions in this research, it is worth mentioning that this is not a contribution to Psychology. Instead, the purpose is to identify opportunities and offer designers a tool that considers emotions in developing digital solutions to enhance consumers' perception of fashion brands.

1.4 Methodological approach

Regardless of the type of approach (quantitative, qualitative, or mixed methods), each research project carefully employs a set of systematic, critical and empirical processes to study a phenomenon (Sampieri, Collado, & Lucio, 2010). Since the current research problem needed to be explored and understood in-depth, a qualitative approach was chosen (Creswell, 2014).

One of the fundamental ideas behind qualitative research is "to learn about the problem or issue from participants and to address the research to obtain that information" (Creswell, 2014, p. 186). Therefore, several research strategies were applied and combined throughout a total of four studies: each one witnessed specific data collection methods.

The first study entailed individual semi-structured interviews with professionals from the fashion industry — purposely those responsible for communication, to gain insights into their work experience and their unique views of the digital media environment. Then, a case study was employed to understand how a digital fashion product of particular interest (an iPad magazine) affects consumers' perceptions and why through focus group sessions and understand the design process through an email interview with the art director of the digital magazine.

With a better understanding of the current state of fashion digital media and the relationship between consumers and digital products, the third and fourth studies involved putting into action an analysis model built on the knowledge from the previous studies in a practice-based project. Hence, a mobile app was designed in partnership with an online retailer. Rather than purely developing a commercial product, the goal was to examine and refine the analysis model through a Research through Design approach to generate knowledge, in line with Zimmerman and Forlizzi (2014). Afterward, the prototype was analyzed through consumers' lens by conducting usability tests and interviews with brand representatives. Figure 2 displays the main research activities and methods.

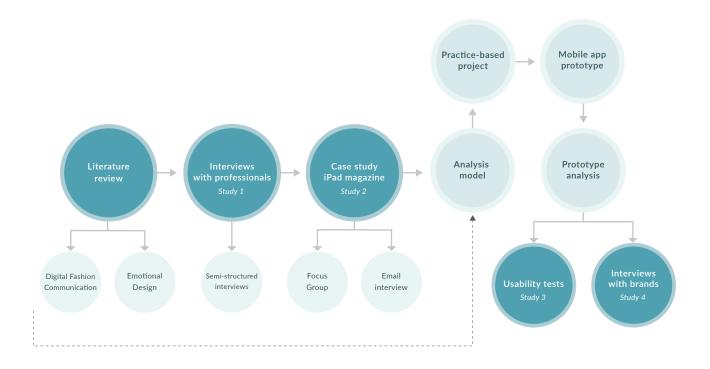


Figure 2. Main research activities and methods.

1.5 Thesis outline

This thesis is composed of nine chapters, which can be grouped into two main parts. The first part introduces a comprehensive overview of the study (Chapter 1) and examines the literature in the primary research topics — Chapter 2 addresses the changing fashion landscape, and Chapter 3 outlines the literature on design and emotion.

The second part describes, analyses, and reflects on the results of the exploratory studies undertaken throughout the research project (Chapters 4 to 7) and deconstructs the tool which resulted from both the theoretical and empirical knowledge accumulated (Chapter 8).

Lastly, Chapter 9 encompasses the general discussion and conclusions. It contains a summary of the key findings of each chapter, followed by the interpretation of the results. The study's strengths and limitations are revealed, and directions for future research and implications for practice are discussed. It concludes by answering the overarching research question earlier reported.

Additionally, this thesis includes several appendices with supplementary material used to support the literature reviews and the exploratory studies.

1.6 References

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2 Fashion and digital technologies

This chapter brings digital fashion communication to the forefront by outlining the most recent developments, fundamental discoveries, and current state of the art regarding how digital technologies impact the way fashion is experienced today. The changing fashion landscape is described, the consumer is portrayed, and brand strategies are explored.

Partial results of the presented work have been published in:

Faria, A. P., Providência, B., & Cunha, J. (2020). The Foreseeable Future of Digital Fashion Communication After Coronavirus: Designing for Emotions. In *International Conference on Design and Digital Communication* (pp. 510–515). Springer. https://doi.org/10.1007/978-3-030-61671-7_47

Regarding the literature on fashion retailing, the following publication was made:

Faria, A. P., Vieira, D., Duarte, P., Cunha, J., & Providência, B. (2019). Fashion Retailing and Consumer Perception: An Overview. In *Textiles, Identity and Innovation: In Touch: 2nd International Textile Design Conference (D_TEX 2019)*. Lisbon, Portugal.

2.1 Digital disruption of the fashion industry

The digital revolution has already occurred. Its impact on the Fashion industry extends from production, mediation, promotion to distribution and sales. As the Norwegian editor and publisher of Wallet magazine Elise By Olsen remarks, "Technology is no longer just an element, but a condition of fashion" (2020, p. 8).

Alongside the technological shifts, brands need to cope with the rapidly changing consumer preferences and tastes powered by digital channels (Solomon & Roe, 2019). Consequently, marketing strategies are rewritten as the importance of media to fashion heightens and consumer behavior shifts.

Thus, it is crucial to understand the implications of the media environment for theory and practice. Research into the link between the contemporary field of fashion and digital media has gained pace since the last decade. Of particular importance are Rocamora's studies in the scholarly domains of fashion studies and media and communication studies. The author employs the term mediatization to shed light on the ways digital media shapes fashion practices (Rocamora, 2017). Through examples and secondary sources, she examined the impact of digital media on several spheres of the fashion system, namely, fashion shows, fashion design, and retail. Subsequent studies have also explored these domains.

Concerning the production of fashion shows, there is a broad agreement that these events are increasingly produced to be consumed online and strategically planned with social media in mind. For instance, the set design is conceived to create "grammable spaces," (Mendes, 2019):

Today's fashion show does not simply present a collection of clothes against a background set design; it uses scenography more instrumentally as the setting for brands and influencers to capture still and moving images of fashion for followers of online social media. (Mendes, 2019, p. 21)

Additionally, a case study conducted by Sand (2019) of Virgil Abloh's 2018 debut show for Louis Vuitton's menswear illustrates how the set design, among other strategies, was planned to maximize online visibility. For instance, thousands of students were invited to the show to wear a t-shirt contained in plastic tubes that matched each shade of the runway (Figures 3 and 4).

Moreover, model casting and guesting selection are not random. Social media visibility is taken into account when selecting fashion models, make-up artists, hair stylists, and other fashion professionals (Pinchera & Rinallo, 2019).



Figure 3. Set design for the Men's Spring-Summer 2019 Fashion Show by Louis Vuitton. Source: Hitti (2018).



Figure 4. Graphic t-shirts. Source: Abloh (2018).

The significance of social media extends to fashion design and fashion photography as well (Rocamora, 2017). There is a concern with the clothes' appearance online — the photographs should accurately represent the garments. Another challenge is the limitations of sizes in social platforms such as the square format of Instagram.

The consumption of products turns into the consumption of images (Rocamora, 2017) as online imagery becomes central in the digital world. At the same time, social media platforms turned into legitimate spaces to diffuse collections (Rocamora, 2017), and the algorithms and the pursuit of audiences redefine fashion's challenges and opportunities (Sand, 2019).

In retail, brick-and-mortar environments and shopping practices are redefined with digital screens (Rocamora, 2017). Furthermore, online retailers go beyond commercial platforms and become media content providers like the case of Net-a-Porter (Rocamora, 2018a).

One particular movement — "See Now, Buy Now," has shaped both retail practices and fashion journalism. Introduced in 2016 by the former creative director of Burberry, Christopher Bailey, the phenomenon heralded a new era for retail by allowing consumers to shop garments instantly as they are presented on the runway. Mendes (2017) examined its repercussions, arguing that the movement collapsed the practice of fashion journalism as cultural and commercial mediation. Mora and Rocamora (2015) and Rocamora (2011, 2018b) add that fashion blogs are also shifting the nature of fashion journalism.

The studies mentioned above are mostly based on secondary sources, and the way they approach mediatization is broad. In this sense, Skjulstad (2020) points out the absence of case studies of fashion films, fashion photography, or Instagram feeds. Similarly, Sand (2019) states the need to understand media like mixed reality, shoppable video, and audio content. In her view, the latter is a requirement to fully grasp the impact of media on fashion.

From Rocamora's perspective (2013), fashion practices should be studied through the lens of people and institutions from the fashion industry — writers, photographers, stylists, among others, to comprehend the repercussions of the immediacy of the contemporary society.

2.2 The rise of the hyper-connected consumer

There is no doubt that technology is deeply ingrained in everyday life. In the words of McCarthy and Wright (2004, p. 2), "We don't just use or admire technology; we live with it. Whether we are charmed by it or indifferent, technology is deeply embedded in our ordinary everyday experience."

According to the report "The Mobile Economy 2020" from the GSM Association (2018), in 2019, the number of mobile internet users worldwide was 3.8 billion, and by 2025 is expected to reach 5 billion. The ubiquity of mobile devices is illustrated in a set of photos compiled by the picture editors of The Boston Globe in the blog The Big Picture (Figure 5).

The world is an "infosphere," a special place that is equally analog and digital, online and offline (Floridi, 2018). This ever-changing place has disrupted the business of fashion itself and consumers: how they communicate, access and view information, learn, and purchase.

It is the age of the empowered consumer, who is not only a content seeker but also a content producer. In the view of Travis (2001, p. 18) "we're one click away from knowing everything about anything.





Figure 5. Smartphone society. Source: Globe (n.d.).

Every one of us can now have a genius living between our ears. There's no call for dumb people anymore. The Net makes ignorance obsolete."

Further, Rowles (2018) adds that digital media originated a global soapbox and consumers' feedback can easily impact brands. As he explains:

instead of being put on hold for an hour when phoning a call centre and having little choice but to tolerate it, I can now go straight to one of many social media channels and make my frustrations very clear and very visible (...) That highly visible complaint then becomes part of other people's brand perception (fairly or not) and suddenly the years of building a brand can be tumbled very quickly. (Rowles, 2018, p. 8)

Through the reports of McKinsey and Business of Fashion (2018a, 2018b, 2020b, 2020a), it is also known that consumers are increasingly demanding novelty, convenience, immediacy, personalization, and transparency. Interestingly, the consumers' craving for newness has led to a boredom epidemic where they can still feel uninterested regardless of the endless entertaining information at their disposal (Luna & Renninger, 2015). Luna and Renninger's (2015) argument for the pervasiveness of boredom is that the more information is experienced and absorbed, the less surprising it feels. They add that,

We have articles, movies, games, commercials, books, images, videos, podcasts, websites, ads, status updates, email, and texts all shouting for our attention, and that list of contenders is just the tip of the iceberg. We shift our focus compulsively, rushing to finish one thing so that we can move on to the next. On one side of the seesaw sits fear of missing out (aka FOMO) and on the other, boredom induced by surface skimming. (Luna & Renninger, 2015, The Boredom Epidemic section, para. 8)

The ease of access to information tends to lead people to progressively turn to their devices to discover something. Google (2016) entitled these moments as micro-moments and identified four categories: "I-want-to-know moments," "I-want-to-go moments," "I-want-to-do moments," and "I-want-to-buy moments" (Figure 6). Google's conceptual model mirrors the always-on consumer.



Figure 6. Four micro-moments. Source: Think with Google (2016).

More recently, Solomon and Roe (2019) developed a model to illustrate "The new buying process." The authors explain that the simple linear traditional model is obsolete, giving place to a more complex one that is circular. As shown in Figure 7, the new model encompasses all the five stages of the old one, but it adds more steps.

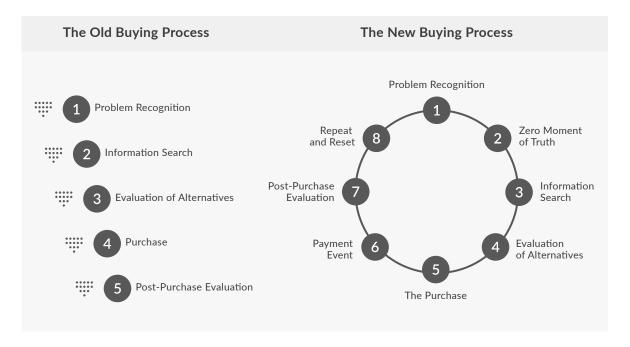


Figure 7. The old buying process vs. the new buying process. Adapted from Solomon and Roe (2019).

The "Zero Moment of Truth" (ZMOT) step was introduced to mark the moment when the consumer decides to buy — it can be triggered by a desire or a need stemmed from social networks or other type of online stimulus. Then, the "Payment Event" due to its part in the overall experience. Lastly, "Repeat & Reset" encompasses the activities that a brand can perform to encourage further transactions. To put it differently, it is not a tidy process that ends with the purchase and post-purchase evaluation.

Despite being distinct, these frameworks demonstrate that consumers do not decide systematically, and they are continually moving between channels. Consequently, conventional marketing strategies based on predictability and stability do not apply anymore as the market is fragmented (Solomon & Roe, 2019). The traditional demographic or location segmentation does not suffice, and psychographics, i.e., attitudes, values, and consumers' desires, are also considered (Revella, 2019; Solomon & Roe, 2019).

To truly understand consumers' buying decisions and motivations, it is necessary to approach them. To that end, Solomon and Roe (2019) claim that quantitative techniques should be combined with qualitative ones to gather in-depth information.

2.3 Digital Branding

The communication flow was altered by the digital age: there was a shift from a monologue to a multilogue. With wide access to information and a plethora of choices, consumers' play an active role by engaging with brands through online channels. This had implications for brands, and thus the concept of branding evolved to encompass the holistic sum of consumers' online experiences.

The definition of branding in the digital setting goes beyond communicating messages through visual identity or celebrity endorsements — it is an experience (Kaplan, 2016) or the sum of all experiences with a brand (Rowles, 2018). The society of seduction portrayed by Lipovetsky (2019) reinforces the power of experiences to capture consumers' attention and considers that it is imperative to arouse their desires, emotions, and dreams:

It is no longer just a matter of producing material goods to ensure survival, but making them desirable to the masses through attractive devices, awake affections and the imaginary, making dreams and amuse.¹ (Lipovetsky, 2019, p. 239)

¹ Author's free translation from Portuguese: "Já não se trata apenas de produzir bens materiais para assegurar a sobrevivência, mas de torná-los desejáveis junto das massas por meio de dispositivos atraentes, despertar os afetos e os imaginários, fazer sonhar e divertir."

In the academic literature there has been some interest in mapping digital touchpoints to create awareness of the available opportunities and provide guidance. When referring to touchpoints, the authors use different terms, i.e., interactive media contacts, digital channels, digital touchpoints, digital platforms, consumer touchpoints.

Despite the variety of terms, the meaning is the same. The definition provided by Rowles (2018, p. 4) can cast light on the subject: "online touchpoints (points at which we are interacting with a topic, product or organization either directly via something such as a website or app, or indirectly via a search engine results page or a social media discussion)."

The studies on digital touchpoints rely on interviews and content analysis. Heine and Berghaus (2014) categorized eight working areas of digital luxury marketing from interviews with experts in the field. Similarly, Sharma and Sahni (2018) also conducted interviews but with fashion consumers and identified 40 interactive media contact points in the customer journey. In contrast, Straker, Wrigley, and Rosemann (2015) took a more broad approach by examining 16 industries. The authors developed a model that comprises the customer needs and the company objectives to guide touchpoint choices.

These studies demonstrate that there is a wide variety of direct and indirect ways to establish relevant connections with consumers. From a marketing perspective, digital innovation provides additional benefits — companies can collect data and use it strategically to meet their consumers' needs. The possibilities of digitalization are listed by Olsen (2018):

With these tools it is possible to follow consumers in their digital consumer journeys, measure what they click, see how different tactics (e.g. display ads, search words) convert into sales, what types of digital communication efforts and content are effective, and from which sites consumers enter the brand's webpages and where they go when they leave. (Olsen, 2018, p. 18)

If used properly, behavioral brand data can leverage companies by delivering positive experiences and creating value (Wrigley & Straker, 2018). Apart from the array of channels and analytics, digital technologies can also be used in creative ways to deliver value propositions through interaction (Rowles, 2018). Besides, sensuality is inherent in the online atmosphere as Chae and Bateman (2001, p. 74) claim: "The digital environment is one of the most sensuous environments on earth. We can have touch, we can have voice, video, graphics and text all merged and converged in one environment."

From a branding-building perspective, Aaker (2014) observes that digital media such as websites, blogs, social media, and online video are required to build or enhance brands. Digital engages audiences, promotes enriching content, tailors experiences to match individual needs, and builds trust (Aaker, 2014). Hence, digital channels can empower fashion advertising, which relies on striking imagery to promote fashion products (Le Bon, 2014). "The radiant images of advertising invade the streets, the media and the Internet. (...) At the heart of our commercial cosmos, the seduction of products appears as the never setting-sun in the empire of consumerist capitalism²," writes Lipovetsky (2019, p. 232).

On the other hand, worldwide access to data and information has its downsides. Mendes (2017) argues that fashion brands do not have real control over how their images circulate. This lack of control extends to everything that a fashion brand communicates because it is subjected to scrutiny. In simpler terms, brands are more vulnerable, and a slight slip can undermine its credibility and decrease its value (Neumeier, 2006).

Moreover, the amount of information available coupled with a global and competitive marketplace makes grabbing consumers' attention challenging. Attracting attention nevertheless is no guarantee of success. A potential value proposition itself in the digital landscape is insufficient as well. In this regard, Rowles (2018) explains that companies must give consumers a reason to engage, leave feedback about products or services, and establish a dialogue.

Thus, creating content continuously becomes a requirement to engage with consumers. According to Kansara (2016), the number of events staged by luxury brands (exhibitions, fashion shows, dinners, parties, etc.) has risen to meet the expectations of online fans who demand new content every time they refresh their feeds.

Despite the rules of branding are shifting, the core principles remain central. Travis (2001, p. 18) considers that establishing emotional connections with consumers is still fundamental: "The essence of effective branding is still rooted in strong emotion." Moreover, Olsen (2018) argues that identification and differentiation are more vital than ever because, amid choices, consumers need to recall brands quickly.

The emergence of concepts such as emotional branding and brand love mirrors the prominent place that emotion represents as a strategical asset. Kim and Sullivan (2019) believe that emotional branding

² Author's free translation from Portuguese: "As imagens radiosas da publicidade invadem as ruas, os media e as redes de Internet. (...) No centro do nosso cosmos comercial, a sedução dos produtos surge como o sol que nunca se põe no império do capitalismo consumista."

can make a difference to fashion brands since it is a path to establish meaningful connections with consumers and lead to brand loyalty.

Furthermore, one of the key findings from one study conducted by Deloitte Digital (2019) also highlights the value of connecting emotionally with consumers. It was found that 60% of long-term customers use emotional language — words such as love, happy, and adore, to describe their connection to favorite brands.

2.4 Digital strategies

There have been several approaches to understand the interplay between fashion, digital technologies, and emotions. In this regard, four research streams were identified. The first relates to studies that reveal an interest in the British luxury fashion house Burberry. The second focus on storytelling practices and the last streams comprise two particular contexts — retail and mobile apps.

2.4.1 The case of Burberry

Frequently mentioned in the literature, Burberry demonstrated that connecting with consumers through digital channels is possible. For that reason, researchers sought to demystify the reasons behind the luxury brand's success. Namely, Phan, Thomas, and Heine (2011) examined the brand's social media strategy. In their view, social networks were fundamental to Burberry's achievements as they brought the brand and younger, web-savvier consumers closer. Further, the authors add that being a pioneer in investing in digital communications had also contributed to its success.

In line with the previous study, Miralles, Rinaldi, and Bandinelli (2016) reckon engagement is the essence of Burberry's strategy. However, their analysis is not limited to social media as it extends to the overall digital strategy. The authors identified four significant features: i) the brand's voice is the same across platforms; ii) omnichannel; iii) integration of social and digital media; and iv) continuous innovation by using cutting-hedge technology to engage customers.

Alternatively, Wrigley e Straker (2016) decoded the emotional intentions of five Burberry's digital campaigns. They believe that the brand created a dialogue with consumers by evoking emotions (satisfaction, desire, admiration, enjoyment, stimulation and love) that made them want to participate in the experience:

Through all Burberry's digital campaigns, their customers are motivated by a set of key emotions, resulting in them to "be part of the Burberry story". Each digital channel provides a unique and consistent message, which bring together the brand, culture and customers to be part of the same story. This story aligns with the brand DNA (British heritage) and the key product (trench coat). (Wrigley & Straker, 2016, p. 293)

Additionally, the authors underlined that Burberry was able to understand their target customers and match their digital knowledge and daily habits. Personalization is pointed as a crucial strategy to strengthen the connection between the product and consumers too.

2.4.2 Storytelling

What Disney and fashion have in common was the motto of the invention-only event "The Power of Storytelling" promoted by The Business of Fashion that convened a handful of professionals within the fashion industry. In the perspective of Geoffroy de La Bourdonnaye, Chloé chief executive (a former senior executive at Disney), it is all about the stories. He spoke about the reasons behind Disney's success and the strength of narratives:

We've all been kids and we've all known the power of attracting the emotions through strong storytelling, and that's what makes Disney so unique. What I learned at Disney is the power of narrative and the power of basically creating a world, a theme, and a bunch of characters to draw the emotions which are common to all people around the world. (The Business of Fashion, 2016, 3:25)

The other panelists discussed how stories are embedded in fashion (The Business of Fashion, 2016). For example, Sandra Choi, creative director of Jimmy Choo, said that the story is the start of everything and act as a guide. In retail, Sebastian Manes, buying and merchandising director of Selfridges, highlighted that storytelling is linked to the company's value proposition, which is "surprise, amaze and amuse." He also mentioned that showcasing the product is not good enough; the customers must be entertainment.

Although the experts recognize the power of storytelling, they agreed that fashion could derive more from it. In the academia, storytelling is also acknowledged as a powerful strategy to involve consumers emotionally that can be applied to digital and traditional media (Kim & Sullivan, 2019). The storytelling practices of fashion brands have been explored mostly through case studies and content analysis.

The research conducted by Donzé and Wubs (2018) provides a historical perspective of the LVMH group and Christian Dior (2019). Both studies describe the role of storytelling as a corporate strategy

to diffuse the brands' identities. The authors claim that the importance of storytelling for luxury brands lies in product differentiation and emotional value (Donzé & Wubs, 2018).

In the realm of sportswear, Glover (2018) examined how the British cycling brand Rapha embeds stories in its products and communication. Her analysis suggests that sharing stories is the essence of the brand as a way to transmit its values, purpose, and passion.

Apart from the case studies that approach storytelling at the core of the brands' strategy, some studies analyzed audiovisual media. Scaglioni and Suma (2017) investigated 40 projects concerning fashion films, tv shows, movies, and videogames promoted by Italian luxury and mass-market brands.

Whereas, von Wachenfeldt (2018) directed her attention to video advertising campaigns from the French luxury fashion houses Louis Vuitton, Dior, Chanel, Cartier, and Hermès. The author observed the recurrent presence of the following themes: adventure, magic, seduction, and play. On the other hand, Sánchez and Sánchez (2020) studied the narrative, the characters, the plot, and the aesthetics of the leading brands of haute couture worldwide.

Similarly, Romo, García-Medina, and Romero (2017) employed content analysis to identify the current digital marketing practices in the luxury domain (Prada, Chanel and Louis Vuitton). They discovered that storytelling is present across online and offline — video marketing strategies, social media, events and exhibitions.

2.4.3 In-store technology

Brands and retailers are actively embracing technologies and transforming the retail experience by blurring the lines between physical and digital to enhance the consumers' experience. The sportswear brands Nike and Adidas are two cases in point.

The "Nike Live" concept store in Los Angeles has an app that unlocks features like requesting fitting rooms and shoe sizes instantly, locating products and reserve them, among others (Rebholz, 2018). Regarding Adidas, its hi-tech flagship store in London (Figure 8) includes several technological features such as interactive mirrors in changing rooms that automatically detect items by resorting to RFID technology and allow consumers to order different sizes on the spot (Brown, 2019).

In view of the wide variety of available technologies, Shah (2018) observed to the Business of Fashion that the lack of creativity is leading retailers to blindly invest in technology and distort retail. She considers that technology should not be used for the sake of using technology.



Figure 8. Adidas's flagship store on London's Oxford Street. Source: Brown (2019).

In the literature, the studies identify and describe the use of technologies in the physical store. Sampaio et al. (2017), Bonetti and Perry (2017), and Colombi, Kim and Wyatt (2018) reviewed several technologies, whereas Boardman, Henninger, and Zhu (2020) specifically examined Virtual Reality and Augmented Reality. Later, Perry, Kent, and Bonetti (2019) studied mobile technologies in particular.

Overall, the authors conclude that in-store technologies can enhance retail experiences, and retailers should include them as part of their strategy. They can attract younger audiences (Sampaio et al., 2017) and provide excitement, entertainment, and useful experiences for consumers (Boardman et al., 2020). Another advantage of using technologies is collecting data about consumers to create more personalized shopping experiences (Bonetti & Perry, 2017).

Evaluating the consumers' perspective towards technologies in the physical store has been subjected to research as well. The interview study conducted by Alexander and Alvarado (2014) revealed that technology can negatively impact consumers. The negative perceptions are associated with unmet needs, e.g., not providing details about products and encounters with technical issues.

Conversely, Pantano (2016) found evidence that storefronts with interactive technologies embedded can positively affect consumers. When prompted with supporting videos showcasing examples of window displays with interactive technologies incorporated during focus group sessions, the participants mentioned their ability to grab attention, usefulness, and save time.

In addition, Dugar, Blazquez, and Henninger (2020) collected data through focus group sessions and interviews with fashion premium consumers to uncover their perceptions of in-store technologies. The findings

suggest that positive experiences with technology might benefit consumers' emotional relationship with the brand. On the other hand, a privacy concern emerged, making them feel reluctant to use technologies.

2.4.4 Mobile apps

Like a Swiss Army Knife, mobile devices are filled with different features that allow consumers to research, compare, purchase, and experience online media-rich advertising by interacting with bill-boards and in-store digital displays (Harris, 2017). Consequently, mobile technologies give retailers and marketers a myriad of options to promote and sell products.

Zhao and Balagué (2015) suggest that mobile apps can fulfill different purposes. They can provide services to assist consumers (tool-centric apps), create immersive contents to build brand awareness (game-centric apps), promote social activities to foster brand engagement (social-centric apps), sell products (m-commerce-centric apps), and provide imaginative moments (design-centric apps).

There is evidence that supports that mobile applications have a positive persuasive impact as they can raise interest in the brand and its products (Bellman, Potter, Treleaven-Hassard, Robinson, & Varan, 2011). The interest in mobile apps is visible in the literature reviews conducted by Mondal and Chakrabarti (2019) and Tang (2019).

Mondal and Chakrabarti (2019) examined 40 peer-reviewed research papers. Their systematic review reveals that the studies derive from Information Systems and Marketing. Moreover, the authors conclude that early studies aimed to improve the apps' design and usability. Still, subsequent ones delve into the impact of consumer engagement on purchase intentions.

From a commerce and marketing perspective, Tang (2019) examined 84 articles and found that mobile app studies seek to understand the app users' motivations (intrinsic or extrinsic factors), attitudes (satisfaction and loyalty towards the apps/brands; trust and perceived risks), and behaviors (continue intention; word-of-mouth; purchase). Additionally, she observed that the focus of the studies is on retail, banking and hotel sectors.

In the context of fashion, Magrath and McCormick (2013; 2013) created two frameworks: the first includes visual design elements to integrate into a mobile strategy, whereas the second covers branding elements of fashion retail apps. The purpose of these frameworks is to guide and open further discussions on the topic. Figure 9 presents a detailed list of the components listed in both frameworks.

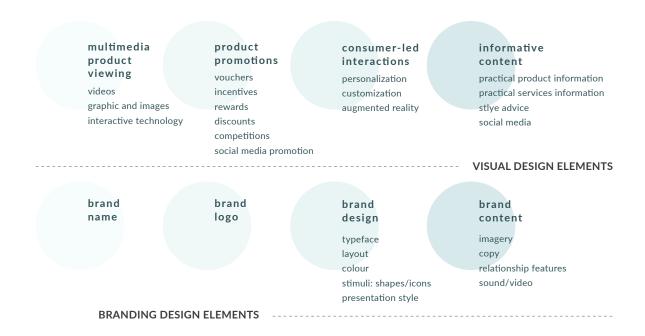


Figure 9. Visual and branding elements of fashion apps. Adapted from Magrath and McCormik's (2013; 2013).

In another study, Romo et al. (2016) studied ten mobile apps of Spanish prêt-à-porter fashion brands (e.g., Zara, Pull and Bear, Mango, Stradivarius) to discover the aspects that can improve the brands' image. Their content analysis concludes that retail apps must be entertaining, time-saving, add value, and be coherent with the brand's identity.

In general, it appears that the majority of studies explore mobile apps whose primary aim is to sell products. However, according to Parker (2018), besides sales focus apps, there are brand communication apps, i.e., apps that enhance consumers' perception of the brand through mixed media communication.

Parker's (2018) point of view is that mobile apps are underrated, and they can be used for more than purely retail. Thus, he encourages the development of new concepts of app design and consumer engagement (2018). This author's research was influential in designing the digital product that is presented in Chapter 6.

2.4.5 Homogeneity in Digital Fashion Communication

Despite the myriad of technologies available that allow the implementation of nearly every conceivable idea, it seems that there is a uniformity in the digital fashion landscape. The rebranding of luxury brands such as Celine, Calvin Klein, Yves Saint Laurent, among others, seem to follow a similar path that did not go unnoticed (Figure 10). Branding specialists comment that one of the reasons for selecting sans-serif typefaces is their legibility and suitability to different media (Stanley, 2018).



Figure 10. "This graphic circulated the web | Source: Twitter." Source: Whelan (2019).

The homogeneity also extends to web design. In the view of Müller (2018), the internet suffers from a lack of creativity: "Web design today seems to be driven by technical and ideological constraints rather than creativity and ideas. Every page consists of containers in containers in containers; sometimes text, sometimes images. Nothing is truly designed, it's simply assumed" (2018, para. 2). Furthermore, Parker and Doyle (2018) argue that brands might not be distinguished online as e-commerce websites can easily appear professional and luxurious with the appropriate design and aesthetic (Figures 11 and 12). The authors reflect on the ways luxury retail can remain an aspiration in an environment where design and content of luxury and high retailers are practically equivalent.

Walter (2020) considers that technological platforms enable to build faster and cheaper solutions, but they do not consider the craft or the audience. This view is in line with Dario (Jam3, 2020), the creative director of the design and experience agency Jam3. He claims that the current digital spaces do not help create meaningful connections and remarks that social media platforms' constraints inhibit creativity, and as a result, everything looks the same. "From the algorithmic timeline to infantilizing UX patterns that promote short-term virality and engagement, the platformization of design (...) has given rise to sanitized digital spaces that ultimately won't help you create lasting and meaningful connections with your audience," said Dario in a conversation with creatives from around the world (Jam3, 2020, para. 8).

Notwithstanding, in the words of Müller (2018, para. 22), "every crisis creates an opportunity," thus there is room for innovation. The potential of web technologies can be channeled for creating

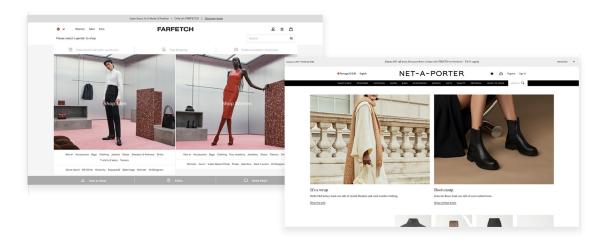


Figure 11. Farfetch and Net-a-Porter (luxury retailers).

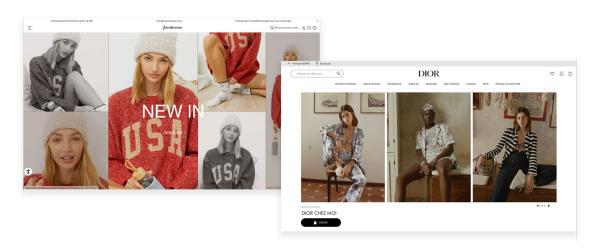


Figure 12. Stradivarius (high street brand) versus Dior (luxury brand).

imaginative visual experiences and challenge the internet's visual conformity (Müller, 2018). Additionally, Parker and Doyle (2018) acknowledge that the current technologies enable to develop personal and emotional experiences, representing a path for luxury brands to re-establish exclusivity. To conclude, Walter (2020) believes that despite the absence of physical touch in digital design, going beyond function and engaging people on an emotional level is attainable.

2.5 Considerations

This chapter examines the changes ignited by the centrality of digital media in the fashion industry. It also describes the impact of the digital landscape that extends to consumers and brands as well.

On the one hand, empowered by technology, consumers can engage directly with brands and easily access information through their smartphones. Notwithstanding, they are more demanding and are always looking for the next new thing.

On the other hand, brands can take advantage of the digital environment since it is highly measurable and metric-driven. Moreover, it offers numerous opportunities to connect with consumers and enhance their experiences.

Regardless of the digital channel, brands should strive for authenticity to resonate with increasingly overwhelmed consumers. To that end, a mindset focused on emotions may provide a path for establishing meaningful connections and add value to fashion brands.

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3 Emotional engagement

This chapter investigates the literature on design and emotion. It starts with assessing the user engagement construct and how Emotional Design can contribute to design for engagement. Emotions and their intricacies are then introduced, followed by theoretical models and frameworks to design for emotion and emotional measurement approaches. Lastly, a group of prominent processes that are adopted to product development and innovation is explained.

Regarding the literature on emotional measurement, the following publications were made:

Faria, Ana Paula, Providência, B., & Cunha, J. (2018). DESIGN, TECHNOLOGY AND EMOTION MEASUREMENT. *NORDSCI Conference on Social Sciences, 1*, 21–28. https://doi.org/10.32008/NORDSCI2018/B2/V1/2

Faria, A. P., Providência, B., & Cunha, J. (2018). Eye Tracking in Fashion: an overview. In *Proceedings CIMODE 2018 4o Congresso Internacional de Moda e Design* (pp. 103–108). Madrid, Spain: University of Minho.

3.1 User Engagement

In an ever-changing environment filled with digitally-mediated experiences, engaging with consumers is the paramount issue as user engagement (UE) has proven to be a significant mediator for persuasive outcomes (Oh & Sundar, 2016). It is commonly believed that user engagement with media is related to being focused on media content at a cognitive and affective level, e.g., a consumer is engaged when inspired by an ad or brand (Oh & Sundar, 2016). Oh and Sundar's (2016) theoretical definition of UE states that:

user engagement is a psychological state where the user appraises the quality of media and becomes cognitively and emotionally absorbed in media content, followed by a behavioral experience with which the user physically interacts with the interface and also socially distributes the content. (Oh & Sundar, 2016, p. 183)

For Sutcliffe (2016), the purpose of UE is to attract and excite users, stir pleasurable emotions — curiosity, surprise, and joy, by making interactions exhilarating and fun. From the author's point of view (2016), the term relates to immediate, dialogue-driven experiences compared to user experience (UX) that is broader, encompassing the reasons for people adopting and using a given design over time (Sutcliffe, 2016).

Studying UE, however, poses a challenge due to its complexity (O'Brien & Cairns, 2016; Zagalo, 2020). As explained by O'Brien and Cairns (2016), the intricacy of UE lies in subjectivity:

User engagement, as with other aspects of subjective user experience, is a complex phenomenon. Users bring personal histories, knowledge, skills, and emotions to their interactions with technologies, while systems vary in terms of how they present and organize system features and content. (O'Brien and Cairns, 2016, p. xiv)

Indeed, interactive products can shape feelings, thoughts, and actions, ultimately influencing experiences (Hassenzahl, 2010). The model created by Sutcliffe (2016) clarifies the cognitive factors that influence UE (Figure 13). The author (2016) explains that users' motivations and emotions, elicited by design qualities (interactivity, aesthetics, and usability), influence their judgment, and ultimately, their actions. In other words, emotions act as a catalyst for UE. For this reason, the more designers know about emotions, the better they can design for engagement. Hence, knowledge from the field of Emotional Design can prove useful.

Apart from UE, other factors influence UX that should not be disregarded as they will determine a product's success. According to the user experience honeycomb model created by Morville (2004), the facets of UX

are: useful, usable, desirable, findable, accessible, credible, and valuable. Hartson and Pyla (2018) also consider usability and usefulness as components of UX. Still, they add two more: emotional impact (how users feel emotionally and user satisfaction) and meaningfulness (long-term relationship with a product).

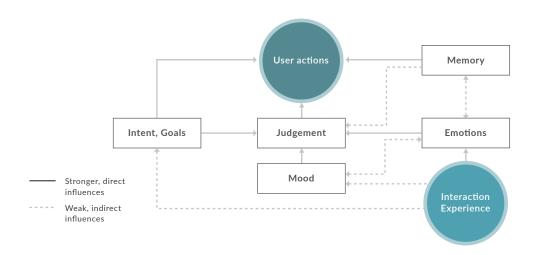


Figure 13. Model of cognitive factors influencing UE. Source: Adapted from Sutcliffe (2016).

3.2 Design for emotion

Part of the complexity of studying emotions derives from their immateriality and because they vary and have different intensities. The projects "Universo de Emociones" and the "Atlas of Emotions" are two examples that illustrate the complexity inherent in emotions and simultaneously demonstrate the existence of robust knowledge on the subject.

The project "Universo de Emociones," developed by Eduard Punset, Rafael Bisquerra, and the agency PalauGea in 2015, promoted several didactic materials — a book (Figure 14), a dictionary, and posters in various formats, to clarify how emotions are structured using astrophysics as an analogy. In the words of the authors,

The intention is to visualize the rich world of affective phenomena that we experience within ourselves. To that end, a map of emotions that facilitates the visualization of an immaterial and complex reality is proposed. In this way, the universe of emotions is presented, visually, as an approach to their materialization, as a strategy to help better understand them.³ (Bisquerra & Punset, 2015, p. 15,16)

³ Author's free translation from Spanish: "La intención es visualizar el rico mundo de los fenómenos afectivos que experimentamos dentro de nosotros. Para ello se propone un mapa de las emociones que facilite la visualización de una realidad immaterial y compleja. De esta forma se presenta el universo de las emociones, de modo visual, como aproximación a su materialización, como estrategia para ayudar a su major comprensión."



Figure 14. Picture from the book "Universo de Emociones." Source: PalauGea (n.d.).

The "Atlas of Emotions" was launched a year later. It is an interactive visual map to explore the nuances of emotions that resulted from a partnership between the Dalai Lama, the project's funder, and two renowned psychologists, Paul Ekman and Eve Ekman. The tool was developed with the design firm Stamen, which is specialized in maps and data visualization.

The map encompasses five colorful graphics (Figure 15), purposefully matching Pixar's film "Inside Out." In an article to Scientific American, Montañez (2016) explained some of the project's visual design decisions. For instance, each visualization's triangular peaks represent specific psychological states, depicting their intensities. Additionally, the contours aim to embody the emotion itself, e.g., the blurred edges of sadness as a representation of the welling of tears or the irregularly wavy peaks of disgust evoking toxic ooze.

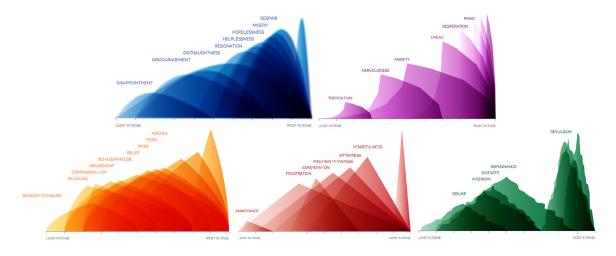


Figure 15. Five visualizations from "Atlas of Emotions." Credit: Paul Ekman. Source: Montañez (2016).

The interactive learning tool presents the results obtained from a questionnaire made to 149 scientists from different research areas. Ekman (2016) considers that this survey should demystify the visible confusion in the media about the nature of emotions as there is a firm consensus of the existence of five universal emotions (sadness, fear, enjoyment, anger, and disgust).

Debating what emotions are is beyond the scope of this chapter. Instead, understanding how the literature in design and emotion can be used to design for interactive media engagement is privileged.

Although design has recognized the emotional dimension of products since the 1980s, it was the famous book "Emotional Design: "Why We Love (or Hate) Everyday Things" (Norman, 2004) that introduced and established the term "Emotional Design" — an approach to creating products that aim to deliver positive experiences. Norman suggests that designers should strive to reach users on three cognitive levels: visceral, behavioral, and reflective (Figure 16). Norman's tripartite processing levels still maintain their relevance today, having supported recent studies in Psychology (Zagalo, 2020) and further emotional design frameworks (Pavliscak, 2019).

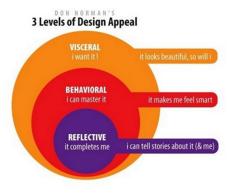


Figure 16. Don Norman's 3 Levels of Design. Source: Komninos (n.d.-b).

Other well-known models that examine the process of designing for emotion are the types of pleasure by Jordan (2000) and the appraisal model to product affect of Desmet (2002). Although these emotional models represent different perspectives, they converge on the same subjects — desirability, usability, and usefulness (van Gorp & Adams, 2012).

From the factors required to create emotional experiences listed by Komninos (n.d.-a), the models mentioned above reckon both general and specific factors. The general factors apply to all users, regardless of the product, and include human cognition (thinking, knowing, remembering, problem-solving)

and human psychology (the impact of color, sounds, shapes, people, faces, etc. on emotions). In contrast, the specific factors relate specifically to products and comprise dispositional factors (how the user is possibly feeling) and situational factors (context of use).

3.3 Approaches to designing for emotion

Broadly, the research in designing for emotion attempts to assist the design process in creating better products or improving existing ones. Thus, researchers and practitioners have been exploring ways to include emotions in the development of products. The approaches to Emotional Design are diverse and follow the latest innovations in Psychology, Social Theory, and Science (Pavliscak, 2019).

The models, frameworks and processes in this section were explicitly targeted because besides identifying and describing relevant concepts to design for emotion, they also issue prescriptive guidelines.

3.3.1 The A.C.T. model of van Gorp and Adams

Based on existing models for designing for emotions and explorations of the nature of love, the A.C.T. model includes directives to designers and business stakeholders on ensuring the design process delivers useful, usable, and desirable experiences to form relationships (Figure 17). According to van Gorp and Adams (2012), directives are one aspect that differentiates this model from others. The author's remark,

At its core, the A.C.T. model is about how we can use emotion to persuade people to invest attention in the right things at the right time. This helps create relationships between products and the people who use them. (van Gorp & Adams, 2012, p. 138)

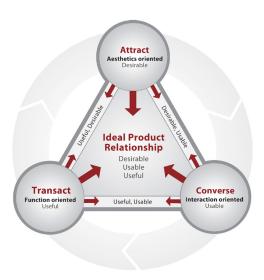


Figure 17. The A.C.T. Model. Source: van Gorp and Adams (2012).

The model is non-linear and includes three components — Attract, Converse, and Transact, presenting an overview of what is required for building relationships between products and those who use them (Table 1). The Attract and Converse stages aim to establish trust and credibility. Customers and users must be attracted by a product feature (Attract) — visuals, sound, smell, touch, movement, and the product must perform adequately (Converse). The Transact stage signals the moment to persuade the user to take action, e.g., sign up for a newsletter, make a purchase.

Table 1. A.C.T. model overview. Source: Adapted from van Gorp and Adams (2012).

The A.C.T Model			
Attract	Converse	Transact	
Processed unconsciously and automatically (Reptilian brain);	Processed unconsciously and automatically (Mammalian brain);	Processed consciously — can override unconscious (Neomammalian brain);	
Aesthetics of the product (i.e., sight, sound, smell, touch, movement, and color);	How the product interacts and behaves (i.e., ease of use); Whether the product meets up to users'	Based on the attribution of personality communicated through the qualities of the aesthetics and interaction;	
Whether users' find the aesthetics appealing;	standards; Benefits that come from use and the	The product's contributions to our self- image and identity;	
Pleasures and passions the aesthetics provide.	completion of tasks; Feelings of intimacy and connection.	Benefits that come from the completion of goals;	
		Feelings of trust leading to commitmen	

The guidelines assembled for Attraction include using appealing aesthetic properties to trigger the desire to engage in a conversation (see Appendix 3.1). Concerning the recommendations for Conversation, the dialog between the user and the product can benefit from basic human etiquette rules to evoke emotional responses such as greetings, praise, and flattery. In addition, content strategy is vital to communicate the product successfully, despite being overlooked (van Gorp & Adams, 2012).

Essentially, the authors advocate that people's emotional reactions to products, applications, and websites resemble human relationships. Furthermore, their premise is that the product's personality should match the character of the users. For that reason, first and foremost, identifying the users' personality is crucial to tailor the product's aesthetics and interaction. They also underline consistency as a means to build trust,

People like simplicity and predictability from both other people and from technology. To instill trust, any personality should be consistent within the product, its packaging and its marketing. If exchanges with the product have provided a positive impression, establishing trust and instilling confidence, the user will feel comfortable transacting with that personality. (van Gorp & Adams, 2012, p. 171)

Ultimately, users' will only make a transaction and commit to the relationship if the product earns their trust. Conversely, an inconsistent personality can lead to confusion and elicit negative emotions, compromising confidence in the relationship (van Gorp & Adams, 2012).

3.3.2 Aarron Walter and the Hierarchy of User Needs

"Personality is the platform for emotion," writes Aarron Walter (2011, p. 29) in his book "Designing for emotion." Like van Gorp and Adams (2012), he acknowledges personality as a powerful tool and urges designers to think of products as someone with whom one can have a conversation. As a differentiating factor, capable of creating long-term memories in customers, personality can help brands become memorable and make the experience with products remarkable (Walter, 2020). In his words,

If we stop thinking of the interfaces we design as mere control panels and think of them more as people our target audience wants to interact with, we can craft emotionally engaging experiences that make a lasting impression. (Walter, 2020, p. 46)

Walter (2011) introduced a new influence on Emotional Design with his model entitled the Hierarchy of User Needs (Figure 18), which closely mirrors Maslow's Hierarchy of Needs proposed in 1940 to explain human motivation. The author claims that higher needs can only be achieved if the ones at the bottom are fulfilled. In other words, only when an interface is functional, reliable, and usable can people appreciate the pleasurable tier that corresponds to the enjoyable aspects of the experience.

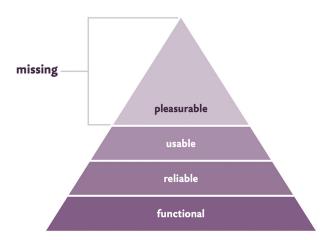


Figure 18. Aarron Walter's Hierarchy of User Needs. Source: Walter (2011).

To design for emotional engagement, Walter (2011) underlined surprise and delight as strategies. Delight is in the details, in the "small kindnesses," as the author puts it (isitedesign, 2013), that may contribute to business success in the long-term. Some examples of features that can lead to delightful experiences are animations, tactile transitions, and microcontent (Fessenden, 2017).

Notwithstanding, in the second edition of his book, Walter (2020) posits delight is a narrow view of Emotional Design and widens his perspective with "ownable moments" in mind — a term coined by the design team working on TurboTax⁴ that refers to the points in the user experience where there is a positive or negative emotion.

Walter's (2020) point is that designers should address the best and worst moments of the customer journey accordingly: the lowest moments should mitigate negative responses, while the highest moments are opportunities for extraordinary experiences (Figure 19). Personas and customer journey maps are two tools the author elects to unlock the audiences' needs and identify moments to use emotional engagement.

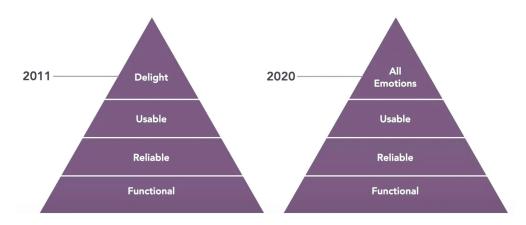


Figure 19. Evolution. Source: Olsen (2020).

Besides surprise and delight, to engage and grab peoples' attention, designers can also employ the following strategies: anticipation, elevating perceived status, limiting access to stir exclusivity, empathy and inclusion, storytelling, challenges (and constant rewards), and peak moments (Walter, 2011, 2020).

Additionally, with experience in product design for approximately 20 years, Walter (2020) mentions that the inclusion of Emotional Design can be daunting in an agile environment for software development that favors speed for product-market fit. To guide the process, he proposes a four-step model (Figure 20).

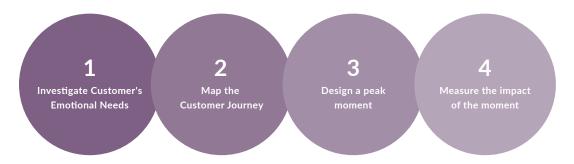


Figure 20. Process to design for emotion in a sprint to build an MVP. Source: Based on Walter (2020).

⁴ TurboTax is a personal finance software owned by the company Intuit.

The author concludes that there are many ways to establish emotional connections, and there is no formula. However, knowing when to apply emotional engagement is equally important as using it (Walter, 2020). Apart from timing, he states that functionality, reliability, and usability must be addressed first, reinforcing the Hierarchy of User Needs.

3.3.3 Wrigley and Straker's Digital Affect Framework

The Digital Affect Framework presents a holistic view of what is required to plan strategies that create emotional connections with customers through digital channels. It was developed by the researchers Wrigley and Straker (2018), who have a background in industrial design.

Based on Damasio's somatic marker theory and the intersection of business strategy and digital technology, the framework comprises three components: understanding the industry (value proposition), the customer (digital hedonic rhetoric), and digital engagements (digital stimulus) (see Figure 21).

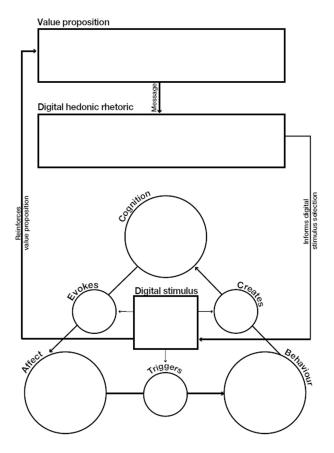


Figure 21. Digital Affect Framework canvas. Source: Wrigley and Straker (2018).

Wrigley and Straker (2018) believe that digital strategies unfold from a solid understanding of a company's origin and strategic values instead of focusing exclusively on the design of a single digital channel. Thus, the knowledge about the company strategy corresponds to the first step — the value proposition.

Understanding the essence of the organization is equally relevant as obtaining insights from the competition to inspire and maintain a competitive edge. Table 2 contains a set of questions suggested by the authors that should be considered during the process.

Table 2. Key questions for Digital Affect Framework components. Source: Based on Wrigley and Straker (2018).

The industry	The customer	Digital engagements
What is the current state of business models in the industry?	Who is your customer? Should they be your customer?	What channels does the industry traditionally currently use?
Where is the industry heading? Are there any potential disruptors?	What do they value? What are their perceptions of the	Are customers engaging with these channels? If so, how are they engaging
What is the value that other companies offer in your industry? Are they all similar?	company?	What are they saying?
	Do your customer's values align with what you are offering?	What is the purpose of your existing channels?
Do you think their value offering is going to change?	Why does the customer value this?	Do your current digital channels match the needs of your customers?
What is your value offering? Is this the same as others in your industry?		What value does the channel bring the user and the company?
How is your value communicated to your customers?		, ,
Do you think your customer aligns with your values?		

The digital hedonic rhetoric is when the affective state to elicit is defined. It can be an emotion, a feeling, or a mood. This selection should be the outcome of the customer motivations assessment. To Wrigley and Straker (2018, p. 149), the customer is the "greatest asset" companies hold. For that reason, they encourage companies to learn about the audience: their daily habits, behaviors, and the reasons behind their emotional experiences to understand what they value and design accordingly.

The authors claim that positive affective states should be targeted because pleasurable experiences create emotional attachments, translating into higher spending rates, and increased revenues over time. The emotional typology of Desmet is proposed to understand positive emotions and their respective eliciting conditions.

The relevance of emotions is also visible in the bottom part of Wrigley and Straker's framework that portrays a version of Damasio's theory applied to a digital engagement experience, illustrating how emotions occur in three interrelated phases. It starts with thoughts and evaluations based on associations to the company (cognition), followed by an interaction with a digital channel that will trigger a feeling, emotion, or mood (affect) that will lead to an attitude (behavior).

All in all, the authors reiterate it is necessary to ensure the elicited emotion is aligned with the company and the customer. Only after knowing the audience and grasping the emotion to evoke should the digital channel be pondered. The channel's selection should consider an introspection of the company's digital touchpoints' usage and notice the industry digital channel standards and requirements.

Moreover, Wrigley and Straker (2018) outline that technologies should be explored, and new digital channels may be created if necessary. However, one must not forget that they must be useful, user-friendly, and highly publicized; otherwise, they will not be used. Also, they advise the creation of memorable experiences beyond purchases.

3.3.4 Pavliscak's Emotionally Intelligent Design

In view of the existing Emotional Design frameworks, Pavliscak (2019) considers that designers are oversimplifying and progressively narrowing their view of emotion and sees emotions as "a blind spot for design" (2019, p. 31). Nevertheless, she acknowledges that the existing approaches to design and emotion are worth it to move forward.

The author asserts that so far, the followed premise is similar, i.e., reduce negative emotions, add surprise and delight after. She considers this approach limited because while designing for one singular emotion, there is a whole spectrum of emotions that are not considered. This viewpoint was also observed by Walter (2020) recently.

Pavliscak's (2019) point is that designers have been tackling emotion as an additional feature rather than a complex phenomenon intrinsic to the experience. Besides, the author explains that designing for delight is insufficient since delightful details are momentary and lose their appeal over time because people become desensitized to the same things (hedonic adaption). Hence, she claims the practices of Emotional Design need to be reconsidered.

To move the field of design and emotion further, Pavliscak (2019) introduces Emotionally Intelligent Design — an approach to signal a shift in design perspective and make designers rethink the creation of products. This new mindset recognizes the complexity inherent to emotional experiences and the need to learn from emotion, favoring the development of relationships over short-term experiences.

Other guiding principles of Emotionally Intelligent Design are inclusivity (different voices should be included in the process), emotions at scale, and, more importantly, being sensitive to context as emotions differ culturally and historically. To apply these principles, Pavliscak (2019) suggests the model FEEL

— Find, Envision, Evolve, and Live, which results from the merge of Emotional Intelligence with Design Thinking. It can be seen as a step-by-step process or a complement to the design practices already in place.

The first step, "Find," is an assessment of emotion through mixed methods. Since emotions manifest across different dimensions (physical, perceptual, behavioral, social, and cultural), selecting an evaluation approach can be challenging (see Table 3). The author observes that Emotion AI technology⁵ can help understand the physical dimension of emotion and demystify human complexity. Notwithstanding, these technologies are not commonly available to design teams. Thus, other techniques can be used to understand emotions, such as feeling drawings, movie making, Kansei clustering, and sentence completion.

Table 3. "Emotions manifest across many dimensions." Source: Adapted from Pavliscak (2019).

Emotional dimensions	Signals	Quantitative method	Qualitative method
Neurophysical	Pulse and temperature, gaze, brainwaves	Wearables, eye tracking, brainwave trackers	Observational research
Perceptual	Core affect, personal meaning	Data over time, aggregate data	In-depth interviews, diaries, metaphor, elicitation, therapeutic research
Behavioral	Interactions	Behavioral analytics, satisfaction ratings	Observational research
Social	Facial expression, intonation, body language, language	Facial analysis, voice analysis, gesture analysis, sentiment analysis	Group conversations, paired interviews, co-design activities
Cultural	Norms, attitudes, laws, institutions	Location tracking, behavioral analytics, aggregate data, literature scans	Contextual inquiry, narrative study, co-design activities

After collecting the emotions associated with the experience, the second step of the process, "Envision," consists of mapping the emotional experience and generating concepts. Empathy maps are suggested to create a map of the emotions. These maps can be informed by answering the following questions:

What is your product's core emotion? What else is associated with that emotion? What emotion do you want to evoke? What emotions are people expressing? What emotions are unexpressed? Which are the most intense feelings people identify? Which are the least? When beginning, sinking into, and finally leaving your experience, what states are you evoking and in what order? (Pavliscak, 2019, p. 94)

⁵ Also known as Affective Computing, Emotion AI is a subset of artificial intelligence that detects, interprets and reacts to human emotions (Somers, 2019). Artificial intelligence technologies enable to learn and recognize emotions through sources such as text (natural language processing and sentiment analysis), audio (voice emotion AI), video (facial movement analysis, gait analysis and physiological signals) (Gossett, 2021).

Other techniques advised in this stage are customer journey maps and emotional analogies. Concerning the concept, the ideation phase encompasses participatory exercises, fostering the involvement of different people in the process. The end goal of the activities is to uncover distinct aspects of the emotional experience.

The third step, "Evolve," states that research is an ongoing process, and the products must continue to be tested with new people to gain fresh perspectives and see its evolution. Pavliscak (2019) emphasizes that increasing the capacity to grow, change, and adapt trumps counting positive or negative experiences.

The fourth and final step, "Live," acknowledges emotional experience is not static as the relationship with products changes and grows in value over time. Consequently, designers must consider how the products fit in peoples' lives to comprehend their relationships, emotions, and values — this can be accomplished by reflecting on certain aspects that are overlooked (dreams, etiquette, contradictions, images and symbols, peaks, and hacks).

Pavliscak's ideology embraces the intricacies of emotions through a set of perspectives and design practices that can contribute to a better understanding of emotions. Despite her belief that emotion will never be entirely mastered, she mentions designers can improve and gain experience through product evaluations.

3.4 Emotional measurement

Despite measuring emotions not being an easy task, emotion measurement can benefit design because positive and negative emotions experienced when interacting with a product can help understand people's desires, needs, and expectations (P. M. A. Desmet, Fokkinga, Ozkaramanli, & Yoon, 2016). Furthermore, emotion research can be a source of inspiration for generating concepts and product ideas and help designers creating products with a deliberate emotional effect (P. Desmet & Schifferstein, 2012).

There are several approaches available that help to measure and study emotional responses. Three categories can be distinguished: 1) self-report instruments, 2) physiological measures, and 3) projective techniques. The next subsections provide examples for each subset, highlighting its strengths and limitations.

3.4.1 Self-report instruments

Self-report measures rely on the individual's report directly of their behaviors, beliefs, attitudes, or intentions. Since these methods do not require specialist knowledge or equipment, they are easily administered and can be efficiently integrated with qualitative and quantitative research (P. M. A. Desmet et al., 2016).

On the other hand, these methods cannot be used for continuous measurement because respondents have to interrupt their activities to record their responses. Besides, self-report have been criticized for being cognitively demanding and taking much time to complete (Pieter M.A. Desmet, Vastenburg, & Romero, 2016). Also, its accuracy is questionable because people can have difficulties specifying reasons for their attitudes, they can hesitate giving honest answers and rationalize (Ciuk, Troy, & Jones, 2015).

Pictorial and verbal scales are part of the self-report instruments available to access affective states. Two well-known examples of pictorial representations are Self-Assessment Manikin (SAM) (M. Bradley & Lang, 1994) and Premo (P. M. A. Desmet, 2003) (Figure 22).⁶



Figure 22. PrEmo (Emotion Measurement Instrument). Source: Delft Institute of Positive Design (n.d.).

Compared to verbal scales, pictorial representations are more sensitive to nuanced variations in emotions evoked by products, and they are appropriate for situations where there are time or motivation constraints (P. M. A. Desmet et al., 2016). While pictorial self-report methods allow respondents to quickly and intuitively report their affective state, they are difficult to customize because the development and validation of pictorial representations require effort and time investment (P. M. A. Desmet et al., 2016).

3.4.2 Physiological measures

The latest advances in Affective Computing and Neuroscience and the studies of emotional processes in the human body continue to improve the way researchers collect and analyze data. The available technologies help to demystify bodily reactions that cannot be consciously controlled, opening

⁶ For a list of more self-report methods see Desmet, Vastenburg and Romero (2016).

new paths for designers to include other sciences in the practice of Design. Eye tracking, GSR, and facial expression analysis are three methods that are part of a more extensive list that is steadily growing of different technologies to detect and interpret human emotion.

Applied to several domains such as Human Factors, Cognitive Psychology, Marketing, and Human-Computer Interaction, eye tracking has attracted the interest of researchers and practitioners because it provides data that cannot be obtained by traditional research methods (Fidelis, Oliveira, Giraldi, & Santos, 2017; Rahulan, Troynikov, Watson, Janta, & Veit, 2015). It is a technology that detects what people see and where they look, aiding the understanding of visual attention.

Eye tracking is commonly conducted with a device called an eye tracker (remote or wearable) that uses infrared light-emitting diodes and cameras to track and record where an individual is looking, based on the relative position of the pupil center and corneal reflection (Bojko, 2013). Through capable eye tracking software, data visualizations can be easily obtained. The most used visualizations are heatmaps (reveal the focus of visual attention, see Figure 23) and gaze plots (display the location, order, and time spent looking at a visual stimulus).

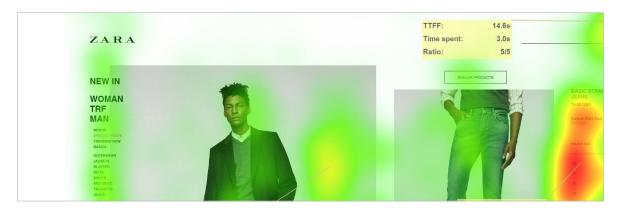


Figure 23. Heatmap. Source: Space Between (n.d.).

In a user experience context, Bojko (2013) categorizes eye tracking measures into two types: attraction and performance. The first group comprises the metrics that access users' awareness, interest, and desire to identify what grabs attention. The second group refers to metrics that evaluate usability, accessing whether users can achieve their goals.

Among the hundred metrics that eye tracking offers, the information on pupil diameter can reveal some clues about emotion since pupil dilation is determined by emotional arousal (M. M. Bradley, Miccoli, Escrig, & Lang, 2008) and is correlated with mental workload (Tullis & Albert, 2013).⁷

⁷ See Barreto (2012) for a comprehensive account of eye tracking technology.

Another widely used psychophysiological method is Galvanic Skin Response (GSR), also known as Skin Conductance (SC), Electrodermal Activity (EDA), Electrodermal Response (EDR), and Psychogalvanic Reflex (PGR). It refers to subtle variations in the electrical characteristics of the skin that reflect the intensity of emotional states. Arousal increases in GSR are associated with emotional states (e.g. fear, anger, and joy) and attention-demanding tasks (Tullis & Albert, 2013).

GSR is generally collected from the finger, wrist, or palm by applying two electrodes on the surface of the skin, using a conductive gel to improve the conductivity between the skin and the electrode. The data obtained through GSR includes tonic and phasic activity. Phasic signals can be interpreted as a direct arousal response to sensory stimuli (images, videos, sounds). When an emotionally arousing stimulus event happens, the phasic component variations become visible as the rapid signal increases (Figure 24).

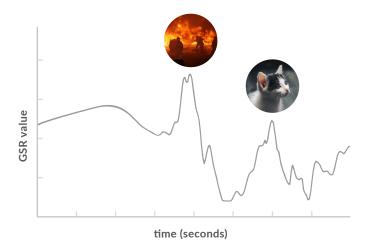


Figure 24. GSR shows peaks in emotionally arousing content. Source: Adapted from Faria, Providência and Cunha (2018).

Compared to GSR, facial expression analysis is a technique that resorts to software for automated facial image analysis, hence has the advantage of not requiring sensors. Some commercial software examples are Affectiva's Affdex technology, Insights (nViso), and FaceReader (Noldus Information Technology). These solutions can recognize facial expression patterns through the caption of video (online or offline) or images through embedded cameras in laptops, tablets and mobile phones or stand-alone webcams.

The Facial Action Coding System (FACS) is the basis for the algorithms implemented in most computing systems. Developed by Ekman and Friesen, the FACS is a measurement system that allows a modular construction of emotions based on the combination of Action Units (AU). Each AU corresponds to an individual face muscle or muscle group. As illustrated by Figure 25, happiness results from AU 6 (Cheek Raiser) and AU 12 (Lip Corner Puller — commonly referred to as a smile) combined (Mesquisa, 2011).



Figure 25. Happiness. Source: Adapted from Faria, Providência and Cunha (2018).

Despite being distinct, the metrics of facial analysis software generally comprise outputs related to seven basic emotions (joy, anger, disgust, surprise, fear, sadness, and contempt), valence, arousal, appearance (age, gender, ethnicity), face tracking, and head angle estimation.

Quantifying conscious and unconscious emotional signs is possible with the help of these technologies, but each one has limitations and disadvantages (Table 4). When used individually, these methods can provide insightful data, but they can depict a more accurate picture of emotional behavior when they are combined (Ana Paula Faria et al., 2018; Thoring, Bellermann, Mueller, Badke-Schaub, & Desmet, 2016).

Table 4. Pros and cons of eye tracking, GSR and facial expression analysis.

Emotion AI	Pros	Cons	
Eye tracking	Identifies which elements attract immediate or above-average attention.	Inability to assess emotional valence. It tells what people are looking at and what	
	Indicates if some elements are being ignored or overlooked.	they see, but it can't tell what people percei Some participants eyes cannot be calibrated and tracked well.	
	Lists in which order the elements are noticed. Can assess emotional arousal and cognitive workload.		
Galvanic Skin Response	Real-time measure of sympathetic nervous system through the skin. GSR data reflects emotional arousal. Correlated with stress, excitement, engagement, frustration, anger.	Inability to assess emotional valence. Physiological sensors are intrusive. Mapping between sensing data and a specific emotional state is not robust. There are some practical issues: hairy skin,	
		different size of body part, sweating in the summer.	

Emotion AI	Pros	Cons
Facial expression analysis	Real-time tracking of expressions.	Inability to assess emotional arousal.
	Non-invasive.	Analyzing emotions on faces across ethnicities
	Can assess emotional valence.	is challenging.
		Training and the need for certified developers.
		Analyzing facial expressions frame by frame.
		Setting up videos.
		Using research methodologies to capture
		facial movements validity.

Indeed, a study undertaken by Nielsen (2017) to evaluate the accuracy of neuroscience technologies in 2016 revealed that the accuracy levels are between 9% and 62% when the methods are used alone. When combined, the levels increase to 77% and 84% when coupled with a survey (Figure 26).

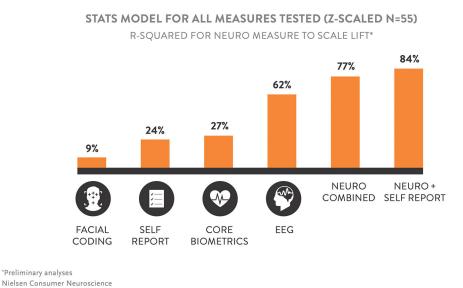


Figure 26. Results from the Nielsen study. Source: Nielsen (2017).

In fashion, eye tracking is being applied to evaluate the appeal of advertisements and visual details of digital media, e.g., the position of ads, price, product pictures (A. P. Faria, Providência, & Cunha, 2018). Nevertheless, in design it seems that emotional measurement technologies are underused, which can be related to the knowledge and technical expertise required, difficulties regarding recruitment, lack of funds, or being time-consuming (A. P. Faria et al., 2018).

3.4.3 Projective techniques

Projective techniques include a wide variety of procedures that involve the presentation of ambiguous stimuli to encourage peoples' interpretation and provoke their answers (Branthwaite & Lunn, 1985). According to Lindzey (1959), projective methods fall into five categories: associative, completion, constructive, choice/ordering, and expressive, based on the elicited response mode.

With indirect questioning at the core, projective techniques facilitate expression because they make tasks more manageable by shifting the topic of inquiry to something simpler. Hence, they prove useful in situations where participants do not know how to express themselves or feel their answers might be incorrect (Krueger, 1998). Projective research is also recommended for studies that probe for more profound levels of consumer understanding since they are acknowledged to enable collecting data that reflects in-depth levels of personality, motivation, and meaning (Rook, 2006).

Projective techniques also allow a high degree of freedom, i.e., participants can express themselves in different ways. Besides, they are usually acknowledged as interesting, engaging, and fun (Rook, 2006). However, since these techniques may generate disparate findings, the analysis can be challenging (Kujala, Walsh, Nurkka, & Crisan, 2014).

In particular, sentence completion is a projective technique that starts to achieve certain notoriety in design (Kujala & Nurkka, 2012; Kujala et al., 2014; Lallemand, 2015; Pavliscak, 2019; Walsh, Nurkka, & Walsh, 2010). Another example is the associative technique named the Microsoft Desirability Toolkit, or the Microsoft Reaction Card Method developed by Benedek and Miner (2003) that probes intangible emotional responses such as desirability and fun through a list of words.

3.5 Product development processes

In the digital realm, there is a wide variety of design practices in place. For example, Pavliscak (2019) mentions the popularity of Design Thinking, and Walter (2020) observes Agile methodologies for software development. Considering this, it seems crucial to focus on existing approaches to envision how to unfold Emotional Design in companies.

3.5.1 Design Thinking

The ubiquity of Design Thinking is illustrated in a study conducted by the Nielsen Norman Group (Gibbons, 2018) that suggests that people have a notion of what it is despite not describing it in detail. The study encompassed interviews with 87 participants from diverse countries, industries, roles, and experience.

Design Thinking is a cognitive process or a mindset that leads to transformation, evolution, and innovation by introducing design culture and its methods across industries (Tschimmel, 2012). From Tschimmel's point of view, Design Thinking is also a practical toolkit rooted in planning and rational problem-solving.

According to Norman (2013), human-centered design (HCD) and the Double Diamond design model are two influential tools of Design Thinking. On the one hand, the HCD ensures the right problem is tackled and solved to meet human needs and capabilities. On the other hand, the Double Diamond design model portrays the design phases that arose from HCD, i.e., finding the right problem and the right solution (Figure 27).

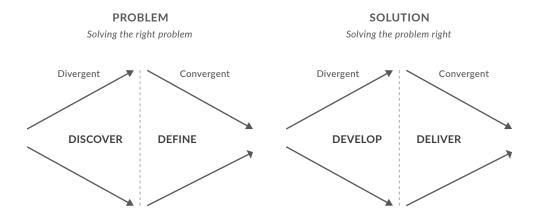


Figure 27. The Double Diamond design process. Source: Adapted from Oneill (2019).

Developed by the British Design Council (n.d.) and launched in 2004, the renowned Double Diamond is a non-linear process that emphasizes divergent thinking (exploring an issue more widely or deeply) and convergent thinking (taking focused action) at different stages of the process. It is divided into four modes: Discover, Define, Develop, and Deliver. The first diamond refers to reframing and defining the problem (Define) through insights gathered from conversations with people (Discover). While the second diamond considers the development of potential answers (Develop) and after testing, rejecting or improving feasible solutions (Deliver).

The Double Diamond is part of a wide range of processes and toolkits in use in the 21st century that translate the Design Thinking mindset. Although the number of stages varies (from three to seven), they follow the same six steps: Empathize, Define, Ideate, Prototype, Test, and Implement (Figure 28). To develop innovative solutions, Design Thinking privileges empathy, integrative thinking, interdisciplinarity, and experimentation (Spies, 2015).

Design Thinking has inspired the emergence of other processes such as the Design Sprint created by Jake Knapp at Google Ventures in 2010. The process aims to answer critical questions by prototyping and testing customers' ideas in five days (Knapp, Zeratsky, & Kowitz, 2016). It comprises five stages: understand, sketch, decide, prototype, and validate (Figure 29). Employed from startups to large organizations such as the United Nations, its appeal derives from collecting valuable data in a short amount of time rather than spending months working on an idea without realizing if it will work (Balboni, 2019).

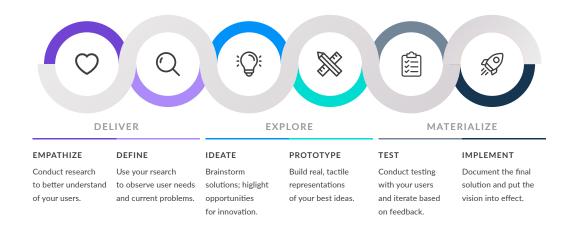


Figure 28. The six steps of the Design Thinking process. Source: Adapted from Baseman (n.d.).

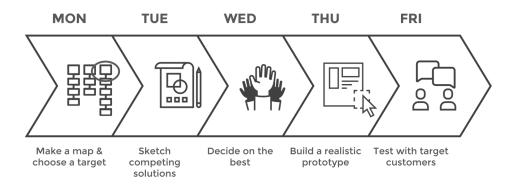


Figure 29. Design Sprint process. Source: Turner (n.d.).

Another example prompted by Design Thinking is the Branded Interaction Design (BIxD) process presented by Spies (2015) that results from a combination of brand strategy with a human-centered design approach that embeds the Design Thinking steps. It encompasses five stages — Discover, Define, Design, Deliver, and Distribute, resembling the Double Diamond design model (Figure 30).



Figure 30. The Branded Interaction Design process. Source: Spies (2011).

Spies' framework (2015) might be seen as linear on the surface, but workstreams and iterations can coincide within each stage or in separate phases. The first stage (Discover) aims to achieve a deep understanding of the customer, the brand, and the business to set the project's objectives. The Define stage is where the strategy is devised: the digital touchpoints are selected, the user experience is planned, and performance metrics are defined and further evaluated with the client. Next, in the Design phase, creativity takes shape by exploring ideas for visuals and interaction; the look and feel of the solution is presented to the client, and detailed design documentation is developed. The last two stages ensure the design will be efficiently implemented (Deliver) and contemplate post-project tasks, documentation, refinements and updates (Distribute).

The user is considered throughout the BlxD, namely, in the Discovery stage, when developing personas to learn about the user (Discovery stage). Then, in usability testing sessions that can be conducted in the Discovery, Define and Design stages; and when the project is being measured in the Distribute phase. As Spies (2015) writes, "BlxD is for people." Hence, the author notes that their needs should be known, their behaviors should be observed, their context should be understood, and they should be asked and listened to.

3.5.2 Lean and Agile

Lean and Agile are management systems that help create products by fostering collaboration between teams, continuous iteration, and contact with clients. Both approaches strive for quality improvement, removing waste, and reducing time-to-market and costs. However, they are applied differently: while Lean enables to test assumptions and refine strategy, Agile optimizes software delivery (Schneider, 2017). In simpler terms, Lean focuses on the "why," whereas Agile focuses on the "how" (Cao, 2015).

Inspired by Lean and Agile theories, Gothelf and Seiden (2016) introduce Lean UX — a mindset and a process devoted to the design stage in the software development process. The essence of Lean UX is formulating a hypothesis (every idea, design, business requirement) and validating it by collecting user feedback of minimum viable products (MVPs) to inform what needs to be changed or improved before committing to a final solution. In other words, it is a cyclical process that follows the premise that to move from doubt to certainty is necessary to build, evaluate with users, and learn (Figure 31).

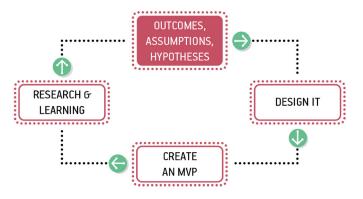


Figure 31. The Lean UX process. Source: Gothelf and Seiden (2016).

Agile methods were proposed by software engineers for software development. It is an approach that embraces change by breaking the work into smaller features and using continuous communication with the customer to guide the process (Gothelf & Seiden, 2017). "The idea is to get code written as soon as possible and resolve problems by reacting to customer feedback later," explains Hartson and Pyla (2018, p. 130).

One of the main principles of Agile is to avoid big design upfront, which can pose some challenges from a UX perspective since user research and design ideation are absent (Hartson & Pyla, 2018). In this regard, Loranger (2014) considers that it is still possible to embed Lean UX techniques into Agile processes and encourages designers to learn from users. Additionally, Hartson and Pyla (2018) developed the funnel model of Agile UX that suggests how Agile and UX can be synched.

3.5.3 Common principles

Design Thinking, Lean, and Agile are prevalent approaches in digital projects. Despite their differences regarding the time frame, ideation, and extent of qualitative research, all of them seem to strive to reduce uncertainty and create desirable products by involving the customer early and often in the process.

There is no right or wrong solution for selecting a process and combining them is particularly encouraged because they complement each other. For example, Schneider (2017) explored the strengths of each mindset to create a four-step process to define and execute a strategy. Furthermore, Balboni (2019) believes that using several approaches at different stages in the product development cycle can add value.

From another perspective, Gothelf (2016) argues that each process entails valuable components and recommends the following core practices: 1) "working in short cycles" to see if the ideas work and improve the ones that succeed; 2) "hold regular retrospectives" to examine what went well and what needs improvement; 3) "put the customer at the center of everything"; and 4) "go and see," meaning, talk with teams on a regular basis.

3.6 Considerations

This chapter demonstrates that emotions are part of UX and influential to UE. Consequently, researchers and practitioners have been grasped ways to embed emotions in the development of products to ensure they deliver value to consumers.

The existing models and frameworks, mostly grounded in human cognition and human psychology, show that there is no formula for designing for emotion. Although each author has a different take on the subject, they all underline that it is crucial to learn about the consumer. Walter (2011, 2020) and van Gorp and Adams (2012) highlight product personality, among other strategies. From a business perspective, Wrigley and Straker (2018) add that understanding the industry is also required. While Pavliscak (2019), alongside Walter (2020), argues that the full spectrum of emotions (positive and negative) should be considered in the design process.

Apart from the knowledge and directives derived from the models and frameworks, emotional design can also benefit from technologies like eye tracking, GSR, and facial expression analysis that can reveal clues to understand the chemical signature of emotions. Other feasible alternatives to demystify emotions is through self-report instruments and projective techniques. Each technique has its strengths

and limitations and captures relevant data; nonetheless, a better understanding of emotional behavior is achieved when the methods are combined.

The inclusion of Emotional Design in companies will most certainly not occur in a vacuum as there are already established practices. Thus, current mindsets such as Design Thinking, Lean UX, Agile, or even a combination of processes should be considered. Since some of the methods employed in these mindsets can increase emotional awareness, they can be advantageous for designing for emotion.

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4 Fashion communication in the digital age: an interview study

After reviewing the literature on digital fashion communication and design and emotion, this chapter examines the current practices of industry professionals through an interview study. Each stage of the investigation is outlined, from preparation, interviewing, analysis to reporting. The results generated insights into the current role of designers — it tackles the challenges they face, the strategies they use, and their perspectives about the digital age. Moreover, it reports the underlying emotional mechanisms of fashion communication.

Partial results of the presented work have been published in:

Faria, Ana Paula, Cunha, J., & Providência, B. (2019). Fashion communication in the digital age: findings from interviews with industry professionals and design recommendations. *Procedia CIRP*, 84, 930–935.

4.1 Introduction

The impact of digital media on the fashion industry is significant, as outlined in Chapter 2. Consumers can actively engage with brands through digital channels, and brands have more opportunities to establish meaningful connections with their audiences. Consequently, fashion practices are adapting to the digital landscape. Through secondary sources, fashion practitioners briefly report what has changed in their jobs.

Furthermore, a study conducted by Kalbaska and Cantoni (2019) probed the markets' needs by examining job positions from 29 countries on LinkedIn. The authors observed that digital fashion professionals should be passionate about digital media, aware of the fashion industry, and possess analytical, technical, and creative skills.

Although there is an awareness that jobs are changing and the number of competencies and skills needed increases, the extent to which fashion practices had been affected is not yet fully understood. Hence, this study investigates how design and communication practices in fashion adapt to the media landscape through an interview study. The role of the researcher was to uncover knowledge from the perspectives and practical experiences of industry professionals as "a miner who unearths the valuable metal" (Kvale, 1996, p. 3).

Disclosing which strategies designers use to elicit emotions through fashion media was another objective of this study. The literature on design and emotion presented in Chapter 3 contains some clues. However, it does not focus on fashion in particular, and the intention was to understand what makes fashion different from other domains.

4.2 Methodology

From a constructivist lens, this study aimed at gaining a deeper understanding of creatives' experience in the fashion industry. Thus, the study was not designed so that the results of a representative sample could be generalized.

An appropriate method for examining the subjects' perspective is the semi-structured interview, which is "a powerful method for capturing the experiences and lived meanings of the subjects' everyday world" (Kvale, 2007, p. 11). This data-collection strategy was also considered adequate because it offers a means to obtain in-depth stories that could not be possible to uncover otherwise. "At the heart of interviewing research is an interest in other individuals' stories because they are of worth," wrote Seidman (2006, p. 9).

4.2.1 Research questions

The guiding research questions for this study were: a) What was the impact of digital media on fashion communication practices?; and b) How creatives from the fashion industry are eliciting emotional responses through media (e.g., fashion photography; fashion films; digital marketing; public relations; social media; window displays)?

4.2.2 Participants

Selecting professionals from the fashion industry with varied backgrounds was intended to determine how variations in different settings shape fashion communication — and this way, accessing a broader understanding of the subject. Thus, the interviewees included creatives with knowledge in several design disciplines, e.g., Art Direction, Photography, Graphic Design, Visual Merchandising, and Web Design (see Table 5). Also, the recruitment was based on their amount of experience and capacity to express themselves in words. The identification of the individuals was replaced by the letter "P" followed by the correspondent session number (e.g., P1) to protect the participants' anonymity.

Table 5. List of the interviewees: country (PT= Portugal, UK=The United Kingdom), expertise, profile and years of experience (approximately).

Interviewee	Country	Expertise	Profile	Work Experience (approx.)
P1	PT	Visual Merchandising	Lecturer and researcher; Art Director; Visual artist; Expertise in visual merchandising and fashion films.	20 years
P2	PT	Photography	Lecturer; Owner & Art Director of a fashion brand; Expertise in photography.	15 years
P3	PT	Marketing	Lecturer; Owner & Project Manager of a design studio; Expertise in marketing and communications.	24 years
P4	UK	Public Relations	Expertise in retail marketing, communication on multiple channels, campaign deployment, branding, and media relations.	4 years
P5	PT	Visual Merchandising	Lecturer; Owner & Creative Director of a design studio; Expertise in visual merchandising.	30 years
P6	PT	Art Direction	Lecturer; Expertise in art direction for fashion and photography.	19 years
P7	PT	E-commerce	Expertise in fashion e-commerce.	10 years
P8	PT	Social media	Expertise in creative management, fashion styling, social media, and marketing.	10 years
P9	UK	Art Direction	Lecturer; Expertise in fashion forecasting, journalism, fashion branding for e-commerce and fashion image realisation project management.	36 years

Interviewee	Country	Expertise	Profile	Work Experience (approx.)
P10	UK	Digital fashion	Lecturer and researcher in digital fashion media;	8 years
		media	Author of several books and journal articles.	

Most of the interviewees were recruited from the researchers' networks through an email invitation (Appendix 4.1) or LinkedIn that included information about the study and the reason why the respective person was selected. The number of interviews was considered sufficient in providing a rich insight into creatives' experiences. Besides, the nature of qualitative interviewing does not aim at quantification; it "emphasizes the quality rather the quantity of the interviews" (Kvale, 1996, p. 103).

4.2.3 The interview guide

An interview guide was built to point out general directions and maintain the focus on the main themes. As Herbert and Irene Rubin explained (1995, p. 161), "Conversational guides are not rigid frameworks that are prepared once and for all," thus, the guide was customized for each interview and evolved throughout the study.

It contained the topics to be covered, suggested questions, and their sequence (see Table 6). The questions were developed with the research theme in mind, and they strived for an interpersonal relationship in the interview, i.e. "to promote a positive interaction; keep the flow of the conversation going and motivate the subjects to talk about their experiences and feelings" (Kvale, 1996, p. 130). The complete interview guide can be found in Appendix 4.2.

Table 6. Questions from the interview guide and topics of interest.

Question	Торіс
Tell me a bit about the Fashion projects that you're involved at the moment.	Introduction
Describe how do you usually approach a project.	Design strategies
Which aspects do you consider most important in the development of a product? (probe to know why)	Design strategies
Which strategies do you use in order to design for emotions? (ask for examples)	Design strategies
How do you know the feedback of people (consumers) about your work?	Design strategies
Do you feel the need to change or adapt the way you work with the rise of new platforms?	Digital media
Have you observed any changes in the creative practices of fashion communication professionals?	Digital media
In your opinion, which challenges do you think digital media bring to fashion communication professionals?	Digital media

Open-ended questions were privileged to elicit spontaneous and lengthy descriptions from the interviewees — "An open-ended question, unlike a leading question, establishes the territory to be explored while allowing the participant to take any direction he or she wants" (Seidman, 2006, p. 84).

Instead of asking designers directly about how they elicit emotions through fashion communication, they were strategically questioned about their design process and how they create experiences. This approach was partly based on Ramírez (2014). The questions also addressed the implications of digital media in the fashion industry.

4.2.4 Pilot testing

The session was rehearsed with a volunteer, who is a fashion designer working actively in the field. The pilot did not require adjustments nor alterations. Nonetheless, piloting the interview served as practicing and allowed to test the audio recording equipment too.

4.2.5 Sessions

Before the interview, each participant was examined through their social media, websites, and online news. Since it was not possible to find sufficient information about all the participants online, a few were asked to send materials such as their curriculum vitae to know more about them.

All interviews were conducted individually and in person by the researcher, except for two participants who were interviewed via Skype due to geographical location. Eight interviews occurred from September to November 2018, and two cases of interest later in August 2019.

The interviews were conducted in Portuguese and English, and its duration was approximately 25 to 70 minutes. Each interview was recorded for later transcription. In terms of logistics, the places were suggested by the participants. Informed consent (Appendix 4.3) was obtained in written form before the interview began. It stated the nature of the study explicitly, how the collected data was going to be used, and the degree of confidentiality.

4.2.6 Analysis and interpretation

The analysis began during the interview situation itself when the interviewer attempted to clarify the meaning of what the interviewees said. Further, the recorded conversations were transcribed verbatim with F5 Transcription Free for Mac, which facilitates and optimizes the task. During transcribing, clear

and practical guidelines were established for each interview using the 6-step procedure of Azevedo (2017) (Figure 32). Some examples of guidelines and codes used in transcriptions can be observed in Appendices 4.4 and 4.5.



Figure 32. 6-step procedure for transcribing interviews systematized. Adapted from Azevedo et al. (2017).

Transcribing the recordings enables to build an intimate knowledge of the data (Bazeley, 2013). Indeed, "Rather than being a simple clerical task, transcription is itself an interpretative process" (Kvale, 2007, p. 92). After finishing the transcriptions, each source was heard once more, and the transcripts were reread too to get a holistic view of the data. Meanwhile, ideas were written and sketched (Figure 33).



Figure 33. Sketching ideas about the interviews.

Then, the data was imported to NVivo 12 Mac, which is a specialized qualitative analysis software. The latter provided the flexibility required in coding and recoding material throughout the analysis (Bazeley, 2013). The strategies used for analysis related to NVivo that are presented next can be found in Bazeley and Jackson (2013). The ones regarding qualitative analysis are given in Bazeley (2013).

In the exploratory stage of data, the following features of the software were used: word frequency queries, word searches, memos, annotations, and mind maps. Furthermore, stories, accounts, and metaphors were located and explored.

Afterwards, coding was initiated. It is a purposeful step to access evidence, "it is a tool for querying data, for testing assumptions and conclusions" (Bazeley, 2013, p. 125). In keeping with an inductive approach, the codes were developed upon reading the material. Text segments were coded for broad categories such as digital technologies, strategies, stages, and work dynamics. The broad categories (Table 7) were further revisited to search for fine-grained themes. Each text passage was coded with one or multiple codes. Moreover, the "autocode by speaker" feature was used to automatically code what each participant said, enabling further search for specific occurrences within the interviewee's text and across cases.

Table 7. Summary list of the broad codes.

Category	Description
Stages	Stages of the fashion communication process.
Workplace dynamics	Interactions within teams, with other professionals, and clients. Including the role of the industry professional in the fashion system.
Strategies	Design and communication strategies to elicit emotional responses.
Digital disruption	Intellectual positions (or discourses) about the impact of digital disruption.
Digital technologies	Listing the types of digital technologies.
Outcomes	Positive/negative topics, challenges, future predictions, shifts, restrictions, etc.

The coding system is the result of refining and sorting codes after working with the data after a while; a detailed version of the codebook can be found in Appendix 4.6. During the process, codes with similar meaning were merged and irrelevant material was removed after revision. The hierarchical system facilitated asking questions of the data and encouraged ideas. For example, to know the intellectual positions of the interviewees about the current digital media landscape, a matrix coding query could be used to examine the positive and negative outcomes. Figure 34 displays the main stages and strategies applied in the analysis.

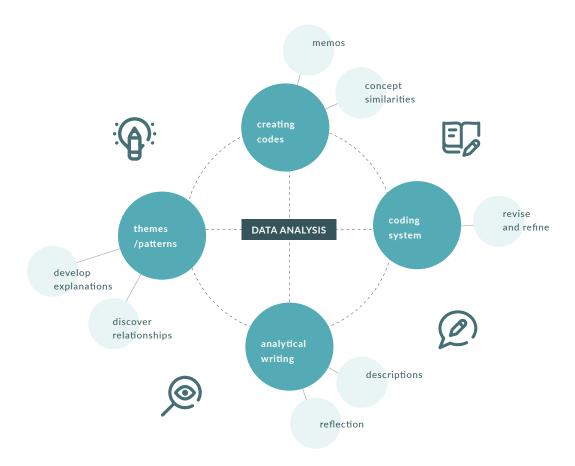


Figure 34. Data analysis stages and strategies.

Subsequently, the next step was to iteratively compare coded materials across cases, reflect, relate, and describe themes. Memos were written about emerging ideas to clarify codes, demonstrate similarities and differences across cases, and discover gaps. Certainly, analytical writing provided a means of discovering the underlying mechanisms and developing particular concepts. As Charmaz (1999, p. 377) observed, "The lines between the analytic and writing phases of research blur."

4.3 Presentation and discussion of findings

Throughout this section, selected quotes are used to illustrate the results, and data visualizations are also included to assist the presentation. The quotes were translated from Portuguese to English with the support of a professional translator, following the recommendations of van Nes, Abma, Jonsson, and Deeg (2010) to reduce the loss of meaning and subsequently improve cross-English validity.

The discussion below highlights the most critical dimensions that were discovered from the analysis. Subsections 4.3.1 and 4.3.2 answer the study's research questions "What was the impact of digital media on fashion communication practices?" and "How creatives from the fashion industry are

eliciting emotional responses through media?". Other relevant topics that emerged are covered in subsections 4.3.3 and 4.3.4.

4.3.1 Fashion and digital technologies

The inclusion of digital media in industry professionals' daily routines seems to have been a natural transition as technology goes hand in hand with communication. "Technology evolves, and we evolve too," (P6) said one of the interviewees.

By reflecting on the impact of digital media, it was mentioned the investment that brands are making in e-commerce by promoting high-quality product images and improving the usability of the stores:

P2: People no longer need to go to physical stores. They buy everything online, so online presence is very important. What is noticed is that brands are increasingly being careful with images, having websites whose shop works well, where it is easy to insert products, remove products, understand very well what the shipping costs are.

In this regard, one participant noted the differences between selling online and brick-and-mortar. She explained the difficulties associated with showcasing products on the homepage and underlined that leading consumers to online stores implies teamwork.

Social media channels and websites were mentioned by the majority of participants. There is an acknowledgment of the importance of publishing in social networks, and references were found that content is produced with digital channels in mind. Instagram was particularly praised as a powerful and interesting platform.

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

P5: ... 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.

The participants highlighted social media opportunities: information can be easily shared, and feed-back is immediate; they can forward people to websites and benefit both the brand and the creatives behind it. In other words, social networks enable the fast circulation of information, attract, and give visibility. The relevance of social media may explain why managing social platforms was identified as an essential competence in fashion jobs in the study of Kalbaska and Cantoni (2019).

On the other hand, the ease of access to information and the speed of circulation of fashion media has drawbacks. From a public relations angle, the interviewees stated that it is not easy to control how the information spreads. Two subjects mentioned the case of Celine⁸ to illustrate this, which was being scorned at the time.

Besides social media, other technologies were emphasized. Video mapping, augmented reality, holograms, and drones were listed (Figure 35). The potential of technology for reaching and engaging with consumers' was recognized by all the participants. However, some technologies may involve high costs, and this might be one of the reasons why we do not see them applied in Portugal.

P6: There are extraordinary challenges. I remember that in one of the events that I produced, wanting to play with video mapping, which was a fantastic thing, but that later had financial limitations because the costs would skyrocket.

P5: So, one thing is our market: our market is not into it, it has no means, for augmented realities.

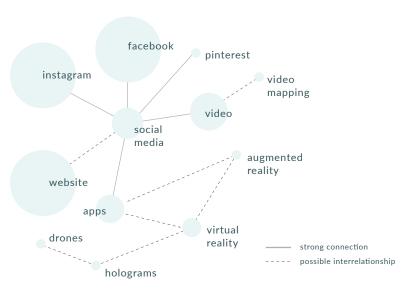


Figure 35. Digital approaches and technologies. Source: Adapted from Faria, Cunha and Providência (2019).

Interviewee 5 sees technology as a tool that can empower communication when combined with other resources. This observation is in line with Hassenzahl (n.d.), who considers that technologies are "canvas, colours, and brushes" for designers. Nonetheless, interviewee 6 questioned to what extent the use of technologies makes sense for particular audiences. After all, design is people-driven, not driven by technology (Norman, 2018).

⁸ Negative reactions to Celine's Spring 2019 collection at Paris Fashion Week quickly spread through social media and live streaming technology. The magazine Fashionista (2018) described viewers' feelings as disappointment, disdain, anger, disbelief, and mourning for Phoebe Philo's brand era.

The ever-changing environment also means that creatives must produce more content in less time daily, which might have significant implications in the design process as creativity can be compromised and, thus, the final result. 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.

At the same time, staying relevant and reaching the audience in meaningful ways are requisites in an oversaturated market:

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

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

P9: ... the biggest challenge is oversaturation and it's reaching the right audience, it's like there are too many sweets, the sweets are spilling out of the jar, they're not only spilling out of the jar, they're spilling all over the floor they 've been trampled on.

In a broader view, one interviewee considered the challenges that digital media presents not only to designers/producers, but to consumers as well:

P2: Today, we are in this mass culture, and I believe that one of the significant challenges is achieving visibility as a producer. As a consumer, the challenge is to filter. I think that's it. Today there are these two paradigms — one is to impose oneself, the other is to choose, and today the choice is so vast that it's difficult. I think digital is heading there.

When asked about future predictions, the interviewees expressed different views. Notwithstanding, they commonly agree that the future will be digital and that brands are going to invest more and more in e-commerce. One participant commented,

P4: I think brands are being very smart in the way they are trying to bring together physical and digital because it is true that digital is here to stay and to become stronger. Still, it is also true that the physical world does not go away: it will be a balance between the two.

Reflecting on the future of social networking platforms, one interviewee mentioned that new platforms must deliver more value. Other interviewees note that social media will evolve as business tools:

P1: Applications are starting to peel; they are beginning to realize that there 's an opportunity for profit.

P10: I must say that in the next coming short-term, Instagram seems to be here to stay. But it's a business. It's becoming a business this sort of platform. No doubt, some people will try to find new ways of coming up with new platforms.

If some participants seemed enthusiastic about the future of digital media, others appeared to be overwhelmed and shared a negative position towards technology. Two participants consider that technology is not sustainable, and its impact on the planet is negative, arguing that people will want to go back to their roots.

4.3.2 Strategies

The data suggests six strategies that creatives apply when producing content to advertise fashion: aesthetics, storytelling, composition, revealing details, unexpected contexts, and coherence. Fashion and online marketing strategies also emerged, such as fashion market influencers, search engine optimization, and content channel distribution (Figure 36).

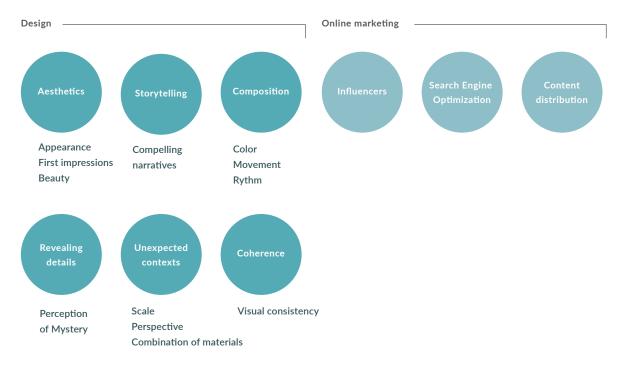


Figure 36. Design and online marketing strategies.

On the subject of **aesthetics**, it was mentioned by six interviewees, who consider the wrapping, i.e., how the product is presented, more important than the product itself. In this sense, first impression matters, and special care is needed as far as e-commerce product images are concerned:

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

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.

P8: ... there is a lot of work to make a product that is often not appealing to something that people really want to wear.

One interviewee, in particular, adds that among other strategies, beauty per se can be used to surprise consumers and create memorable experiences:

P5: People being surprised by the beauty, being surprised by the unusual, being surprised by mastery. All of this creates memory, that is what creates memory: what is unexpected, unusual, it's like "Hey, what is happening here?" or "Hey, this is so well done, what a wonderful thing!"

This finding demonstrates the significance of Normans' (2004) visceral level and the attract component of the A.C.T model of van Gorp and Adams (2012). Appearance plays a vital role in the initial reactions of how people perceive a product, and when done well, it can attract potential buyers (Norman, 2004).

Nonetheless, participants attempt to create experiences with meaning, going beyond "gift wraps." There was a sense amongst the professionals that creating compelling narratives around the products is needed. Essentially, in their views, planning is vital to develop engaging stories. The interviewees demystified the **storytelling** behind fashion events, social media campaigns, fashion editorials, and window displays. As an example, one interviewee 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 to me. That is the story that I try to tell.

This result is consistent with previous studies that examined storytelling practices of fashion brands (vide Chapter 2, section 2.4.2). "When people listen to stories, their minds are engaged in the process of painting in the details. This engagement sets the stage for persuasion or a call to action," wrote Quesenbery and Brooks (2010, p. 499), explaining the benefits of storytelling.

Composition surfaced when the interviewees were directly asked which strategies they use to elicit emotions, and further evidence was found throughout the interviews. The purposeful arrangement of elements such as color, movement, visual references, among others, was disclosed:

P1: Indeed, there are clues, whether in form, color, rhythm, movement, rhetorical figures, denotations and connotations, and endless items, to achieve an appropriate result.

P5: Movement, storefronts with movement, which people love.

P8: ... 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.

Another strategy that was suggested was **revealing details** of the creative process or something related to the product to create the perception of mystery, capture attention and arouse curiosity:

P3: There is often a worry about revealing the creative process. But I think the creative process sells.

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.

Similar to revealing details, **unexpected contexts** aim to stir curiosity and keep people interested. Interviewee 6 mentioned two projects that illustrate the power of this strategy. The first one was about a fashion show in a parking lot — it had an impact because both the audience and the client were expecting a noble space like a palace. The second project is described below:

P6: We went out into the street with people dressed in garments of embroidery of Castelo Branco and walking in the middle of the street taking pictures. A mannequin with a piece that costs more than €5000 in the middle of the street and people trying to understand what was happening. It caught their attention, and they questioned.

Changing the scale or the perspective of archetypes may represent a path to achieve an unexpected outcome too. This issue was pinpointed in diverse contexts, as illustrated in the comments below:

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.

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: We always have the lettering issue that we can escape from — sometimes, we force to read sideways, breaking the navigation a little.

From editorial design to digital media, the participants gave examples of design solutions that people are not expecting. For instance, interviewee 2 and 3 mentioned that finishing and printing processes and combining different materials could make the difference when creating a lookbook.

As a strategical asset, **coherence** arose from the participants' overall concern about visuals being consistent with the brand's positioning and DNA. Interestingly, one of the interviewees observes that coherence related to strategy can be counterproductive when the purpose is to draw people's attention. She claims that the visuals must be consistent with the brand, but people will eventually get used to them and ignore them if the stimuli are always the same. As she commented,

P5: If we are less coherent, the storefront will be much more effective in terms of language or strategy. Why? Because it's alternate: today I make a black shop window all minimal, tomorrow I make a yellow shop window all baroque, and this will attract the attention of different audiences and will capture different sensitivities, and in my perspective, this is the purpose of a shop window.

Regarding fashion and online marketing strategies, one participant specifically mentioned that inviting **fashion market influencers** to promote events is strategic since they arouse curiosity and attract attention. As a case in point, she spoke about one project where an invitation published by a celebrity on social media brought a surprising number of people to a small village.

Lastly, a few mentions were made about **content-related disciplines**, namely, search engine optimization to maximize the number of visitors to an online store and content distribution, i.e., defining when and which channels the content will be available to consumers. As expected, this result was mainly found in online environments. Compared with offline contexts such as window displays or editorial design, having well-executed design projects in the digital realm is not enough. To strive digitally, how the content is going to be distributed should also be considered.

4.3.3 The role of creatives

The analysis prompted a reflection on the role of the professionals within the fashion system. The daily routine descriptions, the explanations of project stages, and the expressed concerns enable to compile a profile that incorporates the purpose and responsibilities of a creative that works with fashion communication (Figure 37).

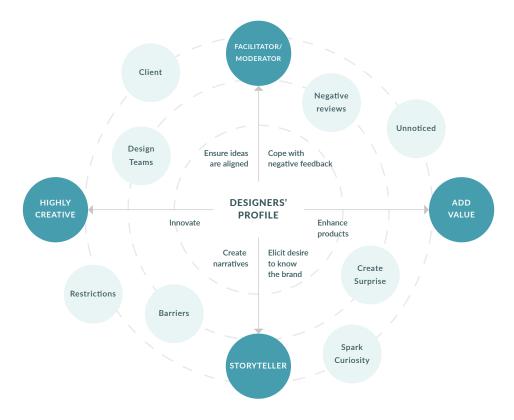


Figure 37. Designers' profile.

Providing guidance, cooperating with other professionals, and handling clients are part of the creatives' responsibilities. The designer is the bridge between the client and the design team, someone who understands clients' objectives and translates them to others involved in the project. Concurrently, the designer ensures ideas are aligned by discussing them within teams to bring the project to life. Hence, the designer is a **facilitator** and a **mediator**.

P5: It started out as a branded exhibitor approach and I gradually convinced (the client) ...

P6: ... I always have to listen to the other side, understand the ideas and try to present suitable proposals for various components.

P8: I picture the session in my head and then I have to communicate it; I do the briefing for the team.

Furthermore, it was suggested that **trust** between teams, external companies, and freelance professionals could benefit projects. In this sense, creatives who work with fashion promotion must nourish client connections and embrace teamwork.

P1: I already have credit. It's been many years. Indeed, I don't go through many of the good experiences that my colleagues probably went through, projects that are "Oh, you're going to adjust this, here you're going to adjust that..." it happens very, very rarely. (...) It is usually tuned. They give me autonomy. It's good.

P7: ... there was already a relationship of trust, and everything was much simpler and much more easier.

Another requirement that arose is being able to **cope with negative reviews**. The critical role of public relations in crisis management is an example. Interviewee 3 commented that fashion is a matter of love or hate, and in the context of a fashion show, one must be prepared in case of not being noticed.

P3: ... putting on a Portugal Fashion show and having positive reviews is excellent, all newspaper covers saying: "Opened, closed, spectacular, surprising" (...) but having nothing the next day is also part of communication teams, and we have to know beforehand that there may be an "It was excellent" or "This is nothing, it was just one more," and this is the work that needs to be done and that we have to be able to do.

Besides mediation and facilitation skills, fashion experts are also expected to be **highly creative** — capable of working with restrictions, overcoming barriers, and innovating. It was mentioned that ideas must not be repeated and producing more content is needed.

P6: ... we also have to try to adapt and the idea is that they won 't be repeated, because if the projects are repeated, they are no longer of interest to the institutions because it's a copy of another that is already happening.

P8: The hardest thing is getting content to communicate throughout the time the seasons last around a single concept, depending on the frequency of posts and communications.

Concerning **restrictions**, there can be spatial limitations in visual merchandising, whereas, in an e-commerce setting, it can be in terms of the number of pictures. Additionally, brands often have guidelines that must be respected.

P3: ... we respect what brands provide us.

P4: Despite everything, we always try to respect what brands want to do.

P7: We have a sort of manual that cannot be breached; it has to be respected: types of fonts, use of images (...) crops that can be done and crops that cannot be done, what must not be done; images that we cannot use and images that we must use in particular situations.

Telling a compelling story around a product seems to be transversal to all fashion communication domains. Most of the participants expressed their efforts to create narratives with the materials they have at their disposal. Thus, besides being a mediator, a facilitator, and a highly creative person, the designer is also a **storyteller**. One participant stated,

P6: ... I always try to tell a story in some way, create a story, create a concept around any of the projects.

While describing the communication strategies used to promote fashion, words like "curiosity," "surprise," "capture attention," and "interest" were frequently repeated, suggesting that creatives seek specific emotional responses from the audience. One interviewee drew an analogy to illustrate her view,

P9: We got to think about almost like being bees and the kind of film and still imagery almost like flowers, you know, you have to attract the consumer, the honeybee, or whatever you want to call it, to these particular flowers.

Sparking consumers' curiosity was considered important for strategical purposes. Curiosity can elicit consumers' desire to know the brand, lead them to the store, and aid in 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.

P3: ... in my view and from our experience, I think that creating curiosity in people helps to sell the product that we have to sell.

Moreover, it was argued that the result of the design process should surprise, regardless of the communication being physical or digital. One interviewee firmly stated: "my job aims to surprise people" (P5), and other examples were found throughout the data set that reinforce the significance of **creating surprise**.

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.
P5: ... my job aims to surprise people who pass on the streets, but it's to surprise me too. I also like to be surprised by what I do in the end.

To conclude, part of the designers' role seems to be **adding value** to the product. This issue was illustrated, for example, when one interviewee explained how she works closely with fashion designers during a photo session to enhance the clothes. More broadly, one interviewee commented that:

P3: The role of an agency or the role of a communication creative is to add value to the clients' product, always, because the product already has value, here we have to know how to sell it later.

This result supports the idea of Mozota (2003) that design bolsters and amplifies marketing. Moreover, it is in line with Lipovetsky (2019), who claims that advertising's primary goal is to enhance the image of products and brands.

4.3.4 Creative practices in Fashion

Overall, seven stages emerged in the ways design problems are tackled: defining the concept, knowing the client, knowing the market and competition, knowing the audience (consumers), understanding context, generating ideas, and monitoring feedback. These procedures do not necessarily apply equally to all contexts: the order in which they occur might differ, the degree of importance varies, and they are not thoroughly employed in all fields.

Defining the concept was seen as the most important stage in the design process by four interviewees because it is the concept that will dictate how everything related to the project will unfold:

P6: From the moment the idea is defined, everything else will flow.

P9: ... the most important thing really is getting to understand what it is about that could be branded, that needs to be captured in imagery and film.

The concept results from a preliminary study that involves knowing the client, audience, competitors, and the overall context to plan the strategy (Figure 38). First, **knowing the client (brand)** is vital because the ultimate decision is theirs. In the perspective of one interviewee, it resembles a relationship:

P3: ... it's like a relationship — there is always a time when you need to know the other person well because then you know how far you can go and you know what will upset, and you know what it will sulk, and you know what will make happy.

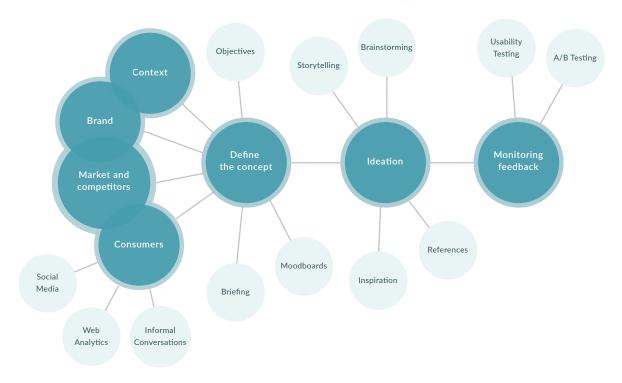


Figure 38. Stages in the design process and related topics.

Knowing the market and competition is the stage to learn what can be improved and how to reach the right audience by researching competitors. The information collected at this point can also serve as a source of inspiration to create something new.

P3: ... in the second phase, it is getting to know the market where this brand/company is inserted, which is also very important. We understand what the reality is, which companies are direct competitors, how do they communicate, if they have diligent communication or not. P8: I think it's about understanding what the competition is doing and understand what's the best of each — we select five brands, for example, direct competitors. What is done best in each of these five brands in terms of strategy and we build ours. It's about taking the best of both worlds and making a new strategy.

The stage **knowing the audience (consumers)** was more evident in online contexts, namely social media and web design. The participants revealed they learn about consumers in two ways: through data provided by the client or through research focused mostly on data collected through digital channels and web analytics. Some interviewees indicated that this knowledge helps to build the strategy. One participant shared her desire to learn more about psychology, arguing its importance to reach the audience:

P9: ... in fact I would like to do psychology, to do something to do with the psychology of image making and I'm studying that more because I think that is how people can better understand how to kind of reach the right audience.

Understanding context is a stage that should be taken into account to map opportunities and act upon restrictions. The context differs across settings: a window display project should consider spatial limitations, whereas a photo session should be consistent with the concept of the magazine where it is going to be showcased, among other factors.

P4: An editor sends an email saying, "We are working on a story that the title is forest, give me suggestions." First, you have to see which magazine is, who's the editor — I know that these look details, but then, in the end, they end up being very important to the final result.

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.

Some participants expressed how they feed their creative minds in the stage devoted to **generating ideas**. Two participants outlined that unplanned situations suggested by scenarios or even by accident can lead to new ideas and add value to the project:

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 came 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.

Another strategy that can provide valuable hints and spark ideas is knowing the product that it will be advertised (e.g., clothing, jewelry). The following examples demonstrate projects that where propelled by the products:

P3: ... all communication was soon worked from some details of the fabrics because the fabrics had flowers, almost in 3D, and therefore we took advantage of it: as soon as we looked at the fabrics, we said, "Communication should be made from this."

P5: ... it was a storefront full of natural plants mixed with artificial plants, and then there were the snails they make, beautiful snails (jewelry pieces) (...) It had the snails among the plants. There 's a set design that is created around the product.

Understanding the product can also facilitate the work of a 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.

Lastly, **monitoring feedback**, relates to some interviewees' interest in learning their audience's thoughts on their work. This concern was evident in the context of public relations, social media, and web design. Nevertheless, in comparison to the other stages, this was the one that seemed to be the most overlooked, appearing almost as if it was expendable, especially in the domains of visual merchandising and fashion shows.

Amid some interviews, it was noted that measuring the work of a creative might not be a trivial task. The number of sold items is usually synonymous with success, but it is not enough as there are other elements at stake, as clarified by one interviewee:

P4: In Fashion, everything depends on a lot. I could tell you that it varies depending on how much we sell, but that is not true because how much we sell can also depend on the type of product.

As reported by Lipovetsky (2019, pp. 360–361), "Given that many factors come into play in consumer behavior to accurately predict the nature of their reactions, marketing effectiveness is always uncertain." In window displays and runaway shows, it was referred that there might be some indicators that might signal success. In the case of window displays, it could be when people suddenly stop to see the shop window, whereas, in fashion shows, it could be the buzz around the event.

4.4 Considerations

This study explores the implications of digital disruption from the perspective of experienced professionals in the fashion industry. Moreover, it provides an overlook of strategies used to elicit emotions — an element that is increasingly being recognized in theory and practice. Despite the differences between the interviewees' background and area of expertise, some common threads were uncovered.

Participants were aware of the demands and opportunities offered by digital channels. They recognized technologies' potential and limitations and are adapting their creative practices progressively. Thus, communication is planned with digital channels in mind. This finding validates Rocamoras' (2017) concept of mediatization that debates the influence of digital media on fashion practices (production, consumption, distribution, and diffusion).

Furthermore, numerous strategies were identified: beauty, compelling narratives, elaborated compositions, and unexpected contexts are used to create more engaging experiences and enrapture consumers while ensuring that visuals are aligned with the brand. Some strategies corroborate Ramírez' research (2014), although his research focuses on eliciting surprise in industrial design.

Fashion promotion demands designers to have many roles and responsibilities. They must possess facilitation and mediation skills, be highly creative, and tell great stories to add value to the products. When advertising a product or a brand, they aim to surprise and spark curiosity. This result is in general agreement with previous research confirming that designers use surprise as a strategy (Ludden, Schifferstein, & Hekkert, 2008; Ramírez, 2014). Indeed, designers can benefit from eliciting surprise since a surprise reaction can draw attention to products and lead to their recall and recognition (Ludden et al., 2008). Also, the relevance of curiosity lends support to Ramírez (2014), who argues that it is important to study curiosity due to its impact on behavior. Curiosity and surprise are further expanded in Chapter 6 (vide section 6.3).

⁹ Author's free translation from Portuguese: "Dado que demasiados fatores entram em jogo no comportamento dos consumidores para se prever com rigor a natureza das suas reações, a eficácia do marketing é sempre incerta."

On the whole, the identified stages of the design process match a design thinking mindset. The creative practices demonstrated that a solid strategy requires careful consideration of the client, the market and competitors through research. Although the consumer is acknowledged, the findings suggest that its involvement in the process is minimum. Since most of the frameworks highlight the role of consumers' earlier and during the design process (vide Chapter 3), implementing Emotional Design might pose some challenges.

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5 Case study: HARDI Magazine

The focus of the research at this stage shifted from industry professionals to people. Thus, this chapter draws attention to perceptions and feelings regarding a digital magazine that advertises fashion and luxury content and reveals what goes behind the scenes from the creators' perspective. It charts the data collection procedures and the rationale behind them. The in-depth understanding of people's interactions with the mobile application and the dialogue with the art director revealed subjects of interest that should be considered when designing digital experiences and highlighted fashion opportunities.

A complementary study to support the focus group planning was accepted for publication:

Faria, Ana Paula, Cunha, J., & Providência, B. (2021). Touchscreen interactions in the realm of fashion: a users' perception study. In *Proceedings AUTEX 2021 - 20th World Textile Conference*.

5.1 Introduction

As previously discussed, digital media's influential role is reflected in the progressive use of in-store technologies, mobile apps, augmented reality, virtual reality, among others, to enhance consumers' experience (vide Chapter 2, section 2.4). Simultaneously, researchers and practitioners advocate that fashion should embrace the creative prospects of technologies. For example, Wrigley and Straker (2018) encourage exploring new technologies, and Parker (2018) fosters new mobile app concepts. From Sundsbø (2018, para. 18) point of view, "Fashion brands and magazines that will be the most successful at retaining and engaging their audiences will be the ones that look beyond the still image and foster a new environment of high creative achievement in motion."

The findings from the previous study portray technology as a powerful tool to engage consumers (vide Chapter 4). Furthermore, the interview study uncovers several strategies by focusing on online and offline contexts and demonstrates the underlying intent to design for curiosity and surprise. However, translating and exploring these strategies into a digital setting is an issue that needs further investigation.

Thereby, the broad aim of the current study was to learn how technology can be advantageous to design for emotions and, at the same time, understand the challenges of the digital realm and map opportunities for fashion. Hence, a qualitative case study approach was adopted to an in-depth exploration of a digital magazine to gain a holistic understanding of the issues surrounding the digital environment.

The selected unit of analysis was HARDI, an iPad digital magazine that explores the potential of interaction to advertise fashion and luxury content. The mobile context was targeted because it was feasible due to mobile phones' ubiquity in consumers' lives. Furthermore, the app is available for free on the App Store, which was also considered for its selection.

Although the app's availability, the digital magazine has a drawback — it has stagnated, and the contents have not been updated since 2016. Still, it remains an interesting case because it combines gesture interactions with moving images and storytelling.

5.2 Methodology

The digital magazine was examined from the perspective of its creative director to know more information about it and through users' reactions when interacting with the app. At no time was the aim to make

value judgments on the apps' performance. Instead, the objective was to identify potential features and elements to use in digital experiences and learn central themes related to the mobile context.

5.2.1 Research questions

The research questions associated with knowing the case were: What are the digital magazine goals? What were the motivations behind it? What is the readers' profile?

Regarding users, understanding their reactions meant answering questions such as: What is the participants' first impression of the product? What is the context of use? What do the interactions mean to them? What are the positive experiences? And the negative ones? What surprises them?

5.2.2 Data collection procedures

The first contact with HARDI was through its website in the earliest stages of the research. It was possible to know who created the project, its overall goals, and to read news about the project. However, the content did not have the necessary breadth and depth to meet the purposes of this study.

Thus, to gather more information, it was decided to interview a spokesperson, someone who collaborates in the magazine, willing to share insights about it — the creative and interactive director of HARDI, Anne-Marie van Dongen, who promptly accepted the interview invitation. The flexibility of the asynchronous email interviewing was the main reason for its selection, i.e., the interviewee could answer the questions in a familiar environment at her own pace (Meho, 2006).

The interview instructions and a document with detailed information about the study, which included a consent form, were sent to the interviewee (Appendix 5.1). Anne-Marie was instructed to read, sign the form and send it afterward or reply affirmatively to the email stating that she would agree to participate in the study. She opted for the second option (Appendix 5.2 contains her answer to the email).

The interview was divided into four sections: (i) Brief introduction; (ii) HARDI; (iii) "Behind the scenes" - Design and communication practices; and (iv) Final thoughts. The answers to the first section started in April 2019, and the latest feedback received was in September 2019 regarding the third section (see Appendix 5.3 for the interview in full).

Moreover, the focus group was chosen because it is a technique that offers a means of understanding why people feel in a certain way (Bryman, 2012) and has been proved helpful in exploring perceptions and capturing insights into behavior (Krueger & Casey, 2015). Additionally, the technique is

used to collect exploratory data to uncover critical issues surrounding a particular topic from several participants at once (Hesse-Biber, 2017).

Before the sessions, participants were asked to use the app and fill a log each time they explored it to learn more about their context of use and access their feelings. The diary form was adapted from the UX context scale (UXCS), a self-reported questionnaire to measure the contextual dimension (Lallemand & Koenig, 2020). The document can be seen in Appendix 5.4.

The focus group was planned to encourage discussion in an informal environment, and the questioning route was developed accordingly. The following strategies were used to engage participants and gather insights into emotions: photo-elicitation combined with dot voting and a sentence completion task (vide Chapter 3, section 3.4.2 for projective techniques).

The photo-elicitation exercise began with a stack of pictures depicting the stories in the application (see Figure 39). Then, participants were asked to place green dots on the cards they liked the most and the red dots on the ones they liked less. After the exercise, participants were asked to explain their choices. As Goodman, Kuniavsky, and Moed (2012, p. 181) explain, "The goal of photo-elicitation is not to substitute images for words, but to use pictures to stimulate vivid, concrete, meaningful words."



Figure 39. Cards used in the photo-elicitation exercise.

Concerning the sentence completion task, participants were given a few minutes to complete four sentences, and the results were shared afterward (Appendix 5.5). Their answers were read, and after they were asked to comment on the similarities and differences among the responses.

Apart from the above activities, two questions were made at the beginning of the focus group. The first one was an opening question to get participants to introduce themselves and start talking about

their interests. The second question presented the topic of discussion so that participants began to think about their experience with the app (see Appendix 5.6 for the complete script).

5.2.3 Participants

The strategy to recruit participants was a non-probability form of sampling named purposive sampling, which objective is to select relevant participants to the research goals (Bryman, 2012). Because HARDI is an iPad magazine, participants must have experience with iPads and an interest in fashion. Therefore, a recruiter screener was circulated through social media and among university students by email. The survey provided a way of capturing data about potential participants based on the established criteria. The questions examined their experience with iPad, fashion magazines or blogs, and online habits.

Eleven female participants with a 19 to 34 age bracket were recruited: five for the first focus group and six for the second — following Krueger and Casey (2015), who consider that to gain in-depth insights, the size of a focus group is ideally five to eight participants. The characteristics of the focus groups are summarized in Table 8.

Table 8. Focus groups characteristics.

Data regarding focus groups

Number of focus group conducted: 2

Number of participants in the first focus group: 5

Number of participants in the second focus group: 6

Date and duration of the first sessions: Wednesday, July 17, 2019, at 10:20 a.m. | 60 min Date and duration of the second session: Thursday, November 28, 2019 at 10:12 a.m. | 90 min

Session 1		Session 2	
Code	Age	Code	Age
P1	25	P6	26
P2	26	P7	19
P3	22	P8	32
P4	25	P9	30
P5	30	P10	29
		P11	34

5.2.4 Pilot testing

Before conducting the focus group, the questions were pilot tested with colleagues to get a sense of how they might be answered and understand where probes or follow-up questions might be necessary. In parallel, a sentence completion study was conducted to support the sentence selection to be used in the focus group sessions (Faria, Cunha, & Providência, 2021).

It should be noted that the questions were not tested in the group. Thus, the data from the first focus group was used for analysis — this is in line with Krueger and Casey (2015). Nevertheless, the authors advise revising questions that do not work in the first group before conducting the second. Indeed, after reflecting on the findings and debriefing of the first session, improvements were made to make the activities more dynamic and add more depth to the discussion.

Namely, participants were instructed to focus their attention on eight specific stories from the section HARDI Creations, rather them the overall app. Secondly, it was also decided to clearly state what HARDI is in the email with the diary instructions. Finally, to improve the first activity's dynamic, a voting card was designed to allow participants to recall their votes during the session and add additional comments if they wish to.

5.2.5 Sessions

The sessions were held at the University of Minho: the first group in Braga and the second in Guimarães. There was a separate table for refreshments in the rooms, and each participant received a pen, a name tag, and a consent form (Figure 40). The informed consent can be found in Appendix 5.7.



Figure 40. Focus Group facilities.

The participants were strategically positioned based on the observations made by the moderator and the assistant during the recruitment process — the individuals who were believed to talk more were

placed at the moderator's side. In contrast, the quiet ones were seated across from the moderator to facilitate eye contact. The assistant was seated opposite the moderator.

At the end of the sessions, the moderator and the assistant conducted a debriefing to compare notes and share highlights — the conversation was recorded as support for analysis. The questions that guided the debriefing followed the guidelines of Krueger (1998, p. 34): "What are the most important themes or ideas discussed? How did these differ from what we expected? Were there any unexpected or anticipated findings? Should we do anything differently for the next focus group?."

5.2.6 Analysis and interpretation

The email interview and the focus groups were analyzed separately. One of the advantages of e-interviewing is that it saves time and lightens the need to engage in transcription. Thus, the process involved preparing the data and importing it to NVivo. In terms of coding, the strategies employed were very straightforward: each datum regarding HARDI was carefully coded, and the design practices were coded as well (Appendix 5.8 contains the codebook). Next, each code was thoroughly described, and from there, clarifications were derived from answering the research questions of the study.

The focus group analysis began in the first focus group — this way allowed to improve the data collection. Working closely with the note-taker was another step taken to ensure the correct data was collected. Furthermore, during the sessions, probes and follow-up questions were used to clarify certain moments that could be insightful, like when a change in group energy occurred.

The recordings of the focus group sessions were fully transcribed and supplemented with field notes. The preparation of the transcripts was made with the guidelines provided by Krueger and Casey (2015)¹⁰ and Azevedo et al. (2017) (vide Chapter 4, section 4.2.6). The transcription itself was not passive as the researcher actively engaged with the data: "Transcribing research data is interactive and engages the researcher in the process of deep listening, analysis, and interpretation" (Hesse-Biber, 2017).

After transcribing, reading the transcripts, and becoming familiar with the data, the files were imported to NVivo 12 Mac. Memos and annotations were written to start exploring the data. What guided the analysis was the purpose of the study, the "guiding star" as Krueger and Casey (2015) put it. Each datum was broken into previously established codes in light of the research questions (Table 9). Individual codes were also created for the sentences of the sentence completion task and each story of the app. The

¹⁰ For example, typing comments word for word and using parentheses to note unusual sounds.

codes were purposefully structured to enable further asking questions to the data about particular issues. For example, a matrix coding query could examine the positive and negative aspects of a specific story.

Table 9. Summary list of initial codes and research questions.

Category	Research question	
First impressions	What is the participants' first impression of the product?	
Positive	What are the positive experiences?	
Negative	What are the negative experiences?	
Emotions	What do the interactions mean to them?	

The initial categories were later re-examined, and more analytical clusters were developed. During this stage, similar responses were coded together, and the ones that differ were given a different code. Meanwhile, special attention was paid to the following factors: (i) detailed answers; (ii) comments that showed enthusiasm, interest, or intensity; and (iii) extensiveness, i.e., how many different participants mentioned something. The code system can be observed in Appendix 5.9.

When the coding process was completed, descriptive summaries were written to describe the group answers. Simultaneously, the codes were iteratively compared and contrasted across groups to discover similarities, differences, and gaps.

5.3 Presentation and discussion of findings

This section is divided into two parts: the first one addresses the interview results with Anne-Marie van Dongen and the second examines the findings from the focus group sessions. Selected excerpts and tables illustrate the results throughout the sections, and screen captures of the digital magazine are also included to assist the presentation. The translation of quotes from the focus groups followed the same principles adopted in the preceding study (vide Chapter 4, section 4.3). Additionally, relevant literature is drawn to provide coherent explanations or present different perspectives on the subject.

5.3.1 Interview with Anne-Marie van Dongen

Throughout the email interview, the creative director shared some of the challenges she faces in her current position and how she copes with them. She also expressed honest insights into the design process and her view of the role of interaction in fashion communication.

One of the first things Anne-Marie expressed was what HARDI meant to her: "HARDI is such a special project; it's the first interactive project on a mobile device I've worked on." She proceeded to explain the challenges — "When we started HARDI it was like creating an UFO.¹¹ Nothing like it existed, so we had to reinvent tools and ways of interacting with content."

Nonetheless, she highlighted that it was a valuable lesson for future projects. She exemplified,

In the beginning, I wanted to minimize indications, help screens, etc. But that's not how it works. If you want people to enjoy your app, they need to be able to use it easily. (...) So, depending on the app I'm creating, I spend a lot of time on ergonomics and testing.

In terms of the goals and motivations of the project, Anne-Marie said that the intention of HARDI was to reinvent magazines by promoting different ways to interact with content and envisioning innovative ways of storytelling. By doing so, she expects to achieve a wow effect. The target audience of the magazine is people within the fashion industry.

Another topic that she mentioned was the collaborative design process that involves working with professionals from several fields. According to Anne-Marie, the lack of knowledge of new interactive possibilities caused difficulties: "It's like a new language, a lot of artists had a hard time understanding and imagining how they could use that language to express their creative ideas."

The creative director kindly shared a document that showcases the rationale behind one of the magazine's stories (Figure 41). According to Anne-Marie, everything starts with a list of interactive features to explore, e.g., gyroscope, image sequences, phantom cameras. Next, the ideas are combined with the technical functionalities, and the core idea is discussed and refined with the photographer or filmmaker. Also, she mentioned the creation of prototypes to share her ideas with the team. As she explained,

I would make prototypes with the programs available at the time, notably "Aquafadas,¹²" to show the artists (photographers & co) our ideas; so they understood the technical aspect and how they could add their ideas within limits. I also made storyboards, especially for the image post-production crew and the developers.

The importance of finding the right idea was emphasized: "I mean the idea that integrates the technical and interactive possibilities of mobile devices in a way that's "natural" or fluid; it makes sense,

¹¹ Translation from the French: "OVNI."

¹² Aquafadas is a software to create interactive documents.

it's not just a gadget" and underlined the experimental side of HARDI. Moreover, she considers that ideating and convincing the team are the most challenging aspects of her job.



Figure 41. Preview of the dossier of the story "Tanz, tanz."

When she was asked about the ways fashion communication can be enhanced by interactivity, she remarked: "today it's all about experiences, and I think people will always appreciate good stories, so an interactive campaign with a good story that makes clever use of interactivity, of whichever technical nature, will always be a success."

Additionally, Anne-Marie believes that social media overshadows the integration of interactivity in fashion communication. She said,

I find it's like the discovery of photography in the 19th century, a lot of different chemical processes were developed such as gumtype, cyanotype, daguerreotype, etc., all with different qualities and limitations, but soon all these techniques were overshadowed by the most practical and commercial viable ones invented by Kodak.

5.3.2 Focus Group sessions

Seven prominent themes found in the analysis are described in this section. Although most of the themes encompass ideas discussed in both sessions, the group dynamics were distinct. Compared to the first focus group, the discussion from the second one was more detailed and lively. This difference can be explained in two ways. Firstly, the first focus group participants had older iPad models compared to the second group, which might have negatively affected their experience with the app. Secondly, the second group participants demonstrated a higher interest in fashion and immersed themselves in the contents, whereas the first group seemed less involved. Table 10 gives an overview of the main results from the focus group sessions. The interactive features of the apps' stories are summarized in Appendix 5.10.

Table 10. Main results from the focus groups.

Theme	Main result	Positive / Negative aspects
a) The first contact with the product makes the difference	 Consumers felt frustration because the app did not meet their expectations. The first impression might dictate mobile app usage. 	 Technical issues: installing, content download, and language selection. Lack of affordances. Unclear loading. Confusing navigation system.
b) Usability issues have serious repercussions on the overall experience	 Usability is primary to user experience. Positive emotions were elicited when mastering the contents. Music can enrich digital experiences. 	Instructions not visible.Unresponsive icons.Music enhances the stories.
c) Visual design elements can be eye-catching or repel interest	 The attraction to some visual design elements relates to human cognition and human psychology. Contents that were easy to understand stirred positive emotions. 	 Color, motion, and the content of the stories attract attention. Contents that were not perceived had negative connotations. Disinterest was shown in stories that were considered unoriginal.
d) Motion (video and gestures) provides compelling ways to tell stories	 Digital storytelling contributes to user engagement. Motion and interactive entertainment trumps static imagery. 	 Motion triggered curiosity, and surprised positively.
e) The influence of associations	Memories and personal interests influence peoples' perception on content.	 Perceived inconsistencies between the content and the advertised brand lead to disappointment. Memories associated with places and music triggered positive reactions.
f) New content can create engagement	Contents should be regularly updated to give consumers a reason to revisit the app.	Lack of new content.The stories created interest to revisit the app.
g) Purpose of the app	This type of digital product might arouse interest in fashion.	 The concept of the app was considered interesting. Not being able to purchase negatively affect one participant.

A. The first contact with the product makes the difference

One of the most important outcomes was that many participants stated that if they were not obliged to use the app during the week before the focus group session, they would not have used it afterward because their first impression was negative. The reasons were varied, namely, technical issues when installing the app, downloading content, and selecting the language. Moreover, the lack of affordances caused frustration because it posed difficulties to understand how to interact with the magazine; the loading was considered unclear, and the navigation system left the participants confused (Figure 42).

P1: A person will not guess if they don't tell us what to do.

P2: I think that nowadays with the diffusion of the internet if you open something that is not intuitive, nor explains what it does, the person is just going to drag and uninstall.

P10: In magazines, everything is very fast and easy and obvious and intuitive. When you're faced with a situation like this you get a bit frustrated and from the frustration part you have two paths: either you try again or you give up. But since it was a test, you felt challenged to test it more often to give an answer and to understand.

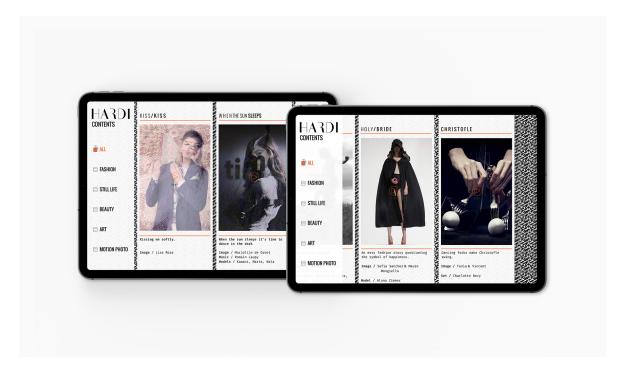


Figure 42. The orientation of the text in one of the menus is horizontal, whereas the other is vertical.

Given that the app is not updated since 2016, some technical problems were expected. They could be related to the components or content not being properly optimized. Failure to optimize apps to new iOS versions may result in a performance decrease. Also, when using high-resolution videos or photos, content optimization is vital — this is one trait of mobile apps.

Nevertheless, frustration and anger are two common emotions when products fail to meet peoples' expectations (Norman, 2013). When confronted with unresponsive icons and other complexities regarding installing and downloading, the participants experienced negative emotions because they were expecting ease of use and quick reactions. This is also a reflection of the on-demand culture and the immediacy of the contemporary society.

B. Usability issues have serious repercussions on the overall experience

Overall, most of the participants from the first group could not fully engage with the content because they did not notice that each story had an icon that explained how the interactions worked. When one of the participants mentioned gestures, the others expressed surprise and disappointment at the same time for not exploring the content.

P2: Before this application I didn't think about the different types of possible gestures.

P1: I didn't reach that part, but I wish I had.

In the second group, some difficulties were also visible, but they grasped the contents together during the session. The more participants understood, the more the app grew on them. Some extracts from the sentence completion task showed that this applied to both groups:

P3: What made me most curious about the application was discovering the different interactions of the stories.

P10: It brought me a feeling of curiosity to understand better.

The participants commonly agree that the instructions were not visible enough and claimed that sometimes the icons did not work. From their point of view, this issue needs improvement.

P1: ... the problem is the lack of guidance to see the content.

P8: ... first that I could figure out the question mark (...) even because I think the question mark is in a very hidden place for us to see it.

P11: I kept tapping in the interrogation mark and nothing worked. I tapped, tapped and it didn't appear.

As for audio, the first group did not experience it at all. In contrast, a few participants from the second group noticed it at a certain point in the experience. There was a common understanding that audio enriches the experience:

P6: ... I liked it. Besides, I think the music helped a lot. I found funny the relation between the music and the movements. I think it became fun and much more appealing to see.

P7: I liked it. I think it complemented what we were seeing.

P8: It makes all the difference to watch videos with or without sound.

On the one hand, these results demonstrate that usability is central to the user experience, which is frequently mentioned in the literature. "Without good usability, it is rare that the other components of the user experience will even be considered," write Hartson and Pyla (2018, p. 10) as a case in point. On the other hand, the participants' observations on music suggest that it might be worthwhile to explore it in digital experiences.

C. Visual design elements can be eye-catching or repel interest

This theme approaches peoples' responses elicited by visual design elements — "the effects of illustrations, photography, typography, space, layouts, and color on the usability of products and on their aesthetic appeal" (Interaction Design Foundation, n.d.).

A few participants considered the app pleasant and straightforward at first sight because it does not have many visual elements, such as buttons and images. At some point in the discussion, all the individuals referred to a particular content they liked because one or more visual elements captured their attention, e.g., color, motion, type of content. "Kiss / Kiss" (Figure 43) was one of the noticeable stories:

P2: Overall, I found the story very beautiful too. I think that my evaluation was always on the aesthetic part, finding it interesting and appealing.

P5: I liked the whole scenery, the peacock, the man and the woman, it gives the idea of a bit of a fairy tale with the colors that way, more in shades of pink.

P11: I found the aesthetic stunningly beautiful. It caught my attention, and the atmosphere as well.



Figure 43. Screen captures of "Kiss / Kiss."

Another story that was particularly marked in the second group was "Dior" (Figure 44). Remarkably, this story emerged in the discussion even though it was not part of the set participants were asked to see in detail. Participants were enthusiastic when they shared their opinions. The music, the contrast, and the interaction with the video were highlighted:

P7: I also enjoyed it because we could see only white and then black. And then we could change from black to white whenever we wanted. And that brought a lot of interaction with the video and captured our attention a lot (...) almost like a bridge between the audio sensation with the visual and it was very interesting. It was fun.

P8: I think it was the best video, and I saw it at least five times, playing it in different ways.
P10: ... This one I put as one of the ones I liked the most. But I had no access to the audio, and even without the audio, it was the one that I liked the most.



Figure 44. Screen captures of "Dior."

This result might be related partly to cognitive fluency — the feeling people associate with the ease or difficulty when completing a mental task (Roller, 2011). Participants found the story easy to process (high in cognitive fluency). Moreover, motion, interaction, high contrast, and music altogether attracted and held their attention. In other words, the harmonious combination of visual design elements coupled with simple and straightforward content may successfully enrapture consumers.

Conversely, some stories had negative connotations — the participants could not explain why — but it might be related to the content of the story itself (subjective or farfetched) or because they did not understand its purpose. The comments below relate to the story "Christofle" (Figure 45):

P1: This opinion may not be very valid, but when I saw it, I thought it was like the side of death (laughs). I can't explain why, but I didn't like this one. I don't know, maybe it's because of the colors, because of having a fork (...) I can't explain, but when I saw it, I didn't like it at all.

P7: I didn't like it. I don't know if it was because it was strange or because of the music or...

I'm not sure what I didn't like, but I didn't like it.



Figure 45. Screen captures of "Christofle."

Also, some participants established comparisons between the stories, and the ones they found less interactive or unoriginal were put aside. The feedback from the story "New York, New York" (Figure 46) reflects their disinterest:

P6: I understand the concept, but besides ordinary, I think the person is very still. I don't understand the meaning of the video.

P8: I think the term is to be less innovative. The others have a lot more... novelty.

P10: Compared with others, in which ideas were better explored, the aesthetics were far more explored. I think this would be the one that was less.



Figure 46. Screen captures of "New York / New York."

Furthermore, other visual elements draw attention in both positive and negative ways. For instance, many participants from group 1 expressed negative responses towards the black background of the app (Figure 47), whereas group 2 enjoyed it:

P1: That checkered black and white background gave me a stressful feeling, which I can't explain.

P10: I realized an intention to be modern.

P11: I really like a geometric print.



Figure 47. Black and white background of HARDI.

In general, the attraction to some of the visual design elements can be explained by human cognition and human psychology principles — this is illustrated in the A.C.T. model of van Gorp and Adams (2012) (vide chapter 3, section 3.3.1).

D. Motion provides compelling ways to tell stories

Motion was the most frequent element pointed in the discussions — all the participants spoke about it. When probed to clearly state what motion meant to them, their answer was "video and gestures."

In the sentence completion activity, motion was considered an element that triggered curiosity, and that surprised positively. Motion was also seen as an essential element to bring narratives to life in engaging ways. For some participants, this makes HARDI stand out from other mobile applications and even from print magazines.

P1: What surprised me in the app were the scenarios and the stories they create through color and movement.

P2: What made me most curious about the application was the unexpected movement and the changing movement of the stories.

P9: What surprised me the most in the application was the interaction of the videos because I never experienced anything like it.

The participants from group 1 discussed the difference between the experience of looking at a static photograph from watching a video — their preference relied on the latter.

P1: I think the most interesting thing was this, it was the matter of motion and the way they played (...) for example in this case here, it was the jar, but there it was the capture of the movement of the dress and I think that this was the most interesting part and what caught my attention the most.

P4: What surprised me about the application was maybe motion and maybe the fact that the images are not all static.

These findings demonstrate the pervasiveness of video in daily life, fostered in social media platforms. Moreover, evidence was found that digital storytelling contributes to user engagement since it attracted participants, arousing their curiosity and interest. More than watching, listening, or reading, the consumer became a participant through interactive content (Miller, 2014).

E. The influence of associations

A few participants from group 2 made connections between the contents and the brands, e.g., Cartier was associated with wealth and glamour (Figure 48). This feedback would not have been possible if the participants were not interested in fashion.

P6: I associated a bit with the name Cartier (...) it reminds me of some wealth.

P8: I think it's glamorous, but a person in Cartier expects even more (...) Leaves a lot to be desired.

P10: I think it's kind of Dior's aesthetic.



Figure 48. Screen captures of "Cartier."

When the content was inconsistent with the brand, participants manifested disappointment. This result is in line with van Gorp and Adams (2012) and Walter (2011, 2020), who explain that users feel betrayed when they perceive personality inconsistencies.

In contrast, favorable feedback was obtained on stories that enabled participants to make associations with personal interests and past experiences. The following comments were made to explain positive connotations:

P8: And then because, for me it's associated with Chef's Table (theme song) and I love to cook.

P11: ... because I like the city. I love New York so for me it was so significant in the affective memory of referring to that city and its movement.

Thus, personal interests and associations that trigger positive experiences influence peoples' perception of content. These results also reflect the subjectivity inherent to user experience.

F. New content can create engagement

Evidence was found in both groups of participants' expectations regarding content updates. This issue was more visible in group 1, who noticed that the "News" section was outdated. Near the end

of the session, one participant expressed that she was expecting to see new content each time she opened the app, but that did not happen. Then, the discussion followed a path that revealed that some participants believed that if the app had new content regularly, it could spark curiosity and promote engagement and even counterbalance the usability issues.

P2: Ok, it is not as intuitive as that, but it has content that arouses curiosity, and I know I'll go there to see a new video (...) So I think that there could be a balance here if it had different contents, it might compensate.

In the second group, the participants mentioned that if the app performed better, they would want to see more content in the future because they enjoyed the interactions. One individual expressed a strong desire to revisit the app:

P8: ... in the future, I will check again, waiting for new content and new videos because I am interested. Because I found these very interesting, and I am even more curious to understand how they will innovate more.

Interestingly, although the app has stagnated since 2016, some of the interactions were perceived as innovative. Concerning content updates, this result matches with the hedonic adaption principle (Pavliscak, 2017). Digital products need regular updates to surprise and delight, avoiding people to become accustomed to a stimulus (Nahai, 2017).

G. Purpose of the app

The second group had a shared understanding of the overall application. Two participants mentioned the app's concept as interesting. However, one individual was frustrated throughout the session because her interests were different since she was expecting to be able to purchase.

P10: We think the content is very conceptual and it has to be valued because it is a very interesting thing related to fashion.

P9: ... I never used an application like that, and what I use, I use more in online terms and are applications where I can shop online, for example.

5.4 Considerations

As reported earlier, technology is part of the designers' toolkit to engage with the consumer, according to fashion industry professionals. Nonetheless, how to take advantage of it to design for emotions remains

unclear. This study has investigated an iPad magazine through the lens of its creative director and potential users to gain a holistic view of what a digital environment entails and learn with the strategies employed.

In summary, the interview with Anne-Marie van Dongen revealed the experimental nature of HARDI magazine and illustrated how technology is embedded in the design process. Similar to the interview study findings, Anne-Marie underlined the concept as a key element in the ideation stage (vide Chapter 4, section 4.3.4). Moreover, the motivations and goals behind the project were disclosed. The target audience of the digital magazine is the fashion industry, and it aims to create a wow factor through storytelling and interactive content.

The overall experience with the app elicited opposite feelings. "A love-hate relationship," as one of the assistant moderators summarized. The participants' first impression was negative; they felt confused and frustrated due to technical issues, which could compromise the future use of the app. Other aspects that negatively impact the experience relate to usability — which hindered properly exploring the contents, stories that were not clear, inconsistent, or less interactive. This result is in line with Walter (2020), who advocates that functionality, reliability, and usability are the primary concerns of an interface — "If the user can't complete a task, they certainly won't spend much time with an application" (Walter, 2020, p. 7).

Despite the negative aspects, there was curiosity to learn how the interactions worked, suggesting that similar apps associated with fashion might arouse interest. This finding further supports the results obtained by Faria, Cunha, and Providência (2021), which demonstrate the potential of mobile apps to advertise fashion content. Furthermore, visual elements (color, characters, motion, type of content, music) were positively acknowledged as elements that capture attention, and evidence was found that some references in the app's stories (places, music) triggered positive memories.

Although the adherence to the diary forms was not ideal, it was possible to collect information regarding the context of use throughout the sessions. The results from the diaries were inconclusive, however, the data from the focus groups was found to be useful to better understand certain situations. For example, one participant said that she was at home with the tv on the first time she opened the app — this comment suggested that this could be related to why she did not hear the audio of the app.

Taken together, these results suggest that fashion can be positively promoted through interactive content. Hence, mobile apps represent opportunities to reach and engage consumers. Indeed, HARDI magazine illustrates that technology can be used to attract and amuse in different ways, through motion

and gestures, for example. Nevertheless, learning the features presented some difficulties and ultimately led participants to frustration. This duality is described by Norman (2013) as the paradox of technology. From Norman's point of view, designers must be aware that the increased benefits provided by technology can make devices more complex and thus harder to learn and use. Ultimately, the designer's role is to find a balance that will enable taking advantage of technologies and simultaneously create digital experiences that are easy to process, averting negative reactions.

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6 Creating a digital experience

This chapter tells the story of MINTY Showcase — a mobile application that results from a partnership with an online retailer named MINTY Square. It encompasses how and why the company was selected, how the partnership unfolded, and the design process. The starting point for the design project was an analysis model built from the knowledge obtained in the literature review and the findings from the two preceding studies that explored the perspectives of industry professionals and how people perceive and use digital environments, respectively.

6.1 Introduction

At this stage of the research, solving a real-world problem provided an opportunity to apply the knowledge obtained so far and uncover other aspects that could be relevant to consider in the design process. The findings from the previous chapters were synthesized in an analysis model that laid the groundwork for the development of the digital product.

The solution was envisioned for the mobile context due to the prevalence of mobile devices in Portuguese consumers' daily lives. Indeed, according to the study "Net Behavior - Portuguese Population Behavior on the Internet" conducted by PSE, a company expert in Data Science and Advanced Research, in 2018, most Portuguese used the internet for approximately two hours per day (SAPO Tek, 2019). More recently, in 2020, the e-commerce company Showroomprive examined mobile device users' behavior in Portugal and revealed the close relationship Portuguese have with their smartphones — 19% of users claim to use their device every 60 minutes to access the internet. It is also noteworthy that 38% believe that fashion apps are amongst the most appealing ones (SAPO Tek, 2020).

The intention was to explore new app design concepts and consumer engagement to enhance brands' perception, rather than mainly focus on direct sales. The latter approach was motivated by Parker's research (2018), who believes that m-Commerce apps are underexploited despite their potential (vide Chapter 2, section 2.4.4).

This chapter starts with the presentation of the analysis model and a section dedicated to curiosity and surprise, following on the interview findings. Then, the three main stages of the project are described. The company selection process is explained in phase A. Next, the activities undertaken in the organization are described in phase B, and lastly, phase C focuses on the development of the solution.

6.2 Analysis model

The analysis model displayed in Figure 49 describes the main components involved in developing a digital experience targeted to advertise fashion. It is based on the literature review and the previous studies' findings. On the one hand, the interview study demonstrated that designers should respect the brand's positioning and DNA when promoting fashion. A better comprehension of the **brand**, comprising its visual identity and personality, can avert inconsistencies and, consequently, negative emotions, as reported in the focus group sessions. On the other hand, the previously discussed emotional design models put

considerable emphasis on learning about **consumers**. Not only their behaviors and daily habits but also their emotional experiences. By doing this, the chances of reaching the target audience increase.

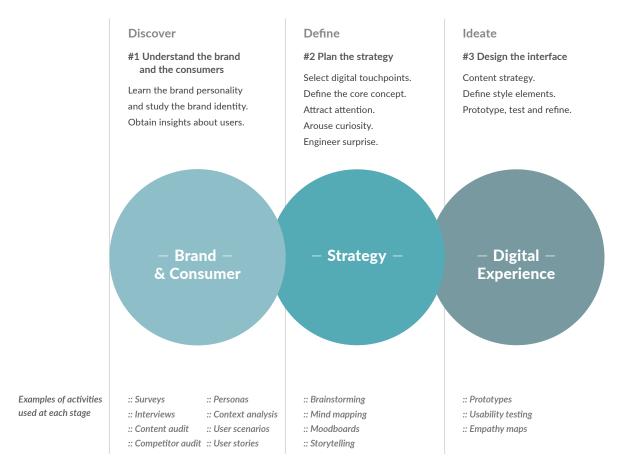


Figure 49. Analysis model for creating digital experiences to advertise fashion.

From a design thinking mindset, understanding the brand and the consumers corresponds to the discover phase. The data collected will inform the **strategic planning**, which involves selecting digital touchpoints and define the primary concept. This stage should consider the underlying emotions identified in the interview study — curiosity and surprise, as drivers to engage consumers.

Then, the ideation phase is the moment where the concept is translated into visuals and interaction. The ideas are prototyped and further validated iteratively through several methods, such as usability testing. Considering emotions in evaluations can mitigate negative reactions and ensure that the digital experience will have the intended effect.

The design process adopted in the development of the digital solution described in this chapter considered the dimensions identified in the analysis model. Hence, after establishing a partnership with a company, the aim was to study the brand and collect data about consumers before planning the strategy and developing prototypes.

6.3 Curiosity and surprise

Pervasive in human life, curiosity is a psychological phenomenon, an essential cognition element (Kidd & Hayden, 2015). From Kidd and Haydens' view, it is a drive state for information that could be internal or external, conscious or unconscious, gradually evolved, or a combination of the above. This interpretation is in line with the most well-known theory of curiosity entitled the information-gap theory (G. Loewenstein, 1994), which suggests that curiosity arises "from the perception of a gap in knowledge or understanding" (G. Loewenstein, 1994, p. 75). In other words, curiosity resembles a mental itch, "a mosquito bite on the brain" that leads to searching for new knowledge to scratch it, as Lehrer explains (2010, para. 3).

The benefits of embedding curiosity on advertising strategies have been observed in the literature. Menon and Soman (2002) outline that curiosity can contribute to design effective advertising strategies by enhancing consumer motivation and learning. Furthermore, the authors conclude that it can lead to better evaluations of advertised products. Similarly, Daume and Hüttl-Maack (2020) found that products or services are more positively evaluated when consumers experience a sense of curiosity and argue that curiosity is an influential tool to arouse interest and attract attention.

Creating or highlighting information gaps, extreme outliers, ambiguity, puzzling stimuli, and novelty are triggers commonly used to engender curiosity (Daume & Hüttl-Maack, 2020; Livio, 2017; Menon & Soman, 2002). Additionally, Tieben (2015) synthesized the principles to evoke curiosity into five categories: novelty, partial exposure, complexity, uncertainty, and conflict (Figure 50). In the context of interaction design, to induce curiosity, Anderson (2011) advises to make the information personally relevant to users, offer worthwhile promises, establish trust through previous experiences and context clues, and create the perception of mystery by using visuals.

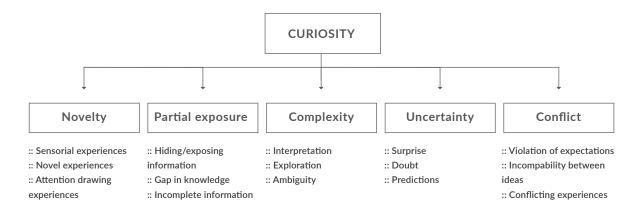


Figure 50. Five curiosity principles. Source: Adapted from Tieben (2015).

Curiosity is intertwined with surprise: "Surprise triggers curiosity, and curiosity triggers surprise" (Luna & Renninger, 2015, Get to Curious section, para. 3). Moreover, they are considered epistemic emotions, i.e., affective states that drive knowledge acquisition and knowledge generation — surprise may stimulate interest and curiosity, while curiosity supports learning and achievement (Vogl, Pekrun, Murayama, Loderer, & Schubert, 2019).

Surprise is the briefest of the seven universal emotions, arising when encountering unexpected sounds or movements. Its purpose is to help focus attention on significant events to determine whether they are dangerous or not (Ekman, n.d.). Sometimes lasting seconds, surprise quickly converts into fear, joy, sadness, anger, or other emotion congruent with the situation that triggered it (Bisquerra & Punset, 2015). Luna and Renninger (2015) built a framework named the "Surprise sequence" to aid understanding the mechanisms of surprise (Figure 51).

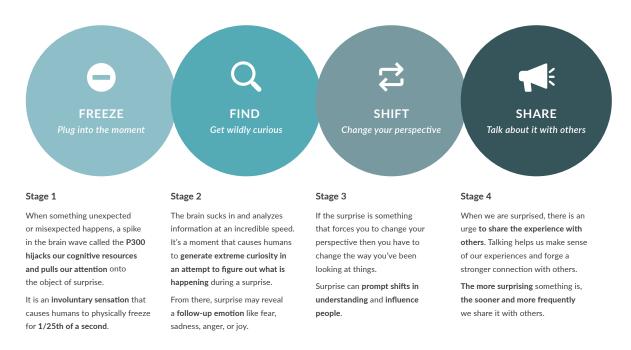


Figure 51. Surprise Sequence. Source: Synthetized from Luna and Renninger (2015).

Apart from being brief, another trait that distinguishes surprise from other emotions is that it can have positive or negative valence (J. Loewenstein, 2019). Moreover, surprise is an emotional intensifier, capable of amplifying emotions by at least 400 percent (Luna & Renninger, 2015). "Surprise is a double-edged sword, dipped in delight on one side and disappointment on the other," write Luna and Renninger (2015, Putting it all together section, para. 5).

Research into surprise has received attention in the field of product design. There is a broad agreement that surprise can be beneficial to designers. Surprise can be used as a strategy to create original

products and simultaneously capture attention, increasing recognition and stimulating word-of-mouth (Ludden, Schifferstein, & Hekkert, 2008). To Ramírez (2014), grabbing attention without conscious effort is one of the main surprise strengths. It is also a tool that can elevate products and invite engagement (Ramírez, Voerman, & Andreae, 2017).

Other authors describe the benefits of surprise. Loewenstein (2019) argues that communications crafted with surprise in mind may shift the audiences' thinking and attitudes and consequently persuade them. Regardless of the intensity (high or low), surprise turns the ordinary into extraordinary (Luna & Renninger, 2015). Planning the unexpected may transform unpleasant tasks into fun activities; make events memorable; bring a smile to peoples' faces; tell stories to enthrall listeners; and spark compelling ideas (Luna & Renninger, 2015).

Broadly, surprise occurs when something unexpected or unusual happens — novelty, interruptions, and sudden changes are some elements that can trigger surprise reactions (Bisquerra & Punset, 2015). According to Desmet (2012, p. 9), "People can be surprised by what products are, what they do (how they respond during interaction), what they can do with them, or what other people can do with them."

The strategies applied by industrial designers to create surprise relates to sensory incongruities: visual, auditory, olfactory, and tactile (Ludden et al., 2008; Ramírez et al., 2017). In addition, Ramírez (2014) identified the use of archetypes in unexpected contexts or objects, unexpected scales, magical interactions (unknown characteristics to create visual illusions), challenging assumptions of appearance, and the smart doubling of things (intention to produce a sense of aesthetics through surprise, joy, and interaction).

Notwithstanding, more approaches to stir surprise were discovered (Anderson, 2011; J. Loewenstein, 2019; Luna & Renninger, 2015). Overall, the strategies can be divided into four categories with distinct objectives: a) capture attention, b) keep attention, c) delight, and d) make experiences. Table 11 displays and summarizes the strategies for each category.

There are three aspects that Luna and Renninger (2015) highlight to engineer the unexpected. First, creative thinking — the authors advise to be curious, collect observations, reflect, and practice idea mixology by searching for connections between unrelated issues. Second, they support that ideas should be tested, improved, and refined to avert unpleasant surprises. Lastly, they recommend observing reactions to the ideas: "Do they shift uncomfortably or do their eyes light up? Do they change the conversation or pummel you with eager questions? Do you have to explain your idea from scratch or

can you compare it to something that already exists (It's like ____, but different.)?" (Luna & Renninger, 2015, Remember the seesaw section, para. 4).

Table 11. Strategies and tools to elicit surprise. Source: Synthetized from Anderson (2011), Luna and Renninger (2015) and Loewenstein (2019).

Strategies Tools	Brief description	
Interrupt patterns (Luna & Renninger, 2015)	Create a pattern, give it a twist, or find something different from what it is expected.	
	Example: designers can use a consistent color, then add a splash of something completely different.	
Create knowledge gaps (Luna & Renninger, 2015)	Display something that people do not know yet in a way that they will have to keep searching to get the answer. Example: asking questions.	
Tools of rethoric (J. Loewenstein, 2019)	Hyperbole, metaphor, and paradoxes can generate surprises for people to interpret.	
Counter-intuitive entities (J. Loewenstein, 2019)	Identify items for which a key dimension or property that seems to define an ontological kind is altered to generate surprise.	
	Examples: a talking hedgehog, a ghost.	
Produce predictable unpredictability (Luna & Renninger, 2015)	Establish an expectation that a surprise will come—though no one should know when or how.	
	Example: randomly call students to respond to questions.	
Unfolding mystery (Luna & Renninger, 2015)	Instead of presenting information all at once, reveal it little by little.	
	Example: a story.	
Under promise/Over deliver (Luna & Renninger, 2015)	Set expectations just an inch or two lower than what is planned to deliver, then give people more than they expect.	
	Example: Some companies promise a product in two days but send it overnight.	
Bury a cookie (Luna & Renninger, 2015) or Delighters (Anderson, 2011)	Leave small surprises where people aren't expecting it.	
	Example: Google's logo is redesigned at random intervals with playful images and games.	
Give just because (Luna & Renninger, 2015) or Reciprocity (Anderson, 2011)	Intensify delight by giving freely with no explanation and no expectation of getting something in return. Examples: a compliment, a gift.	
	Unite the elements of the experience with a single theme	
Create a red thread (Luna &	or recurring message.	
	Interrupt patterns (Luna & Renninger, 2015) Create knowledge gaps (Luna & Renninger, 2015) Tools of rethoric (J. Loewenstein, 2019) Counter-intuitive entities (J. Loewenstein, 2019) Produce predictable unpredictability (Luna & Renninger, 2015) Unfolding mystery (Luna & Renninger, 2015) Under promise/Over deliver (Luna & Renninger, 2015) Bury a cookie (Luna & Renninger, 2015) or Delighters (Anderson, 2011) Give just because (Luna & Renninger, 2015) or Reciprocity (Anderson, 2011)	

Objective	Strategies Tools	Brief description	
	Activate the senses (Luna & Renninger, 2015)	Enhance experiences by exciting each of the senses (especially the ones that tend to get overlooked).	
		Example: enjoyable sensory combinations.	
d) Make experiences (recipe composed of four tools based on the science of surprise)	Cocreate (Luna & Renninger, 2015)	Invite people to cocreate the experiences.	
		Example: Customized shopping.	
	Map the journey (Luna & Renninger, 2015)	Create an entrance, center, and exit for the experience. Start by introducing the read thread, creating safety and sparking wonder. Then, activate the senses, cocreate the experience, and stir surprise and suspense. End by tying up loose ends, allowing time for reflection, and leaving a question to linger.	

6.4 Phase A: company selection process

Farfetch and MINTY Square were the two Portuguese companies that were envisioned for the partnership. Both are e-commerce marketplaces that sell fashion brands. Selecting multi-brand retailers was a purposeful choice to broaden the project's scope — the more brands available, the more flexibility to try different ideas.

The next step was making a compelling value proposition. With the Value Proposition Canvas (Osterwalder, Pigneur, Smith, & Bernarda, 2014) in mind, it was possible to deepen the understanding of each company and clarify how the project could benefit them. Figure 52 shows one of the Value Proposition Canvas developed.

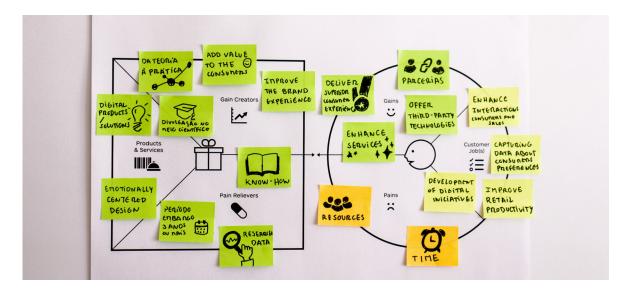


Figure 52. Value Proposition Canvas.

Once the value proposition was established, a presentation to communicate the idea was prepared (Appendices 6.1 and 6.2). David Beckett's (2018) practices and practical tools to aid scripting, designing, and delivering short pitches were taken into account to present the message in a compelling and impactful way.

The meetings were scheduled with the companies by email. Both took place in May 2019 at the company's headquarters in Porto. Despite the lively conversation with two spokespersons from Farfetch, it was not possible going forward due to corporate policies. Conversely, the CEOs of MINTY Square willingly accepted to be part of the project.

6.5 Phase B: MINTY Square

MINTY Square is a pure click retailer, i.e., an online-only company that does not have a physical store presence (Harris, 2017). Founded in 2015 by João Figueiredo and Ana Cravo, the online platform aims to promote upcoming Portuguese designers and independent brands, bringing them closer to consumers.

The first stage of the project focused on understanding the dynamics of the organization by examining its values, strategies, and clients. Moreover, it was also aimed to identify opportunities and start to devise a strategy (the signed consent to publish the data from the company can be found in Appendix 6.3). The subsequent paragraphs describe the activities that were conducted throughout the partnership.

6.5.1 Immersion week

A week was entirely devoted to working at the online retailer headquarters to absorb the environment as much as possible. The planning was sent in advance to the company and acted as a guide (Appendix 6.4). In addition to this, a Non-Disclosure Agreement that provided information about what was considered confidential and the obligations involved was prepared (Appendix 6.5).

During the week, the researcher had the opportunity to speak with people from all the company departments. A thorough report of the collected information was written — the document is not included in the thesis for confidentiality reasons. Nevertheless, some key takeaways are disclosed:

- The product images are sent to MINTY. For visual consistency, the photos are edited before being published on the website;
- Apart from the website, the company is on Facebook, Instagram, Twitter, and LinkedIn to communicate with customers being more active on Instagram. According to the chief operations officer, the feedback from social media relates mostly to orders.
 The newsletter is also another digital touchpoint;

• The target demographic is mostly females aged 28-45 (see Figure 53), who are fashion-conscious and do not buy out of necessity. They shop to stand out and thus look for clothes that are not easily found;

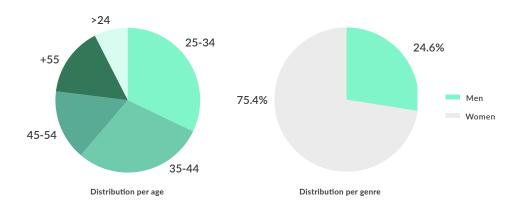


Figure 53. Platform demographics: distribution per age and gender. Data retrieved in October 2019.

 Consumers resort mainly to smartphones to visit the website, but they use the computer and the smartphone almost equally to purchase. It seems that the less used device is the tablet (see Figure 54);

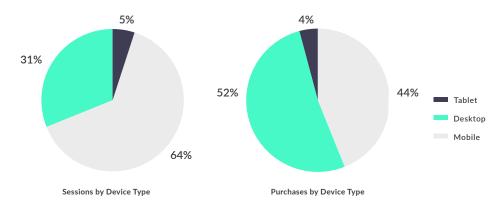


Figure 54. Online metrics from the website regarding the type of device: sessions (on the left) and purchases (on the right). Data retrieved in October 2019.

- MINTY also has a B2B solution that includes several services, namely: web design
 and development; infrastructure management; customer service; shipping and logistics; performance marketing, among others;
- On the last day, CEO Ana Cravo clarified the reason behind the name of the company. She enlightened that is related to the literal meaning of the words. "Minty" means mint, something fresh, and "Square" is an area in a city or a town. Altogether, these two words reflect the company's core purpose, i.e., discovering new talents and showcasing their work to the world from one single place.

Additionally, while speaking with the teams, some issues that could be improved arose. They were written down and further discussed on the last day of the week devoted to a Creative Jam Session, which is described next.

6.5.2 Creative Jam Session

An ideation session entitled "Creative Jam Session" was scheduled for the last day in the afternoon. It was attended by a group of five: four elements from MINTY — one web designer, two members from the team of brand communication and strategy, and the chief operations officer, and the researcher who was responsible for facilitation. Unfortunately, the CEOs could not attend, but they were acquainted with the results afterward.

The affinity diagram was the visual technique used in the session (see Figure 55). Also known as the K-J method, it is an inductive technique that aids in organizing and synthesizing ideas. The main benefit of this approach is finding potentially hidden associations and patterns in disconnected information (Sauro, 2016).

The session aimed to map opportunities and explore new concepts. "How can communication be enhanced with interactivity?" was the starting question posed to the group. The ideas were varied and were not limited to digital media. They were clustered in six groups that are briefly described below (see Appendix 6.6 for a detailed report):

- "Sustainability." The observations revealed a concern to make the customer aware of sustainability. Some ideas included reusable packaging and creating a sustainability manifesto;
- 2. "Blah, blah," The ideas within this group acknowledge the importance of social proof. Including reviews on the website was one of the suggestions;
- 3. "Storytelling." This was one of the groups that combined more post-it notes alongside "100% MINTY," and "offline strategies." Several ideas were expressed to tell the story of the brands, designers, and its collections, e.g., inviting fashion storytellers to write in a blog;
- 4. "Engaging brands." This group encompasses ideas to enhance the relationship of the company with the brands: co-creation and launching campaigns, for example;
- "100% MINTY." The ideas focused on ways to improve the communication of the company as a marketplace with personalized product recommendations, as a case in point;

6. "Offline strategies." Bring MINTY closer to the customers was the motto of this group. Pop-up retail and promoting events such as a press day were two of the initiatives that were mentioned.



Figure 55. Affinity diagramming at MINTY Square.

At the end, the group was asked to think of brands that might cooperate in the project, compile a list and send it afterward. It should be noted that the group revealed that they had never put an affinity diagram together before, and they recognized the potential of this type of technique. With all the ideas sorted out, the next step was to reflect on the results and think about concrete solutions. It was decided that the theme with the most potential was "Storytelling."

6.5.3 Brand selection process

Shortly after the Creative Jam Session, MINTY sent a list with twelve fashion brands: nine menswear/ womenswear and three kidswear. Each brand was thoroughly analyzed through its website and social media. The selection process considered the brand's DNA, its imagery, and its location as well — brands with headquarters in the north of the country were privileged for facilitating traveling. Also, the selected brands should be very distinctive from one another to promote experimentation with different concepts.

The chosen brands were Barn of Monkeys, Carla Pontes, and Perff Studio. Selecting three brands was a conscious decision due to time constraints and available resources. The first contact with the brands was mediated through MINTY that explained the purpose of the research to them. The feedback was positive, and so the collaboration began.

6.5.4 About the brands

Firstly, MINTY sent the imagery they had from the brands: photographs from the campaigns, product images, and logos. In the meantime, attempts to schedule meetings with the brands were made to provide more details about the project, gather content, and brainstorm. Nonetheless, MINTY did not allow to reach the brands directly due to corporate policies.

Therefore, to learn more about the brands, a questionnaire was built. It probed for the brand's identity, i.e., "how the brand defines itself, its values, its know-how, its personality" (Kapferer, 2012, p. 243); consumers' insights and contents the brands feel are relevant to tell their story (see Table 12).

Table 12. Key constructs used to build questions for the survey.

Question	Constructs	
How did the name of the brand come up?	Brand names (Kapferer, 2012)	
If the brand was a person, how would it be like in real life?	Brand Personality (Keller, 2013)	
Mention five important facts about the brand for the consumer.	Brand Identity (Kapferer, 2012)	
What is the feedback about the brand?	Brand Image (Kapferer, 2012)	
If a publisher was writing a book about the brand, what themes would you like to see covered in each chapter?	Visual Storytelling (Walter & Gioglio, 2014)	

After creating the form in the online platform Typeform (typeform.com), the URL was sent to MINTY, which forward it to the brands. All of them answered it — Barn of Monkeys and Perff Studio gave extended answers compared to Carla Pontes. The answers can be seen in Appendix 6.7.

6.6 Phase C: Digital product development

6.6.1 Strategy and design aim

The purpose of the digital strategy was to build brand awareness through a product that motivates consumers to search for information about the brands commercialized by MINTY Square and, consequently, the online retailer itself. The intention was to add value to current consumers of MINTY but also to attract new ones. Creating a lab to explore the use of interactivity to tell compelling stories was another intended outcome.

6.6.2 The MINTY Showcase concept

Despite the significant percentage of customers that visit and shop MINTY Square through their smart-phones, as previously shown in Figure 53, the retailer does not have a mobile app. This gap was also recognized in the first stage of the project (phase A: company selection process) while researching to fill the Value Proposition Canvas.

Therefore, a mobile app was the digital touchpoint selected to tell the brands' stories, following up on the theme that had emerged in the Creative Jam Session, i.e., storytelling. The name "MINTY Showcase" derives from the app's purpose — to showcase Portuguese fashion talents in a single place.

Nevertheless, one question arose: "Do consumers want the product?". Although this question is closely related to marketing, it is vital to answer it before building the product to avoid wasting time, resources, and energy (Sharon, 2016). To know if people want a product, they must know about it, understand its value, and agree with its cost (Sharon, 2016). Thus, to answer the question, an MVP (Minimum Viable Product) needs to be created to validate or invalidate the product idea — this is in line with a lean UX mindset (vide Chapter 3, section 3.5.2). However, the approach taken with MINTY Showcase required a more high-fidelity prototype version due to gestures and animations. The analysis of the MVP is covered in Chapter 7.

The prototype was built in collaboration with a developer after the signing of a Non-Disclosure Agreement to guarantee the secrecy of the project (Appendix 6.8). His role consisted of understanding the MVP, interpreting the designs, providing insights to the platform's environment with examples such as possible animations, transitions, and available sensors. Also, designing a plan of execution and discussing limitations of the platform and time constraints, suggesting readjustments to the iOS mobile context, and lastly, development and all things related to it (readjustments, tweaks).

6.6.3 MVP development

Creating a solution that combined three different brands with distinct visuals in the same app, following MINTY Square's design guidelines at the same time, was one of the challenges. In this way, a set of patterns to coherently organize the content was needed, i.e., a design system. Though, before moving to the content strategy and define style elements, a few grounding design principles and values were established based on the purpose of the product:

- Simple, fast, and smooth interactions to navigate with ease;
- Clear and visible actions to guide and encourage people to explore the content;
- Rich animations and mobile gestures to entertain, inspire, and make experiences livelier.

Defining the functional patterns was the next step. Kholmatova (2017) explains that a design system contains several kinds of patterns, but she focuses on two specific types: functional and perceptual. The first refers to concrete modules of the interface (e.g., a button, a header, a menu). In contrast, the second type "are descriptive styles that express and communicate the personality of the product visually, such as color and typography, iconography, shapes and animations" (Kholmatova, 2017, p. 39). The author acknowledges that functional patterns should be defined early in the design process because they can prevent duplication as the product evolves.

6.6.4 Functional patterns

Since the app's ethos is to display brands, the definition of the functional patterns focused primarily on two areas: discovering designers/independent brands and finding information about them. Then, possible pattern structures were drawn to aid understanding how the modules could work (see Figure 56). Each pattern was given a metaphorical name that communicates its purpose. Three main patterns were defined: i) Spotlight: a carousel designed to show the brands listing; ii) Brand index: a module to display the brand page; and iii) Chapters: a piece of content related to the brand.

A carousel design pattern was adopted as the core of the app because it is a solution that encourages users to continue exploring by suggesting additional content that is not currently visible (UI-Patterns, n.d.) and thus meets the design principles established. The usability guidelines of Nielsen Norman Group on designing mobile carousels (Budiu, 2018) were taken into account.

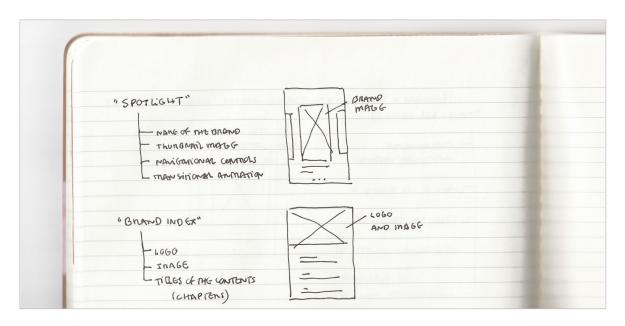


Figure 56. The content structure for the "Spotlight" and "Brand index" modules.

The system started to become more visible. Each brand would contain chapters that would follow the same structure. The first part would include the chapters' title and a button to access the content, navigational controls to see the different views of the story, and the brand's logo in the end (see Figure 57).

Apart from the patterns above, onboarding screens were designed to familiarize consumers with the app, presenting its benefits and main features. Lastly, a menu with information about the app's concept and notifications (an area that would inform users each time new content is published) was created.

After defining the modules, while visual explorations were made, the developer started to develop the prototype with the defined pattern structures. Each week a meeting was scheduled to discuss ideas and work on the MVP.

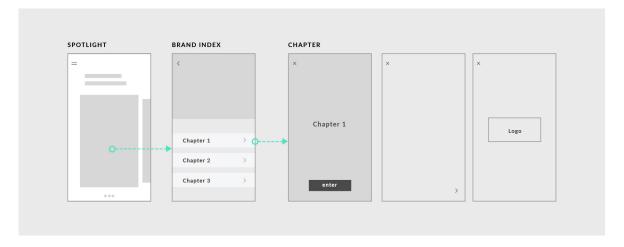


Figure 57. Functional patterns.

6.6.5 Perceptual patterns

A mood board created digitally was used to explore perceptual patterns (see Figure 58). At this stage, the patterns of each brand and from MINTY Square were simultaneously identified — voice and tone, color, typography, illustrations, and photography.

After systematizing the perceptual patterns, the app's aesthetic qualities were studied. The app should look and feel like MINTY Square but neutral enough to let the brands' content be noticed. Sketch App was the professional tool used to design the interface — an entirely vector-based software focused on user interface design.

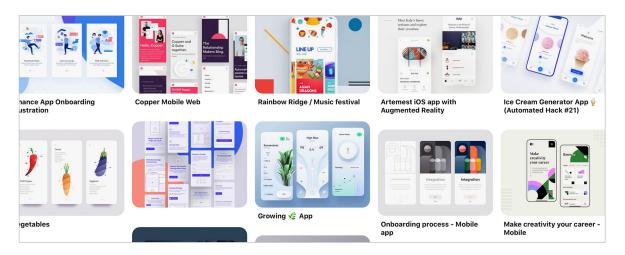


Figure 58. Mood board created with Pinterest.

In this stage, the app's aesthetics was defined to be the same for the modules "Spotlight" and "Brand Index" by applying the design guidelines of MINTY Square in terms of fonts and colors (see Figure 59 and 60). Conversely, the "Chapters" would follow the aesthetics of the respective brand. The idea was to create distinct worlds interconnected through the established functional patterns (Figure 61).

Embracing different brand personalities also meant more opportunities to understand what strategies would be best to apply and how they could be shaped to communicate distinctive messages. The subsequent section examines the foundations of the app beyond style properties.

6.6.6 Designing for emotion

The ideas for the stories were partly generated from the answers to the questionnaires sent to the brands to learn more about their values and personalities (vide section 6.5.4). The contents were selected from MINTY's materials and the web. Concerning the interactions, they were designed to engage consumers by evoking surprise and curiosity. The practices and strategies learned from the

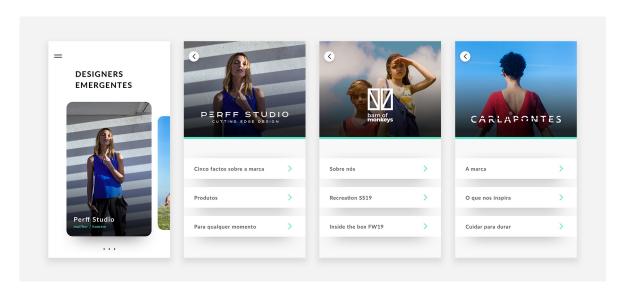


Figure 59. Examples of the design guidelines of MINTY Square applied in the app.

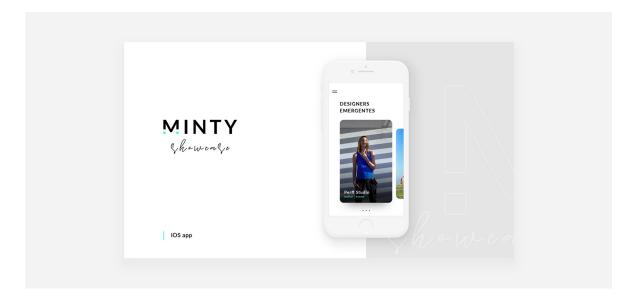


Figure 60. MINTY Showcase.



Figure 61. Examples of "Chapters." The same structure with different aesthetics for each brand.

literature (vide section 6.3 and Chapter 3), and the findings from the previous studies (vide Chapters 4 and 5) influenced the design directions, namely:

- Animation and video to increase arousal and attract peoples' attention through movement;
- Image, form, contrast, and color artfully combined to display the contents appealingly;
- Use of interactivity for narrative purposes;
- Gestures (swipe, tap, shake, pan) and sensors (gyroscope; microphone) to enrich content, arousing curiosity and surprise through unexpected interactions;
- Concise content, writing, and instructions;

The ideas for the interactions were sketched on paper (see Figure 62) and further discussed with the developer to ensure their feasibility. Each content was planned to display a clear message, and the interactive features should match the brand's ethos. Hence, vivid colors and gamification conveyed the cheerful spirit of Barn of Monkeys. At the same time, Carla Pontes' beauty and inspirations are communicated through a horizontal scroll view with aspirational imagery and smooth interactions. In contrast, the sports brand Perff Studio strived for movement and pictures that highlighted their clothes' technical properties. The interactive features of the apps' stories are outlined in Appendix 6.9.



Figure 62. Putting ideas on paper.

Moreover, written instructions, illustrations, and moving images were used to demonstrate gestures to avoid negative feelings that could arise from users not being familiar with the different types of gesture interactions.

6.6.7 Notes on the prototype

The prototype was created using the latest technology available for iOS for the Model-View-Controller pattern. It was written 100% in Swift 5.2, the latest version at the time of the open-source programming language developed by Apple and the "golden boy" for writing iOS apps at the moment (Apple Inc., n.d.).

Swift is a native language, meaning that everything is written to run natively without the need for conversion, which tends to lead to better performance (Computer Hope, 2017). All data (images and text) were stored locally on a database or hardcoded on local variables, meaning that no internet connection was required to run the app after it was installed. This approach was feasible for this MVP only due to memory constraints.

6.7 Considerations

An overview of the research activities conducted at MINTY Square has revealed that being daily immersed in the company enabled to learn the internal dynamics, uncover useful information about its communication strategies, and identify opportunities. However, the data collected was limited. The lack of information about the consumers and the brands averted the prototype from reaching its full potential. Being in contact with the brands could have enriched the digital product at several levels, not only in terms of content diversity but also in ideation.

Conversely, the collaboration with the developer in the early stages of the project and during the development of the prototype brought substantial benefits: acknowledging the technology's restrictions and possibilities made the product ideation more fluid. When generating ideas for gesture interactions, many sources of inspiration were not found on the web — this might indicate that it is an overlooked area. Nonetheless, animations, gestures, and sensors were used to seduce and entertain, among other elements carefully compiled in a high-fidelity prototype.

Although the theoretical knowledge from the previous chapters proved useful to design the mobile app, the analysis model that served as a basis for developing the digital product was unsatisfactory because it offered no guidance when obstacles arose during the design process. Hence, the model was re-evaluated and further refined. The final result is presented in Chapter 8.

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7 Showcase app: an analysis of users' and brands' perceptions

This chapter captures the users' perceptions of the mobile application developed in the previous chapter. It encompasses two studies: a usability test with potential consumers and an interview study with spokespersons from the brands that agreed to cooperate in the project. The procedures regarding both studies are outlined. The usability tests include the development of the test plan and the recruitment of participants, while the interview guide for the second study is described. The collected data focused on emotions provided valuable insights into the user experience with mobile fashion apps.

7.1 Introduction

As reported in the previous chapter, a partnership was established with the online retailer MINTY Square. The data collected through the company and the knowledge accumulated from the preceding chapters supported prototyping a mobile app entitled MINTY Showcase. Despite the groundwork undertaken, the concept of the app was based on assumptions and thus needed validation. Following the Lean UX mindset, the next step was to validate the MVP through peoples' feedback, learn with the data collected, develop ideas, and iterate (Gothelf & Seiden, 2016).

Two studies were conducted to validate the digital solution. On the one hand, understanding if consumers want the product, if they can use it, and their engagement level was of paramount importance to determine if it would be worth building the app. Hence, the **first study** considered the perceptions of potential consumers. On the other hand, having the viewpoints of the brand's spokespersons involved in the project would be equally relevant to access their interest in the digital solution. Thus, the **second study** focused on brand representatives.

Apart from validating the product idea, **study 1** also aimed to verify if the design strategies adopted elicited positive emotions, learn how fashion promotion can be enhanced by interactivity and understand the consumers' relationship with touchscreen interactions, and map digital fashion opportunities.

7.2 Methodology

Qualitative usability testing aligned with the purpose of the **first study**. It is an observational methodology to collect insights about an individual's experience with a product as it helps to identify usability problems, discover opportunities, and learn about users (Moran, 2019). A post-test interview and a controlled vocabulary exercise were applied to uncover intangible emotional responses and other aspects of the user experience. The triangulation of the data collected from observation, interview, and vocabulary activity will help comprehend participants' perceptions. This issue and all the aspects around the usability test are explored in greater detail in the next subsections.

A structured interview was the data collection strategy selected to understand the brand's perspective of the product concept in **study 2**. The standardized ways of asking questions that characterize this technique ensure that the interviewees' replies can be aggregated and further compared (Brinkmann, 2013; Bryman, 2012).

7.2.1 Research questions

In **study 1**, the end-to-end experience with the app was intended to be measured at various levels and thus provide qualitative data to answer the research questions presented in Table 13. Brand personality and the user engagement factors measured in the User Engagement Scale — a multi-dimensional scale employed in several digital domains (O'Brien, Cairns, & Hall, 2018; O'Brien & Toms, 2010), were the selected dimensions for this study.

Table 13. Elements, research questions and dimensions of study 1.

Elements	Research questions	Dimensions	
	What is the participants' impression of the visual design?	Aesthetic appeal (O'Brien et al.,	
Layout and visual design	Do they find it interesting and appealing?	2018)	
	Does the visual design express the brands' personality?	Brand Personality (Keller, 2013)	
	Does it adequately communicate what they can do with the app?		
	Can they navigate to where they want to go quickly and efficiently?	Perceived usability (O'Brien et al., 2018)	
Navigation and information architecture	Are the instructions clear?		
	Do participants understand the content?	_	
	Do the participants' feel "in charge" over their experience with the app?	_	
	Are the interactions fun?	Felt involvement (O'Brien et al., 2018)	
	Do they grab participants' attention?	– Novelty (O'Brien et al., 2018)	
Intangible emotional responses	Do they arouse participants' curiosity?		
	Are the features unexpected, surprising, new or unfamiliar to participants?	-	
Overall perception and motivation	What are participants' overall impressions of the app?		
	Are participants willing to use the app further?	Endurability (O'Brien et al., 2018)	
	Do they recommend it to others?		

Concerning **study 2**, to see the brand representatives' point of view, the following research questions were considered: Are brands willing to invest in this type of product? What is their take on this type of application? What kind of impact can interactivity have in the communication of the brands?

7.2.2 Data collection procedures

The usability test session planned for the first study comprised five parts: i) introduction, ii) pre-test interview, iii) tasks, iv) post-test interview, and v) word choice. The discussion guide can be found in Appendix 7.1.

The beginning of the sessions was dedicated to informing the participants about the study, installing the mobile app, and setting up the screen-sharing tool. Secondly, four test-scenarios were formed, and a set of tasks were read and assigned to users during the test. The first scenario was designed to capture initial impressions in agreement with Barnum (2011). The participants were instructed to examine the first screen and share their first impressions by answering questions such as: What do you think you can do here? What kind of information are you expecting? The three remaining scenarios were created to encourage participants to explore different app contents, one scenario per brand.

In the post-test interview, users were asked to answer seven open-ended questions about their experience using the app. Afterward, they were asked to choose descriptive words from a specific set that best reflected their overall experience. This qualitative feedback is commonly known as the Microsoft Reaction Card Method (vide Chapter 3, section 3.4.2 for projective techniques). The method was adapted to the online setting of the study accordingly. Table 14 shows the 28 words selected according to the study goals. The list included diverse words: positive (13), negative (10) and neutral (5). Aside from the neutral, it was aimed to have at least 40% of negative words in the remaining set to avoid bias (Benedek & Miner, 2003; Moran, 2016).

Table 14. Modified word list.

Positive	Negative	Neutral
Clean	Useless	Cheap
Inspiring	Ordinary	Control
Attractive	Slow	Flexible
Easy to use	Expected	Expensive
Fun	Hard to use	Unpredictable
Innovative	Boring	
Sophisticated	Outdated	
Curious	Annoying	
Pleasant	Confusing	
Fast	Unpleasant	

Positive	Negative	Neutral
Organized		
Interesting		
Useful		

Compared to the first study, the interview approach taken to **study 2** was slightly different because its purpose was more straightforward (see Table 15). Instead of understanding the end-to-end experience with the app, the aim was to examine a possible interest in investing in the mobile app and the brands' perceptions of the impact of this type of digital solutions in fashion. Consequently, the questions were more specific and were read in the same order to all the interviewees (see Appendix 7.2 for the discussion guide).

Table 15. Questions from the interview guide and topics of interest.

Question	Topic
In a few sentences, how would you describe this application to someone?	Overall perception
Mention two things you liked about the application.	Positive attributes
Mention two things you didn't like.	Negative attributes
Compared to other fashion mobile apps (e.g., Farfetch, Zara, Parfois, etc.), what is your opinion about this app?	Product comparison
What kind of benefits do you think the production of this type of content can bring to the brand's communication? And for the consumer?	Benefits of interactive content for brands and consumers
What is the relevance of this type of application to the brand communication of [name of the brand]?	Idea validation

7.2.3 Participants

The first study was planned to encompass two audience groups: 1) five participants that frequently shop online, representing a set of potential future clients, and 2) five clients from MINTY Square. In contrast, the second study aimed to interview three representatives from each brand that cooperated in the project. MINTY Square agreed to aid with the recruitment of clients and organize the sessions with the brands. Two sessions with representatives of Carla Pontes and Barn of Monkeys were successfully scheduled. However, despite several attempts to contact Perff Studio, there was no reply, and thus it was not possible to schedule the interview with the brand.

Simultaneously, a list of potential consumers was made through a screener that contained questions to determine whether they fit into the selection criteria. The survey was posted on social media and was disseminated among the students at the University of Minho by email. The qualified applicants were recruited based on their online shopping habits and experience with iOS devices. Moreover, the wide variety of backgrounds could mean gaining several perspectives. Roles included teachers from distinct subjects, students, designers, among others.

In the meantime, a setback regarding MINTY Square clients' led to promoting a new recruitment process. The difficulties in finding participants lead to rethinking the audiences. Instead of two, it was going to be only one audience for study 1 — potential users. Figure 63 displays the target audiences for each study.

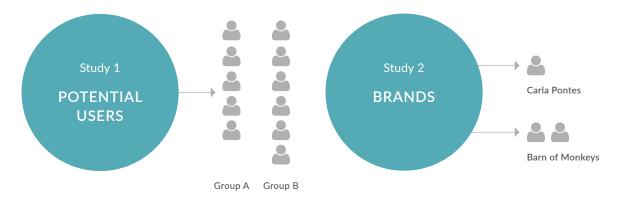


Figure 63. Target audiences for study 1 and 2.

The interviews with the representatives of Carla Pontes and Barn of Monkeys were scheduled for April 2020, and eleven participants completed the usability tests in two rounds. The first round was with five people, and the second with six. The first round was involved in testing between April 17th and April 29th, and the second from May 25th and June 25th (see Table 16).

Table 16. Detail	s about the	participants	from the	usability tests.

Group	Gender	Age	Occupation	Date of the session
	Female	30	Kindergarten teacher	17/04/2020
	Female	36	Fashion designer	21/04/2020
A	Female	19	University Law student	24/04/2020
	Female	29	Graphic designer	25/04/2020
	Male	31	Biology and Geology teacher	29/04/2020
_	Male	24	Graphic designer	25/05/2020
В	Female	29	Womenswear buyer	27/05/2020

Group	Gender	Age	Occupation	Date of the session
	Female	27	Social media manager	27/05/2020
В	Female	25	Transport and customer service specialist	28/05/2020
В	Female	21	University Biomedical Engineering student	05/06/2020
	Female	32	Management control	25/06/2020

7.2.4 The prototype

TestFlight was the tool used to share the prototype with the participants in the usability testing sessions. It is a native tool provided by Apple so that developers can distribute apps for beta testing. It is a part of the Apple Store Connect platform, which is how apps are distributed to the Apple Store. It provides basic bug reporting tools and analytics and allows inviting internal testers, external invite-only testers, and public testing without invite required (Apple Inc., n.d.).

External invite-only testing was used to invite specific participants who had already agreed to the terms and conditions of the study. This way, the app distribution was always done OTA (over-the-air, meaning no wires required), allowing testers to not be in the researcher's presence.

7.2.5 Pilot testing

Similar to a play, usability testing entails a dress rehearsal to avoid surprises (Barnum, 2011). Identifying and solving technical issues with the online tools or the MVP that could cause delays or disrupt the testing was the pilot test's purpose for **study 1**. It also helped to refine the questions, ensure the scenarios' clarity, and get a sense of how long the session would take. An issue regarding the MVP was encountered and fixed immediately. The other changes needed were not significant, so the study included the pilot findings. Furthermore, the interview questions for **study 2** were pilot tested with colleagues to learn if they were clear and appropriate.

7.2.6 Sessions

Both studies were performed remotely using Zoom, which is a cloud-based video communications platform. Its core features allowed the participants to share their iPhone screens, face, and voice simultaneously. The platform also enabled to record the meetings and send content to the participants through the in-app chat.

Remote testing has substantial advantages as they are less expensive than in-person studies, less time-consuming, and more convenient for participants who do not need to travel (Moran & Pernice,

2020) — this applies to interviewers as well. A Non-Disclosure Agreement and a combined informed and recording consent form was sent to the participants in advance (Appendices 7.3 and 7.4).

To moderate the usability tests, the researcher followed the guidelines and techniques proposed by Rubin and Chisnell (2008), Krug (2010), Barnum (2011), and Nielsen Norman Group (Nielsen, 2012; Pernice, 2014). Being impartial, probe, and interact appropriately with participants, providing assistance only when is needed were some of the guidelines considered. Moreover, think-aloud, eco, and boomerang were some of the practical techniques used.

Concerning study 2, an invitation was sent to the brand representatives the day before the session to install the app if they wanted to explore it in advance. Nevertheless, the brand spokespersons had some time to explore the app before the interview and were also encouraged to think aloud while they were exploring the contents. Subsequently, the interview questions were read in the same order to all the interviewees.

7.2.7 Analysis and interpretation

A preliminary analysis was conducted between the first and the second round of usability testing to identify the worst problems regarding usability and decide which ones would be fixed before starting the next round. A more comprehensive analysis was undertaken after collecting the data from both rounds and the interviews with the brand spokespersons. The results from both studies were analyzed individually.

The data collected alongside notes written during and after each session was compiled, following the same principles adopted in previous studies. The recording files were backed up, transcribed, and imported to NVivo (vide Chapter 4, section 4.2.6 for transcription guidelines). Proper names were removed from both studies to protect the participants' anonymity — in the **first study**, the identification of the individuals was replaced by the letter "P" followed by the correspondent session number (e.g., P1). In contrast, in **study 2**, the brands' initials were used, i.e., CP for Carla Pontes spokesperson, and BM1 and BM2 for Barn of Monkeys representatives.

The preliminary explorations of each data source encompassed reading the transcripts, watching the video recordings, reflecting, and recording analytic comments to become acquainted with the data. Special attention was paid to verbal and nonverbal cues while observing the videos to aid decoding emotion and body language expressions (Luna & Renninger, 2015; Shariat & Saucier, 2017).

The coding strategies adopted in the **first study** were similar to the ones from prior studies. Some codes were aggregated based on each part of the usability test plan (Table 17). Furthermore, others

were structured to facilitate answers to specific data questions (vide Chapter 5, section 5.2.6). For example, a code for each interactive feature was created, and positive and negative outcomes were grouped to examine the impact of the product through a matrix coding query. Throughout the analysis, additional analytical clusters were developed — the codebook is displayed in Appendix 7.5.

Table 17. Summary list of initial codes and the corresponding part of the usability test plan.

Category	Part of the test session
About the users	Pre-test interview
App impressions	Tasks
Emotional responses	Tasks
Brand personality	Tasks
Product concept	Post-test interview
Positioning	Post-test interview
Motivation	Post-test interview
Group 1 Microsoft Reaction Card	Word choice
Group 2 Microsoft Reaction Card	Word choice

After labeling the data sources, to take the analysis further, the next step was to explore similarities and differences across cases, establish connections and write descriptive summaries. The purpose was to identify patterns that could help to understand the underlying mechanisms of user experience and find opportunities.

In the **second study**, the broad codes were mostly based on the interview questions. Other categories were also developed to group the interviewees' comments while exploring the mobile app (Appendix 7.6 presents the code system). Afterward, reflections on the themes, analytical writing, and comparisons across cases provided clarifications to answer the research questions.

7.3 Presentation and discussion of findings

This section is organized as follows: it begins by examining the results from the usability testing sessions and then addresses the interview findings with the brand representatives. Data visualizations such as tables, word clouds, and radar plots display the qualitative data, and screen captures of the mobile

app support the presentation. The interview quotes were translated using the procedures from previous studies (vide Chapter 4, section 4.3).

7.3.1 Study 1: Potential users

Between usability rounds, the prototype and the discussion guide were modified to improve the study's outcomes. From the preliminary analysis of the first round of tests, a set of recommendations and changes were compiled to improve the overall experience and address the areas where participants experienced problems or found the information unclear. Table 18 shows the improvements suggested, including change nomenclatures, make the animations more noticeable, and meet users' expectations.

Table 18. Recommended changes and explanations.

Observation	Recommendations
In the section "At any moment" participants felt the lack of a redo.	Add a reset button.
Recreation 3D animation was not noticed.	Add an animation to make the effect more visible.
Participants tried to build something with the boxes.	Add letters to the boxes to form a word.
The app was considered incomplete because it does not provide a way to buy.	Place a call to action at the end of each section.
	Change the menu item "Emergent Designers" to "Home."
There were some misconceptions about some contents.	Change the titles in the section "Take Care."
	Change the icon from "Take Care."

The changes made in the prototype did not have a significant impact on the participants' perceptions. Conversely, the improved version of the discussion guide enabled to collect adequate data (see Appendix 7.7). At the end of each scenario was added a product reaction card activity to prevent scattered answers regarding how users perceived the brands. Thus, they were asked to choose three personality traits from a given list and justify their choices. The word list was based on Aaker's Brand Personality scale (Aaker, 1997).

The findings below combined both rounds and discuss the highlights found for each of the elements previously defined to answer the research questions (layout and visual design; navigation and information architecture; intangible emotional responses; overall perception, and motivation). Table 19 summarizes the main results from the usability sessions.

Table 19. Main results from the usability tests.

Elements	Main result	Positive / Negative aspects	
a) Layout and visual design	 Most of the participants positively commented on the layout and visual design. There was a shared understanding of the brand personalities. There were associations between the brands and the interactive features. 	 The app was considered pleasant, clean and organized. Animated images, videos, colors, pictures, and some layouts attracted attention. Shake gesture and the scratch effect were thought to be childish and adequate to kidswear brands. Shake gesture was also associated with movement, and it was linked to sports. 	
b) Navigation and information architecture	 The product was considered straightforward, fast, and easy to use. Leaving the app to visit external websites caused difficulties. The use of many different gesture controls can create confusion. When the app did not correspond the users' expectations the feedback was negative. Evidence of hedonic and utilitarian needs was found. 	 Participants seemed lost and confused when they wanted to return to the app after visiting the brands' website. The time spent on the website might be a indicator of interest in the brand. Overall, no critical difficulties were observed. A few instructions for some pieces of the stories were not fully understood. Some contents were unnoticed. Disappointment was caused for not being able to move backward through the screens within the stories. Not being able to purchase was considered a negative aspect. 	
c) Intangible emotional responses	 The interactive features provided fun and triggered surprise and curiosity. The displayed brands also created interest: they were new to most participants. Motivations and personal interests influenced perceptions. A few participants were unaffected by some gestures because they were familiar to them. 	 Some contents elicited pleasant and unpleasant surprises. Repeated exposure to the same stimuli merged into boredom. Surprise can be a distraction. The blow feature, the scratch effect and the tilt were positively appraised. Confusion was caused by lack of cues. Curiosity arose a desire for learning more about the brands. 	
d) Overall perception and motivation	 Overall, the experience with the app was positive. The product reaction card exercise reinforces the previous findings. Participants value information about the brands. Being able to purchase can influence future use of the app and recommendations. 	 The number of words used to describe th app experience: 17 positive, 4 negative, and 3 neutral. Displaying Portuguese brands generated interest in Group 2. Interaction, being unusual and presenting distinct brands were the reasons given by the users who recommended the app. The consumers who do not recommend the app consider that it is not useful. 	

A. Layout and visual design

The majority of participants mentioned the app was pleasant, clean, and organized at some point in the discussion — this was visible during the interview and in the Microsoft Reaction Card exercise.

P5: It's clean because it's indeed a very simplistic application. There are no excessive buttons, excessive menus, no, in this aspect it's very clean, I like that.

P10: It's very organized.

P11: I think the application has no major distractions, it's neat, it's clean.

Some elements that attracted attention were identified, such as animated images, videos, colors, and high-quality pictures. Another issue that caused interest was the app being highly visual and concise, with little text information. In particular, two layouts seemed to have pleased the participants — the horizontal scroll view that displays Carla Pontes' inspirations (Figure 64) and the polaroid animation of Perff Studio (Figure 65).

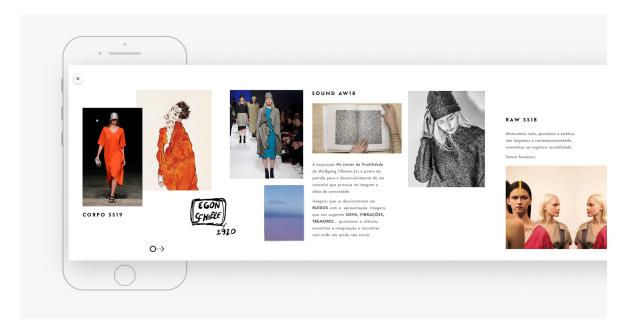


Figure 64. Horizontal scroll view from the story "Inspirations."

P1: This part is cool, because you can have all the information on the screen, you don't need to move back and forth (Figure 64).

P7: It's good to have videos. I like to see animated images and this image also makes a difference because it has movement (Figure 64).

P2: I find interesting this way of presenting (Figure 65).

P6: I find this interaction interesting. I would tap for a long time (Figure 65).

P9: It's interesting to see this, not by studio photography but by photographs of people outdoors wearing it (Figure 65).

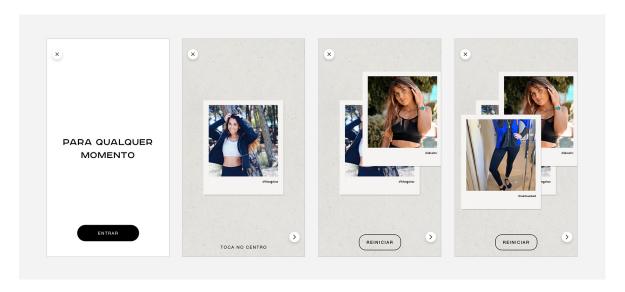


Figure 65. Screen captures of the story "At any time."

When the subjects from round 1 were asked to describe the brands, multiple perspectives were expressed, from personal preferences to how the content was presented. Hence, the perceptions of the brands' personalities were unclear and the data collected unsatisfactory.

The introduction of a product reaction card exercise provided substantially more data to grasp. From the radar chart displayed in Figure 66, it can be seen that it is apparent that participants understood the DNA of each brand. Compared to the other brands, the words used to describe Barn of Monkeys were less and more congruent with the brand, meaning a shared understanding of what the brand stands for. The word selection for the other brands was broader. Still, the explanations disclosed some common threads: Carla Pontes was associated with sophistication due to attention to detail; Perff Studio was portrayed as a high-quality intelligent brand due to the materials it employs in clothes.

Evidence of associations between the brands and the interactions was found throughout the sessions: the shake gesture, the scratch effect, and blowing were considered childish, making sense when applied to kids' brands. In addition, the shake gesture was connected to sportswear due to movement.

P2: I think this interaction (shake gesture), (...) even scratching, I think these are two childlike interactions. I don't know why. I found them more fun. Although this one here the shake, makes sense since it's a sport, they are always moving (laughs).

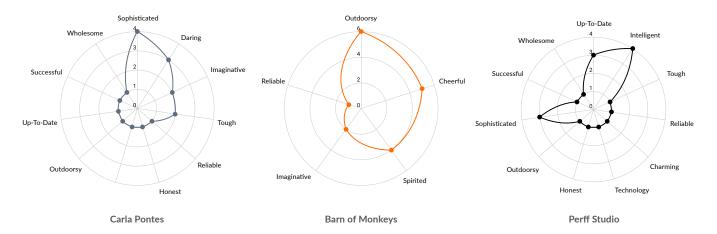


Figure 66. Top three personality traits chosen by participants from round 2.

P6: And blowing, despite everything, it's super easy. It says "blow," you see the wheel spinning, and you have a very childlike feeling (laughs).

P7: I really don't like this shaking thing, because I think it's really fun specially in the children's clothing.

B. Navigation and information architecture

Besides being praised for its aesthetics, most participants also considered the app straightforward, fast, and easy to use. However, some participants from the second round had difficulties during the tasks. For example, when they left the app to navigate the brand's website, they seemed lost and confused. One individual did not know how to return to the app. It was also noticed that the website diverted the participants from the task. Nonetheless, the time spent on the website might be interpreted as an indicator of interest in the brand.

P2: Easy to use, because I think it's intuitive.

P4: I think it's a flexible application. It's not difficult to interact with, it's not difficult to know or do what the application tells us to do.

P7: (positive aspects) ...it was mainly that, presenting the brand in a cute and easy and intuitive way.

The analysis revealed the instructions for some pieces of the stories were not fully understood, others were unnoticed, and there were some minor misconceptions about some contents. These results may be due to the lack of affordances or the low speed of the animations. Interestingly, one participant did not understand one of the contents because she did not allow access to her iPhone microphone for security reasons. Also, a few participants demonstrated that different gesture controls might lead to confusion.

P6: ... each of the things you enter (stories) has a different aesthetic, a different way of use, and that is slightly confusing.

P9: I find the "about" section of the brands a bit confusing. This scratching in one place, dragging in another, I think it's not very consistent.

A recurrent theme in the sessions was disappointment caused for not moving backward through the stories' screens. Indeed, some individuals mentioned it as a negative aspect of the app during the interview. Also, by observing participants exploring the contents, two distinct profiles emerged based on their needs (hedonic or utilitarian). Some freely explored the app and seemed to have immersed in the stories, taking the time to read the instructions to understand the contents (hedonic needs). In comparison, the ones with utilitarian motivations had a more pragmatic approach, expecting to purchase. Generally, they navigated faster through the stories, sometimes skipping contents, without paying close attention. The expectations of finding e-commerce features (e.g., prices, product images with details, search and filter, register) is evident in the participants' comments:

P5: ...since it's clothes, I want to see its details (...) And here I can't always do that. I would like to see further details of the pieces.

P6: ... when I'm browsing fashion, I like to know upfront if my budget allows me to even become interested.

Although a call to action was placed at the end of each story so that users could be forward to the corresponding store, not buying directly from the app negatively affected both user profiles. This result is consistent with Romo and Espinosa (2012), who found that the lack of e-commerce space was the major complaint among users' reviews of fashion apps.

P8: Maybe something that's missing inside the application is the ability to buy directly from it. P10: (negative aspects) It's the fact of having to leave the application to effectively see the clothes that are on sale.

C. Intangible emotional responses

A considerable number of participants classified the app as fun because of the interactions and their experience being delightful. This finding further supports the results obtained by Romo and Espinosa (2012), who discovered that the most rated fashion app was the one that amusingly presented the brand.

P4: Perhaps here you can learn a bit more about each brand. And it gives you a good time while you're traveling in the application.

P6: (product reaction card exercise) For the unusual experiences that are suggested, like shaking the mobile phone, blowing. It's a relationship with the phone that turns out to be fun.

P7: (product reaction card exercise) I would say fun, I had some fun using it (laughs).

The interactive features were unusual to almost all participants, and they were not acquainted with the brands as well. Hence, the novelty of the interactions and the brands triggered **surprise and curiosity**.

P4: Unpredictable because you don't know what to expect. In a moment you're scratching to find out more, and then you're moving boxes and blowing, it's an incredible thing, I had never experienced these sensations in an application.

P5: (product reaction card exercise) It's innovative in the sense that it's very interactive because many of the applications do not have all the interaction that this one has.

P8: (product reaction card exercise) Innovative for presenting different designers from the ones that we are used to.

A closer look at the surprise effects enables to conclude that the same story could cause **pleasant** and **unpleasant surprises**. As a case in point, one of the Barn of Monkeys' interactive features positively surprised participants for appealing to multiple senses and being fun (Figure 67). For others, however, it was uninteresting or even unnoticed.

P2: (product reaction card exercise) ...it was very curious to address these senses that we have, that we don't have in the applications.

P6: (during the tasks) I would become fascinated by this. I think it's a brilliant idea, I think it's a brilliant idea, damn.

P5: (during the tasks) Again, Am I 15 years old? Ok, if you're 15, this was interesting. No, it was not interesting.

Alongside the blow feature, the scratch effect and the tilt (see Figure 68) were associated with **fun and joy** and surprised the participants during the tasks:

P3: If I move the iPhone I also move the image. It happens to be a good idea (...) creative.

P9: I like this part of seeing the pieces in this format. It's interesting. I had never seen it before.

P11: How funny (laughs). This had never happened to me, scratching to reveal.

Notwithstanding, repeated **exposure to the same stimuli caused boredom** — this effect is described by Martindale (1990) as "the gradual loss of interest in repeated stimuli." This was visible



Figure 67. Screen captures of the story "Inside the box."

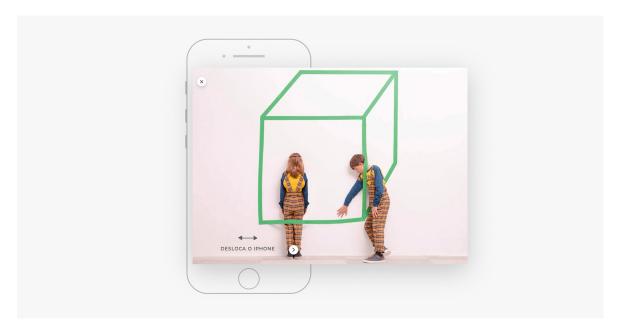


Figure 68. Screen capture of the story "Inside the box."

in shake gestures and scratch effects (see Figure 69). Nevertheless, if the content aroused interest, the participants continued exploring the story. Interestingly, participants overlooked some gestures as they seemed familiar with them (this was visible in users of younger ages).

P6: Because this one here (drag gesture) is slightly more predictable after all. It's not that there are exactly applications doing this, but I have already been on some websites that did this.

P7: One time it's cute and it's a kid's brand, ok, it's fun, it's a bit more childlike, like a game. But having to do it always to go to the next page became boring.

P10: I feel that maybe this is already so usual (interactions). (...) I thought it was cute (tilt gesture), but I didn't find it highly innovative. But it gives it a different feel, no doubt.



Figure 69. Screen captures of the story "Five facts about the brand."

One participant seemed overwhelmed during the tasks and said that interactive gestures can be diverting. The fact that surprise can distract potential users from another message designers want to communicate had been pointed by Ludden, Schifferstein and Hekkert (2008).

P2: Because when I do this (shakes the iPhone), I'm losing a bit of attention of what I'm seeing. I'm having more fun than I'm seeing (the content).

Even though the gesture controls encouraged the urge to play, in some cases, gamification was unsuccessful as participants seemed confused while exploring the content. Figure 70 shows one of the stories that intrigued the users, who dragged the boxes to decode the story without success. This result could be related to the lack of clues to interpret the presented information.

Despite creating some confusion, the curiosity stirred by the digital solution arose a **desire for learning** more information about the products and the brands, meeting the strategy and the design aims of the mobile app (vide Chapter 6, section 6.6.1).

- P4: Maybe I would look for more. I would like to know more about this brand.
- P7: (product reaction card exercise) ...arouses curiosity about the brands and then makes you want to see the products and prices and lead to the store.
- P11: I became curious about the brand. I became curious about the application, whether it will provide more brands from Portuguese authors or not.



Figure 70. Screen captures of the story "Inside the box."

D. Overall perception and motivation

The data collected through the product reaction card exercise confirms the previously mentioned findings and illustrates that, in general, the participants' experience with the digital product was positive. Of the twenty-four words selected to describe the experience, 54% of experienced users used positive words, while 33% used negative and neutral ones (Figure 71 and 72). Also, new words that were not included on the list were added ("different," "interactive," and "new"). The most-selected words were "clean," "curious," and "innovative," followed by "unpredictable," "organized," "pleasant," "attractive," and "fun."

Additionally, evidence was found that participants **value information about the brands**, commenting that sometimes that type of information may be inexistent on brands' social media or website. The fact that the displayed brands are **Portuguese** also seemed to have generated interest.

P6: I think the strong point (of the app) is really getting to deeply know more brands, because sometimes it doesn't happen.

P7: (product reaction card exercise) Interesting. Yes, interesting because in the end, it's giving us information that is interesting to know, that there are new brands, and to understand each one's DNA, its purpose. It's interesting for me to know.

P10: I liked having a little more about the brand because people are becoming more and more aware of environmentally friendly brands, Portuguese brands, and I think that talking a bit about the brand is important.

Concerning motivation, the opinions differed. Some participants said they would recommend the mobile app (45%), others would recommend it under certain conditions (36%), and some would not



Figure 71. Word cloud of words used to describe the experience with the app.



Figure 72. Positive vs negative and neutral words.

(18%). Interactivity, being different, and the brands' diversity were reasons the participants indicated for recommending the app. The ones who did not recommend the app considered it useless. Remarkedly, those users were part of the group who exhibit utilitarian needs.

P1: It's different, and maybe I would like to peek from time to time out of curiosity, to understand what are the new trends and those things, new brands, new designers, and see what they have to offer.

P4: I liked the interaction (...) I would recommend it because it's different from the others that I'm used to having.

P5: ...no, because as the only advantage it has is to search for the designer and nothing else. Because you can't even buy the piece or follow the piece in detail.

Being able to purchase within the app was reported as a crucial element for participants to make a recommendation and use it in the future. One user observed that the selection of brands could also be influential.

P7: Yes, I would recommend it. But I really feel that this was missing, the Minty Square store inside the app, being able to buy.

P9: Yes, I would, as long as it was possible to see more products here and not having to click on the "Learn More" (Call to action) to go to a website to search. I like to have all the information within the same application.

P10: I think so. But it would also depend much more on the brands I had there, whether I would buy from the brand or not.

7.3.2 Study 2: Brands

This subsection is divided into four prominent themes directly related to the interview structure (overall perceptions; positive and negative attributes; significance of interactive content), apart from the last point, which contains other concerns that were considered relevant for the study (issues to consider). Table 20 comprises the clarifications derived from the interview findings to answer the research questions.

Table 20. Main results from the interviews.

Research question	Main result
Are brands willing to invest in this type of product?	 The interviewees acknowledge the potential of the digital product, which means that they could be further interested in investing. One interviewee clearly expressed that it is worth investing in this platform.
What is their take on this type of app?	 Dynamic, unusual, attractive, clean, and easy to use were some of the words used to describe the app. The aim is to inspire and show the brands' strengths. Overall, the visuals, and the interactions were considered to be in line with the brands.
	Improvements were suggested regarding particular sections.
What kind of impact can interactivity have in the communication of the brands?	Emotionally engage consumers.Arouse curiosity and lead to purchases.

A. Overall perceptions

The spokesperson from Carla Pontes began describing the app considering the way each brand was represented. She mentioned the presentations were straightforward, portraying what the brands stand for. Being dynamic and fun, showcasing distinct brands, and the blow feature were aspects that she emphasized in the app.

CP: It's not a type of application where the product is just sold. It's doing marketing without a doubt, but it's not imposing the product and selling, and giving prices right away, and

encouraging to buy, it's a type of application that encourages the inner side, let's just say. It pulls towards a more conceptual side, and what each brand is, and often what it also does, what motivates the creation of these brands.

The Barn of Monkeys representatives commented the app is different due to the kind of interactions it promotes. They described it as a source of inspiration to aid fashion designers keeping up to date. In addition, they remarked the app being easy to use.

B. Positive and negative attributes

The representatives commonly agreed that the visuals and the interactions were aligned with their brands. The interviewee from Carla Pontes reiterated throughout the session that the content mirrors the core values of the brand, praised the type of content, highlighting both the illustrations and the drawings, and noted the aesthetics:

CP: ... it's undoubtedly very integrated with what we communicate as a brand.

CP: It's very beautiful graphically. I think the assemblies are very pretty, very engaging.

Additionally, the section "What inspires us" resonated with her: "What I liked about these sections at the beginning was their appeal to a most emotional and inspirational part." She continued adding that inspiration is wrongly belittled. "A person shares the final product and ends up sharing little of what inspires, which is actually one of the most beautiful points in my perspective," she said poignantly.

Regarding Barn of Monkeys, the interviewees stated the interactions perfectly suited the concept of the collections. "As a brand, this is awesome because it makes a lot of sense in the idea of the concept that is the "Inside the box" collection. I think this is incredible," said one of the interviewees, positively smiling. However, they were not pleased with one particular section due to the illustrations and its presentation. This result was expected because the drawings in use were not originally from the brand.

Furthermore, both brands positively appraised the aesthetics of the app. Attractive, clean, sophisticated, and easy to use were words used to describe the digital product. The interactions were also appreciated, being pointed by one of the representatives of Barn of Monkeys.

CP: It's very easy to understand and it's very intuitive. I think that at no moment did I not manage to do what was intended: the scratch, (...) playing with the squares, blowing.

BM1: I like the dynamics, the interaction it creates between me and the app.

BM2: I like the fact that it's so clean, the colors so light.

On the other hand, for the representative of Carla Pontes, the section "about us" of the app itself should be improved as she was expecting more. Besides, she did not understand the purpose of the notifications. This result was expected because the brands' stories were more elaborated compared to other sections. Moreover, Barn of Monkeys expressed a strong dislike of the shake animation as they considered it unnecessary.

C. Significance of interactive content

When the representatives were asked to compare the app with others, both pointed out that the app does not allow to buy. The Barn of Monkeys interviewees expressed that they did not have much to add because they do not have fashion apps installed on their phones. In contrast, the one representing Carla Pontes explained that she sees the app as a product that aims to inspire and showcase the brands' strengths. She further expanded her point of view, drawing an analogy to clarify how the app engages consumers:

CP: This relationship of proximity almost as if it was a neighbor of our street that we pass by several times, that we keep saying good morning to every day. I think the relationship here is closer because we get to know the brand in another way, in a more authentic way perhaps, and not just the end product.

Another analogy that the representative drew relates to the app and brick-and-mortar stores as she thinks of the app as a replacement that is capable of engaging emotionally with the consumer and provide an experience beyond the purchase:

CP: ...there is an interaction in which it is possible to explore more dynamically the images, engage in the moment, achieve this relationship with the videos and the photographs, the relationship with the inspirations. All of this seems to me to be a positive step towards this engagement that is experienced in a store, meaning, there is greater proximity.

Besides engagement, she observed other **benefits for the consumer**: "Having several brands together also allows to compare and understand which brand one (the consumer) identifies with the most. I think this is also a point that the consumer should value, without a doubt." Conversely, the interviewees from Barn of Monkeys were direct. They agreed the app is different, which could arouse peoples' curiosity to know more about it, and curiosity might lead to an impulsive buying.

When the conversation shifted to the importance of this type of product to their respective brands, all the representatives agreed that it is highly significant. For one, Carla Pontes' spokesperson believes the app can engage and increase consumers' awareness of the product. She clearly expressed an interest in investing in the app: "As a brand, I think it would be very important, I think it would be a platform to invest in without a doubt."

The interviewees from Barn of Monkeys reinforced the app could grab peoples' attention, compelling parents and children, and ultimately lead to purchases. Remarkably, they reckon the app is a good idea for MINTY Square. "I think it's a good way, something nice to add to Minty Square since it's different. Being able to shake, drag, scratch, it creates more interest and curiosity in the user," said one of the representatives. Also, in her view, the innovative features of the app can bring notoriety to the marketplace.

D. Issues to consider

Although usability was not the primary purpose of the sessions, some topics might be worth reflecting on further: language selection and customizing the user experience by adding search and filters. Moreover, for Barn of Monkeys, the brands that will be showcased in the app are important, and its selection needs careful consideration. As one interviewee explained: "If I had a sustainable shoe brand by my side, I would like Barn to be there because the person who follows the sustainable shoe brand would find it interesting to buy sustainable dresses, pants, children's sweaters."

Lastly, all the interviewees made connections between the brands and the interactions, e.g., shaking, dragging, and blowing portrayed a sense of fun, which is in agreement with the essence of Barn of Monkeys. Suggestions were also made to improve Perff Studio; namely, Carla Pontes' representative said that the content could be improved by showcasing the products with more detail. "Those who like that product may want to see how the product will help them in their sports performance. Maybe pull something to that sportive side," she concluded.

7.4 Considerations

This chapter has investigated the users' perceptions and the viewpoints of brands about a mobile app prototype that was developed from a partnership with the retailer MINTY Square. The studies conducted analyzed the product idea and examined the impact of the design strategies applied. In general, the

results from study 1 suggest that the chances of the mobile app to succeed in the market are slim due to the influential role of purchasing demonstrated in the usability testing sessions with potential consumers.

However, since the results obtained showed that the digital product attracts interest, one more experiment could be planned to validate the idea with a larger sample size with a simple type of MVP entitled fake doors (Sharon, 2016). Thus, a promotional video of the app could be presented on a website with a call to action labeled "Download our fashion app." The number of people clicking the button could help determine whether it is worth moving the app further or not.

On the other hand, the interviews with the brand representatives provided relevant insights that could add value to the digital solution and revealed that the app might arouse the interest of other fashion brands, providing compelling evidence that the brands are interested in interactive content as a strategic asset. However, given the small sample size, caution must be taken. Remarkably, all the brand spokespersons observed that the app adequately represented the brand's essence.

Regarding the design strategies, the interactive features and the unusual brands were the two main factors that arose a desire to know more about the products and the respective brands. This finding suggests that the strategies applied to designing emotion in Chapter 6 evoked the intended emotions — curiosity and surprise.

Furthermore, this study demonstrated that different interactions could be used to communicate distinct brand personalities. As a case in point, some gesture controls were associated with children — this result suggests that they could be used in mobile apps for kids' brands to increase user engagement. Nonetheless, using different gestures and sensors in the same app may confuse, and for that reason combining them should be carefully considered. As an alternative, by understanding its potential, designers may apply them separately in other contexts.

Although the prototype needed further tests and improvements, speaking with users and observing them exploring the contents allowed to learn from their reactions and comments. Uncover consumers' needs (hedonic or utilitarian) and trying to recognize their emotions through verbal and non-verbal clues helped understand some of their responses. To conclude, the findings from these studies were used to enrich the final version of the analysis model outlined in the next chapter.

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8 Digital Fashion Framework

The research project entailed developing a framework to help designers gradually embed emotional design practices in digital strategies for the fashion industry. It is a process that results from the knowledge acquired in the literature combined with the exploratory studies within the thesis' scope. This chapter is fully dedicated to the presentation of the tool.

8.1 Digital Fashion Framework

The "Digital Fashion Framework" (DFF) is a decision tree that aims to empower fashion promotion and guide designers to apply emotional design processes into digital strategies through 22 strategic questions (Figures 73–77). It derives from Design Thinking and is based on eight main topics that should be considered to increase the opportunities for digital strategies to succeed — additional tips, tools, and related data are also included.



Figure 73. Digital Fashion Framework.

The decision support tool is divided into four parts that correspond to Design Thinking modes (Discover, Define, Design, and Deliver), and each one comprises two main topics. For example, the first mode, "Discover," encompasses "Know the brand" and "Understand the consumers." The questions are all presented and described next. In the last subsection, Table 21 lists the recommended tools and includes references for more details.



Figure 74. Digital Fashion Framework (folded and content view).



Figure 75. Digital Fashion Framework (full view).



Figure 76. Digital Fashion Framework (partial view).

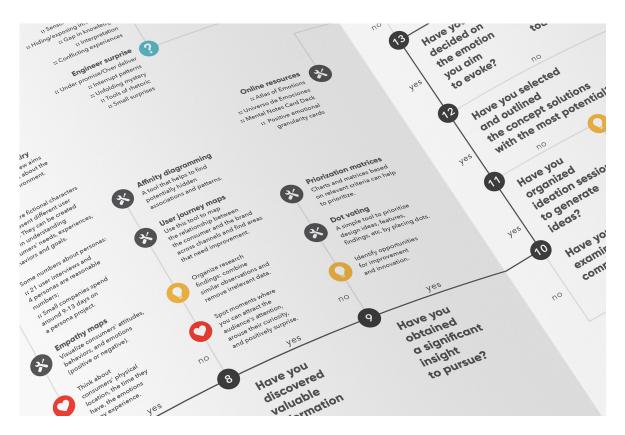


Figure 77. Digital Fashion Framework (close-up view).

8.1.1 Discover (steps 1 to 5): know the brand and understand the consumers

- **Step 1.** Do you know the brand vision? The differentiating elements of the brand will support future strategic planning strategies, informing the digital touchpoints to reinforce the brand's value proposition.
- **Step 2.** Have you examined the brand personality traits and visual identity? Identifying the set of human characteristics associated with the brand and learning the design guidelines will ensure consistency. The core elements of the brand include the logotype, look and feel, color, typography, and other elements such as sound and animation.
- **Step 3.** Do you know the digital touchpoints currently in use? Mapping the current digital strategies and understanding their purpose will further assist the selection of digital touchpoints.
- **Step 4.** Are consumers engaging with digital channels? The digital environment is highly measurable and metric-driven. Thus, it is a source that should be considered because it will provide information about consumers' behavior. Although quantitative data may provide useful indicators to plan campaigns, it is limited and is not enough to understand consumers.
- **Step 5.** Do you know who the consumers are? Collect all the internal data available about the consumers, quantitative and qualitative. Try to learn their perceptions of the brand: what they value and why, their motivations, and underlying needs.

8.1.2 Define(steps 6 to 14): describe the problem and plan the strategy

- **Step 6.** Do you have clearly defined objectives? Setting clear goals for the business, the brand, and the user will help identify key parameters with the client (e.g., budget, technical constraints, priorities, requirements) and plan the strategy accordingly.
- **Step 7.** Have you interviewed at least 5 to 10 consumers from the target audience? Knowing the consumers is a requirement to create relevant digital experiences. Understand their context and list their needs.
- **Step 8.** Have you discovered valuable information about consumers? Compare the quantitative and qualitative data collected from steps 4 and 5 with the data from step 7 to uncover the consumers' tasks

and the nature of their problems. The knowledge obtained from research can dictate how the strategy is going to unfold.

- **Step 9.** Have you obtained a significant insight to pursue? The research findings may reveal what needs improvement in the current strategy and spot opportunities for innovation.
- **Step 10.** Have you examined competitors? Observing the digital touchpoints from competitors is a way to examine what works and what does not work and spark ideas. At this stage, the competitors' products can be tested and compared.
- **Step 11.** Have you organized ideation sessions to generate ideas? The ideation sessions aim to sort several ideas, considering the project's objectives and the user research findings compiled until this stage. This is the moment where the core concept of the strategy is defined.
- **Step 12.** Have you selected and outlined the concept solutions with the most potential? The core concept will serve as a basis for the design and development process.
- **Step 13.** Have you decided on the emotion you aim to evoke? Curiosity and surprise are two influential emotions when it comes to attract and seduce the consumer. However, other emotions can be selected as well according to the core concept.
- **Step 14.** Have you selected digital touchpoints? Document the main ideas to convey to consumers and select digital touchpoints. The selection may consider the digital brand touchpoints in use or exploring new ones.

8.1.3 Design (steps 15 to 20): design the interface and validate the solution

- **Step 15.** Have you devised the content strategy and defined the functional patterns? The content strategy considers the strategy goals, consumers' motivations, context, competitors, and content structures. The building blocks of the user interface are listed at this stage (e.g., buttons, menus, forms, etc.).
- **Step 16.** Have you designed the perceptual patterns? The style elements should be envisioned with the existing brand guidelines and brand personality traits in mind. Some style elements are tone of voice, typography, color palette, layouts, illustrations and iconography styles, shapes and textures, spacing, imagery, and animations.

Step 17. Have you made a prototype to validate the digital solution? Build a minimum viable product (MVP) to learn from it through users' feedback.

Step 18. Have you tested the prototype with at least 5 users? Select a data collection technique, plan a study accordingly, recruit participants and measure the user experience. This phase relies mainly on qualitative data to maximize learnings and verify if the intended emotions are evoked.

Step 19. Has the digital solution been validated? Examine the user feedback, learn and decide what needs to be done next. The prototype might need to be revised, further refined, and tested several times until being validated.

Step 20. Have you tested the solution quantitatively to validate desirability? Before launching the product on a large scale, test it with a larger sample size to avert financial losses. If problems are found at this stage, they should be solved and further tested for validation.

8.1.4 Deliver (steps 21 and 22): execute, measure and iterate

Step 21. Have you compiled detailed design documentation and monitored technical implementation? This is the stage where the final solution is documented before entering technical implementation. The selected digital touchpoints will dictate the number of style guides needed. After, monitoring implementation is required, supporting asset production and simultaneously ensuring quality.

Step 22. Do you continuously refine and update the digital solution? Measuring, refining, and updating the digital product will confirm the solution's success and aid holding consumers' interest by continuous improvements and regular updates.

8.1.5 Tools

The tools selected for the DFF considered techniques that could serve multiple purposes to optimize time and acquire mastery. Table 21 displays the steps where the same tool can be applied to achieve different objectives. Each technique contains a source immediately after its name where further information can be found. The references were carefully selected from well-known authors and trusted platforms such as the Nielsen Norman Group and the Interaction Design Foundation. Additionally, the contents were chosen for being straightforward.

Table 21. Recommended tools, steps, main topics and Design Thinking stages.

Tools	Steps	Main Topics	Design Thinking stage
Stakeholder interviews (Goodwin, 2009)	1, 2, 3, 4, 5	Know the brand Understand the consumers	Discover
Brand audit (Keller, 2013)	1, 2, 3, 4, 5	Know the brand Understand the consumers	Discover
	4	Understand the consumers	Discover
Analytics (Rowles, 2018)	22	Measure and iterate	Deliver
	5	Understand the consumers	Discover
Surveys (Goodwin, 2009)	20	Validate the solution	Design
	22	Measure and iterate	Deliver
Interviews (Goodman, Kuniavsky, & Moed,	5	Understand the consumers	Discover
2012)	22	Measure and iterate	Deliver
Value Proposition Canvas (Osterwalder, Pigneur, Smith, & Bernarda, 2014)	6	Describe the problem	Define
User Stories (Hartson & Pyla, 2018)	6	Describe the problem	Define
Target Matrix (Spies, 2015)	6	Describe the problem	Define
Personas (Cooper, Reimann, & Cronin, 2007)	7	Describe the problem	Define
Franchis mana (Cildana 2010a)	7	Describe the problem	Define
Empathy maps (Gibbons, 2018a)	22	Measure and iterate	Deliver
Contactual insuring (Travia 2017)	7	Describe the problem	Define
Contextual inquiry (Travis, 2017)	22	Measure and iterate	Deliver
	8	Describe the problem	Define
Affinity diagramming (Sauro, 2016)	11, 12	Plan the strategy	Define
	19	Validate the solution	Design
User Journey Maps (Interaction Design	8	Describe the problem	Define
Foundation, n.d.)	14	Plan the strategy	Define
	9	Describe the problem	Define
Prioritization Matrices (Gibbons, 2018b)	12	Plan the strategy	Define
	19	Validate the solution	Design
	9	Describe the problem	Define
Dot voting (Gibbons, 2019)	12	Plan the strategy	Define
	19	Validate the solution	Design
Competitive analysis (Goodman et al., 2012)	10	Plan the strategy	Define

Tools	Steps	Main Topics	Design Thinking stage
	10	Plan the strategy	Define
Usability tests (Moran & Pernice, 2020)	18	Validate the solution	Design
	22	Measure and iterate	Deliver
Brainstorming	11	Plan the strategy	Define
Mind mapping	11	Plan the strategy	Define
Mood boards	11	Plan the strategy	Define
Atlas of emotions (Ekman, n.d.)	13	Plan the strategy	Define
Universo de Emociones (Bisquerra & Punset, 2015)	13	Plan the strategy	Define
Mental Notes Card Deck (Anderson, n.d.)	13	Plan the strategy	Define
Positive emotional granularity cards (Yoon & Jeong, 2013)	13	Plan the strategy	Define
Task models (Caddick & Cable, 2011)	15	Design the interface	Design
Wireframes (Caddick & Cable, 2011)	15	Design the interface	Design
Interface inventory (Frost, 2013)	15	Design the interface	Design
Style tiles (Warren, 2012)	16	Design the interface	Design
Element collages (Mall, 2012)	16	Design the interface	Design
Concierge MVP (Sharon, 2016)	17, 20	Validate the solution	Design
Fake Doors (Sharon, 2016)	17, 20	Validate the solution	Design
Dhata disitation (Conductor at al. 2012)	18	Validate the solution	Design
Photo elicitation (Goodman et al., 2012)	22	Measure and iterate	Deliver
Sentence completion (Kujala, Walsh,	18	Validate the solution	Design
Nurkka, & Crisan, 2014)	22	Measure and iterate	Deliver
Design systems (Kholmatova, 2017)	21	Execute	Deliver

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9 General discussion and conclusions

This chapter presents a description and a general discussion of the main topics that emerged from the research project. It begins with an overview of the leading research moments and contributions. Then, it reflects on the exploratory studies and the framework that resulted from the knowledge accumulated from theory and practice. Next, the study strengths and limitations are examined, followed by possible directions for future work, and implications for practice. Finally, the thesis concludes by answering the research questions.

9.1 Introduction

This research was undertaken to develop a sustainable and actionable framework to assist designers in triggering positive emotional responses through digital media and, thus, fostering deeper connections with consumers to increase the chances of fashion brands' to succeed and achieve competitive advantage. Hence, Digital Fashion Communication and Emotional Design were the research topics aimed for this doctorate.

The Digital Fashion Framework resulted from the knowledge obtained from the literature and the findings from four exploratory studies to access the viewpoints from industry professionals and consumers. Diversified data techniques were used throughout the studies to ensure more reliable, valid results. Before interpreting the results, the subsequent paragraphs highlight the most significant contributions from each chapter.

This thesis started by introducing the study (**Chapter 1**), presenting the motivation. It explained its context, theoretical background, purpose, research questions, methodology and thesis structure. After the introduction, the two following chapters examined the literature on Digital Fashion Communication (**Chapter 2**) and Emotional Design (**Chapter 3**).

The review from Chapter 2 showed the pivotal role of digital media in the fashion industry and its impact on brands and consumers. In the current era of accelerated globalization and communication technologies, brands have numerous digital touchpoints at their disposal to engage with their audiences. At the same time, consumers are empowered by technology, having access to information through their smartphones at any time. However, they are more demanding and increasingly overwhelmed, which means that being authentic and creating meaningful connections in the media environment is imperative for fashion brands.

In the following review concerning Emotional Design, it was clarified that emotions trigger User Engagement and are one component of User Experience. Aware of the influential role of emotion on consumers, designers began to grasp how emotions could be embedded in design processes to deliver value. Consequently, theoretical models based on human cognition and human psychology start to emerge, and the approaches to designing for emotion are varied. Despite that, a common thread links the authors' point of view — learning about the consumer through practice. Moreover, it was demonstrated that combining physiological indicators collected through technological devices with data from other techniques such as self-report instruments and projective techniques can help understand emotional

responses. Additionally, applying methods from current design processes such as Design Thinking and Lean UX might help incorporate emotions in companies since they can increase emotional awareness.

The next chapters relate to the **four exploratory studies**. To begin, the findings from the first study, the interviews with experienced professionals in the fashion industry (**Chapter 4**), revealed that the potential and limitations offered by digital channels are recognized, and the creative practices are changing accordingly. To add value to advertised products and brands, designers embrace multiple roles and responsibilities, including facilitation and mediation skills, and tell compelling stories. Throughout the interviews, the examples given enable to list a set of design and online marketing strategies in use. Apart from the latter, the analysis remarkably uncovered the underlying emotional mechanisms of fashion advertising — surprise and curiosity. A design thinking mindset was also found: understanding the client, the market, and competitors was considered fundamental for a solid strategy. The involvement of the consumer during the design process, however, appeared to be minimum.

The second study, focused on an iPad magazine, was introduced in **Chapter 5**. The interview findings with the creative director of the mobile application disclosed that the magazine's purpose is to achieve the wow factor by applying storytelling and interactive content as strategies. The dialogue with the maker enabled to get the gist of how the stories are assembled in the design process. From the focus group sessions, it was observed that despite the shortcomings of the application, which were mostly related to usability, consumers expressed an interest in the interactive features, visual elements caught their attention, and the contents prompted positive memories. The results were encouraging and suggest that interactivity can be used as a tool to advertise fashion and engage consumers.

The two following chapters (**Chapter 6 and 7**) reported the third and fourth exploratory studies, which consisted of creating a digital product considering an analysis model built on the main components found in the literature and the previous study findings to develop a digital experience to promote fashion. The digital product was a mobile app designed to tell the stories of emergent fashion brands, which resulted from a partnership with a pure click retailer. In **Chapter 6**, the work developed within the company and the strategies employed to design for curiosity and surprise are explained. Nevertheless, the analysis model proved insufficient because it did not provide solutions to overcome obstacles during the design process; thus, further improvements were needed.

Furthermore, **Chapter 7** explored the users' perceptions of the mobile app prototype through usability testing with potential consumers (third study) and interviews with spokespersons from the brands

that agreed to cooperate in the project (fourth study). Overall, the results from both studies pointed towards the idea that the app attracted the attention of both sides, i.e., brands and consumers. The brand representatives were particularly interested in interactive content; however, this finding needs to be interpreted with caution due to the small sample size. Also, evidence was found in the usability tests that the envisioned emotions were elicited, e.g., curiosity and surprise, as participants expressed a desire to know more information about the products and the brands. Interestingly, the analysis demonstrated that interactivity could be used to communicate different brand personalities. Observing the users exploring the mobile app and speaking with them enabled to learn their motivations and expectations, which helped clarify their reactions.

Lastly, **Chapter 8** is entirely dedicated to deconstructing the Digital Fashion Framework. The tool started as an analysis model in Chapter 6 to assist in planning and developing digital solutions. Afterward, the model was re-evaluated and improved while the mobile application was being designed and further analyzed in Chapter 7.

9.2 Reflection on the exploratory studies

9.2.1 Strategies applied in fashion promotion

As previously reported, from the literature to the exploratory studies, several strategies were identified. Applied in online and offline contexts, they all serve the same purpose: to seduce consumers by **evoking curiosity and surprise**. Overall, this finding from Chapter 4 marked the research project because these particular emotions found at the core of fashion promotion **connected all subsequent studies**. For example, during the focus group sessions and while measuring the user experience with the mobile app prototype, the researcher and the assistant moderators carefully heard participant's comments and examined body language to see if there were indicators of curiosity and surprise.

It is interesting to note that the emotions mentioned above relate to **fashion communication and interaction design**. One possible reason for this could be the need to earn peoples' attention — a scarce and mandatory element in a global, competitive marketplace — in an attempt to be noticed. After all, curiosity and surprise have proven to benefit advertising strategies and the development of innovative products (Chapter 6).

In addition, curiosity and surprise are closely **connected with User Engagement**. This observation is consistent with the reported literature regarding UE. From Suctiffe's (2016) perspective, UE aims

to lead "to satisfying arousal and pleasurable emotions of curiosity, surprise and joy" (Sutcliffe, 2016, p. 113). Similarly, Oh and Sundar (2016) consider that two factors that characterized UE with media are a "strong cognitive and emotional focus on media content" and "attraction, curiosity, and interest towards the medium or interface" (2016, p. 179).

On the subject of **interactivity**, the focus group sessions and the mobile app prototype analysis showed the potential of **digital storytelling** and **interactive entertainment**. This result was expected because human beings are hardwired to be attracted by interactive content as it combines elements such as motion and visual imagery. Besides, interactive entertainment adds another layer to digital experiences — the ability to participate, going beyond a traditional passive role (Miller, 2014). Nevertheless, it was possible to identify specific gestures and animations that are more likely to stir positive or negative emotions (Chapter 7). On the other hand, the magnetism of interactive content may also be associated with technology's pervasiveness in everyday life, which has escalated in the last year due to the coronavirus pandemic.

9.2.2 The value of Emotional Design for Digital Fashion Communication

When interacting with digital media, the focus group sessions and the usability tests indicated many aspects that shape consumers' perceptions. On the one hand, visual design elements such as **layout**, **color**, **motion**, **gestures** captured attention in general. On the other hand, **consumers' expectations**, **motivations**, **personal experiences**, and **context of use** influence their emotional responses. As anticipated, these results reflect the factors listed by Komninos (n.d.) to create emotional experiences. The author remarks that designers must understand the general factors that are the same for every human being and those specifically related to the product under development. Hence, the more understanding fashion brands have of consumers, the more resources they will have to create emotional connections.

Moreover, fashion brands should carefully consider their communication across media to ensure **consistency** and **authenticity** to avert negative connotations. During the focus group sessions, when participants perceived the contents as inconsistent with the brand, they expressed disappointment. This result confirms the weight of **reflecting a consistent Brand Personality**, echoing viewpoints found in the literature (Aaker, 2014; Keller, 2013; Travis, 2000).

The usability test findings also emphasized that not considering consumers' **motivations** may compromise **usage and retention** of digital products. Despite the positive responses towards the mobile app's

interactive features and content, most participants mentioned they were expecting to purchase — some of them even seemed annoyed or upset for not being able to buy directly from the app. Therefore, it is advisable to validate digital solutions with consumers before launching. These findings contrast with those of Fang (2017), who claimed that consumer-brand engagement outweighs utilitarian benefits for usage and retention of an app.

Being consistent and authentic and considering motivations can prevent negative brand associations. Nonetheless, the role of emotional design in digital fashion goes beyond reducing negative emotions. Besides attracting and seducing consumers through visuals and interactivity, designing for emotion can act as **a driver for differentiation**, setting a brand apart from the competition in the digital environment by promoting engaging experiences.

9.3 Reflection on the Digital Design Framework (DFF)

9.3.1 Development process

From the literature review, it was observed that the existing emotional design models, in general, are simplistic, i.e., they tend to simplify the complexity inherent to emotions. Additionally, technologies and tools designed to assist emotion measurement are progressively becoming straightforward and accessible — online platforms such as iMotions¹³ and the UX tools provided by UEGroup.¹⁴ Even though this observation could indicate that emotions are recognized as a strategical asset with value, it might also be a reflection of the demands of an increasingly competitive marketplace and the immediacy of contemporary society.

In this context, the Digital Design Framework was conceived to be **practical** and provide **guidance** by suggesting tips and tricks, tools, strategies, and other types of related data. Since the recommended tools derive from Design Thinking, they are likely to be familiar to designers — this is further supported by Pavliscak (2019), who advises Design Thinking methods for being widely applied and understandable. The selection was purposeful to simplify its **implementation** in companies.

As stated in the literature review, the inclusion of **Emotional Design** in the current digital landscape may be challenging (Walter, 2020). Furthermore, the creative practices in the companies are context-related,

 $^{13\,}$ iMotions enables to combine multiple biosensor data to quantify emotional responses.

¹⁴ UEGroup offers three UX tools: youXreaction (an online website user testing tool), youXjournal (a diary study tool), and youXemotions (a self-reporting tool to identify user emotions).

and they can differ. As a result, the DFF aims to encourage **Emotional Design practices** progressively in the design process in particular moments, which are signaled in the framework with heart shape icons (Figure 78). The tool can be seen as an initial step towards developing emotional awareness in Digital Fashion Communication.

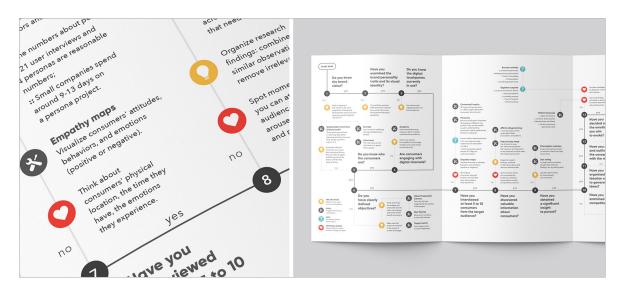


Figure 78. Details from the DFF.

9.3.2 Comparison with other work

Compared to other Design Thinking models, the DFF resorts to a specific type of flow chart named decision tree that encompasses decisions and possible consequences. In addition, it focuses on enhancing consumers' perception of fashion brands through digital touchpoints. Another specific characteristic of the framework is to address strategies to design for curiosity and surprise, two underlying emotions of Fashion advertising discovered in the first exploratory study (Chapter 4).

9.4 Study strengths and limitations

The structure and content from the Digital Design Framework is a combination of theoretical and practical knowledge derived from the literature and exploratory studies that not only examined the perspective of experts from the industry but also explored consumers' perceptions of digital fashion products. Besides, solving a real-world problem in partnership with an online fashion retailer brought first-hand knowledge and enabled to experience and overcome difficulties in the field. Even though the DFF follows a Design Thinking mindset, it is **innovative** because it converges knowledge from Fashion, Emotion, and Digital Strategies.

The framework was partially established based on shared experiences between the researcher and the participants to offer an understanding of the interplay between emotions and Digital Fashion Communication. The findings were not limited to presenting main themes illustrated with participants' quotes—it was the result of an in-depth analysis that applied diverse strategies, supporting Bazeleys' (2009) view. Furthermore, the results were extensively discussed with supervisors for challenging assumptions and obtain fresh insights. Table 22 addresses quality criteria for the research process.

Table 22. Demonstrating the quality of qualitative research.

Quality and reliability criteria	Evidence from the exploratory studies
	Selection of more than one data technique to crosscheck information from different angles.
	Use of accepted systematic procedures for data collection.
Methodological procedures	Pilot testing to ensure the questions and the activities were understood.
	 Prolonged engagement in the setting: the researcher carefully listened and observed participants and probed unclear comments.
	Use of accepted systematic procedures for compiling information sources.
	 Review of field notes, audio, and video recordings.
	 Verbal and non-verbal cues were considered to aid decoding emotion and body language expressions.
	Reread transcriptions for a holistic view of the data.
	Memo writing throughout the analysis.
	 Use of word frequency queries, word searches, memos, annotations, and mind map for initial explorations of the data.
	Exploration of stories, accounts, and metaphors.
Data analysis	 Focus on detailed answers, comments that showed enthusiasm, interest, or intensity and extensiveness.
	Use of coding to facilitate asking questions of the data.
	Creation, development, and structure coding systems.
	Analytical writing to discover underlying mechanisms and develop concepts.
	 Examination of divergent views, negative cases, and outliers.
	Consideration of alternative explanations.
	 Comparative analysis to discover similarities, differences, and gaps.
	Use of matrix displays to examine patterns.
	• Comparisons with existing literature to assist interpretation.
	Use of quotes for illustrative purposes.

Given the limited number of participants due to time constraints, it is not inconceivable that other insights would have arisen. Despite this, the results were productive and offered an understanding of the link between emotions and Digital Fashion Communication, an issue that is not yet well understood. Additionally, although exploring Emotion AI technology to investigate emotional responses was unattainable due

to budget restraints, the selected methods enabled collecting valuable data, opening new research possibilities, which are explained in the next section.

9.5 Future developments

The next stage would be the implementation of the Digital Fashion Framework to verify if it is straightforward and whether new elements need to be further incorporated. Consequently, workshop sessions with design teams and digital marketing professionals within the fashion industry are recommended. Then, there are other opportunities to develop the DFF further.

One possible direction might be to include the tool in academia through the elaboration of didactic materials. Alternatively, the framework could be part of a book that would contain more detailed information about each main topic and case studies to illustrate digital strategies in use by fashion brands — this would add credibility to the framework and deliver additional practical guidance. More broadly, the DFF could evolve to an online training platform or into a start-up, providing consultancy and training activities focused on Digital Fashion Communication.

During the focus group sessions (Chapter 5) and the usability tests (Chapter 7), it was noticed that the vocabulary used to describe the features of the mobile apps was limited. Thus, further work is needed to develop **semantic attributes** to evaluate gestures and animations that could help measure the user experience of digital solutions.

9.6 Implications for practice

This thesis provides insights into Digital Fashion Communication in terms of **design practice** and design research. To begin, in terms of design practice, the framework was designed to provide practical recommendations to include emotions in the development of digital strategies within the fashion industry. The tool synthesizes and organizes techniques and strategies derived from the literature with insights from the field in a single handout. In a digital world where fashion professionals are expected to communicate ideas through digital channels quickly and creatively, the framework can help designers, freelancers, and students. Moreover, the strategies to design for emotions uncovered in the interviews, focus group sessions, and literature can be applied to other domains besides digital channels (e.g., visual merchandising, print magazines).

From a **design research** perspective, the research extends the knowledge of emotions in fashion advertising. The findings from the studies that contributed to the framework development were encouraging:

- Exploring gesture interactions by observing people interacting with digital products
 offers an understanding of the relationship of fashion consumers with mobile apps,
 suggesting that digital storytelling and interactive entertainment represent opportunities to create engaging experiences to promote fashion.
- The connection between curiosity, surprise and fashion may represent new
 approaches to design digital solutions and examine consumers' responses to digital
 media by fostering the use of existing tools to measure these particular emotions and
 even develop new ones.
- Using projective techniques as complementary methods enables to collect compelling data, reinforcing its usefulness for evaluating User Experience in line with the literature (Kujala, Walsh, Nurkka, & Crisan, 2014; Lallemand, 2015; Pavliscak, 2019).

9.7 Concluding remarks

This thesis aimed to combine knowledge from the literature in Digital Fashion Communication and Emotional Design and the findings from four exploratory design studies to build a tool that would provide practical recommendations to assist practitioners within the fashion industry in creating engaging digital strategies. Consequently, the research was undertaken to gain an overview of the contemporary fashion digital media landscape, identify creative practices, understand the role of emotions in the design process, and explore the relationship of people with digital touchpoints.

Through the experiences and explanations of what goes behind the scenes given by experts from the field, it was possible to uncover the underlying emotions of fashion communication, identify strategies and current design practices. Then, investigating consumers' perceptions of digital products through focus group sessions and measuring user experience through usability tests allowed to explore interactivity to design for emotions and analyze its impact. In addition, the practical knowledge acquired within the scope of the partnership with the online retailer offered a snapshot of the industry's challenges. Altogether, the findings resulted in a framework that indicates themes that should be considered in the design process, signalizing specific moments to embed emotional design practices and supporting decisions.

Returning to the overarching research question posed earlier in this study "How can the symbiosis between design and emotion enhance digital fashion strategies to promote engaging experiences?",

it is now possible to state that the framework answers the "How" as it synthesizes knowledge from diverse disciplines and comprises additional tips, tools, and related data.

This thesis makes valuable contributions to Digital Fashion Communication, a field that needs further investigation despite the increasing interest of researchers and practitioners in the last decade. It demonstrates how digital strategies may benefit from the inclusion of emotions in the design process and underlines the potential of interactivity to tell the stories of fashion brands according to their personalities.

Simultaneously, this research supports that emotions are vital to establishing meaningful connections with consumers. Hence, they should be embraced by creatives despite their intricacies. As illustrated in the framework, embedding emotional design can be a gradual process and does not have to be daunting. Just like learning any other skill, designers can develop a better understanding of emotions through practical experience by involving users as much as possible in the process.

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10 Appendices

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Chapter 3

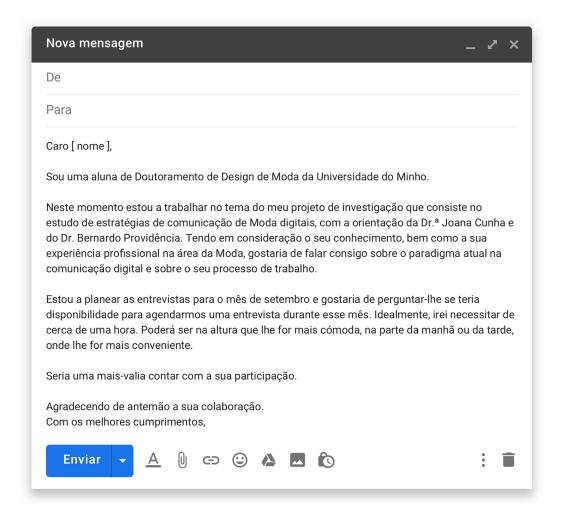
Appendix 3.1 Guidelines for attraction

Adapted from van Gorp and Adams (2012).

Property	Information	General guidelines
Color	 The saturation level has effects on physiological arousal and can be used to automatically draw attention; Color associations can be used to increase the perceived value of something; Colors should be chosen wisely because color associations can vary among cultures; People pay attention to colors they like and ignore those they don't. 	 In terms of hue, orange and red increase arousal and attract the most attention; Colors with a higher saturation affects arousal independent of the hue (i.e., higher saturation = higher arousal); The contrast of a color against its background affects arousal (i.e., higher contrast = higher arousal); Red, yellow and orange are considered more aggressive, dynamic, and active than colors in the blue range, which are considered more passive and calm.
Line and form	 Line and form are primitive visual cues connected to the expression of different emotions; The directional tendency of a line expresses arousal levels; affects perceptions of power, and perceptions of personality; The perceived hardness or roughness and the perceived weight of a form will affect perceptions of personality. 	 Lines pointing or moving upwards express strength, energy, force, ambition and uplifting feelings; Lines pointing downwards express weakness, a lack of energy, relaxation, or depression; Angular, hard and heavy forms are perceived to be more dominant; Rounded, soft and lite forms are perceived to be more submissive.
lmage size	 Size is one of the most important and primitive visual cues; Since increased emotional arousal means enhanced memory, large objects are more easily remembered. 	Larger images are: more arousing than smaller ones; better remembered than smaller ones; better liked than smaller ones.
Screen size	 Devices with very small screens are likely to be less arousing than those designed with larger screens; High levels of arousal can be counterproductive when one needs to learn content or perform tasks. 	 Larger screens increase emotional arousal, improve memory, and elicit positive feelings towards the content; Close-ups shown on large screens increase arousal levels; Close-ups shown on small screens increase arousal levels to create a more intimate and immersive environment.
Distance in images	 Close interpersonal distances can be positively or negatively arousing. In either case, arousal focuses attention and enhances memory. 	 Viewers pay more attention to close-ups of people; Viewers remember people in close-ups better.
Motion	 Motion alerts and demands attention, especially if it occurs within peripheral vision where people are not focusing. 	 Viewers will orient their attention to visual surprises; Slow, smooth motions can enhance immersion and characterization.

Property	Information	General guidelines
Scene changes	 Visual cuts demand the same levels of user's attention that motion does; To be used effectively, cuts should simulate the ways in which people view scenes in real life. 	 Cuts between related segments are less intrusive than cuts between unrelated segments; Increased cuts translate to more favorable evaluations of people in scenes; The more cuts, the higher the attention (up to an optimum point).

Chapter 4



Appendix 4.2 The interview guide

Com a sua permissão irei tomar algumas notas e gravar esta conversa para poder ouvi-la posteriormer assegurando, desta forma, a integridade das suas respostas. Os dados recolhidos serão confidenciais unicamente utilizados para efeitos de investigação e comunicação à comunidade científica. Vou pedir-lhe para assinar o formulário de consentimento, se faz favor. Entregar o Termo de consentimento informado e uma caneta. Peço que fale com total à vontade com base na sua experiência, nos seus conhecimentos e opinião pessoal. Até ao momento, tem alguma questão que queira colocar? Não sendo o caso, podemos iniciar?		
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	Iniciar gravação de áudio.	
		colocar? Não sendo o caso, podemos iniciar?

PERGUNTAS

- 1. Pode falar-me um pouco sobre os projetos de Moda que tem em mãos?
- 2. Como é que aborda um projeto?
- 3. Que aspetos tem mais em atenção no desenvolvimento de um produto? (perceber porquê)
- 4. Que estratégias utiliza para transpor emoção nos produtos? (pedir exemplos específicos)
- 5. De que forma obtém o feedback das pessoas em relação aos produtos?
- 6. Tendo em conta a ascensão da comunicação digital, sentiu necessidade de alterar ou adaptar de alguma forma o modo como trabalha?
- 7. Observou alguma mudança nas práticas criativas dos profissionais de comunicação de Moda?
- 8. Na sua opinião, que desafios é que o digital coloca aos profissionais de comunicação de Moda?

Para finalizar: Gostaria de acrescentar mais alguma coisa antes de terminarmos a entrevista? Obrigada pela sua colaboração.

Desligar gravação de áudio.

Obrigada mais uma vez pelo tempo e pela energia que dispensou para realizar esta entrevista.

Se surgir algo na transcrição que me suscite alguma dúvida, posso ligar-lhe?

Convido-o a enviar-me algum comentário por escrito ou pode até ligar-me se quiser acrescentar algo ao que foi dito.

O que achou da entrevista?

INFORMAÇÃO AO PARTICIPANTE

O estudo realiza-se no âmbito do doutoramento em Design de Moda e integra o projeto "Estratégias de comunicação digitais de marcas de Moda baseadas no Design Emocional", financiado pelo FSE – Fundo Social Europeu, pela FCT – Fundação para a Ciência e a Tecnologia e pelo POCH Programa Operacional Capital Humano. Este está a ser desenvolvido pela doutoranda Ana Paula Faria, sob a orientação da Dr.ª Joana Cunha e do Dr. Bernardo Providência.

Pretende-se com este estudo, através da realização de entrevistas a um conjunto de potenciais participantes ligados à Comunicação de Moda, conhecer as práticas adotadas no processo de desenvolvimento de produtos. Em adição, pretende-se conhecer a perspetiva dos participantes sobre o paradigma atual da comunicação digital.

Para facilitar a recolha e a análise da informação, pedimos a sua autorização para proceder à gravação áudio desta sessão e para recolher dados através de sistemas manuais. Poderá ser contactado(a) novamente para confirmar e/ou obter novas informações.

A utilização primária da informação recolhida é assistir a análise subsequente da entrevista, assegurando, desta forma, a integridade das respostas. A entrevista será posteriormente transcrita e poderão ser utilizados segmentos de gravações em formato áudio ou citações. Os dados serão confidenciais e unicamente utilizados para efeitos de investigação e divulgação em contexto científico (dissertação, apresentações ou publicações).

A sua participação é completamente voluntária e a decisão de não participar, total ou parcialmente, não lhe trará qualquer prejuízo. Poderá desistir a qualquer momento e, se preferir, a informação recolhida até ao momento poderá ser eliminada.

	TERMO DE CONSENTIMENTO INFORMADO
	Declaro que:
l.	Recebi uma cópia deste documento;
II.	Li e compreendi a informação que consta neste documento e que fui devidamente informado(a) e esclarecido(a) acerca dos objetivos e das condições de participação neste estudo;
III.	Tive oportunidade de realizar perguntas e de ser esclarecido(a) acerca de outros aspetos;
	Data:/
	Gostaria de ter acesso/conhecimento dos resultados deste estudo? ☐ Sim ☐ Não
	Agradecemos a sua participação.

Appendix 4.4 Practical guidelines for transcription

Adapted from Azevedo et al. (2017)

Practical Guidelines	Options	Examples
Identification of the interviewer and the interviewee	Speaker initials	Interviewer versus participant; I versus Maria Antunes; I = Interviewer versus MA = Participant
Transition scheme	Linnar	I: And which aspects do you consider most important?
Transition scrieme	Linear	AM: The brand identity mainly because several brands may want to communicate a specific concept at the same time.
Type of transcription	Naturalized	(Laughter) It is complicated to say because there is no method. We don't have a method, it is what will work best for that partnership. There is no method that I can tell you that it is established.
Text formatting	Open Sans; simple spacing; no indents; interviewer's interventions in blue italic	I: How did your interest in digital media emerge? AR: Well, it emerged before I became an academic, as a consumer of fashion magazines myself.

Appendix 4.5 Examples of codes used in transcription

Adapted from Azevedo et al. (2017)

When in the recording	In the transcription	Example
You cannot hear what the person is saying	Information inside parentheses	(inaudible text segment)
You cannot understand what the person is saying	Information inside parentheses	I would feel still that the (unintelligible segment) is much much younger than me and I really don't associate with that.
You are unsure about what the person is saying	Inside parenthesis and delimited by question marks	Maybe precisely these are kind of question that can be ?(unbreakable)?
You cannot understand because of crosstalk	That piece of information inside parentheses	(unintelligible segment due to overlapping speech/crosstalk)
Interruption/word is cut	A hyphen at the end	Respond-
To include notes/explain interruptions	Text in italic inside parentheses	(the phone rang)
Non-verbal sounds (e.g., emotions)	Information inside parenthesis	(laughed); (sighed)
The person emphasizes the speech	Uppercase	How can fashion communication be ENHANCED (strong intonation) by technology?
Silence/pauses	Three ellipses inside parentheses	()
Interjections	The following designations:	Hmm; Mm; Ah.

Appendix 4.6 Codebook

Code name	Files	References
Stages	9	199
Stages / Defining the concept	6	24
Stages / Knowing the client	5	27
Stages / Knowing the market and competition	4	12
Stages / Knowing the audience (consumers)	9	36
Stages / Understanding context	4	8
Stages / Generating ideas	7	38
Stages / Monitoring feedback	8	44
Stages / Key stages	6	10
Workplace dynamics	8	161
Workplace dynamics / Between teams	6	33
Workplace dynamics / Clients	6	43
Workplace dynamics / Other professionals	5	18
Workplace dynamics / The industry professional / A creative person	6	27
Workplace dynamics / The industry professional / A mediator and facilitator	5	13
Workplace dynamics / The industry professional / Add value	3	6
Workplace dynamics / The industry professional / Create surprise and arouse curiosity	7	20
Workplace dynamics / The industry professional / Deal with negative reviews	3	3
Workplace dynamics / The industry professional / Storyteller	6	11
Workplace dynamics / The industry professional / Working in Fashion	3	7
Strategies	9	117
Strategies / Aesthetics	6	27
Strategies / Brand Equity	4	16
Strategies / Coherence	6	13
Strategies / Composition	5	16
Strategies / Content strategy	3	10
Strategies / Fashion market influencers	1	3
Strategies / Knowing the product	4	8
Strategies / Promoting unexpected contexts	7	15
Strategies / Revealing details	3	3
Strategies / Storytelling	4	6
Digital Disruption	10	66

Code name	Files	References
Digital technologies	11	122
Digital technologies / Augmented reality	1	4
Digital technologies / Holograms	1	2
Digital technologies / Magic mirrors	1	1
Digital technologies / Retail lighting	1	2
Digital technologies / Social media	8	75
Digital technologies / Social media Social media / Facebook	4	17
Digital technologies / Social media / Instagram	7	25
Digital technologies / Social media / Pinterest	1	1
Digital technologies / Video	5	11
Digital technologies / Virtual reality	2	3
Digital technologies / Website	4	24
Outcomes	10	207
Outcomes / Challenges	9	49
Outcomes / Future predictions	6	8
Outcomes / Important citations	10	38
Outcomes / Negative aspects	6	18
Outcomes / Positive aspects	8	22
Outcomes / References	1	3
Outcomes / Restrictions	8	53
Outcomes / Shifts	9	16

Chapter 5

Appendix 5.1 Informed consent

PARTICIPANT INFORMATION This study is carried out under the PhD in Fashion Design and is part of the project "Digital communication strategies for Fashion Brands study based on Emotional Design", supported by FSE-European Social Fund, by national funds through FCT – Foundation for Science and Technology and POCH – Human Capital Operating Programme. It is being developed by the Phd student Ana Paula Faria, under the guidance of Dr. Joana Cunha and Dr. Bernardo Providência. The purpose of this study is to gather information about HARDI through an e-mail interview. In addition, it is also aimed to know the design and communication practices and to understand the role of other Fashion communication intermediaries. The data provided will be kept for future research purposes related to this study (thesis, conferences or publications). Your participation in this study is completely voluntary, and you may refuse to participate or withdraw from the study without penalty. You may withdraw by informing the experimenter that you no longer wish to participate (no questions will be asked). You may skip any question during the interview but continue to participate in the rest of the study.

	CONSTRUCTO TAKE DART IN DESCRAPCIO
	CONSENT TO TAKE PART IN RESEARCH
I.	I have read and understand the explanation provided in this document and I was duly informed and
	clarified about the objectives and conditions of participation in this study;
II.	I have had the opportunity to ask questions and to be clarified about other aspects;
III.	And as such, I voluntarily agree to participate in this study.
	This as said, it to antain, age as to participate in this stay,
	Date:/
	The participant:
	Would you like to have access/knowledge of the results of this study? Yes No
	Thanks for your participation.

Appendix 5.2 Informed consent online

De: AM @ Hardi annemarie@hardimagazine.com
Assunto: Re: HARDI iPad
Data: 28 de março de 2019, 08:46
Para: Ana Faria anapaulafaria.design@gmail.com

Hi Ana,

yes, the interview by mail would be fine. Although I would have loved to come to Portugal directly :-))

Shortly, the target audience for Hardi are people in the Fashion Business; photographers, students, stylists, models, art directors, etc The core idea was to showcase how we can create specific content; made for and with the technology of mobile devices (touch, gyrosope etc) together with

artists.

Mainly from the fashion industry but we also have collaborations with choreographers, dancers, motion artists etc.

I'm looking forward to receive your interview. And it would be so interesting to exchange in real life if you're ever in Paris?

Anne-Marie

Anne-Marie van Dongen Creative & interactive director



13, Rue Des Céréales 93210 La Plaine Saint Denis tel : 0033 (0) 7 81 80 65 73

SECTION 1 - BRIEF INTRODUCTION

1.1) Tell me a bit about your academic and personal experience. What made you choose the Theater, Scenography and Arts areas? How did your interest in Digital Design emerge?

I fell in love with theatre as a student when working with a student theatre company in Utrecht, Netherlands. I did a lot of different things, from producing to set design. So it was only naturally to change my studies and choose Theatre & Film (I did a sort of art & literature study before...). Anyway, when arriving in Paris I started working in fashion photography as a digital operator and at the same time I created scenery for different plays, with the help of various programs and techniques. I also created a short movie about street artists. Any way, I've always liked the idea to mix visual & performing arts.

1.2) What does a typical day look like for you?

:-) My days are quite different depending if I teach or do design work: A teaching day starts at 8:30 until 14, I then rush home to have lunch and work a few hours on design projects before picking up my daughter from school. Sometimes I work in the evening when she's sleeping. Design days are more laidback, I have coffee in a bar, I start drawing, doodling, writing, then I prototype. I have stroll in the parc with my dog. I go back to work, etc. Until picking up my daughter from school.

1.3) What were the most challenging projects that you were involved that filled you with joy?

HARDI is such a special project; it's the first interactive project on mobile device I've worked on; it involved so many people, I've collaborated with joy with my co-creative director Lucas Marquand Perrier. To discover what worked and what not has served as a great lesson for future projects. Besides Hardi, one of our latest apps with the serious game about the sculptor Ossip zadkine was a great project also, the game is far from perfect, it needs a lot of improvement but it was so much fun to work on a scenario for a serious game. I'm planning on doing more of those in the future!

1.4) In question 1.3 you said that discovering what worked and what didn't work in HARDI served as a great lesson for future projects. Can you write a little more about that?

Well, ergonomy for example; At the beginnings I wanted to minimise indications, help screens etc. But that's not how it works; if you want people to enjoy your app they need to be able to use it easily. People give up easily if they don't understand what's it about. So depending on the app I creating, I spend a lot of time on ergonomics and testing.

SECTION 2 - HARDI

2.1) And speaking about challenging projects, can you tell me a little bit more about your role in HARDI and what that involves?

I am the creative & interactive director of Hardi. When we started Hardi; it was like creating an ovni; nothing like it existed so we had to reinvent tools and ways of interacting with content.

The initial idea was to create an annual or bi-annual magazine, so we wanted every issue to have it's own theme. This was Dance for the first one; that's why so much content in Hardi is liked with dance. Together with Lucas Marquand Perrier (creative director) and Sebastien Rouchon (publishing director) we imagined the content, interactivity and contributors.

2.2) What is the ultimate goal of the magazine?

To reinvent magazines, to invent new ways of interacting with content, to imagine new ways of storytelling.

2.3) What kind of reactions do you expect from people after they interact with HARDI?

The wow effect ;-) This is still the case even after 5 years. Evolution goes fast and slow at the same time.

2.4) HARDI is a disruptive app within the world of digital publishing. What kind of feedback have you been receiving from people? Can you share some examples of what you have been hearing?

People are very surprised by it's content; there's not much like it. They are impressed and amused.

2.5) According to people's feedback, do you think that HARDI has been eliciting curiosity and surprise? If so, do you think that this is important?

Yes, I think so. And yes I think it's important for an app like Hardi to elicit curiosity. The main target audience for Hardi are people within the Fashion Industry and within the Industry it's important to surprise.

2.6) So what's next for HARDI? What is the next event, announcement that the followers should look forward to?

Actually we're thinking about it; we need to give a new impulse; to bring Hardi to a new level but we also need funding for that. So for the moment I'm on some other projects; I need to discuss with Hardi's publishing Director; Sebastien Rouchon to see what we can do to develop Hardi further.

SECTION 3 - "BEHIND THE SCENES" - DESIGN AND COMMUNICATION PRACTICES

3.1) I am aware that you are also the creative director and co-founder of Fixioneers. I imagine being in a leadership role like you are, you are getting a lot of email and feedback from different channels. How do you manage your time between working in your own company and HARDI? How does it work?

Well it's quite busy sometimes and that's also the reason Hardi's been fading a bit to the background for the last few years. We would need more funding to be able to promote Hardi, get more advertising and create more content. And to be able to hire some people to work more regularly on the app!

3.2) In one of our first emails, you said that the core idea of HARDI is to showcase specific content in collaboration with professionals from the fashion industry, among others. Can you explain how this collaboration between professionals with different backgrounds works?

My co-creative director Lucas Marquand Perrier, as well as Sebastien Rouchon and myself have made quite a list of interactive functions we'd liked to explore, such as gyroscope, image sequences, specific cameras such as the Phantom etc. We came up with creative ideas to integrate these

technical functionalities and then contacted a photographer or filmmaker with the core idea. We then went on discussing with them how the idea could evolve, they would add their ideas and so on. The difficulty was found often in the lack of knowledge of these new interactive possibilities. It's like a new language, a lot of artists had a hard time understanding and imagining how they could use that language to express their creative ideas.

3.3) From what I have understood, the content is created specifically for and with the technology of mobile devices, such as touch, gyroscope, among others. Can you explain how the ideation process works?

See above. I would make prototypes with the programs available at the time, notably aquafadas, to show the artists (photographers & co) our ideas; so they understood the technical aspect and how they could add their ideas and within the limits. I also made storyboards, especially for the image post-production crew and the developers.

3.4) Regarding interactive content, how do you approach a new interactive feature? When I say "an interactive feature" I am referring to an interactive story (for example, in issue #1, I am considering that "Cartier – Motion Still Life" is an interactive feature). Can you guide me through each step of the process of the design development of one particular interactive feature?

You'll find enclosed in this mail a pdf document, this is the funding dossier for the Tanz, tanz feature. It's written in french but you'll find some visual material as well, starting from our intentions as artists, moodboards for atmosphere and stylism, scene descriptions and a beginning of a storyboard.

3.5) What step do you consider most important when you're working on an interactive feature? Why?

The hardest and most important part is finding the right idea, I mean the idea the integrates the technical and interactive possibilities of mobile devices in a way that's "natural" or fluid; it makes sense, it's not just a gadget. Hardi is really an experiment in that way; in some features we have achieved this quitte well, in others less. I think the interactivity in Let it Flow, Cartier, Dior, Vanitas, to cite but a few works really well.

3.6) In your perspective, how can fashion communication be enhanced by the interactive and movement possibilities provided by an iPad?

Today that's a difficult question; one of the reasons interactivity is not so much developed and integrated in (fashion) communication is the enormous success of social media. Unfortunately the interactivity as explored in Hardi is not possibile on social media. Integrating a gif on Insta or FB has been possibile only since a year or two and before that even a video was complicated to integrate. At the same time, the evolution of VR and AR also became more on the foreground. I find it's like the discovery of photography in the 19th century, a lot of different chemical processes were developed such as gumtype, cyanotype, daguerrotype etc, all with different qualities and limitations, but soon all these techniques were overshadowed by the most pratical and commercial viable ones invented by Kodak. So all these other techniques went into oblivion for a long period, only recently artists started to play around with these processes again. It's the same today, technical evolution is so fast that I have the impression that some inventions from only a few years ago are already been forgotten or over-shadowed by newer inventions. But to answer your question, today it's all about experiences and I think people will always appreciate good stories, so an interactive campaign with a good story that makes a clever use of interactivity, of whichever technical nature, will aways be a success. Some examples are the Burberry Kiss campaign or Diesels interactive storefront who offer a unique user experience.

3.7) What would you say are some of the most challenging aspects of the work you're doing?

Coming up with new ideas, new stories and then convincing the whole crew, especially photographers on how to realise the project in a way that the interactivity makes sense.

3.8) What sparks your inspiration? Do you use some kind of resource/platform? If so, which ones?

I read an awful lot ;-) so words, stories and ideas make me think and spark my imagination. Actually visual images such as photographs or videos block me, I'm afraid to copy ideas. I love also certain newsletters especially Brain pickings by maria Popova.

3.9) What is the best way to keep up with the digital world?

pff. Impossible to keep up I guess. But Adobe does a good job on informing their clients on new ways of using their tools. Awwwards for what's happening designwise is a good source. Muzli (Invision) has a lot of stuff as well. I don't know, I surf a lot. I'm a very curious person, I always want to know how thinks work so I research all the time.

CONTEXTO DA INTERAÇÃO			
Seguem-se um conjunto de pares de palavr uma atitude oposta sobre o contexto em qu indica o número com o qual te identificas n	ue utilizaste a aplicação. A tua		
Esta seção não é uma avaliação da qualida que te rodeia e os teus sentimentos.	Esta seção não é uma avaliação da qualidade da aplicação, mas uma tentativa de perceber o ambiente		
Quando estava a usar a aplicação, eu estav	va:		
num local desagradável	0000000	num local agradável	
	000000	num sítio sossegado	
em movimento	000000	permaneci imóvel	
Quando estava a usar a aplicação, senti-m	e:		
desmotivado	0000000	motivado	
	0000000	interessado	
mal-disposto	000000	bem-disposto	
Depois de usar a aplicação,			
estou mal-disposto	0000000	estou bem-disposto	
ão estou disposto a usá-la novamente	000000	estou disposto a usá-la novamente	
Quando estava a usar a aplicação,			
não estava a interagir com pessoas	0000000	estava a interagir com pessoas	
fui interrompido várias vezes	0000000	nunca fui interrompido	
desinteressado	000000	interessado	
Em geral, eu estive:			
pouco tempo a usar a aplicação	0000000	muito tempo a usar a aplicação	

Appendix 5.5 Sentence completion task

CC	DMPLETAR AS FRASES
Coi	m base na tua experiência com a aplicação, gostaríamos que completasses 4 frases. Lê cada uma delas e completa-a com a
	IMEIRA COISA que te vier à mente. Uma vez que não existem respostas certas ou erradas, tenta não pensar muito sobre o
	e vais responder. Escreve o que for mais natural para ti. Se achares que alguma das frases não é relevante, podes passar à nte.
A s	sensação que a aplicação me traz é
_	
Eu	acho que a aparência desta aplicação é
0 0	que me surpreendeu na aplicação foi
0	
0 0	que me deixou mais curioso na aplicação foi
Co	mentários adicionais

Bom dia a todo(a)s e sejam bem-vindos!

Muito obrigada pela vossa disponibilidade em participarem na discussão sobre a aplicação HARDI magazine. O meu nome é Ana Paula Faria, e eu serei a moderadora desta sessão de hoje. Irei ser assistida pela Alexandra. O propósito desta sessão consiste em obter feedback sobre a vossa experiência de utilização da aplicação. Vocês foram convidados justamente porque aceitaram explorar a aplicação livremente durante uma semana.

Não há respostas certas ou erradas às questões formuladas e é expectável que tenham diferentes opiniões. P.f. sintam-se à vontade para partilhar o vosso ponto de vista ainda que o mesmo seja diferente da opinião dos outros. Podem, se o entenderem, intervir para concordarem com o que está a ser dito, ou para discordarem, ou, ainda, para darem outro exemplo ou informação. Eu estou aqui para colocar questões, ouvir e garantir que todos tenham oportunidade de participar e partilhar o seu conhecimento. Estamos interessados em ouvir cada um de vocês, pelo que irei dar oportunidade a todos de intervirem, gerindo o tempo de modo a garantir que quem não falou o possa fazer e quem esteja a usar tempo a mais na sua intervenção possa ser aconselhado a sintetizar.

A nossa conversa irá durar cerca de uma hora e meia. Vou pedir-vos para colocarem os vossos telemóveis em silêncio para evitar distrações, se faz favor. Caso não seja possível e caso precisarem de usar o telemóvel, peço-vos que saiam da sala e que regressem o mais rapidamente possível. Em caso de emergência, se precisarem de sair, por favor informem-nos. Estejam à vontade para se levantar e tomar café.

Eu e a Alexandra iremos tomar notas e relembrar-vos do que está a ser dito. Iremos também gravar esta sessão porque não queremos perder nenhuma informação ou comentário. É garantida a confidencialidade da informação recolhida. A vossa identidade nunca será revelada e a informação recolhida será alvo de um tratamento global e não individualizado. Antes de prosseguirmos vou pedir-vos para assinarem o termo de consentimento informado.

		Minutos
1.	Vamos então começar pedindo a cada um que se apresente, dizendo o nome e qual é o	
1.	que gostam de fazer no vosso tempo livre.	3
2.	Pensa na primeira vez que utilizaste a aplicação. Qual foi a tua primeira impressão?	5
۷.	INCENTIVAR OS PARTICIPANTES A CONTAREM UMA HISTÓRIA	
	Nestes painéis encontram-se imagens de oito conteúdos da secção HARDI CREATIONS.	
	Agora, com base na vossa experiência com a aplicação, queria pedir para assinalarem	
	com um autocolante verde os três conteúdos que gostaram MAIS e a vermelho os três	5
	conteúdos que gostaram MENOS. Esta atividade servirá para nos auxiliar a iniciar uma	3
	conversa sobre a vossa experiência com a aplicação.	
	AGUARDAR ALGUNS MINUTOS PELAS RESPOSTAS.	

		Minutos
3.	Diz-nos porque assinalaste a verde aqueles conteúdos.	10
4.	Diz-nos porque assinalaste a vermelho aqueles conteúdos.	10
	Entregar a cada participante uma folha com as frases.	
	Com base na vossa experiência com a aplicação, gostaríamos ainda que completassem	
	4 frases. Leiam cada uma delas e completem-nas com a PRIMEIRA COISA que vos vier	
	à mente. Uma vez que não existem respostas certas ou erradas, tentem não pensar	
	muito sobre o que vão responder. Escrevam o que for mais natural para vocês. Se	5
	acharem que alguma das frases não é relevante, podem passar à frente.	5
	AGUARDAR ALGUNS MINUTOS PELAS RESPOSTAS.	
	Pedir a cada participante para dizer o que respondeu.	
	Pedir aos participantes para indicarem o que acharam similar ou diferente entre as	
	respostas.	
5.	A sensação que a aplicação me traz é	10
6.	Eu acho que a aparência desta aplicação é	10
7.	O que me surpreendeu na aplicação foi	10
8.	O que me deixou mais curioso na aplicação foi	10
	Vamos ouvir um resumo dos pontos chave da nossa discussão.	
9.	SUMÁRIO DO ANOTADOR (2/3 min.)	10
	Acham que o sumário é adequado? Gostariam de acrescentar mais alguma coisa?	
	Total	90 min.

Appendix 5.7 Informed consent

INFORMAÇÃO SOBRE O GRUPO FOCAL

Sobre a investigação

Este estudo faz parte de um projeto financiado pelo FSE – Fundo Social Europeu e pela FCT – Fundação para a Ciência e a Tecnologia e pelo POCH Programa Operacional Capital Humano, no âmbito do doutoramento em Design de Moda. O objetivo deste estudo é, através da realização de um grupo focal, obter feedback da experiência de utilização da aplicação HARDI magazine, da Rouchon Paris.

Participação voluntária

A sua participação é completamente voluntária e a decisão de não participar, total ou parcialmente, não lhe trará qualquer prejuízo. Se algumas questões a fizerem sentir desconfortável, você não tem que responder. Poderá abandonar o grupo em qualquer altura por qualquer motivo.

Captura de áudio

Para facilitar a recolha e a análise da informação, pedimos a sua autorização para proceder à gravação áudio desta sessão e para recolher dados através de sistemas manuais.

A utilização primária da informação recolhida é assistir a análise subsequente do grupo focal, assegurando, desta forma, a integridade das respostas. Os dados serão posteriormente transcritos e poderão ser utilizados segmentos de gravações em formato áudio ou citações. Os dados serão confidenciais e unicamente utilizados para efeitos de investigação e divulgação em contexto científico (dissertação, apresentações ou publicações).

	TERMO DE CONSENTIMENTO INFORMADO
	Declaro que:
1.	Li e compreendi a informação que consta neste documento e que fui devidamente informado e
	esclarecido acerca dos objetivos e das condições de participação neste estudo;
II.	Tive oportunidade de realizar perguntas e de ser esclarecido acerca de outros aspetos;
III.	E que, como tal, aceito participar voluntariamente neste estudo.
	Data:/
	O participante:

Appendix 5.8 Codebbok - Interview Anne-Marie van Dongen

Code name	Files	References
HARDI	1	11
HARDI / Lessons	1	2
HARDI / About the project	1	5
HARDI / Goals	1	2
HARDI / Feedback	1	2
Behind the scenes	1	12
Behind the scenes / Collaborative process	1	1
Behind the scenes / Challenges	1	5
Behind the scenes / Ideation	1	4
Behind the scenes / Interaction and fashion communication	1	1
Behind the scenes / Storytelling	1	1

Appendix 5.9 Codebook - Focus Group

Code name	Files	References
First Impressions	2	53
Positive	2	186
Positive / Aesthetics	2	16
Positive / Audio	1	10
Positive / Clear instructions	1	3
Positive / Color	2	14
Positive / Content of the story	2	26
Positive / Creativity	1	2
Positive / Digital vs Print	2	10
Positive / Duration	1	2
Positive / Easy to use	2	2
Positive / Gestures	1	4
Positive / Interactive features	2	21
Positive / Memory	2	4
Positive / Motion	2	21
Positive / New	1	2
Positive / Purpose	2	2
Positive / Storytelling	1	6
Positive / UI Design	2	7
Positive / Unexpected	1	3
Negative	2	235
Negative / Aesthetics	1	1
Negative / Content of the story	2	9
Negative / Duration	1	3
Negative / Expectations	2	2
Negative / Hard to use	1	6
Negative / Instructions	2	22
Negative / Lack of new content	1	15
Negative / Language	1	5
Negative / Loading	2	5
Negative / Navigation	2	17
Negative / Ordinary	1	10
Negative / Purpose	2	39

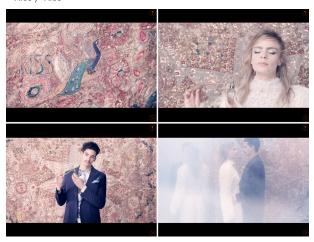
Code name	Files	References
Negative / Size	1	4
Negative / Slowness	1	4
Negative / Technical issues	2	27
Negative / UI Design	2	15
Neutral	2	70
Neutral / Associations	2	25
Neutral / Audio	2	18
Neutral / By accident	2	4
Neutral / Context of use	2	8
Neutral / Purpose	1	10
Neutral / Stop using the app	2	5
Focus Group 1 Sentences	1	79
Focus Group 1 Sentences / The feeling that the application brings me is	1	18
Focus Group 1 Sentences / I think the appearance of this application is	1	31
Focus Group 1 Sentences / What surprised me in the application was	1	23
Focus Group 1 Sentences / What made me most curious about the application was	1	7
Focus Group 2 Sentences	1	126
Focus Group 2 Sentences / The feeling that the application brings me is	1	19
Focus Group 2 Sentences / I think the appearance of this application is	1	34
Focus Group 2 Sentences / What surprised me in the application was	1	31
Focus Group 2 Sentences / What made me most curious about the application was	1	42
Suggestions	2	13
Stories	2	248
Stories / Cartier	2	13
Stories / Christofle	2	18
Stories / Dior	2	37
Stories / Holy Bride	2	40
Stories / Kiss Kiss	2	25
Stories / Let if flow	1	4
Stories / Loop N Jam	2	14
Stories / New York New York	2	16
Stories / Nostalgia	1	3
Stories / Rolling Waves	1	3

Code name	Files	References
Stories / Sans Tutu	1	15
Stories / Tanz Tanz	2	9
Stories / Vanitas	2	51
Emotions	2	118
Emotions / Curiosity	2	22
Emotions / Disgust	2	3
Emotions / Enthusiasm	2	34
Emotions / Frustration	2	23
Emotions / Indifference	2	17
Emotions / Joy	1	5
Emotions / Surprise	1	14
Superlative language	2	35
Important sentences	2	38

Stories

Interactive Features

Kiss / Kiss



Tap the screen to go from one world to another, to change visions, to change kisses.

Holy Bride



This story brings interactive credits that change with the looks on the video.

Cartier



A Cartier Panther necklace in an interactive motion allows the necklace to shine by tilting the tablet to make it more real.

Sans Tutu



Series of motion photographs come to life from a touch on the screen.

Tanz, Tanz



A sequence of scenes featuring interactive tricks will let the user change point of view on one video, play another one at the finger's speed, or change the music.

Dior



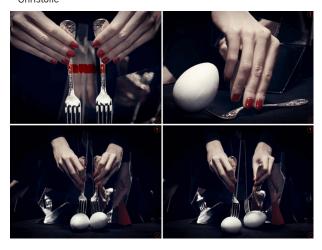
Nathaniel Aron has a Dior suit and is dancing a street dance style named Krump to the sound of Vivaldi's four seasons in an interactive film. Tap the screen to change views.

Loop N'Jam



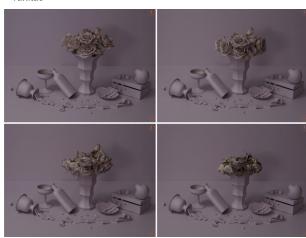
Colorful and dynamic contemporary dance stop motion story.

Christofle



Chaplin's God Rush Bread Dance remake with Christofle silver forks that can slow down or speed up by tilting the tablet.

Vanitas



Observe a time-lapse by tilting the iPad from left to right. Swipe to explore the four different scenes.

New York / New York

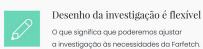


Play with sound effects by touching the model in five different places in New York. Swipe to switch scenes.

Chapter 6



Porquê uma parceria entre nós e a FF?





Partilha de conhecimento

Acesso privilegiado aos resultados; Aplicação de conceitos teóricos na prática.



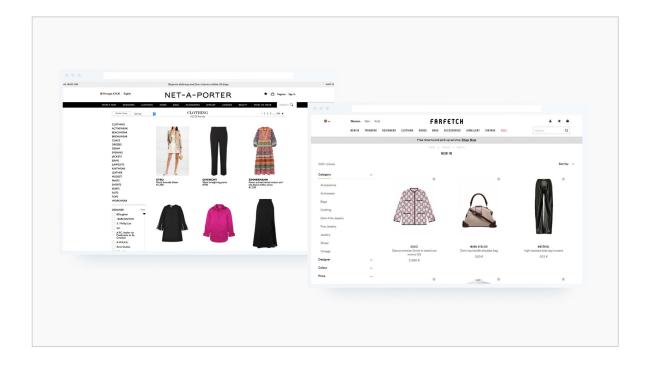
Projeto pioneiro

Oportunidade para fazer parte de um projeto pioneiro.

















Porquê uma parceria entre nós e a Minty?



Desenho da investigação é flexível

O que significa que poderemos ajustar a investigação às necessidades da Minty



Partilha de conhecimento

Acesso privilegiado aos resultados; Aplicação de conceitos teóricos na prática.



Projeto pioneiro

Oportunidade para fazer parte de um projeto pioneiro.

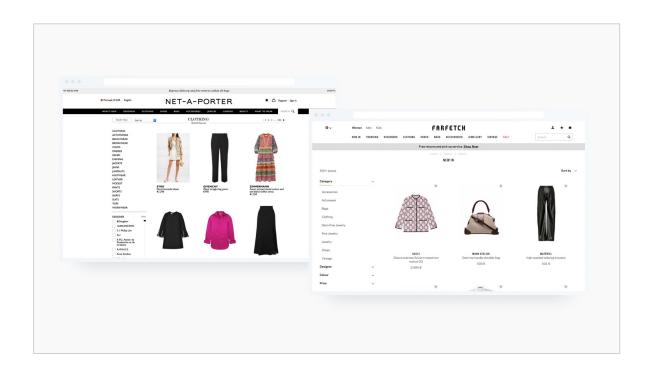






80% Pessoas visitam sites de compras no tablet

Fonte: GlobalWebIndex 2018 / 87,843 pessoas, idade 16-64 anos









TERMO DE AUTORIZAÇÃO PARA USO DE DADOS

Eu, CEO João Figueiredo, representante da empresa Minty, Lda., com instalações na Rua Dr. Eduardo Silva, 261, 4200-283 Porto, com o número de identificação de pessoa coletiva 513 418 032, declaro que as informações disponibilizadas pela empresa para a tese de Doutoramento intitulada "Study on digital communication strategies of Fashion brands based on Emotional Design" de Ana Paula Barroso Faria podem ser publicadas, sem qualquer ônus e em caráter definitivo

Local e data: 26-03-202\ \(\text{Min_b Local} \)

Assinatura: \(\frac{13 - 702\ \text{Min_b Local}}{\text{Min_b Local}} \)

Assinatura: \(\frac{13 - 702\ \text{Min_b Local}}{\text{Min_b Local}} \)





julho 2019	Semana de imersão	segunda
	Minty Square	terça
	2 - comunicação	quarta
		quinta
	Informações cedidas pelos criadores Como é que os criadores enviam a informação? E que tipo de informação enviam? Caso fosse possível, seria proveitoso estar presente numa reunião com o cliente (durante a semana).	sexta
	Produção de conteúdo Seleção de conteúdos para as redes sociais e para o website. Como é feita essa gestão?	



julho 2019	Semana de imersão Minty Square 4 - creative jam session (em equipa)	segunda terça quarta quint a	
=-	Exploração de conceitos Pensar em oportunidades não exploradas que poderão levar a inovações disruptivas e vantagens competitivas.	sexta	
	Ideação de conteúdos Que tipo de conteúdos poderão ser explorados? Como pode a comunicação ser potenciada com interatividade?		





	According to the second
	ACORDO DE CONFIDENCIALIDADE
	Entre,
	Primeiro: Ana Paula Barroso Faria, na qualidade de aluna do programa doutoral em Design de Moda (curso em associação entre a Universidade do Minho e a Universidade da Beira Interior), portador do Bilhete de Identidade/Passaporte n.º residente em adiante designada por "Primeiro Outorgante",
	e
	Segundo: Minty, Lda., com instalações na Rua Dr. Eduardo Silva, 261, 4200-283 Porto, com o número de identificação de pessoa coletiva , aqui representado pelo CEO João Figueiredo, abaixo assinado, com poderes para o efeito, adiante designado(a) por "Segundo Outorgante".
	Considerando:
	 Os contactos iniciados pelas partes com a finalidade de desenvolver projetos e ideias; A necessidade, neste contexto, de troca de informações entre as partes, que assumem natureza reservada; Que tais informações constituem ativos críticos das respetivas partes, com valor próprio e independente da celebração futura de qualquer instrumento de colaboração entre si ou entre cada uma e quaisquer terceiros;
	As partes celebram o presente ACORDO DE CONFIDENCIALIDADE , submetido às seguintes cláusulas:
	PRIMEIRA CLAÚSULA
	(Objeto)
	1.1. O presente acordo tem por objeto garantir a confidencialidade e proteção da informação

fi...

com a exclusiva finalidade fixada infra na Cláusula Segunda.

- 1.2. Por informação protegida ou confidencial, adiante designada globalmente por "Informação", entende-se toda a informação que, independentemente do suporte utilizado, conste de:
 - Obras, de qualquer natureza, nomeadamente gráfica, escrita ou sonora, não publicadas;
 - Compilações e seleções informativas inéditas;
 - Documentação de natureza financeira;
 - "Know-how" ou saber-fazer, dados tecnológicos, métodos, fórmulas, demonstrações, amostras ou estudos;
 - Programas de computador ou blocos de programação em forma de código-fonte ou código-objeto;
 - Documentos comerciais, nomeadamente listas de clientes;
 - Relatórios, "Drafts", memorandos;
 - Quaisquer ativos intelectuais, enquanto conjunto de todos e quaisquer resultados de investigação, protegidos ou não por qualquer direito de propriedade industrial;
 - Qualquer outra informação divulgada, no citado contexto, pela parte emissora à parte recetora.
- 1.3. Na aceção do presente acordo, as partes designar-se-ão "parte emissora" e "parte recetora" de acordo com a qualidade assumida, no âmbito do intercâmbio de Informação a regular.

SEGUNDA CLAÚSULA

(Finalidade da divulgação e dever de confidencialidade)

- 2.1. A Informação é divulgada com a exclusiva finalidade de desenvolver projetos ou ideias, sendo que a terceira parte deve estar abrangida por um acordo desta natureza com quaisquer outra parte.
- 2.2. O Primeiro e o Segundo Outorgantes comprometem-se a não usar, divulgar ou ceder a qualquer título, em Portugal ou no estrangeiro, a informação divulgada da contraparte para qualquer outra finalidade distinta da estipulada em 2.1, salvo autorização expressa da parte emissora.
- 2.3. O Recetor deve proteger a informação divulgada pelo Emissor utilizando o mesmo grau de

di.

cuidado que usa para prevenir a disseminação e publicação não autorizada da sua própria informação.

- 2.4. O Recetor deve adotar todas as medidas necessárias para impedir o uso indevido da informação por qualquer pessoa que a ela tenha tido acesso e deve assegurar os meios adequados à prevenção do extravio ou perda da informação, comunicando sempre ao Emissor a ocorrência de incidentes desta natureza, ainda que esta comunicação não exclua a sua responsabilidade.
- 2.5. A parte recetora obriga-se a restituir qualquer cópia, excerto ou parte dos elementos da Informação referidos supra em 1.2., no prazo de 8 (oito) dias, mediante mera solicitação da parte emissora.

TERCEIRA CLAÚSULA

(Duração)

- 3.1. O presente acordo entra em vigor na data da sua assinatura por ambas as partes, ficando a parte recetora vinculada ao presente compromisso de confidencialidade, nos exatos termos supra estipulados, por três anos, contados desde a data de assinatura deste acordo.
- 3.2. As partes poderão, por acordo e a todo o tempo, revogar ou alterar, no todo ou em parte, as disposições do presente acordo, conquanto não seja posta em causa a confidencialidade da Informação.
- 3.3. Os seus efeitos podem igualmente cessar mediante a celebração de um qualquer compromisso contratual entre os Outorgantes no qual seja estipulada a confidencialidade da Informação, sendo assim substituídos os termos deste contrato, sem prejuízo do disposto no número seguinte.
- 3.4. Em caso algum estão todavia as partes vinculadas, pelo presente acordo, a celebrar futuramente quaisquer negócios jurídicos.

QUARTA CLAÚSULA

(Responsabilidade)

1. A parte recetora ou co-proprietários é responsável perante a parte emissora por quaisquer danos ou prejuízos, incluindo danos emergentes e lucros cessantes, resultantes do

figure.

incumprimento ou cumprimento defeituoso das suas obrigações de confidencialidade, sem prejuízo da eventual responsabilidade criminal em que incorre no caso de violação desta obrigação, nos termos da Legislação Portuguesa aplicável.

2. Sem prejuízo do disposto no número anterior, a violação de quaisquer obrigações previstas no presente acordo por parte da parte recetora ou co-proprietário lesante implica o pagamento à parte lesada, a título de Cláusula Penal, do montante que cubra os prejuízos causados.

QUINTA CLAÚSULA

(Exceções ao dever de confidencialidade)

- 5.1. NÃO SE CONSIDERA ABRANGIDO pelo dever de confidencialidade qualquer elemento da Informação:
 - Cuja divulgação tenha sido expressamente autorizada pelo(s) proprietário(s). Tal autorização deve ser solicitada pela parte recetora e concedida pela parte emissora ou pelo(s) proprietário(s) por escrito no prazo de 8 (oito) dias úteis, findo o qual, na ausência de resposta, se considera indeferida a autorização;
 - Que até ao momento da divulgação tenha sido publicado, tornado público ou que, de outra forma não se possa ignorar como pertencente ao domínio público;
 - Tornado público após a divulgação ou pertencente ao domínio público por motivo não imputável à parte recetora, a título de dolo ou negligência;
 - Que a parte recetora possa provar conhecer, por exibição de suporte escrito, em momento prévio ao seu recebimento;
 - Recebido pela parte recetora de terceiros sem dever de confidencialidade, desde que
 estes tenham o direito de fornecer essa informação e que a mesma não tenha sido
 obtida por estes direta ou indiretamente da parte emissora ou do(s) proprietário(s) sob
 condição de confidencialidade;
 - Que a parte recetora seja obrigada, por lei ou decisão judicial, a divulgar, desde que a
 esta notifique imediatamente a parte emissora e coopere de forma razoável com os
 esforços empreendidos por esta para contestar ou limitar o âmbito de tal divulgação.
 - Que seja desenvolvida de forma independente pelo recetor.
- 5.2. O ónus da prova de todas as exceções à obrigação de confidencialidade previstas em 6.1. recai sobre a parte recetora ou sobre os co-proprietários.

SEXTA CLAÚSULA

(Lei e Resolução de Litígios)

- 6.1. O presente acordo é submetido à Lei Portuguesa.
- 6.2. Caso surja um diferendo ou litígio entre as Partes em matéria de interpretação, validade ou aplicação do presente Acordo, que as mesmas não consigam resolver de forma amigável, qualquer das Partes poderá submetê-lo a um tribunal arbitral, com expressa renúncia a qualquer outro tribunal.
- 6.3. O tribunal arbitral será constituído e funcionará de acordo com as normas definidas pela Lei da Arbitragem Voluntária (Lei nº 63/2011) e será composto por três árbitros, sendo nomeados um por cada uma das Partes e um terceiro por cooptação destas. Na falta de acordo quando à designação do terceiro árbitro, será a sua designação efetuada pelo Juiz Presidente do Tribunal da Relação de Lisboa, a requerimento de qualquer das Partes.
- 6.4. O processo de arbitragem correrá em Lisboa, em língua portuguesa, salvo acordo em contrário das partes no processo arbitral.
- 6.5. O tribunal arbitral e/ou o centro de arbitragem apreciarão os factos e julgarão de acordo com a lei portuguesa e das decisões por eles proferidas não caberá recurso.

As partes reconhecem e aceitam as disposições do presente Acordo, substituindo o mesmo, quanto às matérias nele previstas, todas as negociações e contactos prévios estabelecidos entre si

Porto, 8 de julho de 2019

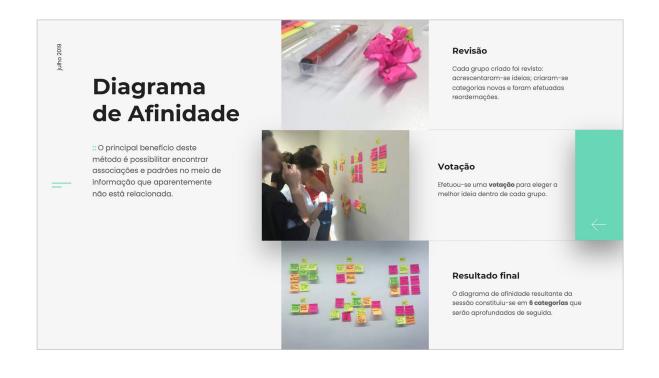
O Primeiro Outorgante Ana Paula Barroso Fania

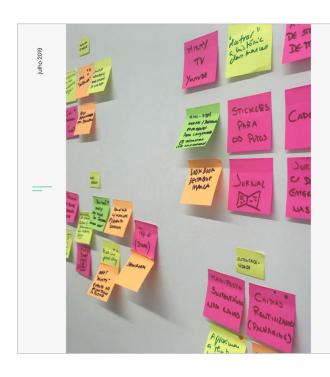
O Segundo Outorgante





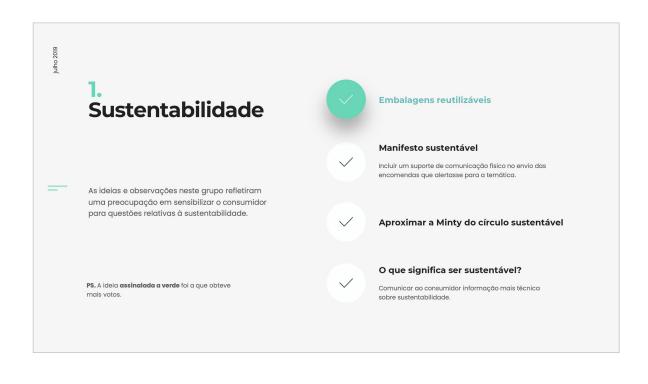




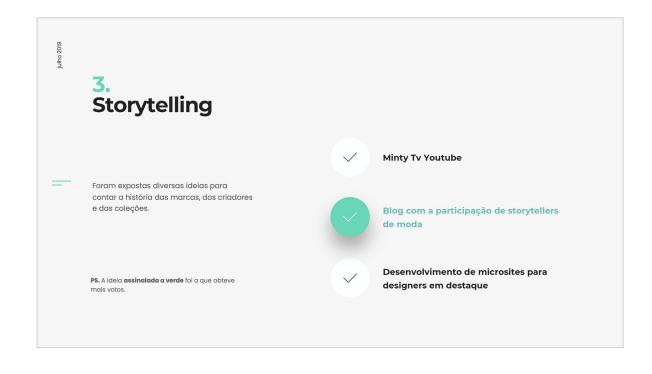


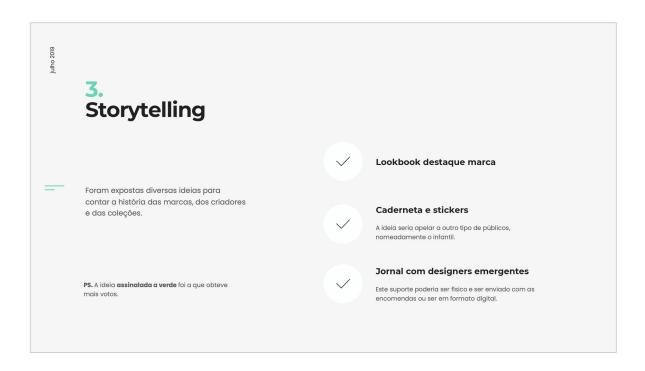
Resultados

- :: O desafio colocado aos elementos da equipa consistia em pensar em ideias que pudessem dar resposta à questão: "Como pode a comunicação ser potenciada com interatividade?" — mas não só;
- :: As ideias inseridas nos **6 grupos** do diagrama de afinidade espelham diversos tipos de suportes, do físico ao digital, bem como a nível de produção de conteúdo.

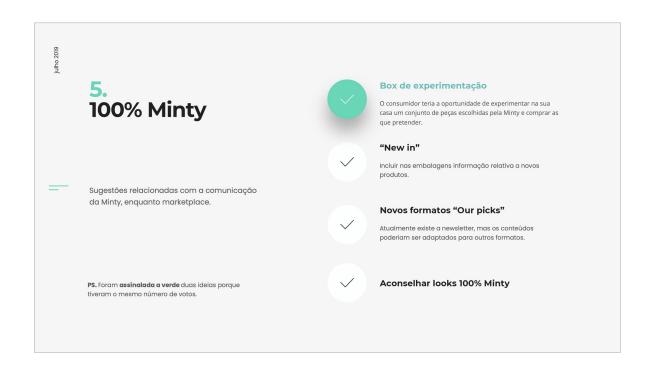


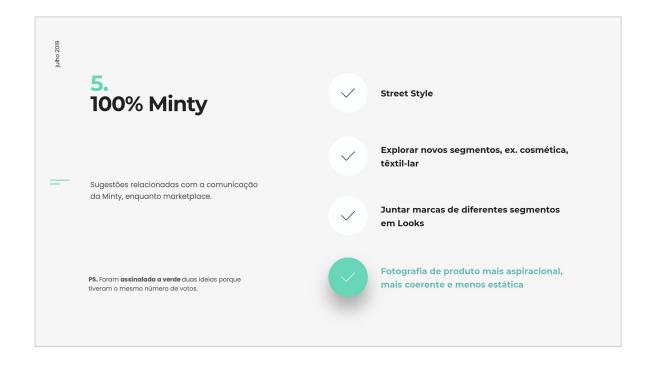


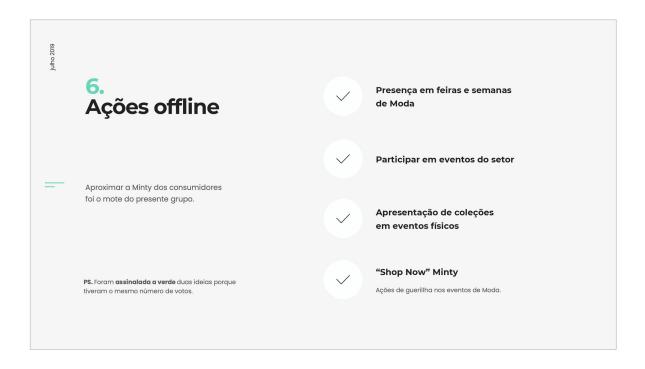


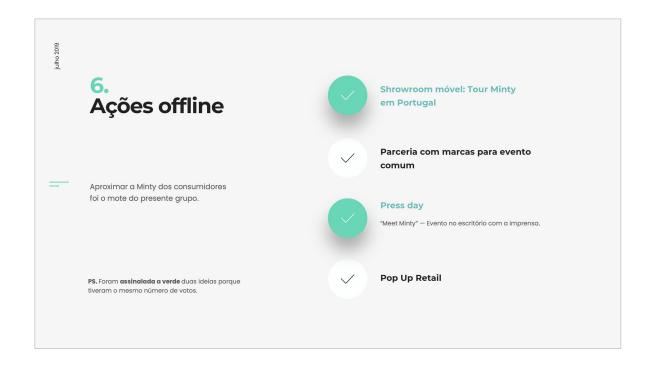


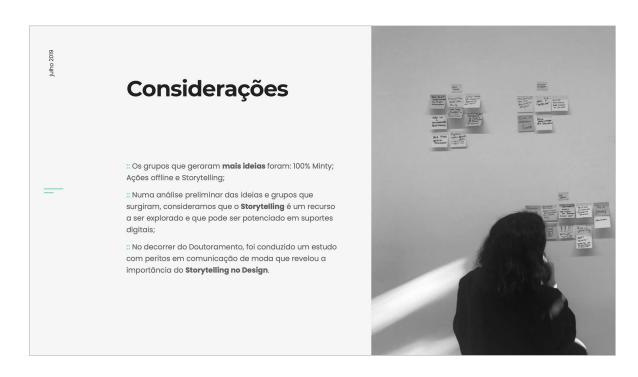


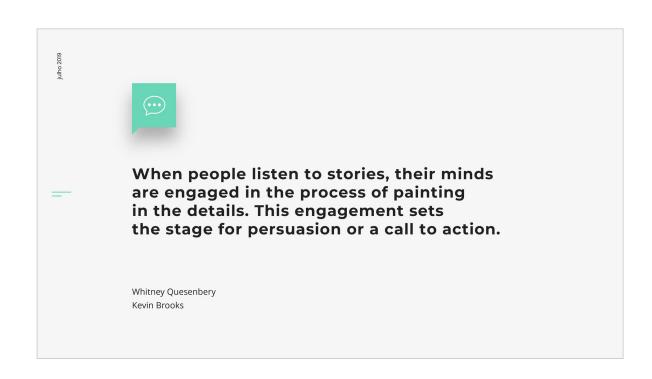
















BARN OF MONKEYS

Se a Barn of Monkeys fosse uma pessoa, como seria na vida real?

Seria alguém focado no âmbito criativo profissionalmente e com grandes preocupações sobre o estado atual do mundo em que vivemos. Alguém que nunca pare de questionar e que queira dar voz a quem/ ao que mais precisa. Um ser humano culto e informado com preocupações sustentáveis que leva uma vida urbana, ainda que procure conviver com a Natureza sempre que possa.

Mencione cinco factos importantes sobre a marca para o consumidor.

GOTS - Sustentabilidade - Conforto - Unissexo - Long lasting (dentro da mesma família deve passar de geração em geração).

Qual é o feedback das pessoas em relação à marca?

O consumidor Barn of Monkeys procura uma expressão criativa muito marcante, a nível de cor, design e linguagem de print. Esse feedback é-nos sempre passado de forma mais recorrente pelo impacto visual. As matérias-primas também são sempre o ponto mais elogiado, desde a qualidade do algodão orgânico ao toque das peças, mesmo com outras composições.

Se uma editora estivesse a redigir um livro sobre a marca, que temas gostaria de ver abordados em cada capítulo?

A Barn é pela liberdade de expressão e temas como preocupações climáticas, slow fashion, zero waste e liberdade em si estão no topo da nossa lista. A diversão em ser criança, o processo crescer e a igualdade de género também não podiam faltar.

PERFF STUDIO

Como surgiu o nome da marca?

Significa "Super Perfeito" ou "Mais do que Perfeito". É um termo atual utilizado em todo o mundo, principalmente nas redes sociais para caracterizar situações ou momentos agradáveis e serve também para classificar peças-chave. Tendo em conta a visão da marca, esta pretende desenvolver peças com inovação, sofisticação, versatilidade, conforto e tecnologia, valores que o público-alvo da marca deseja ter nos produtos que adquire. Para além disso, Perff é também uma espécie de diminutivo de Performance Fashion, termo caracterizador da marca, que tem peças de roupa desportiva versáteis e vocacionadas para qualquer momento do dia a dia. A inclusão do termo Studio permite-nos fazer uma ligação a um espaço criativo e inspirador e a um atelier de alta costura, locais que caracterizam o savoir-faire, qualidade e exclusividade no design de todas as peças da marca. Perff Studio é a simbiose entre qualidade, criatividade, paixão e alta costura. O nome foi inspirado num consumidor mais exigente, atento ao detalhe e que pretende ver as suas expetativas correspondidas.

Se a Perff Studio fosse uma pessoa, como seria na vida real?

A Perff Studio é uma pessoa confiante e carismática, que valoriza as relações humanas. Comunicativa por natureza e com um sentido de humor apurado, a Perff Studio é empreendedora e determinada em levar avante os projetos em que acredita. É independente e descomplicada, no entanto não lhe falta assertividade quando se trata de "arregaçar as mangas" e fazer acontecer.

Preocupa-se com a sua saúde e bem-estar. Tem hábitos de alimentação saudável e pratica desporto frequentemente. Sofisticada e elegante, senso de estilo não lhe falta. Apesar de não ser excessivamente vaidosa nem de se expor em demasia, nunca passa despercebida, quer pela sua forma de vestir, quer pela sua forma de estar. A integridade e a lealdade são os seus valores-chave e, por isso, luta pela criação de um mundo socialmente e ambientalmente melhor. Quer deixar a sua marca no mundo, sem nunca se impor.

Mencione cinco factos importantes sobre a marca para o consumidor.

1 - A Perff Studio é produzida em Portugal, local com grande know-how e anos de experiência em manufatura de alta-qualidadde; 2 - Todas as malhas utilizadas são técnicas e da mais alta qualidade; 3 - Temos como grande valor a sustentabilidade. Todas as nossas coleções são 100% sustentáveis e cerca de 60% das nossas coleções são feitas a partir de malhas recicladas; 4- Temos como promessa de valor a versatilidade, algo que toda a gente neste momento procura. Mais do que isso, oferecemos versatilidade aliada à elegância e sofisticação e à alta-qualidade. 5 - Oferecemos um design vanguardista, tentamos estar sempre à frente das tendências e desenhamos peças únicas e intemporais.

Qual é o feedback das pessoas em relação à marca?

De uma forma geral, as pessoas reagem muito bem à marca. Gostam muito dos produtos, percebem a qualidade inerente a cada um deles e adoram o design das peças. Frisam apenas a questão de os preços serem elevados.

Se uma editora estivesse a redigir um livro sobre a marca, que temas gostaria de ver abordados em cada capítulo?

Um capítulo sobre o que motivou a criação da marca; outro sobre a qualidade, exclusividade e desgin vanguardista (Heritage); um sobre o conceito da marca e de forma a marca está a deixar a sua marca no setor da moda (falar um pouco acerca do "new luxury") e, por fim, focar a questão da sustentabilidade.

CARLA PONTES

Se a marca Carla Pontes fosse uma pessoa, como seria na vida real?

Abraçava, cuidava, cultivava e chegaria à terceira idade com a mesma beleza e juventude de quando nasceu.

Mencione cinco factos importantes sobre a marca para o consumidor.

Design, conforto, qualidade, produção nacional e autenticidade.

Qual é o feedback das pessoas em relação à marca?

Primeiro estranham a simplicidade e algumas das volumetrias mas quem a experimenta fica fiel.

Se uma editora estivesse a redigir um livro sobre a marca, que temas gostaria de ver abordados em cada capítulo?

A beleza nas inspirações; particularidades da modelação tridimensional; peças que abraçam; cuidar para durar; o desenho intemporal; entre a arte e o objeto.

ACORDO DE CONFIDENCIALIDADE

Entre

Ana Paula Barroso Faria, na qualidade de aluna do programa doutoral em Design de Moda (curso em associação entre a Universidade do Minho e a Universidade da Beira Interior), com o Documento de Identificação n.º , residente em

- , adiante designada por "Primeiro Outorgante" e na qualidade de emissor de Informação;
- e Elísio Freitas Fernandes, com o Documento de Identificação n.º , residente em adiante designado(a) por "Segundo Outorgante" e na qualidade
- de recetor de informação;

Considerando que:

- No âmbito da tese de Doutoramento desenvolvida pela Primeira Outorgante decorreram projetos de Investigação, Desenvolvimento e Inovação dos quais resultaram um conjunto de criações intelectuais e de informações suscetíveis de eventual valorização e exploração comercial;
- O Segundo Outorgante, no desempenho do estudo, tem acesso a informações, documentos e conhecimentos confidenciais da Primeira Outorgante;
- A divulgação, exploração ou utilização, sem autorização, de conhecimentos, informações ou dados confidenciais da Primeira Outorgante, excluídos aqueles que sejam de conhecimento público, a que o Segundo Outorgante tem acesso, mesmo após o término do estudo, incorre o mesmo na responsabilidade por quaisquer danos ou prejuízos, incluindo danos emergentes e lucros cessantes, resultantes do incumprimento ou cumprimento defeituoso das suas obrigações de confidencialidade, sem prejuízo inclusive da eventual responsabilidade criminal em que incorre no caso de violação desta obrigação, nos termos da Legislação Portuguesa aplicável.

É celebrado e reciprocamente aceite o presente ACORDO DE CONFIDENCIALIDADE E NÃO CONCORRÊNCIA, que se regerá pelas cláusulas seguintes, que as Partes aceitam e se obrigam a respeitar e cumprir:

CLÁUSULA PRIMEIRA

(OBJETO)

- O presente acordo tem por objeto garantir a confidencialidade e proteção na divulgação pela Primeira Outorgante ao Segundo Outorgante, dos ativos intelectuais e informações classificadas como confidenciais.
- 2. Por informação protegida ou confidencial entende-se todo o conjunto de informação, identificada ou não com a menção CONFIDENCIAL, independentemente do suporte físico empregado, de qualquer natureza, designadamente "Know-how", tecnológicos e comerciais, estudos, fórmulas, técnicas laboratoriais, métodos, drafts, demonstrações, amostras ou qualquer outra informação relativa à atividade da Primeira Outorgante.

 Por ativos intelectuais entende-se o conjunto de obras, de qualquer natureza, nomeadamente gráfica, escrita, sonora, compilações e seleções informativas inéditas, programas de computador ou bases de dados.

CLÁUSULA SEGUNDA

(PROPRIEDADE DA INFORMAÇÃO E DOS ATIVOS)

A informação e os ativos revelados pela Primeira Outorgante ao Segundo Outorgante permanecem propriedade da Primeira Outorgante, não sendo criado, em benefício do Segundo Outorgante, qualquer direito, licença ou outro privilégio sobre a mesma, no todo ou em parte.

CLÁUSULA TERCEIRA

(OBRIGAÇÕES)

Pelo presente acordo:

- a. Estão protegidas todas as informações sigilosas, confidenciais ou de propriedade reservada da Primeira Outorgante, inclusive informações recebidas pela Primeira Outorgante de qualquer cliente, empresa coligada e também dados técnicos ou não técnicos.
- b. O Segundo Outorgante compromete-se a não utilizar, explorar, revelar ou transmitir, em seu benefício ou de terceiros, e a manter em absoluto sigilo todas as informações a que vier a ter acesso diretamente da Primeira Outorgante, em qualquer circunstância, durante e após o estudo, qualquer que seja a causa, não podendo revelá-las, total ou parcialmente, direta ou indiretamente.
- c. O Segundo Outorgante obriga-se a não desenvolver, projetar e/ou comercializar produtos, processos, ideias e métodos negociais ou tecnologias iguais, similares ou competitivos com aqueles a que acedeu ou que conheceu por intermédio da informação divulgada pela Primeira Outorgante.
- d. O Segundo Outorgante compromete-se a desinstalar a aplicação, findando o período de experimentação.

CLÁUSULA QUARTA

(Duração)

O presente acordo entra em vigor na data da sua assinatura por ambas as partes e o dever de sigilo nele consignado não tem validade.

CLÁUSULA QUINTA

(ESTIPULAÇÃO DE FORO)

Para resolução de qualquer conflito emergente do presente acordo será competente o Foro da Comarca de Guimarães, com expressa renúncia a qualquer outro.

Guimarães, 12 de abril de	2020	
O Primeiro Outorgante	Ana Paula Barroso fania	
O Segundo Outorgante	Elisio Freitas Fernandes	

História

Barn of Monkeys | Sobre nós





Ao abanar o iPhone são apresentadas informações sobre a marca.



Descrição



Barn of Monkeys | ReCreation

- 1. Ao movimentar o iPhone, duas fotografias sobrepõem-se; efeito 3D.
- 2/3. Ao fazer swipe é revelada informação sobre a marca; efeito similar a uma raspadinha.
- 4. A deslocação do iPhone da esquerda para a direita revela o resto da imagem.
- 5. Tocar no centro da imagem dá início a um vídeo.



1.











2.

3.

4.

História Descrição

Barn of Monkeys | Inside the box

- 2. Ao tocar nas caixas, elas deslocam-se.
- 3. A deslocação do iPhone para o lado direito revela o resto da imagem.
- 4. Ao tocar na caixa, esta desloca-se até os limites do ecrã.
- 5. Ao soprar no microfone, o texto à volta do balão roda.











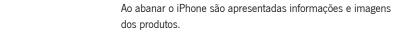


2.

4.

5.

Perff Studio | Produtos















Perff Studio | Para qualquer momento

Ao tocar no centro do ecrã, surgem imagens de pessoas a usar peças da marca.











História Descrição

Perff Studio | Cinco factos sobre a marca

Ao fazer swipe na área branca é revelada informação sobre a marca; efeito similar a uma raspadinha.











Carla Pontes | A marca

- $1.\ \mbox{\ensuremath{\mbox{A}}}$ imagem de fundo é animada, ligeira deslocação.
- 2. Frases da designer passam na parte superior da interface.
- 3/4. Ao fazer swipe é revelada informação sobre a marca; efeito similar a uma raspadinha.
- 5. A deslocação do iPhone da esquerda para a direita revela o resto da imagem.







3.







Carla Pontes | O que nos inspira

Ao fazer swipe surgem progressivamente vários tipos de informação sobre a marca (imagens, textos, vídeos).

5.





4.

História Descrição

Carla Pontes | Cuidar para durar

São apresentadas informações sobre como informações relativas às peças.











Chapter 7

Appendix 7.1 Discussion guide - study 1 (round 1)

DISCUSSION GUIDE - POTENTIAL CLIENTS

Olá, bem-vindo, obrigada por aceitar participar neste estudo.

Eu sou a Ana, doutoranda no curso de Design de Moda e vou orientá-lo nesta sessão. Em primeiro lugar vou ajudá-lo a partilhar o ecrã do seu iPhone no Zoom. Em seguida, vamos instalar a aplicação. Quando tivermos tudo preparado, vou só referir brevemente algumas informações sobre o estudo e depois podemos iniciar.

Como referido anteriormente, precisamos da sua permissão para gravar o ecrã do seu iPhone e a nossa conversa. Os dados serão utilizados unicamente para efeitos de investigação. Posso reconfirmar que aceita participar neste estudo remoto e que autoriza a gravação vídeo da sessão, bem como a gravação do ecrã do seu iPhone, até ao final da sessão?

Muito obrigada. Uma vez que vamos fazer a captura de ecrã do seu iPhone, peço que o coloque em modo "Não incomodar". Agora, para partilhar o ecrã no Zoom:

- Para iniciar o compartilhamento de tela, selecione Compartilhar tela na barra de ferramentas da reunião:
- Selecionar o ecrã a compartilhar, neste caso iPhone/iPad;
- · Clicar em Compartilhar tela.

O primeiro passo está concluído. Agora, peço-lhe que vá ao seu email para instalarmos a aplicação. Recebeu um email com um convite para testar a aplicação, correto? Nesse email tem um botão que diz "View in TestFlight", correto? Vamos clicar nesse botão então e instalar a aplicação TestFlight. Agora é só instalar a aplicação Minty Showcase.

Antes de começarmos, tenho alguma informação para si.

Provavelmente já tem uma ideia do porquê de estar aqui, mas deixe-me relembrá-lo novamente. Estamos a desenvolver uma aplicação para iOS e nesta fase estamos a pedir às pessoas para a experimentarem para vermos se está a funcionar como é pretendido e gostaríamos de saber a sua opinião.

A primeira coisa que gostava de tornar perfeitamente claro é não há nada de errado que possa fazer aqui e por favor não se preocupe em magoar os nossos sentimentos. Estamos a recolher feedback para melhorar a aplicação, portanto precisamos de ouvir as suas reações honestas.

À medida que for utilizando a aplicação, vou pedir-lhe para tentar pensar alto tanto quanto puder: para dizer para onde está a olhar, o que está a tentar fazer e o que está a pensar. Isto será uma grande ajuda para nós.

Se tiver alguma questão ao longo da sessão, pergunte. Provavelmente não poderei responder de imediato, uma vez que estamos interessados em perceber como as pessoas fazem quando não têm ninguém ao seu lado para as ajudar. Mas se ainda tiver alguma questão, quando terminarmos irei tentar responder-lhe nessa altura. E se necessitar de fazer uma pausa em alguma altura, diga-me.

Vou pedir-lhe para experimentar a aplicação. Para o efeito terá que completar algumas tarefas fictícias. Depois, quando terminar as tarefas irei colocar-lhe algumas questões. A sessão terá a duração de cerca de 45 minutos.

[Iniciar a gravação]

Até agora tem alguma dúvida?

Ok. Antes de nos focarmos na aplicação, gostaria de saber mais sobre si.

- Fale um pouco sobre uma marca de vestuário que goste.
- O que o motiva a comprar uma peça de vestuário?
- Quando pretende saber mais sobre uma marca, como faz para obter informações? Que canais de comunicação utiliza?

Obrigada. Agora vou pedir para tentar levar a cabo algumas tarefas específicas. Irei ler cada uma delas alto e vou colocá-las no bate-papo.

E, mais uma vez, tanto quanto possível, ajudar-nos-á se pensar alto ao longo da sessão.

Imagine que um amigo lhe recomendou a aplicação MINTY Showcase.

Tarefa: Abra a aplicação e explore-a durante uns segundos e diga-nos o que acha que é possível fazer na aplicação.

Uma pessoa que segue no Instagram estava a usar um vestido da designer Carla Pontes. O vestido chamou a sua atenção e levou-o a querer conhecer o trabalho da designer.

Tarefa: Pesquise pela marca Carla Pontes e com base nos conteúdos que consultou, descreva a marca.

Recebeu uma notificação na aplicação a informar que está disponível uma nova marca chamada Barn of Monkeys.

Tarefa: Pesquise pela marca Barn of Monkeys e com base nos conteúdos que consultou, descreva a marca.

Reparou que no seu ginásio cada vez mais pessoas começaram a usar a marca Perff Studio e questiona-se sobre o que é que a marca terá de especial.

Tarefa: Pesquise pela marca Perff Studio e com base nos conteúdos que consultou, descreva a marca.

Obrigada por realizar as tarefas, foi muito útil. Vou pedir-lhe para responder algumas perguntas. Em algumas frases, como descreveria esta aplicação a alguém? Em comparação com outras aplicações de promoção de marcas de moda (Ex. Farfetch, Zara, Parfois, etc.), qual é a sua opinião sobre esta aplicação? Estaria disposto a utilizá-la futuramente? Porquê? Recomendaria esta aplicação? Porquê? Indique duas coisas que gostou na aplicação. Indique duas coisas que não gostou. Se tivesse que dar dois conselhos para melhorar a aplicação, quais seriam? Agora vou colocar uma lista de palavras no bate-papo e vou pedir-lhe para me indicar as palavras que melhor descrevem a sua experiência com a aplicação. Pode escolher quantas palavras desejar. Coloque-as no bate papo, se faz favor. ☐ Clean ■ Sofisticado ■ Desatualizado □ Controlo ■ Inspirador ☐ Rápido ☐ Inútil Previsível Organizado Atrativo Curioso ■ Interessante Banal Flexibilidade ☐ Irritante Fácil de usar ☐ Caro Desagradável ■ Divertido Difícil de usar ☐ Útil ☐ Lento Agradável □ Confuso Aborrecido ■ Inovador ■ Barato ☐ Imprevisível De entre o conjunto de palavras que selecionou, peço que indique as 5 palavras que melhor descrevem a sua experiência. [Olhar para as respostas dos participantes. Relembrá-los das palavras que escolheram. Pedir para explicar as cinco palavras selecionadas] Reparei que uma das palavras que selecionou foi "sofisticado". Pode dizer-me o que estava a pensar quando selecionou esta palavra? O que o levou a considerar a aplicação "cara"? Obrigada. Tem alguma questão final ou comentário a fazer? Se quiser acrescentar algum comentário ou ideia posteriormente, também pode enviar-me um email.

E são estas todas as questões que tinha para colocar sobre a aplicação.
Muito obrigada pela sua colaboração.

DISCUSSION GUIDE - BRANDS

Olá, bem-vindo, obrigada por aceitar participar neste estudo. Eu sou a Ana, doutoranda no curso de Design de Moda e vou orientá-lo nesta sessão. Prometo que vou tomar o mínimo tempo possível. Em primeiro lugar vou ajudá-lo a partilhar o ecrã do seu iPhone no Zoom. Em seguida, vamos instalar a aplicação. Quando tivermos tudo preparado, vou pedir para a explorar livremente durante uns minutos e depois vamos conversar um pouco.

Como referido anteriormente, precisamos da sua permissão para gravar o ecrã do seu iPhone e a nossa conversa. Os dados serão utilizados unicamente para efeitos de investigação. Posso reconfirmar que aceita participar neste estudo remoto e que autoriza a gravação vídeo da sessão, bem como a gravação do ecrã do seu iPhone, até ao final da sessão?

Muito obrigada. Uma vez que vamos fazer a captura de ecrã do seu iPhone, peço que o coloque em modo "Não incomodar". Agora, para partilhar o ecrã no Zoom:

- Para iniciar o compartilhamento de tela, selecione Compartilhar tela na barra de ferramentas da reunião:
- Selecionar o ecrã a compartilhar, neste caso iPhone/iPad;
- · Clicar em Compartilhar tela.

O primeiro passo está concluído. Agora, peço-lhe que vá ao seu email para instalarmos a aplicação. Recebeu um email com um convite para testar a aplicação, correto? Nesse email tem um botão que diz "View in TestFlight", correto? Vamos clicar nesse botão então e instalar a aplicação TestFlight. Agora é só instalar a aplicação Minty Showcase.

[Iniciar a gravação]

Uma vez que temos a parte técnica resolvida, peço que abra aplicação e que a explore livremente durante uns minutos. À medida que a for utilizando, vou pedir-lhe para tentar pensar alto tanto quanto puder: para dizer para onde está a olhar, o que está a tentar fazer e o que está a pensar. Isto será uma grande ajuda.

Obrigada. Vou pedir-lhe para responder algumas perguntas.

- Em algumas frases, como descreveria esta aplicação?
- Indique dois valores que gostou na aplicação. Aspetos, elementos, coisas...
- · Indique dois valores menos positivos. Aspetos, elementos, coisas...
- Em comparação com outras aplicações de promoção de marcas de moda (Ex. Farfetch, Zara, Parfois, etc.), qual é a sua opinião sobre esta aplicação?
- Que tipo de benefícios considera que a produção deste tipo de conteúdos pode trazer para a comunicação da marca? E para o consumidor?

 Qual considera ser a relevância deste tipo de aplicações para a comunicação da marca Carla Pontes
/ Barn of Monkeys / Perff Studio ?
Chical Tanada and Tanada
Obrigada. Tem alguma questão final ou comentário a fazer? Se quiser acrescentar algum comentário ou
ideia posteriormente, também pode enviar-me um email.
São estas todas as questões que tinha para lhe colocar.
Sau estas todas as questoes que tilina para me colocar.
Muito obrigada pela sua colaboração.

ACORDO DE CONFIDENCIALIDADE
Assumo o compromisso de manter confidencialidade e sigilo sobre todas as informações técnicas e outras relacionadas a que tiver acesso direto ou indireto sobre a aplicação MINTY Showcase.
Por este acordo de confidencialidade e sigilo compromete-se:
 A não utilizar as informações confidenciais a que tiver acesso, para gerar benefício próprio exclusivo e/ou unilateral, presente ou futuro, ou para o uso de terceiros;
2. A não efetuar nenhuma gravação ou cópia da documentação confidencial a que tiver acesso;
3. A não utilizar, explorar, revelar ou transmitir, em seu benefício ou de terceiros, e a manter em
absoluto sigilo todas as informações a que vier a ter acesso sobre a aplicação, em qualquer
circunstância, durante e após o estudo, qualquer que seja a causa, não podendo revelá-las, total ou
parcialmente, direta ou indiretamente;
4. A desinstalar a aplicação após o estudo.
Neste Acordo, as seguintes expressões serão assim definidas:
Por informação protegida ou confidencial entende-se todo o conjunto de informação, identificada ou não
com a menção CONFIDENCIAL, independentemente do suporte físico empregado, de qualquer natureza
revelados sob a forma escrita, verbal ou visual, ou inferidos por quaisquer outros meios.
A vigência da obrigação de confidencialidade, assumida pela minha pessoa por meio deste acordo, não tem validade.
Pelo não cumprimento do presente Acordo de Confidencialidade, fica o abaixo assinado ciente de todas as
sanções que poderão advir.
Data:/
Assinatura:

Appendix 7.4 Informed consent

INFORMAÇÃO SOBRE A SESSÃO Sobre a investigação Este estudo faz parte de um projeto financiado pelo FSE – Fundo Social Europeu e pela FCT – Fundação para a Ciência e a Tecnologia e pelo POCH Programa Operacional Capital Humano, no âmbito do doutoramento em Design de Moda. O objetivo deste estudo é obter feedback da experiência de utilização de uma aplicação móvel que está desenvolvida no âmbito de uma parceria entre a Universidade do Minho e a MINTY Square. Participação voluntária A sua participação é completamente voluntária e a decisão de não participar, total ou parcialmente, não lhe trará qualquer prejuízo. Se algumas questões o fizerem sentir desconfortável, você não tem que responder. Poderá abandonar a sessão em qualquer altura por qualquer motivo. Captura de dados Para facilitar a recolha e a análise da informação, pedimos a sua autorização para proceder à gravação de vídeo desta sessão, bem como para gravar o ecrã do seu iPhone. A utilização primária da informação recolhida é assistir a análise, assegurando a integridade das respostas. Os dados serão posteriormente transcritos e poderão ser utilizados segmentos de gravações ou citações. Os dados serão confidenciais e unicamente utilizados para efeitos de investigação e divulgação em contexto científico (dissertação, apresentações ou publicações).

Declaro que: I. Li e compreendi a informação que consta neste documento e que fui devidamente informado e esclarecido acerca dos objetivos e das condições de participação neste estudo; II. Tive oportunidade de realizar perguntas e de ser esclarecido acerca de outros aspetos; III. E que, como tal, aceito participar voluntariamente neste estudo. Data:/		
Declaro que: I. Li e compreendi a informação que consta neste documento e que fui devidamente informado e esclarecido acerca dos objetivos e das condições de participação neste estudo; II. Tive oportunidade de realizar perguntas e de ser esclarecido acerca de outros aspetos; III. E que, como tal, aceito participar voluntariamente neste estudo.		
Declaro que: I. Li e compreendi a informação que consta neste documento e que fui devidamente informado e esclarecido acerca dos objetivos e das condições de participação neste estudo; II. Tive oportunidade de realizar perguntas e de ser esclarecido acerca de outros aspetos; III. E que, como tal, aceito participar voluntariamente neste estudo.		
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Declaro que: I. Li e compreendi a informação que consta neste documento e que fui devidamente informado e esclarecido acerca dos objetivos e das condições de participação neste estudo; II. Tive oportunidade de realizar perguntas e de ser esclarecido acerca de outros aspetos; III. E que, como tal, aceito participar voluntariamente neste estudo.		
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 I. Li e compreendi a informação que consta neste documento e que fui devidamente informado e esclarecido acerca dos objetivos e das condições de participação neste estudo; II. Tive oportunidade de realizar perguntas e de ser esclarecido acerca de outros aspetos; III. E que, como tal, aceito participar voluntariamente neste estudo. 		
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esclarecido acerca dos objetivos e das condições de participação neste estudo; II. Tive oportunidade de realizar perguntas e de ser esclarecido acerca de outros aspetos; III. E que, como tal, aceito participar voluntariamente neste estudo. Data:		
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III. E que, como tal, aceito participar voluntariamente neste estudo. Data:	п	Tive apartunidade de realizar perguntas e de ser esclarecido acerca de outros aspetos:
Data:/		
	III.	E que, como tal, aceito participar voluntariamente neste estudo.
		Data: / /
O participante:		Julia
		O participante:

Appendix 7.5 Codebook - study 1

Code name	Files	References
Product concept	12	94
Product concept / About the designers	6	18
Product concept / Combining several designers in one app	3	10
Product concept / Cutting-edge	2	2
Product concept / For professional purposes	1	1
Product concept / For teaching purposes	1	3
Product concept / Getting to know the designers	7	15
Product concept / Purpose of the app	9	45
Positioning	9	15
Positioning / Easier to use	1	1
Positioning / Interaction	2	2
Positioning / It is not commercial	6	10
Positioning / It is straightforward	1	2
Motivation	12	26
Motivation / If	5	10
Motivation / No	2	6
Motivation / Solid yes	5	10
App impressions	13	164
App impressions / Positive	12	87
App impressions / Positive / Different	6	25
App impressions / Positive / Easy to use	9	19
App impressions / Positive / Notifications	1	5
App impressions / Positive / Pleasant	2	2
App impressions / Positive / Straightforward	4	10
App impressions / Positive / Visual appearance	9	26
App impressions / Pain points	11	59
App impressions / Pain points / Personalization features	3	11
App impressions / Pain points / Personalization features / Language option	2	3
App impressions / Pain points / Personalization features / Share the app	1	2
App impressions / Pain points / Personalization features / Zoom in	1	6
App impressions / Pain points / E-commerce features	8	45
App impressions / Pain points / E-commerce features / Price	4	6
App impressions / Pain points / E-commerce features / Product images	5	22

Code name	Files	References
App impressions / Pain points / E-commerce features / Register	2	4
App impressions / Pain points / E-commerce features / Search and filtering	6	13
App impressions / Pain points / Navigation	9	53
App impressions / Pain points / Navigation / Access to content	7	39
App impressions / Pain points / Navigation / Backward navigation	5	14
App impressions / Pain points / Incomplete	9	24
App impressions / Pain points / Shake	7	23
App impressions / Pain points / Useless	3	12
App impressions / Suggestions	6	18
Brand Personality	11	119
Brand Personality / Carla Pontes	11	51
Brand Personality / Carla Pontes / 3 Personality Traits	6	18
Brand Personality / Carla Pontes / Explanations	6	22
Brand Personality / Carla Pontes / Explanations / Daring	3	4
Brand Personality / Carla Pontes / Explanations / Honest	1	1
Brand Personality / Carla Pontes / Explanations / Imaginative	2	2
Brand Personality / Carla Pontes / Explanations / Intelligent	1	1
Brand Personality / Carla Pontes / Explanations / Outdoorsy	1	1
Brand Personality / Carla Pontes / Explanations / Reliable	1	1
Brand Personality / Carla Pontes / Explanations / Sophistication	4	5
Brand Personality / Carla Pontes / Explanations / Successful	1	2
Brand Personality / Carla Pontes / Explanations / Though	2	3
Brand Personality / Carla Pontes / Explanations / Up-To-Date	1	1
Brand Personality / Carla Pontes / Explanations / Wholesome	1	1
Brand Personality / Carla Pontes / Contemporary and symbolic	1	1
Brand Personality / Carla Pontes / Feminine	2	4
Brand Personality / Carla Pontes / Irreverent	1	3
Brand Personality / Carla Pontes / Men and Woman clothes	2	2
Brand Personality / Carla Pontes / Personal preferences	2	3
Brand Personality / Barn of Monkeys	10	68
Brand Personality / Barn of Monkeys / 3 Personality Traits	6	18
Brand Personality / Barn of Monkeys / Explanations	6	19
Brand Personality / Barn of Monkeys / Explanations / Cheerful	5	5

Code name	Files	References
Brand Personality / Barn of Monkeys / Explanations / Imaginative	2	2
Brand Personality / Barn of Monkeys / Explanations / Outdoorsy	6	6
Brand Personality / Barn of Monkeys / Explanations / Reliable	1	1
Brand Personality / Barn of Monkeys / Explanations / Spirited	4	5
Brand Personality / Barn of Monkeys / 4Kids	4	4
Brand Personality / Barn of Monkeys / Cheerful	1	1
Brand Personality / Barn of Monkeys / Concept of the app	7	15
Brand Personality / Barn of Monkeys / Personal preferences	5	7
Brand Personality / Barn of Monkeys / Reliable	1	2
Brand Personality / Barn of Monkeys / Spirited	2	2
Brand Personality / Perff Studio	10	68
Brand Personality / Perff Studio / 3 Personality Traits	6	18
Brand Personality / Perff Studio / Explanations	6	21
Brand Personality / Perff Studio / Explanations / (new) Technology of textile engineering	1	22
Brand Personality / Perff Studio / Explanations / Charming	1	1
Brand Personality / Perff Studio / Explanations / Honest	1	1
Brand Personality / Perff Studio / Explanations / Intelligent	4	4
Brand Personality / Perff Studio / Explanations / Outdoorsy	1	1
Brand Personality / Perff Studio / Explanations / Reliable	1	1
Brand Personality / Perff Studio / Explanations / Sophistication	3	3
Brand Personality / Perff Studio / Explanations / Successful	1	1
Brand Personality / Perff Studio / Explanations / Tough	1	3
Brand Personality / Perff Studio / Explanations / Up-To-Date	3	3
Brand Personality / Perff Studio / Explanations / Wholesome	1	1
Brand Personality / Perff Studio / Intelligent	4	4
Brand Personality / Perff Studio / New luxury	2	2
Brand Personality / Perff Studio / Personal preferences	2	7
Brand Personality / Perff Studio / Quality	6	9
Brand Personality / Perff Studio / Straightforward	1	1
Brand Personality / Perff Studio / Transparent	1	1
Brand Personality / Perff Studio / Up-To-Date	3	3
Brand Personality / Perff Studio / Versatile	2	2
Emotional responses	11	217

Code name	Files	References
Emotional responses / Astonished	4	10
Emotional responses / Curiosity	10	39
Emotional responses / Delight	5	13
Emotional responses / Details that resonated	5	14
Emotional responses / Enraptured by Perff	7	21
Emotional responses / Fed up	3	5
Emotional responses / Fun	7	21
Emotional responses / Interested	1	4
Emotional responses / Puzzled	11	71
Emotional responses / Sad	3	3
Emotional responses / Uninterested	3	11
Emotional responses / Unpredictable	3	5
About the users	11	121
About the users / Online behavior	11	33
About the users / Online behavior / Mobile apps	5	8
About the users / Online behavior / Online searching	11	18
About the users / Online behavior / Online shopping	3	7
About the users / Shopping motivations	11	88
About the users / Shopping motivations / Concept of the brand	4	9
About the users / Shopping motivations / Consumerism	5	5
About the users / Shopping motivations / Exclusivity	3	4
About the users / Shopping motivations / Green Generations, ethics	2	5
About the users / Shopping motivations / Made in Portugal	5	13
About the users / Shopping motivations / Necessity	6	7
About the users / Shopping motivations / Offering constant new merchandise	1	3
About the users / Shopping motivations / Personal preferences - Aesthetics	11	23
About the users / Shopping motivations / Price and quality	8	13
About the users / Shopping motivations / Reputation – branding strategies	3	4
About the users / Shopping motivations / Second hand	1	2
The role of interaction	13	85
The role of interaction / Attractive	5	11
The role of interaction / Childish	7	13
The role of interaction / Connection with the brand	3	5

Code name	Files	References
The role of interaction / Disconnected	1	2
The role of interaction / Distraction	3	4
The role of interaction / Differentiation element	2	2
The role of interaction / Expected	2	3
The role of interaction / Frequency and variety	3	7
The role of interaction / Inspiring	2	2
The role of interaction / Shake	5	28
The role of interaction / Unnoticed	6	8
Outcomes	14	563
Outcomes / Pain points	12	246
Outcomes / Positive feedback	14	310
Outcomes / Starred sentences	5	7
Features	11	370
Features / Animation	7	7
Features / Blow	10	15
Features / Brand visuals	5	16
Features / CTA	6	45
Features / Drag	11	29
Features / Horizontal scroll view	7	13
Features / Interaction	9	19
Features / Language option	2	3
Features / Magnifying glass	2	4
Features / Navigation	4	17
Features / Notifications	1	5
Features / Polaroid	8	8
Features / Scratch effect	11	38
Features / Shake	11	50
Features / Tilt	11	30
Features / Type of content	7	40
Features / Video Barn	11	25
Features / Zoom in	1	6
GP1 PR Cards	5	112
GP1 PR Cards / First selection	5	47

Code name	Files	References
GP1 PR Cards / Top 5	5	25
GP1 PR Cards / Explanations	5	40
GP1 PR Cards / Explanations / Positive	5	29
GP1 PR Cards / Explanations / Positive / Attractive	3	3
GP1 PR Cards / Explanations / Positive / Clean	3	3
GP1 PR Cards / Explanations / Positive / Curious	4	5
GP1 PR Cards / Explanations / Positive / Easy to use	1	1
GP1 PR Cards / Explanations / Positive / Fast	1	1
GP1 PR Cards / Explanations / Positive / Fun	3	3
GP1 PR Cards / Explanations / Positive / Innovative	4	4
GP1 PR Cards / Explanations / Positive / Inspiring	1	2
GP1 PR Cards / Explanations / Positive / Sophisticated	3	3
GP1 PR Cards / Explanations / Positive / Useful	1	1
GP1 PR Cards / Explanations / Negative and Neutral	3	3
GP1 PR Cards / Explanations / Negative and Neutral / Boring	3	9
GP1 PR Cards / Explanations / Negative and Neutral / Cheap	1	1
GP1 PR Cards / Explanations / Negative and Neutral / Confusing	1	1
GP1 PR Cards / Explanations / Negative and Neutral / Flexible	1	1
GP1 PR Cards / Explanations / Negative and Neutral / Unpredictable	1	1
GP1 PR Cards / Explanations / Negative and Neutral / Useless	3	4
GP1 PR Cards / Explanations / New words	1	1
GP1 PR Cards / Explanations / New words / Different (new)	1	2
GP1 PR Cards / Explanations / New words / Interactive (new)	1	1
GP2 PR Cards	7	119
GP2 PR Cards / First selection	6	38
GP2 PR Cards / Top 5	6	29
GP2 PR Cards / Explanations	7	52
GP2 PR Cards / Explanations / Positive	7	41
GP2 PR Cards / Explanations / Positive / Attractive	1	2
GP2 PR Cards / Explanations / Positive / Clean	4	5
GP2 PR Cards / Explanations / Positive / Curious	3	6
GP2 PR Cards / Explanations / Positive / Easy to use	2	2
GP2 PR Cards / Explanations / Positive / Fast	2	2

Code name	Files	References
GP2 PR Cards / Explanations / Positive / Fun	2	3
GP2 PR Cards / Explanations / Positive / Innovative	3	5
GP2 PR Cards / Explanations / Positive / Inspiring	2	3
GP2 PR Cards / Explanations / Positive / Interesting	3	4
GP2 PR Cards / Explanations / Positive / Organized	2	2
GP2 PR Cards / Explanations / Positive / Pleasant	2	2
GP2 PR Cards / Explanations / Positive / Sophisticated	2	3
GP2 PR Cards / Explanations / Positive / Useful	2	2
GP2 PR Cards / Explanations / Negative and Neutral	3	10
GP2 PR Cards / Explanations / Negative and Neutral / Confusing	2	2
GP2 PR Cards / Explanations / Negative and Neutral / Expensive	2	2
GP2 PR Cards / Explanations / Negative and Neutral / Slow	1	1
GP2 PR Cards / Explanations / Negative and Neutral / Unpredictable	1	5
GP2 PR Cards / Explanations / New words	1	1
GP2 PR Cards / Explanations / New words / New (new)	1	1

Appendix 7.6 Codebook - study 2

Code name	Files	References
Experimental stage	2	30
Experimental stage / Onboarding	1	1
Experimental stage / Main slide	2	2
Experimental stage / Lateral menu	2	3
Experimental stage / Carla Pontes	2	11
Experimental stage / Barn of Monkeys	2	8
Experimental stage / Perff Studio	2	5
Observations	2	71
Observations / About – lateral menu	1	1
Observations / About us – Barn	1	4
Observations / Aesthetics	2	3
Observations / Backward navigation	1	1
Observations / Blow	2	5
Observations / Brand index	1	1
Observations / Brand visuals	2	4
Observations / Drag	2	7
Observations / Easy to use	1	1
Observations / Horizontal scroll view	2	3
Observations / Instructions	1	8
Observations / Interaction	2	2
Observations / Language option	1	1
Observations / Notifications	1	1
Observations / Purpose of the app	1	1
Observations / Scratch effect	2	9
Observations / Search and filtering	1	2
Observations / Shake	2	10
Observations / Text animation	2	3
Observations / Tilt	2	4
Interview	2	32
Interview / App descriptions	2	5
Interview / Positive aspects	2	4
Interview / Positive aspects / Aesthetics	2	3

Code name	Files	References
Interview / Positive aspects / Easy to use	1	1
Interview / Positive aspects / Interaction	1	1
Interview / Negative aspects	2	8
Interview / Negative aspects / About – lateral menu	1	1
Interview / Negative aspects / About us - Barn	1	4
Interview / Negative aspects / Instructions	1	1
Interview / Negative aspects / Notifications	1	1
Interview / Negative aspects / Shake	1	1
Interview / Product comparison	2	7
Interview / Benefits	2	6
Interview / Benefits / Arouse curiosity	1	3
Interview / Benefits / Engagement	1	3
Interview / Benefits / It makes sense	1	1
Interview / Significance for the brand	2	2
Brand Personality	2	14
Brand Personality / Barn of Monkeys	1	8
Brand Personality / Carla Pontes	1	6
Outcomes	2	97
Outcomes / Pain points	2	28
Outcomes / Positive feedback	2	44
Outcomes / Recommendations	2	20
Outcomes / Starred sentences	2	3

DISCUSSION GUIDE VERSION 2

Olá, bem-vindo, obrigada por aceitares participar neste estudo.

Eu sou a Ana, doutoranda no curso de Design de Moda e vou orientá-lo nesta sessão. Em primeiro lugar vou ajudá-lo a partilhar o ecrã do seu iPhone no Zoom. Em seguida, vamos instalar a aplicação. Quando tivermos tudo preparado, vou só referir brevemente algumas informações sobre o estudo e depois podemos iniciar.

Como referido anteriormente, precisamos da tua permissão para gravar o ecrã do seu iPhone e a nossa conversa. Os dados serão utilizados unicamente para efeitos de investigação. Posso reconfirmar que aceitas participar neste estudo remoto e que autorizas a gravação vídeo da sessão, bem como a gravação do ecrã do seu iPhone, até ao final da sessão?

Muito obrigada. Uma vez que vamos fazer a captura de ecrã do seu iPhone, peço que o coloques em modo "Não incomodar". Agora, para partilhar o ecrã no Zoom:

- Para iniciar o compartilhamento de tela, selecione Compartilhar tela na barra de ferramentas da reunião:
- Selecionar o ecrã a compartilhar, neste caso iPhone/iPad;
- Clicar em Compartilhar tela.

O primeiro passo está concluído. Agora, peço-te que vás ao seu email para instalarmos a aplicação. Recebeste um email com um convite para testar a aplicação, correto? Nesse email tem um botão que diz "View in TestFlight", correto? Vamos clicar nesse botão então e instalar a aplicação TestFlight. Agora é só instalar a aplicação Minty Showcase.

Antes de começarmos, tenho alguma informação para ti.

Provavelmente já tens uma ideia do porquê de estares aqui, mas deixe-me relembrar-te novamente. Estamos a desenvolver uma aplicação para iOS e nesta fase estamos a pedir às pessoas para a experimentarem para vermos se está a funcionar como é pretendido e gostaríamos de saber a tua opinião. Esta aplicação é um projeto experimental que ainda está em desenvolvimento, portanto não é uma versão fechada.

A primeira coisa que gostava de tornar perfeitamente claro é não há nada de errado que possas fazer aqui e por favor não te preocupes em magoar os nossos sentimentos. Estamos a recolher feedback para melhorar a aplicação, portanto precisamos de ouvir as tuas reações honestas.

À medida que fores utilizando a aplicação, vou pedir-te para pensar alto tanto quanto puderes: para dizer para onde estás a olhar, o que estás a tentar fazer e o que estás a pensar. Isto será uma grande ajuda para nós

Se tiveres alguma questão ao longo da sessão, pergunta. Provavelmente não poderei responder de imediato, uma vez que estamos interessados em perceber como as pessoas fazem quando não têm ninguém ao seu lado para as ajudar. Mas se ainda tiveres alguma questão, quando terminarmos irei tentar responder-te nessa altura. E se necessitares de fazer uma pausa em alguma altura, diz-me.

Vou pedir-te para experimentares a aplicação. Para o efeito terás que completar algumas atividades fictícias. Depois, quando terminares irei colocar-te algumas questões. A sessão terá a duração de cerca de 45 minutos.

[Iniciar a gravação]

Até agora tens alguma dúvida? Ok. Antes de nos focarmos na aplicação, gostaria de saber mais sobre ti. Fala-me um pouco sobre uma marca de vestuário que gostes. O que te motiva a comprar uma peça de vestuário? Quando pretendes saber mais sobre uma marca, como fazes para obter informações? Que canais de comunicação utilizas? Obrigada. Agora vou pedir-te para levares a cabo algumas tarefas específicas. Irei ler cada uma delas em voz alta. E, mais uma vez, tanto quanto possível, ajudar-nos-á se pensares alto ao longo da sessão. Imagina que um amigo lhe recomendou a aplicação MINTY Showcase. Tarefa: Abre a aplicação e explora-a durante uns segundos e diz-me o que acha que é possível fazer na aplicação. Vou deixar-te explorar durante os momentos e depois vou interromper-te para falarmos. Uma pessoa que segues no Instagram estava a usar um vestido da designer Carla Pontes. O vestido chamou a tua atenção e levou-te a querer conhecer o trabalho da designer. Tarefa: Pesquisa pela marca Carla Pontes e com base nos conteúdos que consultaste, descreve a marca. Agora vou colocar uma lista de palavras no bate-papo com várias características ou traços de personalidade. Por favor indica três traços ou características que achas que descrevem a marca. ☐ Realista Aventureira ■ Bem-sucedida ☐ Honesta Imaginativa ■ Sofisticada □ Transparente Atual ■ Encantadora ■ Alegre Confiável ☐ Ligada ao ar livre Ousada ■ Inteligente □ Caráter forte Recebeste uma notificação na aplicação a informar que está disponível uma nova marca chamada Barn of Monkeys. Tarefa: Pesquisa pela marca Barn of Monkeys e com base nos conteúdos que consultaste, descreve a marca. Agora vou colocar uma lista de palavras no bate-papo com várias características ou traços de personalidade. Por favor indica três traços ou características que achas que descrevem a marca.

	Realista		Aventureira		Bem-sucedida							
	Honesta		Imaginativa		Sofisticada							
	Transparente		Atual		Encantadora							
	Alegre		Confiável		Ligada ao ar livre							
	Ousada		Inteligente		Caráter forte							
Reparas	te que no seu ginásio cada v	ez m	ais pessoas começaram a usar o	a ma	ırca Perff Studio e							
question	na-se sobre o que é que a ma	ırca	terá de especial.									
Tarefa: F	Pesquisa pela marca Perff Stu	udio	e com base nos conteúdos que	cons	sultaste, descreve a marca.							
Agora vo	ou colocar uma lista de palav	ras i	no bate-papo com várias caracte	erísti	cas ou traços de							
persona	lidade. Por favor indica três t	traç	os ou características que achas o	que (descrevem a marca.							
	Realista		Aventureira		Bem-sucedida							
	Honesta		Imaginativa		Sofisticada							
	Transparente		Atual		Encantadora							
	Alegre		Confiável		Ligada ao ar livre							
	Ousada		Inteligente		Caráter forte							
			muito útil. Vou pedir-te para re	spor	ideres algumas perguntas.							
 Em algumas frases, como descreverias esta aplicação a alguém? Em comparação com outras aplicações de promoção de marcas de moda (Ex. Farfetch, Zara, Parfois, 												
), qual é a tua opinião sobre			nou	d (EX. Fairettii, Zara, Pariois,							
	arias disposto a utilizá-la futu											
	omendarias esta aplicação? I											
 Indica duas coisas que gostou na aplicação. 												
 Indica duas coisas que não gostou. 												
			ara melhorar a aplicação, quais	seria	am?							
		ras i	no bate-papo e vou pedir-te par	a me	e indicares as palavras que							
Agora vo	ou colocar uma lista de palav	145		melhor descrevem a sua experiência com a aplicação . Podes escolher quantas palavras desejares.								
_			n a aplicação . Podes escolher qu	uant	as palavras desejares.							
melhor o	descrevem a sua experiência	cor	n a aplicação . Podes escolher qu r. Vou colocá-las no bate-papo.	uant	as palavras desejares.							
melhor o	descrevem a sua experiência	cor		uant	as palavras desejares.							
melhor o	descrevem a sua experiência	cor		uant	as palavras desejares.							
melhor o	descrevem a sua experiência	cor		uant	as palavras desejares.							
melhor o	descrevem a sua experiência	cor		uant	as palavras desejares.							
melhor o	descrevem a sua experiência	cor		uant	as palavras desejares.							

	Clean		Sofisticado		Desatualizado				
	Inspirador		Controlo		Rápido				
	Inútil		Previsível		Organizado				
	Atrativo		Curioso		Interessante				
	Banal		Flexibilidade		Irritante				
	Fácil de usar		Caro		Desagradável				
	Divertido		Difícil de usar		Útil				
	Lento		Agradável		Confuso				
			Aborrecido						
_	Barato	_	Imprevisível						
De entr	re o coniunto de nalavras que	sele	cionaste, peco que indiques as s	5 pal	layras que melhor				
De entre o conjunto de palavras que selecionaste, peço que indiques as 5 palavras que melhor descrevem a tua experiência.									
[Olhar para as respostas dos participantes. Relembrá-los das palavras que escolheram. Pedir para explicar as cinco palavras selecionadas]									
 Reparei que uma das palavras que selecionaste foi "sofisticado". Podes dizer-me o que estavas a pensar quando selecionou esta palavra? 									
• 00	que te levou a considerar a apl	ııcaç	cao "cara" ?						
•									
Obrigada. Tens alguma questão final ou comentário a fazer? Se quiseres acrescentar algum comentário									
ou ideia posteriormente, também podes enviar-me um email.									
E são estas todas as questões que tinha para colocar sobre a aplicação.									
Muito obrigada pela tua colaboração.									