

Phygital Retailing in Fashion. Experiences, Opportunities and Innovation Trajectories

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Abstract

The digital and technological transformation, whose effects have profoundly influenced the last two decades, and which has recently undergone a sudden acceleration, changed how fashion brands produce, sell and communicate and also how individuals come into contact with fashion, experience, share, and “consume” it. Within this framework, fashion has progressively embraced and incorporated technologies in the retail system opening up to new opportunities in terms of communication and distribution strategies, pushing towards an increased integration between physical and digital systems. In the light of current consumer dynamics, the omnichannel approach is evolving into a phygital one, with the progressive merging of the material and digital dimensions. Retail spaces are undergoing a process of proliferation and integration of channels, multiplication of messages and narratives, increase of services resulting in a new “augmented” scenario. Assuming a design perspective, the paper aims to investigate the nature and the impact of digital transformation in fashion retailing, with a focus on in-store technologies and their relationship with spaces and the customer journey, identifying, starting from the most recent fashion retail concepts, some possible scenarios and innovation trajectories.

Keywords: Fashion Retailing; Consumption Scenarios; Omnichannel; Phygital; Design Innovation Trajectories.

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Introduction

A transformation process characterizes the current competitive context of fashion retail due to a combined effect of social, technological, economic, and cultural processes. The most evident scenarios are the new consumption behaviors,¹ the acceleration of the digitalization of processes,² a changing relationship between brand and consumers,³ between product and consumer,⁴ and the emergence of fragmentation and integration of sales channels.⁵

The COVID19 pandemic has accelerated the trends already well underway, with shopping shifting to digital channels. In the eight months of the closure of physical stores, e-commerce's share of fashion sales nearly doubled from 16% to 29% globally, jumping forward equal to six years of growth.⁶ E-commerce players, such as Asos, Farfetch Uk, Revolve, and Zalando, have consistently outperformed in 2020. By August, such digital-first players were trading 35 percent higher, on average, than they did in December 2019.⁷

The digital transformation phenomenon has an irreversible impact on the retail sector, drastically transforming its business models,⁸ the purchasing process and the development of new sales formats and concepts,⁹ increasingly designed leveraging data and analytics to predict footfall, manage assortments and built personalized offerings.¹⁰

Significant changes in consumer behavior,¹¹ increasingly oriented towards digital channels and social media, push retailers to rethink their approach to the customer¹² and to invest in design-driven

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projects:¹³ consumer-centric¹⁴ and oriented to create an integrated and powered shopping experience from technology. This phenomenon leads to continuous innovation processes.

Design becomes a necessary discipline precisely because of its ability to give meaning to that system of production, which today shows its most immaterial part.¹⁵ Design-driven innovation is an incremental innovation, which introduces an extensive network of meanings into the market not only in the form of objects, but also in the form of discourses, expressions, stories, said and written words, visual images, signs, metaphors and places. Design renews the sense of things, it produces new meanings, changes traditions and mentalities. It interprets and adopts the representations of a society and its imagery and, through processes of material and immaterial innovation, produces new ones.¹⁶

Technological advances offer new and different accessibility to products and services, generating strong strategic and meaningful implications on the format and concept of the physical store.¹⁷ From a business perspective, the increase in information from new digital interactions with customers drives the change. Understanding the customers' buying journeys, capturing and analyzing information drives the purchasing decisions and further alters the business models to align the key sources and competitive strategies with the new channel and supply chain configuration.¹⁸

The transition from a multi-channel retail process, in which consumers interface with different channels under the same brand but separate from each other, to an omnichannel one, in which the channels are integrated, results in a Seamless Customer Experience. Consumers move seamlessly between the physical and digital touchpoints within a single transaction process and a coherent brand narrative experience.

The rapid diffusion of new technologies such as smartphones, apps, social networks, and the growing importance of in-store technological solutions create new opportunities and challenges for retailers¹⁹ and a new field of design experimentation.²⁰

The customer experience is optimized through the synergic management of channels and technologies, favoring design processes capable of organizing, narrating, and objectifying the offer system.

Recent studies indicate how the omnichannel context involves interfacing with a multidimensional system in which it is necessary to consider a series of factors, such as brand familiarity, personalization, perceived value, and availability to technology as factors that influence an omnichannel experience. In a single purchase, consumers use a variety of channels, including social media and mobile apps: nearly 30% follow brands on social media, 75% research online before visiting a store, and 56% use a mobile device for research related to the shopping. Consumers who do online or mobile research are almost

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twice as likely to use mobile technology while shopping in the shop.²¹ Furthermore, the interaction between multiple points of contact improves the overall customer experience.²²

In this scenario, alongside digital transformation, we observe how 85% of retail sales still take place in the physical store,²³ underlining how the physical store would continue to play a vibrant role, an essential contact point for generating compelling brand experiences.

Creating an *optimal experience*²⁴ remains a central purpose for companies, especially with regard to “made in” goods.²⁵ Recognition of the centrality of the experiential value in building relationships between consumer and company guides the strategic choices of those digital-native brands (Warby Parker, Bonobo, Amazon, Glossier, etc.), shifting part of their strategies to the physical channel. The new “phygital” shop integrates the physical experience with the virtual one, providing an “augmented” experience.

In this context, many questions arise on the role and transformation of the physical retail space in the omnichannel experience²⁶ and a changed consumer scenario. And also, about how the store experience is transformed when it is enhanced by digital technologies²⁷ and how design can intervene in the process of “translating” an increasingly integrated and extended customer journey into a technologically equipped physical space.

This study explores the future of the physical store in a context in which all retail customers are now omnichannel and physical retail is called to a new resemantization.

The in-store experience²⁸ is now augmented by technology, and selling is not just about goods and services but includes participation and co-creation of functions, activities, responsibilities, and experiences.²⁹ Based on qualitative research conducted on case studies, the article aims to conduct exploratory research on the innovation trajectories of the physical shop in its transformation into phygital retail with a selection of emerging consumer scenarios.

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To achieve this aim, the paper proceeds along two lines: on the one hand, it frames the store in its relationship with the brand and the market context, investigating its role, experiences, and services in a consumer context profoundly modified by digital transformation and globalization processes. On the other hand, it tries to trace some trajectories of innovation of the role of the store in the broader omnichannel architecture.

Customer-Experience Evolution

From Product Oriented to Store Centrality

Creating a customer experience as a competitive lever³⁰ gives the environmental context a central role in activating meaningful experiences.³¹ Environmental stimulations acquire motivation in their ability to provide specific responses; they initiate a complex sequence of behavioral responses by approaching and extending contact with the stimulation, benefiting from it, or by moving away and avoiding it. Thus, perception is in a holistic context where it is considered an active and creative process that goes beyond the simple data captured by sight and hearing. People participate in reality through their organic constitution and their physiological and psychological activity.³² The interest in generating an emotional and experiential interaction between products and consumers in business has deep roots. Since the first studies on persuasion processes,³³ purchase motivations,³⁴ or desire strategy,³⁵ research into purchasing behavior and motivations evolved from focusing on products and advertising³⁶ to a more excellent orientation towards purchasing activities.³⁷ While the research of Tauber³⁸ highlighted the existence of extra-economic motivations for shopping, recognizing the central role of the shop, it is with Kotler that the store's environment and atmosphere are recognized as an instrument capable of influencing consumers during their purchasing activities. Atmospherics is defined by Kotler, as "the effort to design buying environments to produce specific emotional effects in the buyer that enhance his purchase probability."³⁹

Despite the limitations of this seminal research,⁴⁰ there is now a growing interest in those environmental factors that can influence consumer perception and behavior. According to Tai and Fung,⁴¹ from a methodological point of view, it is possible to distinguish between contributions that have analyzed

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the emotional impact on consumer behavior from single variables such as music,⁴² scent,⁴³ and color⁴⁴ to those that have emphasized the more comprehensive and integrated, holistic aspect. In particular, from a holistic point of view, a further distinction can be made between studies that adopted a methodological approach *without model-based investigation* and those that adopted a *model-based investigation*. The first approach recognizes that sensory information from the environment affects cognitive and affective states, influencing buyer behavior⁴⁵ and purchase decisions.⁴⁶ The second approach is based on contributions from environmental psychology and uses the PAD model of Mehrabian and Russell.⁴⁷ The PAD model, based on the cognitive Stimulus-Organism-Response (SOR) model, describes and measures emotional states. PAD uses three numerical dimensions, *pleasure*, *arousal*, and *dominance*, to represent all emotions. The central idea is that physical environments influence people through their emotional impact.⁴⁸ This model has significantly contributed to understanding the relationship between the shop environment and consumer behavior by showing that the emotional states experienced by the individual within the physical shop significantly influence purchasing behavior.

Holbrook and Hirschman⁴⁹ propose a phenomenological approach in which experience is conceived as a flow of “fantasies, feelings and fun” that interprets consumption as a “primarily subjective state of consciousness with a variety of symbolic meanings, hedonic responses and aesthetic criteria.”⁵⁰ The involvement of new disciplines, such as neurophysiology, biophysics, and design, has expanded the knowledge of perceptual and cognitive phenomena concerning sensory stimulation. The “emotional dimension” was analyzed from the point of view of consumption processes,⁵¹ the relationship between sensory stimulation and storage mechanisms,⁵² as a context for achieving an immersive experience,⁵³ and as an intangible variable equal to the functional ones.⁵⁴ With the recognition of *experiential marketing*⁵⁵ and the *economics of experience*,⁵⁶ the corporate “product” evolves to include communication, services, and experiences as an economic value, and the physical store takes on a new role. No longer a ‘container’ of goods and information on brands and products, but a complex space capable of representing the natural physical extension of the brand and communicating its identity, personality and values to the market.

The strategic value of the physical store is also related to the new branding strategies, less and less linked to the functional and symbolic values of individual products, and more and more oriented towards the

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diffusion of a “brand universe”⁵⁷ with which to activate relational processes with the market.⁵⁸ At the end of the 90s, the role of the physical store changed radically; it progressively loses its original logistics function, transforming itself into a privileged channel of services, communication and interaction with consumers. The fashion industry finds its place within the new globally competitive market by increasing design, creativity, and experience as defining elements while assigning a central role to branding strategy. The fashion industry implements retail store innovation to display and represent the value system underlying brand policies. The new brand realm is a physical store located in the most influential fashion capitals on the new map of global geographies. Concept stores, flagship stores, pop-up stores represent the place where the brand finds full expression, but above all, the place for creating those emotional, narrative, and experiential relationships linked to the brand image.⁵⁹

Nowadays, consumption choices become a sharing of values and range over the different scenarios proposed, not only as an offer of material goods or products but also as contexts capable of involving new consumers in collaborative and cooperative activities and experiences.⁶⁰

From Store Centrality to Phygital Realm

The digital revolution not only transforms tools but initiates the creation of new cultural and operational practices. High technology is combined with mature technologies, but also with craftsmanship. Industrial production is supported by as many small-scale productions where makers and additive manufacturing promote new entrepreneurship.⁶¹

Digital transformation impacts on the social context, in daily life, in urban and territorial transformations, in social relations and in new ways of living space. A landscape that, starting from postmodernity, reaches contemporaneity and assumes a *fluid* conformation⁶² and *global flows*.⁶³ The cultural and economic scenario favored by the new digital networks now allows small businesses and micro-productions to enter a market that was previously inaccessible to them. Anthropological, ethnographic, sociological, semiotic, historical and artistic research, as well as and design-driven research become a potential vector for implementing the cultural and significant innovation that characterizes the fashion product, today at the center of hybridization, contamination, and new interpretations.⁶⁴ Digital technology triggers sensitive and relational connections between present and past, stories and images, and, again, between ordinary and extraordinary. Industry 4.0 of Smart Manufacturing and omnichannel architectures becomes light, ethical and sustainable. The objects are now enhanced and enabled by technology; they are smart and responsive objects, made intelligent by the experimental application of advanced sensors and capable of interacting with personalization and user profiling applications through the Internet.

In this context, the retail industry also finds opportunities for experimentation and development. From the first e-retailing experiences⁶⁵ intended to complement a physical store to the advent of

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m-commerce,⁶⁶ which amplifies the ubiquity of the retail experience for the end consumer and changes the in-store experience itself, we arrive at new forms of omnichannel retail. Omnichannel builds new relationships, participation, and cooperation where the protagonist is often the “creative class.”⁶⁷ These are the thinkers, leaders, innovators, influencers, and entrepreneurs who are pushing the cultural and commercial envelope, developing, designing and marketing the newest products and services. This depicted scenario constitutes a form of “cooperative brain” as anticipated by Levy.⁶⁸

Thanks to digitalization, consumers are more likely to influence not only sales but production processes. The survival of enterprises can no longer be based exclusively on accumulating profit; rather, it must also be based on creating social value (*Societing*).⁶⁹ Within this new perspective, the activity of companies (and consumers) and their branding strategies are no longer addressed to purely marketing their products and services; rather, they aim to impact society at large, with all of the consequences that this entails.⁷⁰ The spread of new technologies, such as smart mobile devices capable of being supported by additional tools, contactless technologies such as Radio-Frequency Identification (RFID), Quick Response (QR) codes, Near Field Communication (NFC) and Beacons. But also, the current rapid growth of technologies such as Artificial Intelligence (AI), mobile technologies, Augmented Reality, Virtual Reality and the Internet of Things (IoT) is totally changing the relationship between consumer and business by altering the retail landscape again. If creating a recognizable shopping experience remains the core of consumers’ expectations and company strategies, we are seeing the amplification of the instruments through which the players of economic exchange can create lasting relationships. Fashion retailers are increasingly adopting in-store technologies⁷¹ contributing to a shopping experience more connected to the provision of services, in order to support the circularity of the customer journey in the omnichannel experience. Technology in-store enacts added value,⁷² speeds up service and cutting costs,⁷³ as well as contributing to the integration of channels.⁷⁴ The rapid diffusion of smartphones, helped by the expansion of wireless networks, has offered a new and different accessibility to products and services⁷⁵ with strong repercussions also on the design of traditional retail spaces.⁷⁶

The new retail ecosystem integrates new digital technology that are essential for the triggering of new interactive practices. The new sales venues, becoming increasingly places of continuity between inside and outside, between private and public and between real and virtual, reconfigure the sense of the new smart city. New digital technologies and related design strategies allow new retail stores to integrate both physical and virtual spaces,⁷⁷ where socialization, interaction, and co-creation of consumption experi-

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76. Sabrina Helm, Soo Hyun Kim and Silvia Van Riper. “Navigating the ‘retail apocalypse’: a framework of consumer evaluations of the new retail landscape”. *Journal of Retailing and Consumer Services*, 54 (May 2020):101683.
77. Signe. M. Madsen and Ann Petermans. “Exploring the system of digitised retail design—flattening the ontology”, *Journal*

ence's value with other users become the element enhancing a shopping experience that goes beyond the traditional in-store product sale. The integration of the digital dimension and the physical retail space increases the opportunities of creating relationships with customers, also thanks Big Data. Technology favors transparency, authenticity and ethics; for example, thanks to RFID smart label, it allows to trace the value chains putting the consumer in a position to make informed choices.

Nowadays customer experience transcends the store walls in combinations of digital and physical;⁷⁸ customers don't think in channels, they expect authentic brand experiences that allow them to move seamlessly between e-commerce and brick-and-mortar shopping. The Omni-Channel Ecosystem shifts the relationship between consumer and business not so much on individual touchpoints, but directly with the brand.⁷⁹

In this context, the physical store takes on a new centrality. It becomes "phygital". The phygital store is a technology enabled combination of resources: a store capable of integrating technology with the in-store experience and generating and managing information, relationships, desires, aspirations, and choices in the form of Big Data. Analysis of consumer shopping behavioral data can help improve shop management and design to improve consumer engagement and experience.⁸⁰ Therefore, the ability to use data is the key to launching new retail innovation processes in which the recognition of complexity itself becomes the space for a new design. Phygital stores take advantage of the favorable variables of the physical ones (in-store experience and experimentation, desire to touch and feel, Halo effect, building legitimacy, giving credibility and authenticity to the brand, building brand awareness, involving loyal fans and talking to them and obtaining real feedback, links with the territory and heritage) and those provided by digital technology (market identification, trend forecasting analysis, acquisition of in-depth consumer data, both qualitative and quantitative, implementation of in-store video analytics to map where consumers spend most of their time and use this information to position both product lines and staff, help in analyzing and understanding how consumers engage with brands, measuring the impact of influencers, improving cross-selling, creating highly personalized product, service and communication campaigns). The new scenario shows a physical store completely integrated with the digital one, but above all an omnichannel strategy, offering a seamless shopping experience.

In-store Technologies in Fashion Retailing

Nowadays, retail spaces are transformed, multiplying the channels and opportunities for contact with consumers, activating new strategies for transferring the intangible value of the fashion product and, at the same time, contributing to the "shaping" of new networks of "significant moments": a constellation of (physical and digital) spaces, occasions and episodes which, when put into relation, constitute the armor of the contemporary value creation and distribution strategy.⁸¹

The transition from multi-channel to omnichannel represented a real paradigm shift in the industry:⁸² omnichannel retail highlighted the multiplication of channels by which brands, and retailers, come into contact with consumers and identified the seamless shopping experience as a fundamental requirement

of Retailing and Consumer Services, 54 (May 2020) 102053.

78. Savastano, Barnabei and Ricotta, "Going online", 2016.

79. Piotrowicz and Cuthbertson, "Introduction", 2014.

80. Sarah Murray, "Data analytics is on trend with fashion houses". *Financial Times*, 5 October 2016, cit. in Silva, Emmanuel S., Hassani, Hossein and Madsen, Dag Ø. "Big Data in fashion: transforming the retail sector". *Journal of Business Strategy*, 41(4) (July 2020) 0275-6668.

81. Michael A. Merz, Yi He and Stephen L. Vargo, "The Evolving Brand Logic: A Service-Dominant Logic Perspective". *Journal of the Academy of Marketing Science* 37, no. 3 (1 September 2009): 328-44.

82. Peter C. Verhoef, P. K. Kannan and J. Jeffrey Inman, "From Multi-Channel Retailing to Omni-Channel Retailing: Introduction to the Special Issue on Multi-Channel Retailing". *Journal of Retailing, Multi-Channel Retailing*, 91, no. 2 (1 June 2015): 174-81.

of the retail strategies of the last decade.⁸³ By putting consumer behavior at the center, the shopping experience has been “extended” and holistically intercepted by channels that are not limited to the traditional retail channels (physical stores and online stores) but have also included social media, branded applications, mobile devices, gaming platforms and more.⁸⁴ The subsequent shift to the phygital dimension underlines an increasing focus on the integration of physical and digital that aims to go beyond “seamlessness” towards a hybrid dimension where the actual space is “augmented” by digital content and connections and, conversely, the digital dimension is linked, duplicated and enriched with the materiality of the actual.⁸⁵

In this context, the physical store takes on a new and different centrality,⁸⁶ becoming part of a broader and more connected experience and confirming itself as the place of convergence of multiple touchpoints.⁸⁷ From a design perspective it becomes crucial to investigate how the store experience is transformed when it is augmented by digital technologies and how design may intervene in the process of “translating” an increasingly integrated and extended customer journey into a technologically equipped physical space.

Within this framework, design participates in a process of facilitating interactions between retail space and consumer, and in-store technologies represent significant touchpoints in the interplay between fashion brand experience and consumer behavior. In-store technologies - different devices through which the consumer can directly interact - are particularly significant in retailing and widely accepted in fashion.⁸⁸ Contextualizing technologies in fashion retailing⁸⁹ allow to define their role in a context, that of fashion, within which the brand’s narrative dimension and the cultural impact of the product system significantly influence the dynamics of interaction with the consumer. Following a re-elaboration of the most recent classification of in-store technologies,⁹⁰ they can be divided into categories according to their role and function: *transactional technologies*; *informational technologies*, able to provide knowledge about brand, products, and services; *supportive technologies*, oriented to build the customer service ecosystem through the customer experience; and *entertainment technologies*, able to amplify the sensorial, emotional, and relational experiences in the mixed dimension of the physical+digital integration.

The following technologies, from the most mature and widely acquired in retail to the most recent ones, show, through the support of applied examples, how they have been integrated in fashion retailing and

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83. Darrell K. Rigby, “The Future of Shopping”. *Harvard Business Review*, 1 December 2011. <https://hbr.org/2011/12/the-future-of-shopping>; Dhruv Grewal, Anne L. Roggeveen, and Jens Nordfält. “The Future of Retailing”. *Journal of Retailing*, The Future of Retailing, 93, no. 1 (1 March 2017): 1–6.
84. Alexander and Blazquez Cano, “Store of the Future”, 2020; Norbert Beck and David Rygl. “Categorization of Multiple Channel Retailing in Multi-, Cross-, and Omni-Channel Retailing for Retailers and Retailing”. *Journal of Retailing and Consumer Services* 27 (1 November 2015): 170–78; Verhoef et. al., 2015; Jie Zhang, et al. “Crafting Integrated Multi-channel Retailing Strategies”. *Journal of Interactive Marketing*, Special Issue on “Emerging Perspectives on Marketing in a Multichannel and Multimedia Retailing Environment”, 24, no. 2 (1 May 2010): 168–80.
85. Bethan Alexander and Karinna Nobbs. “Multi-Sensory Fashion Retail Experiences: The Impact of Sound, Smell, Sight and Touch on Consumer Based Brand Equity”. In *Global Branding: Breakthroughs in Research and Practice*, 39–62. IGI Global, 2020; Bethan Alexander and Daniela Olivares Alvarado. “Convergence of Physical and Virtual Retail Spaces: The Influence of Technology on Consumer In-Store Experience”. In *Advanced Fashion Technology and Operations Management*, ed. Alessandra Vecchi (IGI Global, 2017), 191–219. Kate Armstrong, and Charlotte Rutter. “Exploring the Enigma of the Happiness Construct in Phygital Fashion Experiences”. In *Advanced Fashion Technology and Operations Management*, ed. Alessandra Vecchi, 220–33. IGI Global, 2017.
86. Siregar and Kent. “Consumer Experience”, 2019.
87. Alexander and Cano, 2020; Karine Picot-Coupey, Elodie Huré, and Lauren Piveteau. “Channel Design to Enrich Customers’ Shopping Experiences: Synchronizing Clicks with Bricks in an Omni-Channel Perspective - the Direct Optic Case”. *International Journal of Retail and Distribution Management* 44, no. 3 (2016): 336.
88. Pantano and Vannucci, “Who Is Innovating?”, 2019.
89. Bethan Alexander and Anthony Kent, “Tracking Technology Diffusion In-Store: A Fashion Retail Perspective”. *International Journal of Retail & Distribution Management* (1 January 2021); Bonetti and Perry. “A Review”, 2017; Siregar and Kent. “Consumer Experience”, 2019.
90. Alexander and Cano, 2020; Eleonora Pantano, et al. “Does Innovation-Orientation Lead to Retail Industry Growth? Empirical Evidence from Patent Analysis”. *Journal of Retailing and Consumer Services* 34 (1 January 2017): 88–94.

how they could enable different customer-centric scenarios.

Smart check-out and click and collect are rapidly spreading and, through the convergence of various technologies, allow to disrupt the traditional inventory model and the physical check-out lane. These advanced transactional systems relocate the search, purchase, pick-up and return of products to a variety of channels and intercept the consumer in multiple places and times. For example, Nike's Speed Shop combines the online shopping behavior and convenience with the offline retail experience: an entire section of the New York flagship store is dedicated to customers who book products online and need to try them on before buying;⁹¹ thanks to this approach and in addition to the speed of purchase operations, customers are guaranteed a customized selection of products regardless of the assortment of the physical shop.

Technologies that amplify brand and product content beyond the boundaries of the physical store to be more and more responsive to the consumer's needs include beacons, QR Codes and IoT systems. While beacon technology is generally used to unidirectionally transfer messages and communications from the brand/retailer to the customer, QR Code systems require voluntary customer interaction and are considered more effective and less invasive.⁹² Other tracking technologies based on the IoT system, for example RFID and NFC, can follow the product's lifetime throughout the value chain, from suppliers to retail/communication channels, providing both the brand and the consumer with valuable data.⁹³ Many brands have already embedded these technologies in their products with tracking purposes, to create interactions or to enhance brand storytelling and customer experience. Burberry, for example, was one of the first to implement the use of RFID within some flagship stores since 2012.⁹⁴ Recently, Adidas offers a highly customer-centric retail experience in its new flagship store on London's Oxford Street by intensively adopting some of these technologies, including scanning systems and RFID, with the aim of enhancing the seamless blend between digital and online: fitting rooms featured with RFID mirror technology connect the customer with the brand's entire offering; at the same time the "Hype Wall", a large digital showcase, allows the customer to scan the upcoming "hyped" releases or limited drop products and receive previews and premium content.⁹⁵ With the aim of increasing transparency and traceability, MCQ, the label launched by Alexander McQueen, combined NFC technology and blockchain to make the entire life cycle of each garment knowable and accessible at all times, allowing consumers to gain trust and shortening the distance between the different players in the system.⁹⁶ Moreover, the MYMCQ digital platform, conceived as a collaborative media hub, brings the public closer to a more sustainable way of buying, increasing trust in the authenticity of the products purchased, and contributes to the construction of an active and aware digital community.⁹⁷

Virtual Mirrors and Virtual Fitting Rooms have long been tried and tested in the most tech-advanced fashion stores. The Prada In Store Technology in New York in 2002 was an absolute pioneer in this field and paved the way for the adoption of technology in fashion retailing. Burberry and many others use touch screens to display branded contents while virtual wardrobe gives access to the full collection,

91. Katharine Schwab, "Nike's Huge New Flagship Looks like the Future of Retail". *Fast Company*, 15 November 2018. <https://www.fastcompany.com/90267865/nikes-new-nyc-flagship-looks-like-the-future-of-retail>.

92. Briec Van Tichelen, "The Role and Opportunities of Phygital in the Digital Omni-Channel Strategy", 2019.

93. Bertola and Teunissen, "Fashion 4.0." 2018.

94. Burberry. "RFID". Accessed 10 June 2021. <https://uk.burberry.com/legal-cookies/privacy-policy/rfid/>.

95. Adidas. "Creating the Future for London; Adidas Re-Imagines the Retail Experience with New Oxford Street Flagship Store". Accessed 10 June 2021. <https://www.adidas-group.com/en/media/news-archive/press-releases/2019/creating-future-london-adidas-re-imagines-retail-experience-new/>; Harriet Brown. "First Look: Inside Adidas's "high Street HQ" Flagship". *Drapers*, 24 October 2019. <https://www.drapersonline.com/news/first-look-inside-adidass-high-street-hq-flagship>.

96. Maria Rosaria Iovinella, "Nfc e blockchain, quando la cronistoria di un vestito è racchiusa in un chip". *Wired*, 14 September 2020. <https://www.wired.it/lifestyle/sostenibilita/2020/09/14/temera-everledger-chip-blockchain-nfc/>.

97. Daniel So, "Alexander McQueen Launches MCQ, A Blockchain-Powered Creative Platform". *Highsnobiety*, 16:04:58Z, sec. Style. <https://www.highsnobiety.com/p/alexander-mcqueen-launches-mcq/>.

product information, and outfit choices.⁹⁸ Touch technology, undoubtedly one of the most familiar, has been used by fashion brands according to their values, messages and sensitivity to provide consumers with very different experiences and services. For example, in 2018 Farfetch and Chanel announced an exclusive multi-year global innovation partnership to develop a range of digital initiatives to deliver a superior consumer experience both online and offline.⁹⁹ The new Chanel flagship inaugurated in 2020 is the result of this collaboration and features, among others, high-tech dressing rooms with a connected mirror to display customers' choices, a technology already widely adopted by Farfetch in its Store of the Future. However, as stated by Sandrine Deveaux, executive vice president of future retail at Farfetch "at Chanel, the technology was used for storytelling and customer discovery of collections, while Browns will use the same technology to offer customers a seamless shopping experience."¹⁰⁰

A further step forward in the progressive integration between physical and digital is represented by digital twins, virtual representations of items, such as things, persons, processes or environments. Today a digital twin, thanks to the maturity of the technologies and infrastructures that support it, guarantees a very high quality and fidelity of reproduction, but above all "contains" a series of data that allow it to be interacted with and monitored. This is why digital twins have the potential to radically change the entire chain of the fashion industry, from design and production to sales and communication. Underpinning this technology, integrated with artificial intelligence and augmented reality systems, are some of the most advanced examples of virtual try-ons such as, among others, the Yoox Mirror launched in 2018 and upgraded the following year.¹⁰¹ In the field of advanced virtualization in fashion retailing, it is significant to mention experimentations that extend the shopping experience beyond traditional formats by building a bridge between the dimension of the physical store and the classic e-commerce format. Fashion brands such as Ralph Lauren, Christian Dior and Tommy Hilfiger offer immersive and interactive virtual stores that simulate a virtual reality accessible via desktop or mobile.¹⁰² These virtual stores, which, as in the case of Ralph Lauren,¹⁰³ are a faithful reproduction of the brand's most iconic stores during the holiday season, allow the consumer to travel around the space and interact with shoppable items on display. It is no coincidence that the spread of these new digital stores coincided with the restrictions due to the pandemic:¹⁰⁴ when brands needed to maintain and reactivate contact with their audience, they experimented with new forms of sensory and emotional immersion, trying to replicate a form of physical and material involvement in the digital dimension.

Finally, Virtual and Augmented Reality and Mixed Reality represent the frontier for an extended shopping experience. AR, in particular, has rapidly gained ground: based on mobile technology, it is widely embraced by the younger generations, who make intensive use of social platforms such as IG, Tik Tok and Snapchat. The first significant application in the area of fashion was made by Gucci in collaboration with Wanna, a tech company specialized in using AR to create 3D models for the digital display of fashion items.¹⁰⁵ The Gucci Ace virtual sneakers are largely aimed at a digitally-native Gen Z audience and look to a future in which experiences - of consumption, but also of entertainment, work and education - will embrace a complete convergence of the physical and digital categories. In the field of

98. Alexander and Kent, "Change in Technology-Enabled", 2020.

99. Segura, Alfonso, *Fashion Goes Tech: How Technology is Empowering Retail Businesses*, (Independently published, 2021).

100. Kati Chitrakorn, "Inside the New Browns: Farfetch's Store of the Future". *Vogue Business*, 3 April 2021. <https://www.voguebusiness.com/consumers/inside-the-new-browns-london-flagship-farfetch-store-of-the-future>.

101. Alessandra Turra, "Yoox Evolves Its Mirror Functionality to Create Customized Digital Avatars". *WWD*, 4 November 2019. <https://wwd.com/fashion-news/fashion-scoops/yoox-mirror-digital-avatars-1203361963/>.

102. <https://obsessar.com/>.

103. Ralph Lauren, "Virtual Flagship Stores". Accessed 10 June 2021. <https://www.ralphlauren.co.uk/en/flagship-stores/virtual-store/70701453>.

104. Maghan McDowell, "What to Know about Virtual Stores". *Vogue Business*, 17 November 2020. <https://www.voguebusiness.com/technology/what-to-know-about-virtual-stores>.

105. Kyle Wiggers, "Gucci's IOS App Lets You Try Shoes on Remotely in AR". *VentureBeat*, 26 June 2019. <https://venturebeat.com/2019/06/26/guccis-ios-app-lets-you-try-shoes-on-remotely-in-ar/>.

virtual immersive reality, the start-up InVRsion¹⁰⁶ creates fully virtualized retail spaces where digital objects interact with the user and his/her movements, simulating the experience of a physical shop.¹⁰⁷ Through the use of sensors and a camera or visor, InVRsion works to develop a “full reality” that enhances the consumer’s experience in a dimension as close as possible to physical reality with a particular focus on sensoriality, perception and experiential fluidity. A definition that is very close to the concept of Mixed Reality (or Extended Reality), an augmented reality made more immersive through the use of Virtual Reality elements that are not simply superimposed on the real space but anchored to it to activate particularly dynamic and significant interactions.

Although AR and VR are displaying their potential in recent years and have been widely discussed in retail,¹⁰⁸ in particular in the fashion area,¹⁰⁹ however there’s a lack of studies identifying how they can holistically influence the retailing value chain and what impact they can have on design and strategies in the physical space.

The retail sector has largely embraced the opportunities for innovation offered by digital transformation as a whole, mainly by implementing technologies to improve customer service or operational efficiency’s performances. Technological innovation, which has reached very advanced maturity level, has in fact found different ways and forms of application in the field: digital technologies help to understand consumer needs, provide greater assortment, help shoppers decide, lower cost, increase loyalties, and enhance customer service.¹¹⁰ These technological applications, however, have often been developed as tools to improve specific consumer’s needs, to engage in a more playful and interactive way with the customer or to smoothen the efficiency of specific knots in the retail chain. More rarely the retail sector has seized the possibilities presented by tech to rethink the value chain in an integrated way,¹¹¹ long-term sustainable, and able to redefine new “augmented” and experiential paradigms.

Fashion retailing emerging scenarios. An experiential phygital perspective

The “augmented” scenario enabled by the digital and technological transformation, far from having standardized the contemporary fashion system, has, on the contrary, fragmented it into an increasing number of singular and particular design opportunities. Digital plays the role of an “invisible enabler,”¹¹² enabling the creation of products, services and experiences that have complemented, and sometimes replaced, pre-existing ones. Think, for example, to virtual fashion¹¹³ which, in the wake of the improvement of online consumer behavior and on the basis of a reconfiguration of the distribution chain’s

106. <https://www.invrision.com/>.

107. Alessandra Vaccari, Paolo Franzo and Giulia Tonucci, “Mise En Abyrne. L’esperienza Espansa Della Moda Nell’età Della Mixed Reality”. *ZoneModa Journal* 10, no. 2 (22 December 2020): 75–89.

108. Marie Beck and Dominique Crié, “I Virtually Try It ... I Want It! Virtual Fitting Room: A Tool to Increase On-Line and off-Line Exploratory Behavior, Patronage and Purchase Intentions”. *Journal of Retailing and Consumer Services* 40 (1 January 2018): 279–86; Philipp A. Rauschnabel, Reto Felix, and Chris Hinsch. “Augmented Reality Marketing: How Mobile AR-Apps Can Improve Brands through Inspiration”. *Journal of Retailing and Consumer Services* 49 (1 July 2019): 43–53; Alexandra Rese, Daniel Baier, Andreas Geyer-Schulz, and Stefanie Schreiber. “How Augmented Reality Apps Are Accepted by Consumers: A Comparative Analysis Using Scales and Opinions”. *Technological Forecasting and Social Change* 124 (1 November 2017): 306–19.

109. Alexander and Kent, “Tracking Technologies”, 2021; Barbara Silvestri. “The Future of Fashion: How the Quest for Digitization and the Use of Artificial Intelligence and Extended Reality Will Reshape the Fashion Industry After COVID-19”. *ZoneModa Journal* 10, no. 2 (22 December 2020): 61–73.

110. Deloitte Insights, “Tech Trends 2019: Beyond the Digital Frontier”, 2019. https://www2.deloitte.com/content/dam/Deloitte/br/Documents/technology/DI/_TechTrends2019.pdf.

111. Bertola and Teunissen, “Fashion 4.0”, 2018; Deloitte. “Disruptions in Retail through Digital Transformation”, 2017. <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/CIP/in-cip-disruptions-in-retail-noexp.pdf>.

112. Philip Kotler and Giuseppe Stigliano, *Retail 4.0. 10 regole per l’era digitale* (Milano: Mondadori Electa, 2018).

113. Christian Allaire, “Would You Spend Real Money on Virtual Clothes?” *Vogue*, 3 August 2020. <https://www.vogue.com/article/tribute-virtual-clothes-digital-fashion>.

model, is carrying out a disintermediation process¹¹⁴ between the brand and the consumer attempting to challenge not only the material dimension of clothing but also the role of the physical store. Or, at the opposite side of extreme hybridization, to the partnership between The Fabricant and I.T, the Hong Kong-based luxury fashion retailer. The collaboration resulted in the retailer 30th anniversary's virtual collection but above all in 4 pop-up boutiques: tangible spaces displaying only the digital version of the clothing, that can be ordered via app, enabling a multi-way loop between digital and physical, material and immaterial.¹¹⁵

Within this mixed and blurred scenario, it no longer really means opposing the two distinct categories of the tangible and the intangible. It is instead necessary to think, and design, from the point of view of a complete fusion of online and offline and no longer of simple integration.

The theoretical implications discussed so far about the consumer experience's omnichannel and phygital evolution and the analysis of in-store technology in fashion retailing and its current applications, provide the groundwork for the identification of possible innovation trajectories in the field of phygital retailing in fashion. Starting from an empirical research, based on the identification and analysis of case studies,¹¹⁶ an interpretative model is proposed that is able to outline, starting from the most recent and advanced retail concepts, as many consumption scenarios. These scenarios both provide some insights on the current state of the art in fashion retailing and identify some major trends and their impact on the physical fashion stores.

Within this framework, 4 consumption scenarios have been recognized, that are transforming the global landscape and returning as many concepts and sales formats: *Local Service Hubs*; *Emotional Connection*; *Curatorial Approach*; and *Content & Experience Platform*.

Local Service Hubs

In a customer-centric and service-oriented perspective,¹¹⁷ which the market for products with a high cultural content, such as fashion, is integrating into its production and distribution chain, fashion brands are experimenting with new formulas capable of combining local and global, distributed and tailor-focused aspects. This is done both with a view to increasing sustainability¹¹⁸ and to intercept the evolution of current consumer behavior for which a wide range of products, highly customized services, speed and proximity to the consumer are seen as non-alternative concepts.

The phenomenon of local service hubs is part of this scenario: shops capable of adapting to local needs by offering a series of services connected to the largest concept stores of the brands. They are satellite points in the neighborhoods and offer personalized services. Moreover, they show how companies implement the number of touchpoints with their customers from an omnichannel perspective, creating synergy between physical and digital retail space. In such context, the concept of business product includes as an economic value also services and experiences. Starting from the archetypal local shop the new format enters the landscape of everyday life and intertwines deep relationships with its inhabitants.

Nordstrom Local¹¹⁹ and Trunk Club,¹²⁰ the former launched in 2017, the latter acquired a few years

114. Katrijn Gielens and Jan-Benedict E. M. Steenkamp, "Branding in the Era of Digital (Dis)Intermediation". *International Journal of Research in Marketing*, Marketing Perspectives on Digital Business Models, 36, no. 3 (1 September 2019): 367–84.

115. <https://www.thefabricant.com/it-hong-kong>.

116. Robert K Yin, *Case Study Research: Design and Methods* (Thousand Oaks, CA: SAGE, 2009).

117. Lusch and Vargo, "Service-Dominant Logic", 2006.

118. Cosette M. Armstrong et al., "Sustainable Product-Service Systems for Clothing: Exploring Consumer Perceptions of Consumption Alternatives in Finland". *Journal of Cleaner Production*, Special Volume: *Why have "Sustainable Product-Service Systems" not been widely implemented?* 97 (15 June 2015): 30–39.

119. <https://press.nordstrom.com/news-releases/news-release-details/nordstrom-announces-latest-retail-concept-nordstrom-local>.

120. <https://www.trunkclub.com/faq>.

earlier and fully integrated into the brand's distribution strategies in 2020, well envision this "service hub" model that combines physical and digital. Nordstrom Local is a new format retail space with no inventory, able to create synergies between online and physical shopping experience emphasizing its convenience and service-oriented business model. These local hubs offer three core services: fitting and styling guidance, alterations from on-site tailors, and online order pickup and return.¹²¹ The latter is especially helpful for Nordstrom to quickly reinsert merchandise back into its e-commerce inventory. Additionally, Nordstrom Trunk Clubs offer a further opportunity for the brand to get in touch with its customers' needs: thanks to a fully managed style advisor service in the digital channel, customers have the possibility to receive at home carefully selected outfits from professional stylists and, thanks to their mediation, to establish a very personal and trusting relationship with the brand. Furthermore, the services offered in the Trunk Club stores, which previously were a complementary format to the Local stores, have been now relocated into the nearby Nordstrom stores:¹²² the company has thus been able to create a dense network of physical and digital touchpoints that are meaningful in their ability to offer consumers a series of services that are as delocalized, customized and close to their needs and consumption behavior as possible.

Emotional Connection

The second scenario highlights how retail spaces can amplify the emotional variable, a feeling capable of involving the user in a significant way, through a combination of atmospherics¹²³ and technological innovation. The quest for specific emotional effects evolves towards the holistic concept of "sensorial experience", and design shows the ability to represent, narrate and engage with the user on the cognitive and sensory level. Emphasizing the multi-sensory variables¹²⁴ brands can create a new empathy relationship between brand and customers. For fashion companies, creating a memorable purchase experience becomes the main distinguishing factor in a saturated market in continuous evolution. The use of in-store technology to enable an expanded shopping experience has been widely addressed before, but it should be noted that there are still few studies investigating how technology, especially immersive technology such as AR and VR, influences and impacts both consumer behavior and the perception of spaces,¹²⁵ and even fewer retail initiatives have pursued such integration.

A project that skillfully combines a highly immersive space, in terms of emotional experience and physical sensoriality, with virtual interactions to achieve an innovative experiential continuum, is the flagship store of the streetwear brand Hipanda in Tokyo, designed by studio Curiosity in 2019.¹²⁶ The immersive retail interior combines analogue and digital features and is almost unique in its kind: art, fashion, technology and architecture contribute, in a synergistic, almost director-like way, to offer an "augmented" retail experience, in terms of engagement, immersion and perception. The interiors, characterized by a play of moving lights and mirrors, black and white optical contrasts and artistic sculptures at different scales, constitute a material scenario capable of activating different interactive experiences,

121. Richard Kestenbaum, "Why The Expansion Of Nordstrom Local Is Important". *Forbes*, 2 May 2019. <https://www.forbes.com/sites/richardkestenbaum/2019/05/02/nordstrom-local-expansion-saks-neiman-marcus/>.

122. Jamie Grill-Goodman, "Nordstrom Closing All Trunk Club Stores". *RIS News*, 3 June 2020. <https://risnews.com/nordstrom-closing-all-trunk-club-stores>.

123. Kotler, "Atmospherics". 1974.

124. Pine and Gilmore, *The Experience Economy*, 1999; Alexander and Nobbs, "Multi-Sensory Fashion Retail Experiences", 2016.

125. Francesca Bonetti et al., "Augmented Reality in Real Stores: Empirical Evidence from Consumers' Interaction with AR in a Retail Format". In *Augmented Reality and Virtual Reality: The Power of AR and VR for Business*, eds. M. Claudia tom Dieck and Timothy Jung (Progress in IS. Cham: Springer International Publishing, 2019), 3–16; Cindy Lombart, Elena Millan, Jean-Marie Normand, Adrien Verhulst, Blandine Labbé-Pinlon, and Guillaume Moreau. "Effects of Physical, Non-Immersive Virtual, and Immersive Virtual Store Environments on Consumers' Perceptions and Purchase Behavior". *Computers in Human Behavior* 110 (September 2020): 1–36.

126. Designboom. "Curiosity Displays Products Using Augmented Reality at Hipanda Streetwear Store in Tokyo", 30 April 2019. <https://www.designboom.com/architecture/curiosity-augmented-reality-hipanda-ghost-house-tokyo-04-30-2019/>.

mainly thanks to AR technology. The bear, symbol of the brand, “live”, moves and interacts with the space and the users in an augmented reality in which the physical space is designed expressly to increase the sensorial potential of the digital, and vice versa. An interaction that begins from the outside, starting with the animation of the façade and continuing, with different narrative forms, in all the rooms of the store. Gwenael Nicolas, founder of the studio, declares that “the world of digital offers limitless possibilities of information, but the real world embraces the senses of human being that create unique experiences which can be appreciated by each individual on its way”¹²⁷ emphasizing how this concept investigate and experiment the potential of the so-called “Augmented Experience” and how this cannot be separated from a conscious, integrated design of physical and technological, material and digital dimensions, for a perfect fusion of the two parallel universes.

Curatorial Approach

Fashion brands profoundly rely on the relationship with the consumer and, on a wider perspective, with the whole society, and they constantly nurture this relationship thanks both to the fashion artifacts in itself that represent a cultural system of meanings,¹²⁸ and to their capability to translate and convey these meanings through multiple and interconnective narratives. The contemporary transmedia dimension also offers fashion brands a wide range of channels through which to convey these stories, which, to be effective, must be managed with a curatorial approach to content selection, composition and arrangement. Traditional advertising channels, catwalks, events, social media and online platforms therefore intersect with the physical retail space to build meaningful and highly emotional narrative systems. The role of the physical retail space, which for a long time was opposed to the BTC models of both online retailers and digital native brands, has been transformed, even for the latter, into a new and important opportunity to come into direct contact with the customer.

This is the setting for Showfields, the self-proclaimed “the most interesting store in the world”, an immersive retail experience that combines pop-ups shops for emerging digital brands with a series of cultural and entertainment services and initiatives, such as art exhibitions, theatrical experiences, community events and food-drink hospitality. Showfield envisioned “flipping the formula” by adopting a wholly brand-centric approach rather than hosting space, making it possible for online brands to create a physical shop; this is a transition from a digital to a traditional model, or rather the integration of these same models but, unlike transitions already pioneered by Bonobo, Glossier and others, with a formula that fully develops the editorial concept launched by the Story store in 2011: a space structured like a magazine, changing like an art gallery, and selling products like a store.¹²⁹ Showfield enhances this approach by co-creating highly immersive and engaging experiences with the hosted brands by developing dedicated spaces, “theatrical retail-as-performance-art installations” and museum-shop like initiatives for the retailer’s own product display.¹³⁰ In addition, it offers a wide range of customer services, such as product testing, events and co-working spaces, that online cannot support, providing consumers with a fluid experience that hybridises the physical with the digital, the sensory experience with online consumption habits.

In addition, the pandemic was an opportunity to integrate a new technological layer into the retailer’s customer experience: the proprietary Magic Wand app, “lets customers interact with nearly every part of the store without touching anything.”¹³¹ The app, through a product scanning system, integrates

127. FRAME. “A New Japanese Store Uses Light and AR to Tell a (Spooky) Brand Story”. *FRAME*, 15 May 2019. <https://frameweb.com/article/a-new-japanese-store-uses-light-and-ar-to-tell-a-spooky-brand-story>.

128. Roland Barthes, *The Fashion System* (New York, NY: Hill and Wang, 1983).

129. Lauren Walker, “The New York Concept Store Bringing Editorial to Life Keeps Going from Strength to Strength...” *We Heart*, 11 June 2013. <https://www.we-heart.com/2013/06/11/story-new-york/>.

130. Pamela N. Danziger, “Showfields Imagines A New Kind Of Department Store Combining Retail With Theater”. *Forbes*, 20 September 2019. <https://www.forbes.com/sites/pamdanziger/2019/09/20/showfields-imagines-a-new-kind-of-department-store-combining-retail-with-theater/?sh=2fbobb8f6f1b>.

131. Danny Parisi, “With Retail Reopening, Demand for Contactless Technology Is on the Rise”. *Glossy*, 14 July 2020. <https://www.glossy.co/fashion/with-retail-reopening-demand-for-contactless-technology-is-on-the-rise/>.

information, multiplies and increases the narrative potential of the brands, activates a click-and-collect service and much more,¹³² stitching together a further experiential fabric that blurs the barriers between brick-and-mortar and online shopping.

Content & Experience Platform

Online platforms have increased the channels, and therefore the possibilities, for brands to come into direct contact with their customers.¹³³ They have become places for experimenting with new languages, for delivering wide-ranging and diverse content, and for building up user communities that identify with the brand's values. A founding initiative was the Art of the Trench Coat by Burberry back in 2009, one of the first examples of a call to action specifically aimed at a young audience and integrated into the online social dimension.

The last scenario focuses on the new brand engagement processes direct to Millennials that move with ease within the new IT environment and recognize the social, cultural, and sustainable nature of value creation processes.¹³⁴ Millennials are changing the world of retail, they scour the web for product comparisons, reviews, and sharing suggestions before their shopping trip. Their customer journey is a fluid trip among digital and physical places to try, taste, smell, and spend time exploring products and services. Community is central. Stores need to provide areas to cultivate the brand community and the integration of in-store technologies can become an opportunity to connect physical and online networks, restoring physicality to an experience that today takes place mainly online and building new relationships.

Again, Burberry, guided by its well-established tradition of experimenting with innovative technological solutions in all production, distribution and communication processes, opened its first Social Retail Store, in partnership with Tencent, in Shenzhen in 2020.¹³⁵ The store pursues a full integration of the physical space with online channels and digital tools: also in this case the concept is specifically aimed at Asian Millennials and Gen Z to allow them to get to know Burberry through a retail experience that can be shared thanks to social networks, in particular WeChat. Alongside the "classic" QR Codes, Burberry has introduced a special WeChat mini-program, thanks to which customers can interact in the shop and carry out various activities: make appointments, learn about the products and get exclusive content, contact customer service and physically interact with customizable fitting rooms, always with the possibility of sharing everything with their contacts. Each interaction, moreover, returns points, a sort of "social currency" that, in the interplay between gaming and premium community, opens the doors to the client for new and always interactive tailored experiences.¹³⁶ The store turns out to be a space of exploration that takes interactions from social media and brings them into a physical retail environment and within which a reverse path also takes place: the Trench Experience space, a room designed as an immersive digital space, "unlockable" through interactions with the program, brings Burberry's heritage to life, creating a positive short-circuit between online and offline consumers' community.

132. FRAME. "3 Retail Technologies That COVID-19 Transformed from Gimmick to Godsend". *FRAME*, 29 July 2020. <https://frameweb.com/article/three-retail-technologies-that-covid-19-transformed-from-gimmick-to-godsend>.

133. Regina Burnasheva, Yong Gu Suh and Katherine Villalobos-Moron, "Sense of Community and Social Identity Effect on Brand Love: Based on the Online Communities of a Luxury Fashion Brands". *Journal of Global Fashion Marketing* 10, no. 1 (2 January 2019): 50–65; Bin Shen, Jin-Hui Zheng, Pui-Sze Chow, and Ka-Yan Chow. "Perception of Fashion Sustainability in Online Community". *The Journal of The Textile Institute* 105, no. 9 (2 September 2014): 971–79; Mingli Zhang, et al. "Influence of Customer Engagement with Company Social Networks on Stickiness: Mediating Effect of Customer Value Creation". *International Journal of Information Management* 37, no. 3 (1 June 2017): 229–40.

134. BOF and McKinsey. "The State of Fashion 2020", 2020.

135. <https://www.burberryplc.com/en/company/social-retail.html>.

136. Maghan McDowell, "Burberry Tests Social Retail in China's Tech Capital". *Vogue Business*, 31 July 2020. <https://www.voguebusiness.com/consumers/burberry-tests-social-retail-in-chinas-tech-capital>.

Conclusions

In the last two decades the fashion system is progressively embracing technological and digital transformation by integrating it into all aspects of the value chain: from design to the production chain, from communication strategies to distribution models. This integration has been enabled, on the one hand, by the maturity that most technologies have reached and, on the other, especially as far as the retail and communication system is concerned, by a shift in consumer behavior. The contemporary consumers' communities appear to be intrinsically transformed by the digital substrate that welcomes them, and, on the other hand, they are increasingly aware of their relevance in being an active part in the engagement process with fashion brands.

In this context, for the retail sector, the transition from omnichannel retailing to the so-called phygital model has confirmed and strengthened the increasingly close interrelationship between the various channels that make up the touchpoints of the shopping experience, to the point of blurring the line between physical and digital. These two categories, in an ever-closer dialogue, are blurring and fading into one another in a fluid and consistent way. Contrary to expectations that saw them clearly succumbing to the power of online markets, physical retail spaces seem to be maintaining their centrality and adapting, albeit rather slowly, their formats and strategies to emerging consumption models. This is a different centrality from the past, which shifts the focus from the product to the service system, to narrative and emotional solutions, to a stronger relationship with consumers who are increasingly "present" on the different channels, aware and willing to be actively involved. However, the retail system, while recognizing the potential of technologies to amplify its role, space and time, has embraced them in a punctual but non-systematic way, rarely able to have deep and transformative impacts throughout the fashion distribution cycle. The proposed scenarios, which recognize the transformation and the rise of new models of consumption, offer an interpretative viewpoint, through the analysis of paradigmatic cases, on how the design of retail spaces has been able to integrate the technological dimension in a significant and valuable way to meet the needs of these emerging models. From a design perspective, these scenarios attempt to identify and trace some trajectories of innovation for the fashion retailing sector and are a first moment of reflection on the impacts of the technological solutions' adoption along the entire retail value chain.

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