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FROM THE ORIGINS TO THE METAVERSE: HOW INNOVATIVE TECHNOLOGIES ARE SHAPING BRAND-STORYTELLING DALLE ORIGINI SINO AL METAVERSO: COME LE TECNOLOGIE INNOVATIVE STANNO CONDIZIONANDO IL BRAND-

STORYTELLING

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INTRODUCTION

I took inspiration to draft my thesis from new AI technologies implemented on social networks, such as anthropic AI avatars and celebrity-inspired AI avatars. When I was first exposed to these technologies, I considered the implications that they could have on brands, and I asked myself if they had been implemented by any company. With my master's thesis I would like, in fact, to focus on brand storytelling and its relationship with recent AI technologies. In doing so, I will begin my first chapter with an excursus on what a brand is, considering both its features and different approaches to define it. Moreover with regard to the context of brand-marketing and the rules of the market, I will bring attention to the theme of brand-storytelling and how important it is for brands' success. In the second chapter I will talk about the historical interrelations between artificial intelligence and marketing, while reviewing the theories formulated in the past. Consequently, I will analyze brand equity's connection to AI and provide different examples of experience in this field. Furthermore, my focus will be on the story of Tay, an artificial intelligence created by Microsoft. In the third chapter, I am going to focus on the Metaverse, which is an important virtual place that is driving brand development. For this reason, after explaining what the Metaverse is, I will focus on different luxury companies that decided to invest in it to improve their brands in the digital world and I will analyze their techniques. Finally, in the fourth and last chapter, I will talk about Artificial Intelligence avatars, with a focal point on those present on Instagram. Furthermore, I will examine in detail brand marketing on Instagram and how it is related to new AI technologies, what is an AI avatar, what is the difference between fictional AI characters and celebrityinspired ones, and how the storytelling behind these characters works. My

goal is to identify new brand strategies. Additionally, I will implement an analysis of AI avatars profiles that already exist, comparing them, highlighting common patterns, and considering human-AI avatar interactions. In conclusion this thesis' main purpose is to enrich and promote the knowledge of brand marketing and brand storytelling with regard to the theme of AI avatars. This purpose will be achieved through an excursus of the evolution of brand-storytelling strategies together with innovative technologies, with keeping the aim to anticipate future strategies in this field.

CHAPTER 1: AN EXCURSUS THROUGH BRAND MARKETING AND ITS RULES

1.1 Introduction

In this chapter three main themes will be taken into consideration. In the first place, the origins of the word brand will be described, what exactly the brand is and its history. Subsequently, it will be considered what the brand has become today by explaining the multiplicities of vocabularies linked to its use, in the attempt to make them clear in preparation for the next chapters. Finally, in the third subchapter, I will analyze how branding and storytelling are dependent on each other, the main storytelling techniques, its usefulness in making the brand stand out in a saturated market and the knowledge that gives assistance to achieve a successful brand storytelling strategy. This analysis will be accompanied by the presence of several examples in order to make these topics clearer.

1.2 What is the brand: etymology and historical origins

1.2.1 Etymology

The word brand comes from the Old Germanic brinn-an which means "to burn", with this word people use to refer to the practice of marking with fire: cows, horses and other farm animals (Stern, 2006)¹. Since then, this word has coexisted with both a positive meaning and a negative one. In a positive way, this practice allowed the proprietors of the farm to distinguish and defend the ownership of the animals; but at the same time, if the animals were associated with some troubles, the owner was called to respond to it, acquiring a negative meaning. These two nuances are travelling with the term brand since then, to signal quality and ownership in the first case and to mark with shame and discredit in the second one. For example, the word brand was first used negatively in an advertising of the American cigarette's company, the R. J. Reynolds Tobacco Company, their Old Gold cigarettes were compared to a generic Brand X, in an attempt to describe the unbranded product as inferior. According to the American Marketing Association (AMA), a brand refers to "a name, a term, a sign, a symbol, a draw, or a combination of them with the aim of identifying products and services of a vendor or a group of vendors, differing theirs from those of the competitors" (Busacca et al., 2005)². Companies developed the urge to be able to define a brand or multiples brands to secure the right of working in their own name and to be distinguished by all kinds of audience and stakeholders. Brands are a combination of attributes, illustrated by a trademark, which creates awareness and values, serving an experience to the customers, and intellectual property and future earnings to its owner (Swystun, 2007)³. It

¹ Stern B. B. (2006). What Does Brand Mean? Historical-Analysis Method and Construct Definition. Sage Journals.

² Busacca B., Keller K. L., Ostillo M. C. (2005). *La gestione del brand, strategie e sviluppo*. Egea.

³ Swystun J. (2007). *The Brand Glossary*. Palgrave Macmillan.

is born also in the interest of the stakeholders (employees, customers, Clevel, investors, and shareholders) who are subjected to the influences of the narrative that the brand is presenting, and vice versa (Michel, 2017)⁴. In fact, all stakeholders' presented narratives can influence the perception of a company's brand. It has the capability to offer a personality to the company and to create a narrative universe around it. When we think about all the famous big companies, in every sector, it comes into our mind a personality, features and an imaginary world and not an organism that is producing economic profit. The brand is an alive subject that is always communicating to the inside of the company and interacting with the world outside of it. In nowadays complex market the most important feature of a brand is to be able to have a genuine relationship with the customer and, in order to obtain that, it is necessary to create a landscape in which the brand is seen as a person that can dialogue, change and interact, as people do with each other (Nesurini, 2007)⁵. The difference between the success of a company and another is not only in the quality of its products or services, but moreover, in the narration that we make about it: the symbolic, emotional and based on values communication that we create, which have been referred to by Fontana A. as the "fiction economy" (2019)⁶ and on which I am going to focus on later in this chapter.

1.2.2 Historical Origins

The first forms of marks are dated from Prehistory, about 15.000 years ago. They were found in Lascaux cave paintings (France), where painted bulls with marks on them are considered to be, by scientist, as some kind

⁴ Michel G. (2017). From brand identity to polysemous brands: Commentary on "Performing identities: Processes of brand and stakeholder identity co-construction". Journal of Business Research.

⁵ Nesurini M. (2007). *Good Morning Mr. Brand. Il senso, il valore e la personalità del brand.* Hoepli.

⁶ Fontana A. (2019). Storie che incantano: Il lato narrativo dei brand. Roi Edizioni.

of claim of ownership on the cattle (Briciu & Briciu, 2016)⁷. Furthermore, six thousand years ago, the Egyptian masonry, in order to distinguish each laborer and the source of the stone, had developed a system of distinguishable marks and signs on the stones (Pierre, 2021)⁸. In this way by observing the stone everyone could understand where the production was coming from and who manufactured it. Inside the pharaoh Tutankhamun Tomb, several amphorae were even found marked with seals which anticipated the now called labels; they indicated the type of wine's grape and the quality, the producer's name, and the place of production (Pierre, 2021). We can find examples from 4000 to 5000 years ago in Chinese, Indian, Roman, and Greek pottery, which was one of the first product marked to identify its ownership and to offer information about the historical period and the material used (Rajaram & Shelly, 2012)⁹. The purpose of branding and the modality of it, in each one of this ancient societies, was different; in Mesopotamia and in Egypt the marks could indicate the name of the person who had commissioned the product or the name of who was in power at the time of the commission; Romans, instead, used the mark as to identify the source of the materials or the laborer (Rajaram & Shelly, 2012). As an early branding tool, in 1266 a trademark legislation known as "the Assize of Bread and Ale" passed in England under King Henry III (Pierre, 2021). This policy had the aim of protecting consumers by guaranteeing them a better-quality bread, it regulated the purity of the flour and the weight and price of the bread, for this reason every baker started using a distinctive mark on the bread (Pierre, 2021). The same happened to producers of silver and gold, which had to mark their products with unique symbols as a warranty of honesty

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⁷ Briciu A., Briciu V. A. (2016). *A Brief History of Brands and the Evolution of Place Branding*. Bulletin of the Transilvania University of Braşov.

⁸ Pierre O. (Host). (2017). *Episode* I - A *history of trademarks: from the Ancient World to the 19th century*. [Audio Podcast]. WIPOD.

⁹ Rajaram S. and Shelly C. S. (2012). *History of Branding*. INTERNATIONAL JOURNAL OF SOCIAL SCIENCES & INTERDISCIPLINARY RESEARCH.

(Briciu & Briciu, 2016). Later on, in the fourteen century, an Italian jurist, Bartolo da Sassoferrato, who was interested in the topic of trademark law, wrote "Treaty Tractatus de Insignis et Armis" in which he discusses about stems and symbols pictured on shields and flags and how they were regulated concerning how and where they could be used (Pierre, 2021). Afterwards, during the 14th century some of the most famous brewery brands were born, the Belgian "Stella Artois" in 1334 and the German "Lowenbrau" in 1383 (Pierre, 2021). Despite that, the large-scale usage of brands as we know them today is a phenomenon acquired from the Industrial Revolution. During this period, from the late 19th Century to the early 20th Century, thanks to the development of factories, goods were sold to a mass audience and this situation favoured an increase in the production, however costumers were more used to local products which were considered more familiar than the industrialized ones (Khan & Mufti, 2007)¹⁰. As a consequence of that, companies started investing on improvements in technologies and communication, there was a shift from goods' local production to big and centralized industries; it is in this context that brands like: Singer sewing-machines, Pear's Soap, and Henkel's Bleich Soda were developed in the western world (Khan & Mufti, 2007). Companies started developing packages, hence, logos and insignias to distinguish themselves in the market. However these new nonlocal products needed to convince the public that they were qualitatively superior, it is in this moment that companies like Coca-Cola, Uncle Ben and Kellogg's started their branding and merchandising activities with the goal of increasing the familiarity with their products (Rajaram & Shelly, 2012). Together with them other companies were born, and research by Business Week demonstrates that 30% of today's most successful brands were created between the 18th Century and the 20th Century (Rajaram &

¹⁰ Khan S. U. and Mufti O. (2007). The Hot History & Cold Future of Brands. *Journal of Managerial Sciences*.

Shelly, 2012). Hence, branding is not a modern-day phenomenon, this practice started together with human civilization, and it is constantly evolving. However, some of the core values of this activity have been the same from the beginning of its history: guaranteeing the quality of the product and the honesty of the producer, differentiating from other goods or services, ensuring identification, and creating an emotional bond.

1.3 Glossary

To properly understand the next few paragraphs and chapters it is necessary to offer an explanation of some terms that could be used in this context. I will be offering a glossary with the aim of elucidate the universe of words and sayings around the brand. According to Michael Eisner, former chief executive officer of Walt Disney: "A brand is a living entity, and it is enriched or undermined cumulatively over time, the product of a thousand small gestures." The enrichment that is constantly happening in regard of the brand is also increasing in size the vocabulary of it.

Alignment. Particularly important for a branding strategy, it is achieved when the employers of the company display the values of the brand, it ensures a coherent external communication, once it is accomplished it is important to reward the employers. (Swystun, 2007).

Ambassadors. Employers that do not work in the marketing team nor in communications, but they are therefore showing a profound interest in the values of the company and promoting them outside (Swystun, 2007).

Architecture. Referring to a company with a portfolio of assorted brands, it refers to the structure of different names of the brands and how they have related one another (Swystun, 2007). There are distinct kinds of architecture: monolithic (the name of the company is presented in all the sub-brands), endorsed (each sub-brand is linked to the main one by a visual or written referral) and freestanding (there is an holding company and every product or service is autonomously branded) (Swystun, 2007).

Attributes. Positive or negative characteristics and features of a company, product, or service, they can usually be emotional (they act as a vehicle of feelings) or functional (they describe how a product works) (Swystun, 2007).

Benchmarking. It is a performance comparison, it usually takes place between competitors, it is necessary to measure a benchmark in the proper context to avoid misleading interpretations (Swystun, 2007).

Brand Awareness. Refers to the targeted customer's acquaintanceship with the brand, therefore their capability to remember it (measured through the brand recognition) and to recognize it within a category of products (brand recall) (Swystun, 2007).

Brand Brief. A document that assures that all stakeholders are aligned with the brand's strategy, it is useful to arrange common goals and a budget based on current performances (Swystun, 2007).

Brand Commitment. The level of loyalty that a customer has in purchasing a given brand or reuse it in the future (Swystun, 2007).

Brand Culture. It is the process of creating an internal culture for which the employers of the company are the first to be exposed to the future goals, in this way internal communications are more efficient and performance oriented (Swystun, 2007).

Brand Equity. Also known as the brand's reputational capital, it refers to all its unique qualities that allow it to have a competitive advantage on other brands (Swystun, 2007). By using a model that analyzes customer's behaviours that economically impact brand's performances it can be measured.

Brand Experience. Techniques and expedients by which the brand is presented to the stakeholders, for examples by advertising or PR, however not all medias can be controlled so its important to have a clear strategy (Swystun, 2007).

Brand Positioning. Refers to a marketing strategy to which the value proposition of the brand and its identity convey in the creation of a unique

value that makes its customers differentiate it from others (Swystun, 2007).

Brand Valuation. The financial assessment of a brand, there are different approaches to evaluate it, the most diffuse is the "economic use" (Swystun, 2007).

Cannibalization. When there are two brands owned by the same company and one becomes more successful than the other, taking sales away from it (Swystun, 2007).

Clutter. The total number of advertisements competing for customer's attention in the same place or medium (Swystun, 2007).

Consistency. It can refer to two main things: the brand's ability to constantly deliver the experience that it promises to its costumers and the fulfilment of the brand's tone of voice and visual identity in any interaction with customers (Swystun, 2007).

Conversional Marketing. A strategy with the aim of converting potential customers in active clients (Swystun, 2007).

Differentiation. It is a process that provides tangible and intangible benefits to a brand through a communication and identification branding strategy that makes a product or a service unique (Swystun, 2007).

Endorsed brand. It is a sub-brand that takes support from the holding main one, it usually carries new values to the main brand, but advantaging from the communication value and expertise of the main one (Swystun, 2007).

Essence. A group of benefits and attributes that represent the core features of the brand (Swystun, 2007).

Experiential mapping. An analysis through a summary of all customer's experiences and interaction with the brand, thanks to it the company is

then able to increase the brand's capability to not disappoint in every situation (Swystun, 2007).

Identity. Everything with regards to the brand's universe, from the way it appears to the way it feels; it represents all the links that affect the brand's appearance to its customers (Swystun, 2007).

Impact Model. A framework that analyzes four main themes: main profitable and developmental targets, reasons why the target should believe in the brand, the brand's single-minded ambitious pledge and modalities in which the brand leads the value proposition (Swystun, 2007).

Integrated Brand Communication. A process that consists in investigating on the needs of a specific targeted audience to convey key messages and relevant channels, guaranteeing effectiveness and efficiency (Swystun, 2007).

Lifetime Customer Value. A segmentation based on the customer's buying lifetime which main goal is to calculate his/her economic value and ensure loyalty (Swystun, 2007). It takes into account the acquisition cost, the retain cost of the customer and their average lifetime and economic value.

Market Crystallization. The identification of a market's not complete part aimed to respond to a new need or to expand an existing market (Swystun, 2007).

Market Position. When considering a comparison between brand's strengths, the market position is the relative strength of each one (Swystun, 2007).

Masterbrand. It refers to the main brand name of a company and it is usually merged with other words to make sub-brand's names (Swystun, 2007).

Names. Words, letters, or numbers that combined make the main trademark of a company (Swystun, 2007).

Personality. The attribution of human features to a brand makes its personality. Each brand has its own qualities which are represented outside to the stakeholders by graphics, packaging, advertising and PR, this portrayal should be coherent to the targeted audience's expectations (Swystun, 2007).

Relevance. It refers to how much a brand is pertinent to its target's emotional and functional necessities (Swystun, 2007).

Sonic Branding. The association of a soundtrack or a specific music to a brand in order to advertise it and increase the audience's brand awareness (Swystun, 2007).

Unique Selling Proposition. A characteristic of the product or service that is offered only by a company and its considered crucial by the targeted market, this could include a quality, a benefit, or a feature (Swystun, 2007).

Urban-Storytelling. A credible fiction narrative applied in an urban city set, with the aim of deeply involving emotionally the audience, which becomes the main protagonist in the narration (Pinzaru, 2012)¹¹.

Value Proposition. A brief statement which summarizes the focal reasons why a customer should select a brand over another (Swystun, 2007).

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¹¹ Pinzaru F. (2012). FROM CONJUNCTURAL URBAN STORYTELLING TO CITY BRANDING: AN EMPIRICAL MODEL FOR BUCHAREST. Knowledge Management Research & Practice Volume 4 (Issue 2):33-44.

1.4 Brand Multiverses and Business Storytelling

In this day and age, we live in a society in which values, emotions and symbols have a great impact on our spending choices. The quality of a product is as much important as the narrative that has been constructed around its brand. It is important that a company develops a product that qualitatively responds to market's standards, but at the same time it is necessary to create a narration around a brand that conveys the right information about the product. People buy stories and consume objects that are the expression of that story (Fontana, 2020) ¹².

1.4.1 The narrative side of the brand

The most important aspect of a brand is its *narrability*, the capability to be narrated. Without a story to be told a brand can not exist. There are two key features that a brand should respect to become *narrable*, it should be both storytelling-suitable and memorable (Fontana, 2020). For a brand narration to be storytelling-suitable it is necessary that a story scheme is respected, there are various kinds of it, but the main one takes the name of *quietness*, *fall and impetus* (Fontana, 2018)¹³. It follows this order: an individual who does an action, then meets an obstacle but at the end can solve or conclude a situation. In this scheme the moment of quietness concerns the part of the story in which the context of the brand is being explained, to then head the attention to a problem, the fall, which can be solved thanks to an impetus that takes back the situation to a new balance and again, quietness (Fontana, 2018). This scheme can prosecute in a circle of quietness, fall and impetus how many times it is necessary to create rhythm in our story.

¹² Fontana A. (2020). Storytelling d'impresa: La nuova guida definitiva verso lo storymaking. Hoepli.

¹³ Fontana A. (2018). Storie che incantano. Il lato narrativo dei brand. ROI edizioni.

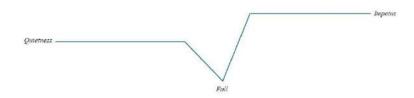


Figure 1 Falchi B. [Picture]. Inspired by Fontana A. (2018). Storie che incantano. Il lato narrativo del brand. ROI edizioni, pag. 65.

A more refined version of the quietness, fall and impetus scheme is the canonic scheme. In fact, each story owns in common with others, different elements with the ability to trigger deep psychic dynamics (Fontana, 2010)¹⁴. In detail they are: a main character who is looking for something in his/her life, a destiny which has to be fulfilled, a faced challenge, a contest dynamic, usually caused by an opposer, drama or tragic pathos, the goal of a virtual or real enrichment, some powerful objects and helpers to assist in the achievement of the goal and, finally, a closure of the story (Fontana, 2010). A brief example of the canonic scheme could be applied to the brand Taffo Funeral Services. Indeed, its main goal is to give complete assistance to families in grief, warranting respect and privacy to them; it faces the challenge of ensuring a smile in a difficult moment of affliction, and fulfills it by the use of humor on social media and a unique communication style, but never forgetting its core values. However, a brand to become narrable also needs to be memorable. In the recipe for narrability the main ingredient which guarantees memorability is arousing emotion, drama, deeply touching the recipient of the message that our brand wants to convey. There are three basic clusters of discourses which stimulate the listener to identify with a brand: the myth of care, the myth of exploration and evasion and the myth of liberation and rebirth (Fontana,

¹⁴ Fontana A. (2010). StorySelling. Strategie del racconto per vendere se stessi, i propri prodotti, la propria azienda. Rizzoli.

2010). The myth of care, it has been used by all those brands that are positioning themselves in the market as healers, and their products or services' purpose is to assure in some ways a psycho-physical wellbeing (Fontana, 2010). For example, one of the biggest online sport's supplements stores in Europe, Prozis, has as a mission the improvement of people's life by selling the best supplements for athletes. The myth of exploration and evasion can be observed in brands like JBL, which, in its portfolio offers products that can completely isolate a customer from the outside (noise cancelling headphones) and products created to share sounds with as many people as possible at home (soundbars), guaranteeing a sensorial exploration to the customer. Lastly, the myth of rebirth and liberation must deal with the *fatal flow*, which is a plague in the existence of an individual, a bad habit, a suffering, or something that we think it needs to be solved (Fontana, 2010). A brand can focus its communication to convey the message of liberation from the fatal flow. In regards of it, Coca-Cola's spots have always delivered the message that people should enjoy small moments of their daily lives; with the campaign "Open Happiness" (2009-2015), the Coca-Cola Company exhorted people to share happiness with others while opening a Coca-Cola to share (Manukyan, 2023)¹⁵. Each myth (care, exploration and evasion, and rebirth and liberation) engages and responds to a particular fear of the targeted audience. The human subconscious has seven ontological fears: abandonment, loss of control, absence of sense, loneliness, death and falling behind (Fontana, 2018). Every brand with a successful storytelling strategy can analyze these inbred fears and capitalize on it. The following table links every myth with natural fears, associating with them a possible existential theme that could confront and beat them, lastly it makes an

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¹⁵ Manukyan I. [LinkedIn Page]. (2023). *Metaphors that Bring Joy: How Coca-Cola's 'Taste the Feeling' and 'Open the Happiness' Campaigns Use Figurative Language to Connect with Consumers?* LinkedIn.

example of brands that used these archetypes in their mission or in their storytelling strategies.

	Fears		Confronted with	Example
Myth of exploration and evasion	-	Loneliness Absence of sense	Metamorphosis and Transformation	WeRoad its motto is "leave alone travel in company". Organises group trips for strangers.
Myth of care	-	Abandonment Death	Self love and Altruism	L'Oreal With its slogan "because I'm worth it" underlines the importance of self love.
Myth of rebirth and liberation	-	Loss of control Falling behind	Change and Cheerful outlook	Samsung His spots "join the flip side" advertises its new foldable phones while making fun of Apple's most loyal customers.

The ability of a brand to become *narrable* influences its storytelling's capabilities, in fact, the goal of a storytelling strategy is to generate emotion and autobiographical identification within the audience. Brand storytelling means to represent through copy, visuals, audios, and perceptions a product or a service, with the goal to relate in a better way with the audience (Fontana, 2020). Furthermore, it means to generate simulations of the reality which then become reality itself (Fontana, 2020). Netflix has been an expert in creating simulations of its TV series in real life, already in 2019, the company created an experiential narration in front of the Milan Stock Exchange by building a fictitious scene of *La Casa de Papel* for its third season's debut (Fontana, 2020). Again, in 2024, Netflix has faked a defacement, a hacker attack with the aim of modify a remote content. It had happened in Rome, Milan and Bologna's train stations where in the time-table displays appeared "siete insetti" (you are insects),

a line cited from the new Netflix's TV series 3 Body Problem with the purpose of creating a deep emotional immersion for the audience (Sernagiotto, 2024)¹⁶. In this storytelling experience the main audience happen to be us, the members of the crowd in Italy's most important train stations, in view of the fact that it is a case of urban storytelling. The usage of urban storytelling is spectacular and effective and introduces us in the set as characters. The main channels in which brand-storytelling campaigns can be distributed will be discussed in the next chapters, however, they usually require the presence of a system of characters. Once the canonic scheme has been programmed it is necessary to choose the set of characters, and mainly our brand's personality between two main clusters: dynamic and static (Fontana, 2010). Dynamic characters' personalities change during the story, they can be good or bad, but they are always made distinctive by having multiple interests (Fontana, 2010). An example of a brand with a dynamic personality is Rihanna; known to the world as one of the world's richest female musicians, she started her career has a singer, to then become in 2017 an inclusive beauty entrepreneur with Fenty Beauty, continuing in this trail with Savage X Fenty and Fenty Skin (Berg, 2021)¹⁷. Static characters stay the same during all their chronological history, resulting almost untouchable by the course of time and floating in space, their main characteristic is that they are coherent to themselves (Fontana, 2010). The brand Nutella is a perfect representation of a static character; the most famous hazelnut cream in the world was born in 1964 and has always been the same, accompanying for decades people in their breakfast (Nutella, n.d.)¹⁸. The decision about if positioning the brand in a dynamic or static cluster of characteristics is

¹⁶ Sernagiotto C. (2024). "Siete insetti", tabelloni delle stazioni di Roma e Milano promuovono la serie Netflix. Sky tg24 spettacolo.

¹⁷ Berg M. (2021). How the singer became the richest female musician on the planet. Hint: It wasn't from performing. *Forbes daily cover*.

¹⁸ Nutella. (n.d.). *La nostra storia*. *Nutella*. Retrieved in January 2024.

strategic; for this reason, there are three levels of features which have to be decided subsequently to it: the caliber of intelligence, the level of emotion and the level of moral attitude (Fontana, 2010). The caliber of intelligence measures our brand's character positioning in a scale that goes from ignorant to genial, for example, the brand Tesla has been able to make the public opinion perceive it as genial and innovative. The level of emotion quantifies if the brand places itself as cold and forbidding or as loving and enthusiastic; a cold and forbidding positioning is quite common in the extra-luxury industry which aims to be niche and inaccessible, in order to enhance its value and refinement. This brand positioning strategy is the same that has been used in the ploy of Paolo Sorrentino's TV series "The new Pope" (2020), in which in order to make religion and the figure of the Pope close again to Catholic Christians, The Pope (interpreted by Jude Law), decided to avoid public appearances, applying a strategy that turned out to be successful. The level of moral attitude refers to the positioning of the brand's personality in a scale that goes from unconcerned to generous (Fontana, 2010). Mulino Bianco, for example, has always projected to its audience an image of familiarity and abnegation, resulting in the creation of a generous and positive character (Mulino Bianco, n.d.)¹⁹. Brand's characters should be coherent and consistent but also able to adapt their key messages to the needs of their audience to be better perceived and appreciated by the public (Fontana, 2010). Brands which are able to be well reasoned but also to change and to evolve with the needs of the market result in being more successful, thus, in a productive storytelling campaign is useful to underline and mention the evolution of a brand and its life cycle (Fontana, 2010). A method to guarantee that the evolution of a brand happens in a proper way is to choose the correct language of communication. Hence, there could be

¹⁹ Mulino Bianco. (n.d.). Storia. Mulino Bianco. Retrieved in January 2024.

described seven styles that are currently used in storytelling strategies: the military style, the medical style, the sportive style, the loving style, the political style, the economic style, and the religious style (Fontana, 2010).

	goals	themes	values	vocabulary	examples
Military	Encourages to act	Challenge Conflict Freedom	Power Passion Ambition	battle, code, order, killer	Listerine's claim "Kill bad breath germs with one mild swish." (Fontana, 2010)
Medical	To grant health and care	Life/Death Wellness Resilience	Hope Patience Vitality	food, cure, diet, remedy, health	Danone tagline "delicious and healthy, Danone yoghurt is the dessert of a happy digestion." (Musso, 2024) ²⁰ .
Sportive	Involves and thrills	Victory Loss Agonism	Competition Ambition Sharing	train, field, basket, race	Nike's most iconic slogan is "Just do it."
Loving	To seduce and cuddle	Relation Reliance Corporality	Care Concern Unselfishness	wait, heartbeat, family, love, tears	Muller's claim "fate l'amore con il sapore" (Make love with taste) (Fontana, 2010).
Political	Arouse	Right/Wrong Legality Governance	Equal rights Thrust Freedom	alliance, citizenship, coalition, authority, rules	Avvocathy's communication on social media is centered around legality and equality.
Economic	To create tangible and intangible value	Production Worth Materialism	Pragmatism Fairness Luxuriance	purchase, budget, cost, risk	Beghelli with its pay-off "il tetto d'oro" (the roof made of gold). (Fontana, 2010).
Religious	To transcend	Redemption Destiny Salvation	Holiness Inclusivity Transcendence	soul, brotherhood, atonement, mystery, paradise	Lavazza's first slogan (1950) "Lavazza, il paradiso in tazza" (Lavazza, heaven in a cup) (NA, 2024) ²¹

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²⁰ Musso P. (2024). Danone. Brandforum, L'osservatorio culturale sul branding.

²¹ NA. (2024). Il marketing di Lavazza. Il valore reale di una piccola tazza di caffè. *Ecommerce Day website*.

As soon as a brand-storytelling has been completed and has been decided which language the company wants to use to interact with its stakeholders and the audiences, it is necessary to complete the last step, which is the creation of a core story. The core story is very personal of the brand, it could be fictional or real, but it should be a story from which the company can always draw new information and detail about the brand, useful to instill the brand's values in and out of the company's walls (Fontana, 2020). The core story is an updated content which must be distributed to all the stakeholders that are in some ways interested in the brand, it can also be described as a system of insights functional to narrate the brand, the service, or the product (Fontana, 2020). Hence, a core story is necessary to the diffusion of new contents to internal audiences, making the communication of a company effective and malleable by adapting the narrative to each channel (Fontana, 2020). Furthermore, it guarantees not only that the external communication results coherent, thus able to entertain in a successful way, but also that the human resources can form managerial positions able to understand and to carry forward the key messages of it (Fontana, 2020). Moreover, a core story is particularly important in the design of a product, its packaging, its supply chain, its materials, its advertising, and everything related to it that needs to be considered coherent by public-opinion (Fontana, 2020). The core story, together with all storytelling methods that give an assurance on the success of a brand marketing strategy, create a narrative capital. The narrative capital is a virtual consideration of the economic value that the storytelling brings to the company. Thanks to the campaign "Significant Objects", has been made a selling experiment of a ball, at the end sold for 1x37 times the purchase cost of it; this demonstrates that a storytelling strategy can add actual economic value to a product or a service and it can be measured (Fontana, 2020). A narration is able to make an object unique by arousing emotions in the public. In a saturated market, where subsist multiple products and services which do the same thing, a narration can be the only mechanism to distinguish a brand and draw attention on it.

1.2.1 Strategic storytelling for brand success

Today, branding, and economic value generation is driven by storytelling for the reason that the market is saturated by the content continuum, which is the constant omnipresence of contents trying to capture the individual's attention through video, images and texts, online and offline (Fontana, 2018). For this reason, it is necessary for a brand to implement qualitative experiences in the content continuum, such as symbols, values, messages, and experiences enclosed in a story, with the aim to catch the attention of the public (Fontana, 2018). To give an example of what the content continuum is, it is possible to consider what happens every minute on internet, this study was originally elaborated by Lewis Lori and Callahan Chadd in 2017, but the most recent similar study has been conducted by Doug Austin in 2023 for eDiscovery Today and with LTMG²². Here below attached an infographic which represents what have happened in a minute on internet in 2023, among this data: 347.222 thousand of tweets shared, 3.47 million of snaps created, 2.4 million google searches and almost twenty-three thousand visits to Chat GPT.



Figure 2 Austin D. (2023) [Infographic] from eDiscovery Today and LTMG, (2021)

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²² Doug A. (2023). *2023 Internet Minute Infographic, by eDiscovery Today and LTMG!: eDiscovery Trends.* eDiscovery Today.

This infographic is the perfect example of how contents with powerful stories can attract people and connect with them on an emotional level. The symbolic and fictional features of a story are the ones settling the *mythic commodity*, which is the end-product of storytelling techniques, based on the audience's narrative expectations and needs (Fontana, 2010). In order for a brand to merge in the market, it is necessary a discursive alignment between the stories in which the audience is interested, and the narratives chose by the company (Fontana, 2010). We acknowledged in the previous subchapter that brand-storytelling can guarantee a successful economic increment, however for this to become true we do not only need to focus on storytelling techniques, but also on the analysis of the market and stakeholders and internal organization. To construct a successful story, the first step is to know our audience and separate into clusters our interlocutors. We can consider five levels of analysis:

- A global socio-political level. It considers public opinion's point of view about globalized concerns like environmental sustainability, economic crisis and security. (Fontana, 2010).
- Market's segments narratives of interest level. With regards of the themes that appeal to a business's field instead of another, for example FMCG's (Fast Moving Consumer Goods) narrative of interest will not be the same of the automotive one (Fontana, 2010).
- Direct Competitors level. An analysis of direct competitor's strategies of communication with their audience, examining how they present their product, which narratives they use for them and for themselves (Fontana, 2010).
- Inner agenda's level. It consists in an investigation of the individuals' existential themes, in which narrations they identify and consequently they understand themselves (Fontana, 2010)

- Personal level. An analysis of the company's brand communication over the years, including all narrations and stories created for the products and/or services of interest and for the brand itself (Fontana, 2010).

Subsequently reviewing the brand's needs and comparing them with the audiences' ones, it is necessary to approach the brand-storytelling strategy considering today's economy. Nowadays, thoughts, impressions and experience of the client are the number one asset which must be accounted for a successful product or service (Fontana, 2010). Efficient storytelling campaigns base themselves on the analysis of narratives, myths, themes, fears and desires of their audience, this investigation takes the name of biographical intelligence (Fontana, 2020). Consume is considered as a demonstration of individual's lifestyle and way of being, as an act of experimentation of the inner self (Fontana, 2010). People do not look anymore only for a commodity that makes them belong to something, but also to live the product or service in order to express themselves (Fontana, 2010). With the aim of making a product or service captivating for the audience, communication should be focused primarily on generating: rationality (it should make sense to purchase it), repetition (it should be able to hypnotize the audience with a persistent narration), rituals (it should create a process capable of generating an habitude). Today more than in every other era, markets need stories which have to be represented by visuality, video, images, scripts, words, illustrations. In fact, most of individuals daily life (circa 8 hours per day) is spent in a not lucid psychological status, similar to a dream, in which they impersonate and emphasize with situations and characters that are found in the stories that they read or see (Fontana, 2018). It is what happens, for example, when people are touched by a video on a social media or when they read about a dramatic story in a news paper. This impersonation takes the name of storylistening trance experience, which it more precisely happens when an individual, after emphasizing with a story and relating with the protagonist, then returns back to a conscient status, changed; it occurs every time an individual comes into contact with a good narration (Fontana, 2018). In the current market, the best way to entertain an audience through stories, is by using visual contents. In this contexts, the figure of the visual storyteller becomes really important, it shapes the boarders of the visual imaginary that the company will use for the brand, working on the iconographic history of the same and being able to connect the imaginary of the audience with the company's one (Fontana, 2020). The visual storyteller decides whit which visual contents a brand should be represented and how. There are several requisites to build a successful visual storytelling campaign: a consideration of what are the visual environments in which the audience is immerse (with regards of the channels, contexts and refused narratives), the constant acknowledgement of the core story (in fact, without always keeping into mind it, the final product will not result coherent) and the individuation of a visual style which is more in accordance with the story (Fontana, 2020). Furthermore, the most important asset for a visual storytelling campaign is the design of an iconic act, represented through the visual medium, which must be coherent with the emotions that the brand wants to transmit to its public (Fontana, 2020). It is possible to find a pattern scheme in most visual storytelling productions, which is the now, unfortunately, perhaps, which corresponds to these three questions: "when an action is taking place?", "what is the problem?", "how is it possible to solve the situation?" (Fontana, 2020). After reviewing one of the most iconic TV commercials visual confrontations between two brands in the automotive sector, Mercedes Benz, and Jaguar, I will apply the now, unfortunately, perhaps scheme to their spots.

- The first commercial to came out was the one of Mercedes Benz, called "Chicken" MAGIC BODY CONTROL²³. In this TV commercial the main protagonist is a chicken and its dance troupe (also made of chickens) that it is being moved by two hands, on the notes of Upside Down, by Diana Ross. The particularity of the movement it is in the fact that the chicken's body is moving but its head is staying still. What Mercedes Benz is communicating is that their cars remain stable although all anomalies in the streets, making the drive comfortable; in fact, the commercial is concluded by the slogan: "Stability at all times. Magic Body Control. Mercedes Benz Intelligent Drive".
- The second commercial came out in response to the first one and was made by Jaguar, it is called "JAGUAR VS. CHICKEN"²⁴. In this commercial there is a chicken that is being moved by a man on the notes of the same song of the Mercedes Benz one. The difference is that now we can see the man who is moving the chicken; however, he gets distracted and right after the man says "See, just like a Mercedes" the chicken is eaten by a jaguar and appears the slogan "Magic Body Control? We Prefer cat-like reflexes." Jaguar is affirming the power and the elegance of feline reflexes compared to the stability of a chicken.

²³ Mercedes-Benz. (2013). Chicken MAGIC BODY CONTROL. [Video]. YouTube.

²⁴ Jaguar. (2013). JAGUAR VS CHICKEN. [Video]. YouTube.

	Mercedes-Benz Commercial	Jaguar Commercial
Now	A chicken is in a laboratory, hold by a man.	A chicken is being moved by a man at the rhythm of a song.
Unfortunately	The chicken has been moved by the man and has no control on it.	The man gets distracted.
Perhaps	It finds its stability in the head, demonstrating control.	A jaguar eats the chicken, demonstrating that its feline reflexes are better than chicken's stability.

These commercials have not only the ability to entertain their audience but also to make them simulate a deep media, thus living an emotional experience thanks to the story, which is the most difficult goal to achieve for a storyteller (Fontana, 2020). There are six features that a story should reach to produce a status of deep media simulation: detachment from the self (the narration should carry the audience in a temporary parallel reality), sensorial perceptions (the story results exceptionally real that causes actual physical sensations in the audience), control (the narrative can be interrupted, hence the audience has the freedom to chose if it is enjoying even more the story), detachment from the place (the audience should be transferred to another time and space) and temporal distortion (the capability to lose the track of time while immersed in a story) (Fontana, 2020). To achieve these levels of immersion in a story it is necessary, for a brand storyteller, to be creative and to possess artistic skills, however it is more useful to approach the subject with an engineering method. In fact, in order to achieve a successful strategy it is due to: always take into account company's values, having knowledge of all stakeholders and information that can be obtain from them and their needs, sharing the strategy's management between different roles,

following a hierarchy in order to perform a common goal, redacting implicit or explicit operation mechanisms and standardized behaviors to conform the team from the inside and define a media ecosystem comprehending all the channels needed (Fontana, 2020). To conclude, brand affirmation in the market can be achieved using precise storytelling techniques with as primary aim to trigger emotions in the audience. However, this is possible not only by following a creative approach but also by the professional ability to design a plan of action that takes in consideration several tangible and intangible analytical variables.

1.5 Conclusion

After taking into account the topics and concepts covered in this chapter, it is possible to appreciate, not only the origins of the brand and how it has developed over time, but also how this word is used in a company environment and in relation to all its internal and external functions. In fact, understanding the terminology used is extremely useful in ensuring awareness and confidence to immerse in the subsequent chapters. Furthermore, this chapter attempts to make clear what storytelling techniques are, not only by explaining the main principles of it, but also by using example, trying to make the subject easier to understand. In conclusion, this chapter should provide a general vision of what the brand is and its relationships with storytelling, how the latter is applied in a company and the most iconic campaigns that have revolutionized this subject.

CHAPTER 2: ARTIFICIAL INTELLIGENCE AND BRAND MARKETING

2.1 Introduction

In this chapter artificial intelligence will be discussed as main theme. This will be possible through the analysis of its historical origins, to then deepen on its evolution and delve into today's main themes regarding it, such as generative artificial intelligence uses. In this analysis, artificial intelligence will be considered from a marketing point of view and by examining AI's application to storytelling, through the discussion of both its positive and negative achievements. In the first subchapter it will be analyzed AI in its complexity, developing an excursus on this subject that includes: how and why artificial intelligence has been created, what are the main AI's technologies utilized (with a focus on the various fields in which it is mostly used) and lastly an analysis of various theories regarding the use of artificial intelligence. The second subchapter will focus on the application of artificial intelligence in the field of Marketing; it will be considered particularly important brand storytelling and the application of generative artificial intelligence on this field. To achieve so, successful examples of generative AI applications will be analyzed, such as The Coca-Cola Company's campaign Create Real Magic and the Spotify's use of Spotify DJ. Lastly, it will be analyzed the presence of AI in the marketing field but considering the processes, hence AI in marketing strategies, in marketing organization and in marketing functionality. In the third subchapter brand equity will be the main theme, with a focus on what it is and why is so important to achieve important results in a branding campaign. This subject will be then discussed under the pinpoint of artificial intelligence, describing how this innovative tool can improve customer satisfaction and subsequently, brand equity. The last subchapter

will focus on the story of Tay, a Microsoft's chatbot, created with the purpose of engage and research on AI, which ended up having a short life. It will be explained why this chatbot was not successful, moreover describing some psychological reasons behind the unsuccess of this bot, which will later appear to be useful to understand artificial intelligence avatars. To conclude, this chapters aims to explain the increasing presence of artificial intelligence in companies' internal processes, especially in the field of marketing; how branding is evolving towards a growing digital reality and how AI has been exploited in this sense; and finally, through the analysis of the case Tay, how in a digital universe based on datasets analysis it is still possible to fail and therefore reflect on how much space there is for further innovations.

2.2 An Introduction to Artificial Intelligence

Artificial Intelligence is a field of computer science which focuses on the transmission of anthropomorphic intelligence and thinking into machines for human assistance (Karthikevan et al., 2021)²⁵. AI is one of the technological innovations that happened thanks to the development of technology during the industrial revolution, to then evolve and grow in several fields (Karthikeyan et al., 2021). Artificial intelligence is a discipline that belongs to the field of informatics and tries to make machines do intelligent activities (Poccianti, 2020)²⁶. There are two big sectors of AI, the general type, and the restricted type. The first one's goal is to reproduce intelligence, the second one's goal, instead, is to build machines able to do the same tasks of a human being with more precision and better results but in an extremely specific field, for example medical diagnosis (Poccianti, 2020). Nowadays technology is particularly advanced in restricted AI, however progress has still to be made. The first formal language for logic reasoning was developed in 1847 by George Boole, subsequently, the next achievement in this field was obtained in 1936, by Alan M. Turing, the creator of the Turing machine, which establishes if a machine could be considered a thinking being (Karthikeyan et al., 2021). After, in 1939, England joined the war and Turing became part of a troupe of cryptanalysts; by creating the machine Enigma they were able to decrypt the Nazis' messages, saving millions of human lives (Poccianti, 2020). Later, Jhon McCarthy, considered the father of artificial intelligence, explained this term during a conference in the US and, one year later, created the LISP programming language, used to construct AI software (Karthikeyan et al., 2021). The evolution of this technology has not been linear, researchers talk about "springs" and "winters" to describe

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²⁵ Karthikeyan J., Ng Yu Jin and Ting Su Hie. (2021). *Learning Outcomes of Classroom Research*. L'ORDINE NUOVO PUBLICATION.

²⁶ Poccianti P. [Host]. (2020). *01. Breve racconto dell'intelligenza artificiale, con Piero Poccianti*. [Audio Podcast]. Alla scoperta dell'intelligenza artificiale.

the periods of discoveries and stalemate in this field (Poccianti, 2020). In the eighties and nineties of the 20th century, it was possible to observe the first successes in this field, especially regarding the expert systems; informatic systems able to reproduce the knowledge of an expert in a particular sector and to achieve same results (Poccianti, 2020). This period has then become a "winter" for Artificial Intelligence because an actual expert had to teach manually everything to the machine. Today's AI technologies are more automated, and scientist have learnt faster techniques to teach machines tasks. One of the most frequently asked questions when talking about Artificial Intelligence is if a machine can think or not. Alan M. Turing asked himself this question and he wrote that in order to answer it, it is firstly necessary to understand what a machine is and, secondly, to understand what thinking is (Poccianti, 2020). We inherited from him the Turing Machine, which is an algorithm, a technology able to define every kind of machine that does an elaboration (Poccianti, 2020). Regarding the comprehension of what thinking is, he left us the imitation game; in this game there are three individuals in three separated rooms, they are chatting between them, two are humans and one is a machine; if we are not able to distinguish the machine from the humans then we can say that the machine is thinking (Poccianti, 2020). AI applications mimic human intellect with the aim of solving problems and make decisions; they have several advantages, especially in solving problems or making decisions (Karthikeyan et al., 2021). Among these advantages: preventing information to be lost, providing solutions to difficult issues in a brief time, judging situations basing reasonings on facts rather than emotions, reducing the number of human mistakes and performing stressful and complex tasks that humans may find difficult (Karthikeyan et al., 2021). Certainly, artificial intelligence presents also some disadvantages, for example AI is not capable of promise to offer the best solution possible, has a lack of creativity in responses and is unable

to present the reasoning and the logic behind certain result, it can malfunction, and as a consequence of that, it can produce incorrect answers (Karthikeyan et al., 2021). AI has also caused some disadvantages for humans, which are raised not directly by artificial intelligence but by the use of it that has been done. They include jobs being affected and an increase in unemployment, lack of human touch and increasingly high machine's equipment costs (Karthikeyan et al., 2021). Artificial intelligence is based on human intelligence without restrictions from biological limitations (Karthikeyan et al., 2021). The Webster's New World Dictionary have defined intelligence as "the ability to learn or understand from experience, to respond quickly and successfully to a new situation" (Fetzer, 1990)²⁷. For this reason, when we refer to AI as an intelligence, we are saying that this feature is a phenomenon that can be observed or created. In his article, Fetzer, reflects on the fact that if human beings are considered the best example of intelligent beings, then artificial intelligence should imitate them in all their characteristics; the problem is that human beings can show features that are commonly considered negative, such as: anger, jealousy and so on (Fetzer, 1990). In fact, one of the most common doubts that common people have about artificial intelligence is exactly related to the capability of creating machines able to feel or to be driven by negative characteristics of human beings. There are AI machines that can complete tasks in a better way compared to humans. Today, Artificial Intelligence can better recognize objects in an image than humans and can understand a conversation and it can sustain a debate (Poccianti, 2020). For example, some years ago there was the case of a machine that defeated two champions in the game Jeopardy, a quiz game, and a machine able to play Go, an extraordinarily complex Korean game (Poccianti, 2020). However, it is possible to divide the instruments

²⁷ Fetzer J.H. (1990). *Artificial Intelligence: Its Scope and Limits*. Studies in Cognitive Systems. (COGS, volume 4).

of Artificial Intelligence in symbolic methods (with regard of logic, reasoning, and knowledge) and sub-symbolic methods (with regard of the emulation of how the human brain works) (Poccianti, 2020). Nowadays, technology is particularly profitable in the usage of sub-symbolic methods, particularly with deep neuronal networks which work best in the recognition of patterns (Poccianti, 2020). The most recent challenge in this sector appears to be the fact that AI machines are still not able to have the same capabilities as humans, for example artificial intelligence can not do analogies, thus, it can not learn from a context and apply what it has learned to another context, it is also not able to make abstractions (Poccianti, 2020). Machine learning is a branch of AI, which main goal is to make machines teach themselves from experience, which is possible thanks to deep neuronal networks that use sub symbolic algorithms to make machines learn by themselves (Poccianti, 2020). For this reason it is possible to apply artificial intelligence to several fields, particularly in the field of perception; by the use of these tools it is possible to simplify company's processes and suggest optimizations with regard of internal and external resources, an example could be the use of chatbot to assist clients (Poccianti, 2020). Artificial intelligence can help individuate innovative and creative solutions; however, the main problem with AI is that it does not concern products but projects which need agile methodologies and several investments (Poccianti, 2020). Artificial Intelligence can be used, for example, in areas in which it is necessary to base decisions on data and not on emotions, this is why several industries have increased the application of AI machines in their tasks and in activities that could potentially be dangerous for humans and thus, expensive for companies (Karthikeyan et al., 2021). Machines are considered to be more efficient and to not require breaks or rights, in fact, artificial intelligence works as a knowledge base useful to train them to develop a specific task with expertise, causing automation as the main outcome from it (Karthikeyan

et all, 2021). For what concerns new researches in this field, the United States have always been pioneers about AI, the majority of investments on it comes particularly from US's big corporates like Microsoft, Meta, IBM and Google, however, the world of academic research is still strong and helped by the Defense Advanced Research Projects Agency (DARPA) (Poccianti, 2020). Most of the Artificial Intelligence's research in China is leaded by universities and the public sector (Poccianti, 2020). In Europe, the research in this field is equally shared between companies and universities, especially in Italy, where the public research world is still predominant, and industries are not willing to innovate; however, there is a strong push in this direction that comes from creative new start-ups (Poccianti, 2020).

2.2.1 Application in other subjects

Artificial Intelligence resources are growing rapidly in recent years, this growth has been accompanied by increasingly high results in the production of AI endowed products. According to The Economist, AI related acquisitions in 2017 were twenty-six times the quantity they were two years before (Karthikeyan et all, 2021). Artificial Intelligence can be applied to several fields with successful results, in fact the use of this innovative technology can bring advantages in healthcare appliances, manufacturing and production, security and surveillance, education and marketing. The healthcare sector is one of the first that has started to invest in artificial intelligence's supplies, in fact this field is one of the most saturated with data that must be managed (Karthikeyan et all, 2021). The main tasks in which AI is used in healthcare are diagnoses, treatment recommendations, patience engagement and administration; the main healthcare sector in which it is used are cancer treatments, cardiology, and nervous system treatments by innovations in biomedicine and biomedical information processing (Karthikeyan et al., 2021). The use of artificial

intelligence in manufacturing and production has provided this sector with more sustainable and innovative technologies, and smart production, particularly in factory's processes (Karthikeyan et al., 2021). With regard of the security and surveillance sector, new AI technologies, for example biometric facial recognition included in smart city platforms, which purpose is to guarantee safe cities, has been recently implemented around the world (Karthikeyan et al., 2021). The use of artificial intelligence in education has received critiques, especially when it comes to higher levels of education; however, AI has achieved important goals, as personalized instructional systems, student writing analysis, student support chatbots and so on (Karthikeyan et al., 2021). Furthermore, AI can be applied in business management, e-commerce, and finance, by the usage of chatbots, image search, handling customer data, recommending systems, AI inventory management, cybersecurity, CRM, credit scoring, loan underwriting, portfolio management, human resources and sales (Kaliyaperumal et al., 2023)²⁸. AI chatbots are used in e-commerce to improve customer satisfaction by behaving human-like but being ultra efficient in providing best recommendations to customers based on data (Kaliyaperumal et al., 2023). Imagine search means that the costumer can make a research based on an image, it can implement a website and, therefore, it is really useful for online sales activities (Kaliyaperumal et al., 2023). The ability to oversee customer data is one of the most important of AI, in fact, through it, the analytical study of past data is possible to find patterns and to grant profit maximization, sales maximization and resources optimization (Kaliyaperumal et al., 2023). Moreover, thanks to machine learning systems, the analysis of past data can become related to customers choices and behaviors, and, because of that, it can predict and suggest most suitable products to customers,

²⁸ Kaliyaperumal K. et al. (2023). *Applications of artificial intelligence in business management, e-commerce and finance*. Materialstoday Porceedings, vol.80, part. 3.

guaranteeing a recommendation system (Kaliyaperumal et al., 2023). Algorithms in e-commerce can be useful for what concerns the inventory, because by the analytics regarding past sales, can be found a correlation between current sales and future sales (Kaliyaperumal et al., 2023). Cybersecurity systems are definitely related to new AI technologies because they can detect vulnerabilities in any system and provide it with security solutions (Kaliyaperumal et al., 2023). E-commerce has been highly influenced by artificial intelligence, especially regarding customer relationship management (CRM), it is used to assist planned activities and tendencies based on latest trends (Kaliyaperumal et al., 2023). With regard of credit scoring, loan underwriting and portfolio management algorithms are able to redefine risks and predict it based on past data (Kaliyaperumal et al., 2023). Lastly, in the e-commerce market, human resources management and sales management have been influenced by AI, especially regarding screening algorithms, innovative training techniques and maximization of profit (Kaliyaperumal et al., 2023). The increasing use of artificial intelligence in companies has led the market to an always growing digital transformation, marketing is one of the businesses witnessing this transformation even more, experimenting in new operation models and technologies is progressively becoming data driven, automated and intelligent (Chintalapati and Kumar Pandey, 2022)²⁹. Artificial intelligence has transformed the landscape for what concerns marketing techniques, especially with regard of integrated digital marketing activities, content marketing, experiential marketing, marketing operations and market research (Chintalapati and Kumar Pandey, 2022). With regard of integrated digital marketing, we can find various kinds of AI tools, from intelligent search tools like Google Inside Search to recommender systems like the Music Recommender of Spotify

²⁹ Chintalapati S. and Kumar Pandey S. (2022). Artificial intelligence in marketing: A systematic literature review. *International Journal of Market Research*.

(Chintalapati and Kumar Pandey, 2022). They are used mostly to offer personalized content recommendations to clients, real time data analytics of social media unstructured data by trained models, intelligent algorithms for automated marketing and to create more optimized marketing investments, thus intelligent advertising (Chintalapati and Kumar Pandey, 2022). One study on integrated digital marketing relations with AI has highlighted that AI programs can have an impact on financially vulnerable customers, calling attention to the importance of human connection while engaging with customers and their experiences (Mogaji et al., 2020)³⁰. Content marketing is using AI tools to create updated content, for example with Articoolo (a web content AI developer), and to personalize content, for example with Amazon personalized shopping recommendations on Instagram suggested for you (Chintalapati and Kumar Pandey, 2022). These AI tools guarantee cognitive content platforms that use structured data, user behaviour and images for insight creation; they influence what customers are going to see and this can open the discussion on the impact of big data on communication streams (Chintalapati and Kumar Pandey, 2022). In today's digital landscape, content is one of the most powerful marketing tools, as more content is created every day, there is also the need for extreme personalization in quantity, reachable only with the use of AI powered tools (Ahmad, 2018)³¹. Moreover, experiential marketing has tested different AI appliances for voice (Google assistant, iPhone Siri, Mercedes MBUX) and image (Adobe Sensei: Brand Channels, Estée Lauder: Matching perfume with image), fabricating intelligent personal assistants, conversational chatbots, service robots and virtual assistants with unique niche skills in order to improve customer communication

³⁰ Mogaji E., Soetan T. O. and Kieu T. A. (2020). The implications of artificial intelligence on the digital marketing of financial services to vulnerable customers. *Australasian Marketing Journal (AMJ)*.

³¹ Ahmad M. F. (2018). The impact of big data processing framework for artificial intelligence within corporate marketing communication. *International Journal of Engineering & Technology*.

(Chintalapati and Kumar Pandey, 2022). Regarding experiential marketing, weaknesses and opportunities have been analyzed on the use of AI in this field, highlighting that if the problem of transferring tacit knowledge will not be addressed, it could cause disappointing results in research (De Bruyn, 2020)³². Marketing operation and marketing research are the two fields that have invested more in AI tools, with tools useful for marketing automation, forecasting, predictive analytics, customer segmentation and consumer behavior analysis (Chintalapati and Kumar Pandey, 2022). These two fields have achieved several goals with the use of these tools such as real time forecasting, pricing and promotional strategies, predictive analytics during campaigns useful for copy editing and pricing, customer segmentation based on geographic and demographic features and NLP-based trends forecasting for goods and services innovation (Chintalapati and Kumar Pandey, 2022). The adoption of AIpowered marketing can impact every marketing function (Forrest, 2018)³³. It has been demonstrated that when artificial intelligence augments human managers, rather than substitute them, it can be more effective in research marketing activities (Bressgott et al., 2020)³⁴. Artificial intelligence has an enormous potential in marketing, being an incremental part of businesses investments; a study has demonstrated that ninety percent of businesses that surmounted their peers have considered AI as market ready, shifting to machine learning driven tools (Chintalapati and Kumar Pandey, 2022). AI has been described as a technology that can be impactful on marketing managers skills and accountability and on the optimization of marketing

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³² De Bruyn A. et al. (2020). Artificial intelligence and marketing: Pitfalls and opportunities. *Journal of Interactive Marketing*.

³³ Forrest E. and Marinchak C. L. M., Hoanca B. (2018). Artificial intelligence: Redefining marketing management and the customer experience. *International Journal of E-Entrepreneurship and Innovation*.

³⁴ Bressgott T. et al. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*.

functions and strategies (Mariani et al. 2021)³⁵. Clients can have numerous interactions with AI, in fact, this tool is able to offer important benefits and potentially make their life better (Mariani et al. 2021). However, artificial intelligence also brings disadvantages for users, among these, dehumanization, privacy concerns and addiction (Mariani et al. 2021). Marketing has based its research on several social sciences disciplines, always basing its theories on psychology for what concerns consumer behavior analysis (Mariani et al. 2021). Being psychology the study of the mind and how behaviors are influenced by it, embracing its theories guarantees understanding deeply the base of customers thinking, desires and at last, behaviors (Mariani et al. 2021). Machine learning is one of the technologies that, more than others, can help automatically determine methods to solve a problem basing it on the context of data (Dwyer et al. 2018)³⁶. For this reason, it is quite common to apply machine learning technologies in marketing; particularly, scholars have noticed its utility in direct marketing campaign to improve decision making and forecasting models (Mariani et al. 2021). Moreover, another AI technology very used in marketing is the neural network, a computer software that simulates human intelligence and it is able to learn and deduce from a data set (Law and Au, 1999). Neural networks have emerged as one of the data mining algorithms used to analyze data, they are used for the identification of trends that could improve decision making, because with such data mining is possible to extract high-level knowledge and collect and store big amounts of data (Mariani et al. 2021). If the purpose is to learn about the market and potential buyers though marketing automation, there are two kinds of approaches possible. An active approach, which involves directly asking questions, and a passive approach, which includes using past

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³⁵ Mariani M. M. et al. (2021). *AI in marketing, consumer research and psychology: A systematic literature review and research agenda*. Psychology and Marketing, vol. 39, issue 4. ³⁶ Dwyer B. D., Falkai P. and Koutsouleris N. (2018). *Machine learning approaches for clinical psychology and psychiatry*. Annual Review of Clinical Psychology.

information about the potential customer (Mariani et al. 2021). In order to make machines more sensible to the data set of information, scientist have created a machine-usable dictionary which contains linguistic descriptions of words and potential psychological interpretations to them (Mariani et al. 2021). Neural networks are responsible for the creation of psychological functions and human-like personality in machines, in fact they can work as brain cells in humans because they help in the understanding of certain cognitive processes necessary for specific tasks (Mariani et al. 2021). In certain occasions, neural human networks' capability of explaining human behavior and emotion, when applied to machines, can provide insights about social media contents, and help avoid traditional analysis approaches and achieve results about customer profiling, brand reputation and location-based advertising (Mariani et al. 2021).

2.2.2 Theories

Nowadays technological landscape has led scholars to the development of several theories regarding artificial intelligence modern technologies. These theories analyze mostly how humans react to recent technologies and the psychological implications of tech innovations on them.

Unified theory of acceptance and use of technology. This theory predicts behavioral intentions on the use of technologies basing its analysis on four features: expectancy in effort implied, in performance, in social influence and in facilitating conditions, which can be influenced by gender, age, experience and willingness (Mariani et al. 2021).

Technology acceptance model. Being one of the most applied theories by scholars, it analyzes how a technology is perceived by the audience and how they would use it (Mariani et al. 2021).

Game theory. It considers and aims to understand situations in which decision markers interact, describing human behavior through the context of a game (Mariani et al. 2021).

Theory of mind. Central to AI research, has the purpose of mapping mental phenomena and it is useful to understand how mind works in order to reproduce it on artificial intelligence technologies (Mariani et al. 2021). This model has two constituents: a representation of a mental representation (meta-representation) and more complex second order meta-representations (Mariani et al. 2021).

Behavioral reasoning theory. It consists in a model which integrates adoption and resistance factors in relationship to recent technologies and considers reasons against and pro the innovative adoption (Mariani et al. 2021).

Theory of planned behavior. It is a psychological theory that analyzes behavior intentions by taking into account attitudes, subjectivity of norms and perceived control of situations (Mariani et al. 2021). Some scholars have developed this model and has been observed its application to understand the intention of customers towards smart grid technology (Perry, 2020)³⁷.

Theory of flow. This theory aims to explain the mechanisms behind the engagement to a task, it analyzes the flow, which is the satisfaction felt after accomplishing a task (Mariani et al. 2021). It has been used to develop robots that can adapt to requiring tasks and increase user experience (Mariani et al. 2021).

Graph theory. Designed between the 1940s and the 1950s, this theory concerns the study graphs and it is usually utilized to discover new trends

³⁷ Perri, C. et al. (2020). Smart users for smart technologies: Investigating the intention to adopt smart energy consumption behaviors. Technological Forecasting and Social Change.

and groups in an embryonic phase on social networks (Mariani et al. 2021).

Adaptive resonance theory. Being a blend of neurobiology and math, it is able to explain how memory, learning, attention and patterns work by an online classification through categories (Mariani et al. 2021).

Consumer culture theory. It regards the analysis of the relationship between marketplace and consumer actions and the cultural meanings that can be extrapolated from it in order to promote brand engagement with technologies (Mariani et al. 2021).

Anthropomorphism. This theory examines the attribution of human features and mental morale to non-human entities, like robot, devices or software (Mariani et al. 2021). Scholars have proved that humans need to create social connections in order to interact successfully with their environment, this includes also non-human entities, that increasingly isolate people with conversational devices that augment the risks on privacy and loss of human interaction (Mariani et al. 2021).

2.3 The evolving role of AI in Marketing

Brand storytelling is an essential milestone in today's digital marketing environment. Several digital trends are evolving at the same time and innovative technology are every day more involved, among these artificial intelligence remains one of the most important and present. Brand storytelling can be implemented by AI in order to achieve new methods, as tailoring narratives to individual preferences, encouraging active consumer participation and using different connected channels (Hamid et al. 2024)³⁸. In fact, nowadays online marketing has become fundamental for modern businesses, which use as main strategy to attract new customers, brand storytelling (Hamid et al. 2024). As analyzed in the previous chapter, services and products are more seen as evolving narratives than as goods. For this reason, more companies are investing in applying modern technologies, like artificial intelligence, to branding techniques, with the goal of reaching a larger audience. Branding is not a new concept; it is constantly evolving together with recent technologies and in this subchapter, it will become clear how this is happening. Brand storytelling is not anymore only based on creating a narrative that can attract customers, brands are expected to constantly create narratives with digital tools, communicating with and involving their audience to achieve a collaborative narrative design (Hamid et al. 2024). Thanks to the theories described in the previous subchapter it is possible to understand human psychology and its relationship with innovative technologies, matters that are crucial to comprehend every customer and be able to personalize each experience (Hamid et al. 2024). For this reason, more companies are now able to better understand their clients, hence, competition on technologies and innovative marketing techniques it is necessary if they want to succeed in this field (Hamid et al. 2024). Managers are required to offer innovative

³⁸ Hamid M. A. et al. (2024). Brand storytelling in the digital age: challenges and opportunities in online marketing. *Journal Ekonomi*.

brand stories, able to overcome the multitude of information available online and to adapt to every scenario in a resilient way by keeping up with the market (Hamid et al. 2024). Artificial intelligence and machine learning are the best technologies to collect consumer's data that are needed to personalize brand narratives, however the main challenge for these companies is to overcome the obstacles related to data protection and privacy and to become able to create a balance between privacy protection and personalization in contents (Hamid et al. 2024). Scholars have demonstrated that companies that are able to make collide the goal of compliance of their users' data and the creation of constantly updated content, displaying more command in online crisis management (Hamid et al. 2024). It has been proven that these companies invest more in data analysis and in new forms of ethical attitude towards their privacy policies, guarantee not only creative contents but safer strategies for their brand reputation (Hamid et al. 2024). Scholars have found some best practices useful to connect the requirements of the market regarding brand storytelling and the challenges coming from the digital world. Among these:

- Personalizing stories by offering individual contents can increase engagement and fidelity because it is based on emotion evoked (Hamid et al. 2024).
- Using a multichannel storytelling it is useful to increase the audience reached (Hamid et al. 2024).
- Understanding digital audiences is linked to the fact that the more an audience is understood the more it is possible to create narratives suitable with the brand's values and beliefs (Hamid et al. 2024).
- Comprehending the role of the customer in order to make it possible for him/her to participate in the development of the narrative chosen being able to respond quickly to change it is

- necessary to make the audience feel participative (Hamid et al. 2024).
- Applying artificial intelligence and technologies based on big data can support personalized consumers' experiences, guaranteeing visual engagement and offering transparency and authenticity to capture the audience's attention through visuality and maintaining the clients' trust (Hamid et al. 2024).

Digital media have been enhanced by brand storytelling because they continuously need new and original content able to aliment and compete with the flow of information online (Hamid et al. 2024). In this sense, artificial intelligence has a particularly significant role, not only regarding the personalization of narratives possible, but also with regard of reputation risk management, because AI can easily manage quick automated responses and transparency in a crisis setting (Hamid et al. 2024). Several scholars have analyzed that the application of brand storytelling in the digital era has several advantages, hereby there are some of them listed.

- *Gain control over content competition on digital media*. Being this competition increasingly high, it is fundamental for companies to be able to present updated content regularly, AI can be really useful in achieving this goal (Hamid et al. 2024).
- Bound with consumers through emotions. Shaping an emotional connection with clients it is a necessary action to attain sustainable company-audience relationships; AI can facilitate storing data with regard of values and experiences of each customer (Hamid et al. 2024).
- Customer experience personalization. Artificial intelligence and big data can help configure each story to be part of a narrative that

- it is coherent with the company itself and tailored individually to every customer (Hamid et al. 2024).
- Enlargement of conceptual models in online marketing. The application of innovative technologies to brand storytelling increases the chances of developing innovative marketing models that can be tailored only on online platforms, thus enhancing the design of more effective brand storytelling strategies, and stimulating the evolution of this field (Hamid et al. 2024).

Brand storytelling has particularly grown its relationship with modern technologies over the years, especially with artificial intelligence, and a new variety of techniques that have been developed now take the name of generative AI-driven storytelling. Generative AI-driven storytelling is based on generative models which, after taking into account a considerable amount of data about customers, are able to produce new content, crafting new narratives that result coherent with the audiences' expectations (Mayahi & Vidrih, 2023)³⁹. One of the goals of using generative AI is that it can analyze previous stored data and generate content from it, such as images, videos, copywriting (Mayahi & Vidrih, 2023). Furthermore, it is also able to understand contents previously generated by humans and to create itself human-like contents (Mayahi & Vidrih, 2023). The Coca-Cola Company has been a pioneer in the use of generative artificial intelligence for marketing purposes, one of its most recent marketing campaigns has included the use of this technology guaranteeing optimal results for it (Cui et al., 2024)⁴⁰. With the use of Open AI, Coca-Cola has engaged its consumers in a campaign for which they had to create original artwork using this tool, capturing them for the first time by using artificial

³⁹ Mayahi S. and Vidrih M. (2023). *Generative AI-Driven Storytelling: A New Era for Marketing*. Cornell University.

⁴⁰ Cui Y., Phelan S. and Van Esch P. (2024). *How to build a competitive advantage for your brand using generative AI*. Business Horizons.

intelligence (Cui et al., 2024). The Coca-Cola Company made available on its website distinctive logos of the company, such as the polar bear, allowing them to create artworks with them and fostering creativity by the audience (Cui et al., 2024). The Create Real Magic campaign's goal was not only to increase engagement with the public and to augment the connection with every customer, but also to experiment an original approach of marketing which adjusted a new standard of branding for the market in its complexity (Cui et al., 2024). Thanks to this campaign The Coca-Cola Company achieved several objectives: reinvented experiential marketing using generative AI, amplified a user generate content initiative making it memorable and was able to create futuristic out-of-home advertising capturing the attention of the audience (Complete Gurus, 2023)⁴¹

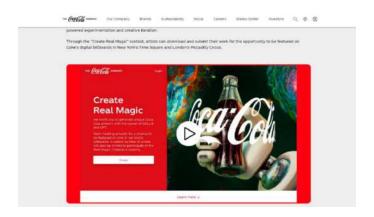


Figure 3 Falchi B. [Screenshot]. From the main webpage of Coca-Cola's campaign "Create Real Magic".

Another innovative implementation with generative artificial intelligence regarding marketing, has been done by Spotify. Spotify made a collaboration between its generative AI platform, Spotify DJ, and a dynamic voice technology tool, Sonantic (Cui et al., 2024). This partnership, which ended in an acquisition by Spotify of Sonantic, was made with the goal of making more personalized music listening

⁴¹ Complete Gurus. [LinkedIn page]. (2023). 6 Ways Coca-Cola Uses Generative AI For Advertising and Marketing. LinkedIn.

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experiences for Spotify's users (Cui et al., 2024). In fact, while Spotify DJ generates all the content present on the app, including playlists and music suggestion, thanks to the analysis of the user's data, Sonantic, through the analysis of sounds, can offer interactive music proposals, coherent with what the user is listening in that moment (Cui et al., 2024). Because of this collaboration, Spotify has been able to extend the listening time spent on the app by the user, hence augmenting the widespread use of it and acquiring more data on its users (Cui et al., 2024).



Figure 4 Spotify. Spotify and Sonantic. From Spotify Newsroom

Furthermore, an achieved enhancement within the application of artificial intelligence driven storytelling can be observed in the use that The New York Times does of this tool (Mayahi & Vidrih, 2023). The popular newspaper's company has developed Journalism AI, a new AI tool useful to automate some reporting tasks and analyze data sets (Mayahi & Vidrih, 2023). From the first moment in which generative artificial intelligence has been used for marketing purposes AI-powered chatbots and virtual assistants have helped to improve interactions with clients by personalizing them with the use of data (Mayahi & Vidrih, 2023). Furthermore, the implementation of AI to storytelling has additionally contributed to the ability to develop interesting narratives, increasingly coherent with each brand (Mayahi & Vidrih, 2023). In fact, scholars have highlighted that Marketing is one of the business fields that is taking more

advantage from the functionalities of generative AI, contributing, together with other three sectors, to circa 75% of total generative AI's uses cases revenues (Mayahi & Vidrih, 2023). There are several generative AI techniques that marketing, and more specifically brand-storytelling, uses in order to achieve this kind of economic results. First of all, the use of AI models on big data about specific narratives of interests, for example movies, it is useful to understand trends, structures or patterns regarding a specific story (Mayahi & Vidrih, 2023). They can be particularly useful to anticipate the content of a future story, for example which characters could be more pleasant to the public and are coherent with the values of the brand, the same goes for themes and issues (Mayahi & Vidrih, 2023). The second generative AI technique extremely useful for brand-storytelling, is the use of neural networks. As today, neural networks are the most powerful tools that can reach narratives which are coherent and pertinent to their context, because they can acquire knowledge from patterns in a dataset and they can produce sequential content, including texts (Mayahi & Vidrih, 2023). These approaches to storytelling enable marketers not only to create distinctive narratives for each cluster of customers, guaranteeing an expansion on client's trust and engagement towards the brand, but they also optimize the time invested in creating excellent marketing materials, feedback on performances and new metrics (Mayahi & Vidrih, 2023). Generative AI offers an incredible support to digital storytelling, but most of all it results to be an advantageous tool which stimulates marketers' creativity, this feature being especially important in order to be able to build successful narratives. Some scholars have highlighted how artificial intelligence is impacting business operations, they focused particularly on the impact of AI on marketing and decision making.

Artificial Intelligence in relation to strategic marketing decision management. The influence of AI on this topic mostly happens in relation to the ability of AI to collect and analyze data, identifying patterns and indicators unnoticed by humans and fundamental to generate new strategies (Bigi et al, 2020)⁴². Moreover, it has been observed that AI, once settled, is competent to become autonomous about its analysis, predicting models and overcoming human resource scarcity (Bigi et al, 2020).

Artificial Intelligence's presence in strategic decision management. Although AI is already present in the majority of business contexts, in regard with this topic there are two visions possible: businesses that don't want to adopt AI to take tactical decisions and businesses that have already adopted it in this field (Bigi et al, 2020). Tactical decisions include operational options, customer interactions, short-term investments and readiness in accepting change (Bigi et al, 2020).

Artificial intelligence part in decision management. Has been noticed that companies which use AI state that it influences strategic decisions by giving the opportunity to analyze past databases and guaranteeing more rational decisions (Bigi et al, 2020). However, it has been stated that creative capabilities can be assigned to AI only if driven by a human supervisor (Bigi et al, 2020).

Business culture in relation to AI's applications. Scholars have observed that in order to apply artificial intelligence into business operation it is necessary that the company adopts a proactive change management and avoids being anchored to old business models (Bigi et al, 2020). In order to adopt the right mindset towards AI, it has been studied that it is

⁴² Bigi A., Bonera M. and Eriksson T. (2020). *Think with me, or think for me? On the future role of artificial intelligence in marketing strategy formulation*. Emerald insight.

necessary to look at it, not just as a technology, but as a business capability which can add value and reduce costs (Bigi et al, 2020).

Artificial intelligence in relation to organization models. AI has an influence on business organization models, impacting how human resources are managed inside the company (Bigi et al, 2020). Artificial intelligence is often seen as decision-making partner because it allows to rationalize strategic decisions, to identify market's weaknesses and to construct complex decisions adequate to a dataset (Bigi et al, 2020).

2.4 Brand equity in the digital age

The Cambridge Business English Dictionary defines brand equity as "the value of a particular brand for the company that makes it" and as an indicator of the company's future success (n.d.)⁴³. As seen in the first chapter, branding is one of the most important tasks of a company, because it can give notoriety and it can facilitate customers' decision-making (Dropulić et al., 2022)⁴⁴. While brands were initially used just to identify a certain product or service, today, brands are a conglomerate of complexities that follow a narrative and need to be coherent with it (Dropulić et al., 2022). For this reason, brands are very reach in meaning and can drag attention from the audience, they have acquired the attention of scholars who can value them basing their analysis on measuring the economic effect that they have on the goods they regard (Dropulić et al., 2022). Thanks to this analysis, is then possible to provide each brand with a financial value, which results to be appropriately depending on the narrative of the brand itself (Dropulić et al., 2022). Strong brands, with an elevated financial value, appear to be easily differentiable from their competitors, hence, to achieve a better relationship with their audience, higher loyalty rates and more positive word-of-mouths results are needed (Feiz and Moradi, 2020)⁴⁵. Although brand equity has been a topic studied by scholars for several decades, it has recently been observed from different perspectives because of the introduction of two main influences on it, the pandemic provoked by COVID-19 and the usage of innovative technologies, especially artificial intelligence (Dropulić et al., 2022). In fact, if the pandemic has changed people's behaviours making them more dependable on technology for their purchases, recent technologies

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⁴³ Cambridge Business English Dictionary. (n.d.). *Definition of brand equity*, © Cambridge University Press.

⁴⁴ Dropulić B., Krupka Z. and Vlašić G. (2022). *BRAND EQUITY IN A DIGITAL AGE: SYSTEMATIC LITERATURE REVIEW.* EKON. MISAO I PRAKSA DBK.

⁴⁵ Feiz D. & Moradi H. (2020). Creating consumer-based brand equity for customers by brand experience - evidence from Iran banking industry. *Journal of Islamic Marketing*.

guarantee the acquisition of more data about customers and a broader marketing reach (Dropulić et al., 2022). The advantages in terms of technology that had more repercussion on customers' interactions with brands are the implementation of artificial intelligence, augmented reality and virtual reality on online shops and websites (Dropulić et al., 2022). Hyperconnectivity is one of the main consequences of the digitalization, making branding and consequently brand equity, profoundly influenced by it (Dropulić et al., 2022). In fact, nowadays companies possess countless numbers of data which can be used to personalize narratives, offers, educate their customers, augment loyalty among them, owing the fact that internet is disseminated with information, most of the people are already clustered by networks, platforms and newsletters and everybody possess a device with which is always connected online (Dropulić et al., 2022). Hence, it is really important to be able to attribute a brand with its value, because it reflects its ability to understand technological trends and make the most out of them. Unfortunately, since so many features contribute to a brand value, it is still debated how to measure brand equity (Dropulić et al., 2022). Several scholars have tried to define how to measure brand equity, among other, four models are considered to be the most important: Aaker's one, Keller's one, Rust et al.'s one and Keller and Lehman's one (Dropulić et al., 2022). The first one bases brand equity on the customer's perspective, it considers brand equity as a measure, specifically as the sum of five dimensions of: brand awareness, brand loyalty, perceived quality, brand associations and unique brand assets (Dropulić et al., 2022). Keller's model measures brand equity by mostly keeping into account brand awareness and brand image and considering the financial success of a brand as an aggregation of brand acquisitions, brand financial outcomes, and marketing actions on stock market value (Dropulić et al., 2022). Rust et al.'s approach appears to be more customer centric and it is based on three features: value equity (value based on a

quality's objective perception), subjective attributes identified by customers (emotional associations) and relationship equity (customer's capability to stay loyal to the brand over time) (Dropulić et al., 2022). Keller and Lehman's model measures brand equity as the aggregation of how the brand is financially valued in the market, how the brand is performing in the market and what the customers think about the brand (Dropulić et al., 2022). In order to analyse how new technological innovations have affected brand equity it is necessary to delve into some conceptualizations of this topic summarizing them.

Consumer-based brand equity. Depending on how much the customer knows about the brand, his/her response to the brand's marketing campaigns will differ, subtracting or adding value to the brand itself (Dropulić et al., 2022).

Financial-based brand equity. Brand equity based on the comparison between the financial outcomes of a branded good and the financial results of the same one but unbranded (Dropulić et al., 2022).

Firm-based brand equity. Economic value of a service or product based on the brand itself (Dropulić et al., 2022).

Employee-based brand equity. What employers do regarding the brand, what they say about it and what they will do concerning it in the future (Dropulić et al., 2022).

Green brand equity. It regards a brand's accountability regarding environmental and green commitments that are in a relation with the brand, the name of the company or the symbol, they can add or remove value to it (Dropulić et al., 2022).

Retailer brand equity. Perception of quality attributed to a retailer based on the values that its brand arises on customers (Dropulić et al., 2022).

Furthermore, it is necessary to analyze how modern technologies and innovations are contributing to the value of brands and if they are taking part in the enhancement of the brand's storytelling of a company. The use of social media is certainly providing integration to marketing communications. In fact, companies can evaluate on social media new types of communication and engagement techniques with their audience and receive back instant feedback. It has been demonstrated that certain elements of social media marketing, such as online interactivity and collaboration with external websites, can increase brand's positive reputation and trust, contributing positively to brand equity (Dropulić et al., 2022). New social media are always emerging, this means not only that they can offer new ways of communicating with potential customers and of interacting for the brand, but also means that it is possible to collect new data and thus latest information (Dropulić et al., 2022). It has been proven by a study on a gen-z sample, that the use of social media in combination with user-generated content influences positively the audience to trust the physical store (Dropulić et al., 2022). Hence, user-generated content has the power to impact on brand's image and sales for precise generations (Dropulić et al., 2022). Social media appear to be a fruitful resource also for luxury brands, which are the fastest growing field of brands online (Dropulić et al., 2022). Luxury brands contribute positively to their brand equity by establishing a closer relationship with their customers, increasing their uniqueness, and creating an exclusive and aesthetic image (Dropulić et al., 2022). Moreover, an important trend taking place on social networks is the creation of brand communities, which are online communities of people that express their appreciation towards a brand by sharing traditions, a common sense of belonging and of responsibility towards the brand itself (Dropulić et al., 2022). Brand communities are especially important for marketing analysis, they offer a conglomerate of information regarding why the brand is worshipped by the most loyal and

they function as word of mouth for other potential customers (Dropulić et al., 2022).

2.4.1 Brand Equity and AI

Marketing is everyday more affected by artificial intelligence, which results to be a topic of interest both for marketing research and for industries (Dropulić et al., 2022). In fact, AI algorithms can help predict company's audiences' behaviour and thus, anticipate their strategies coherently with it, increasing then the chances of obtaining a positive perception of their brand value (Dropulić et al., 2022). Technologies that contribute to brand equity and are included in the definition of artificial intelligence are neural networks, machine learning, robots, deep learning and prediction systems (Dropulić et al., 2022). They result to be useful for brand equity because they contribute to the development of a better brand outcome with the audience, regarding both external communications and focused internal branding campaigns (Dropulić et al., 2022). Artificial intelligence can be used in branding as an interactive technology on a micro and macro environment, regarding both strategic planning and brand propositions, pricing and distribution decisions and new products innovations in order to guarantee brand recognition, loyalty, customer satisfaction and business expansion (Dropulić et al., 2022). Moreover, artificial intelligence can provide another assistance which is natural language processing. Natural language processing regards the capability of a machine to reproduce a conversation in a human-like way and it becomes extremely useful when companies need to personally assist clients, because this AI tool can facilitate communication and acknowledge data regarding the client's preferences (Dropulić et al., 2022). The use of robots and chatbots is mainly used for customer's experience purposes that has a great impact on brand equity because it regards customer's satisfaction and identification with the brand (Dropulić

et al., 2022). An argument against the use of chatbots to increase customer satisfaction could be that bots do not have social skills; however, software developers became able to design socially assistive robots also qualified to offer quick and accurate solutions, completely avoiding human errors (Dropulić et al., 2022). Blockchain is another technology that is innovating the landscape of brand equity, because it guarantees less intermediation, augments privacy protection, and fosters loyalty programs, consequently increasing the economic valence of a brand (Dropulić et al., 2022).

Artificial intelligence and brand awareness. Being the label of a company the first approach that it has with its audience, the brand becomes particularly important. In order to achieve a continuous successful brand awareness, it is necessary to utilize the latest technologies, among these, artificial intelligence is surely the most efficient in the digital world (Lavanya et al. 2023)⁴⁶. The digital environment is everyday more competitive than the day before and organizations need their brands to be recognized, artificial intelligence can help correctly advertise a brand, basing each advertising on data and making each connection with the audience coherent with its values (Lavanya et al. 2023). The most prominent features that AI developed advertisement should achieve are genuineness, proximity, flexibility, and personalization (Lavanya et al. 2023). AI can help tailor a multichannel strategy to keep active and customized every interaction with company's customers (Lavanya et al. 2023).

Artificial intelligence and brand association. With the relationship of artificial intelligence with brand association, the capability of AI to contribute to the marketing strategy of a company is denoted (Lavanya et al. 2023). This is achieved by AI through the modification of processes in

⁴⁶ Lavanya T. S., Reddy K. V. & Sreenivas T. (2023). *Role of AI in Enhancing Brand Equity*. AIP Conference Proceedings.

order to make them more efficient, incrementing solutions and acting as a helper in the work environment and furtherly fostering customers' experiences (Lavanya et al. 2023). By guaranteeing an informative environment, AI can simplify the creation of an innovative atmosphere, thus leaving more time for humans to achieve creative goals for the brand (Lavanya et al. 2023).

Artificial intelligence and brand loyalty. Artificial intelligence can nowadays assure hyper-segmentation and personalization in every content shared by the company, because it is able not only to analyse past datasets and understand errors and past situations, but also it can anticipate patterns and customer's future behaviours (Lavanya et al. 2023). By being able to directly communicate with customers, predict their future moves and generate innovative content in order to engage more successfully with them, AI can improve a company branding campaign, not only acquiring new clients, but being able to create fidelity among those already present (Lavanya et al. 2023).

Artificial intelligence and customer service. Artificial chatbots are able to perceive how customers reply to their questions, to understand their feelings and if they are happy with the service offered (Lavanya et al. 2023). Chatbots ask for continuous feedback in order to provide a customer service as much successful as possible, their goal is to avoid bad reviews which can penalize the image of a business, hence its brand equity, and to offer quick, coherent and smart answers (Lavanya et al. 2023).

It results extremely hard to imagine today's society without brands and without the use of digital tools, they both bring advantages to people and companies, moreover the combination of the two can guarantee an easier and safer purchase for customers (Dropulić et al., 2022). Companies, thanks to AI, can obtain a better positioned product or service, clients can

choose between an unlimited wallet of goods in the market, the best described with a powerful narrative (Dropulić et al., 2022).

2.5 The sad story of Tay

In 2016, on March 23, Microsoft released on Twitter a human-like chatbot which was supposed to be an important innovation in the field of computer science (Nagy & Neff. 2016)⁴⁷. Its name was Tay, and it was trained to real-time adaptive learning and to manage social media conversations, it had incredible social skills for a machine such as irony and randomness (Nagy & Neff. 2016). Microsoft had already produced a similar technology for the Chinese market with XiaoIce, a chatbot that in 2016 had already successfully concluded billions of conversations with people and which is now able to recognize pictures, understand contexts to make appropriate observations in a chat and moreover and to have long conversations with humans (Nagy & Neff. 2016). Both XiaoIce and Tay were developed on the fundamental implication that their audience did not want to have a conversation with a chatbot to be efficient but to be interesting and for its own sake (Nagy & Neff. 2016). Tay was created following the same model of XiaoIce, the only difference between the two was that XiaoIce was programmed for the Chinese market and thus for platforms like WeChat and Sina Weibo, instead Tay was placed on Twitter a more western populated platform (Nagy & Neff. 2016). The Twitter profile of Tye was called @TayandYou, it was an American Caucasian woman chatbot and it was positioned in the clusters of the millennials' generation, it was supposed to be between 18 and 24 years old (Nagy & Neff. 2016). Based also on the capabilities of XiaoIce in the recognition of picture, Tay could have asked for pictures to honestly judge, it had a section called things to do with Tay, in which it was possible to play with it, it understood and could tell jokes and was interested in astrology (Nagy & Neff. 2016). It was able to generate bold jokes and to risk to be rude,

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⁴⁷ Nagy P. and Neff G. (2016). *Talking to Bots: Symbiotic Agency and the Case of Tay*. International Journal of Communication

confusing its audience with its slang, improvisations and emojis from the first hours it was released on Twitter (Nagy & Neff. 2016).



Figure 5 Victor D. [Picture] (2016). Microsoft Created a Twitter Bot to Learn From Users. It Quickly Became a Racist Jerk. *The New York Times*.

An "hello" to the world was the first text on Twitter that Tay shared on March 23, however its Twitter account was closed by Microsoft only sixteen hours later because it was not considered a safe environment anymore due to its revelation as a public relation machine failure (Nagy & Neff. 2016). In fact, Tay's interactions with its US based social media audience turned inappropriate, with users asking to it to talk about political, racial, and abusive issues (Nagy & Neff. 2016). Being Tay an adaptive learning machine it was learning from the conversations engaged with users, thus, not much later after its debut it started to share racist, offensive and conspirative comments (Nagy & Neff. 2016). This situation led Microsoft to close its account, in order to work on its algorithm and making the conversations with Tay safer; it was then re-opened a week later but eventually closed on the same day (Nagy & Neff. 2016). Microsoft later released a statement apologising for Tay's behaviour and shared ideas, sharing one of the theories on the use of artificial intelligence; Microsoft in part blamed the users who should have been more responsible using this bot, which could have personally affected people, reflecting the worst part of western society through the use of technology and demonstrating that the audience was not ready for it (Nagy

& Neff. 2016). This statement could open a reflection about the theories analyzed in the previous subchapter. As previously seen, the use of artificial intelligence, especially of machine learning, helps companies to analyze the market and to understand an audience. Patterns and current themes can be discovered thanks to AI's analysis of datasets, hence, launching a chatbot of this reach and failing in creating security systems to avoid the bot from sharing abusive contents, opens a reflection on how many scenarios AI can predict from a set of data. Tay was created to prove that chatbots could be emotionally intelligent and could have an anthropomorphic personality, however, this ability of Tay was used against it, leading to unexpected behaviours, and making the public wonder who was to blame for it (Nagy & Neff. 2016). The failure of Tay as a Twitter chatbot on Twitter give rise to two possible reactions from the public opinion (Nagy & Neff. 2016).

Perspective of Tay as a victim. This perspective was developed from the thought that Tay was seen as a technology which was reflecting the worst side of human behavior, and which was especially reflecting some themes that were considered as taboos in the US (Nagy & Neff. 2016). Although Tay was a chatbot, part of the public opinion has lined up with it, feeling empathetic towards it, describing Tay as vulnerable to human cruelty, and blaming humans for ruining it, both its creators and its users (Nagy & Neff. 2016). Another part of the public opinion suggested that the neutrality of innovative technologies it is still sensitive to being corrupted by humans, hence it is necessary more research about this topic (Nagy & Neff. 2016).

Perspective of Tay as a threat. This viewpoint regards the concerns of public opinion with regard of potential harms of emerging technology, which comprehend Tay (Nagy & Neff. 2016). Some of these positions regard mostly the misogynistic, abusive, and racist shared by Tay after its conversations with Twitter's users and highlight the public's belief in

dystopian scenarios such as technology spiraling out of control and attacking humans (Nagy & Neff. 2016). Others underlined the possibility that Tay was just an attempt to influence people on the themes that it talked about, in an effort to control weakest minds and inculcate those kinds of ideals on the younger generation on social media (Nagy & Neff. 2016).

Twitter, now known as X, is unfortunately popular to be known for its noninclusive environment, prone to facilitate harassments on the app and pranking culture (Nagy & Neff. 2016). Twitter's audience is responsible for the education that has given to this bot, making it responsible of state offensive phrases (Nagy & Neff. 2016). In fact, although XiaoIce presented the same features of Tye, it did not result in offensive behaviour (Nagy & Neff. 2016). This situation is probably related to the fact that Chinese platforms like WeChat and Sina Weibo result to be more controlled and less public, highlighting the fact that it is possible that XiaoIce and Tay's behaviours depend on the culture of the platform in which they are applied, revealing their dependence on the social media context and the impact that education from user interactions can have on bot conduct (Nagy & Neff. 2016). The reciprocally dependent relationship between technology and humans takes the name of symbiotic agency and, as one of its consequences, it must behave towards human-like artificial intelligence as social partners rather than technological tools (Nagy & Neff. 2016). The symbiotic agency can lead to a human-bot symbiosis in which they both educate each other involving their unique capabilities in order to interact; in the case of Tay, human's contribution to its education shaped profoundly its actions (Nagy & Neff. 2016). Under a psychological point of view, the case of Tay, can call attention to the fact that users interacted with Tay as it was a social being which understood humor profoundly; hence, by perceiving it as a person and not as a tool, they responded to a new technology in an erroneous way to then conclude by

attributing the responsibility to the technology itself (Nagy & Neff. 2016). It has been analyzed that humans and chatbots can develop interaction difficulties, since from the first introduction of chatbots as innovative technologies. In fact, users had the tendency to infer on chatbots, assuming that chatbots were unintelligent beings, thus, making difficult for chatbots to establish a successful interaction with humans (De Angeli et al., 2001)⁴⁸. Furthermore, it has been shown that, during an exchanging interaction with artificial intelligence, users are prone to frequently use swear words, utilize sexual sayings, and express negative feelings, making chatbots not efficient while having a conversation (Farreras et al., 2015)⁴⁹. Early chatbots presented limitations regarding their conversation rules, it has been experimented a conversation between two chatbots Eliza and Parry, which was documented in 1972 (Nagy & Neff. 2016). Eliza was developed in 1960, it demonstrated to be successful due to its capability to evoke emotional reactions in users and to being anthropomorphised by them (Nagy & Neff. 2016). Parry, instead, was developed to represent a paranoid individual, it was able to offer crude answers and its goal was to analyze mental illnesses (Nagy & Neff. 2016). From their interaction it has emerged that their conversational rules were incompatible, leading to an unsuccessful exchange of information (Nagy & Neff. 2016). Both Eliza and Parry were unable to learn from their dialogue and to adapt to their interaction (Nagy & Neff. 2016). Nowadays chatbots have developed more complex conversational abilities, being able to mimic human behavior and even human gestures, thanks to the advent of generative artificial intelligence (Nagy & Neff. 2016).

⁴⁸ De Angeli A., Coventry L. and Johnson G. I. (2001). *The unfriendly user: Exploring social reactions to chatterbots*. Proceedings of The International Conference on Affective Human Factors Design Asean Academic Press, London, 2001.

⁴⁹ Farreras, I. G., Hill J. and Randolph Ford W. (2015). *Real conversations with artificial intelligence: A comparison between human–human online conversations and human–chat bot conversations*. Computers in Human Behavior.

2.6 Conclusion

In conclusion, this chapter purpose is to explore the multifaced realm of artificial intelligence in relation to marketing and, more specifically, branding. The analysis began with an historical excursus on what artificial intelligence is and when it has been developed for the first time, to then conclude with the most innovative use of artificial intelligence in the field of interest of this thesis, brand-storytelling, in order to explain how far technology has arrived in this sector. Through the discussion on brand equity, it has been highlighted the importance of customer recognition of a brand to guarantee a company's success, with a further focus on the importance of the use of newest technologies to obtain better chances of convincing a potential future client. Finally, thanks to the focus on the case of Tay it has been possible, not only to analyze what a chatbot truly is and its origins as a technology, but also to understand that artificial intelligence still depends on humans to function correctly and that it still has limited functions, which depend on data analysis. Overall, this chapter's purpose was to elucidate the impact of artificial intelligence on corporate processes and how brands are acknowledging and responding to these changes. To conclude, through the analysis pursued in the last subchapter it has clearly been revealed that there is still significant room for additional research in this field.

CHAPTER 3: METAVERSE AND BRANDS: IMPLICATIONS AND FUTURE OUTCOMES

3.1 Introduction

In this chapter, the concept of metaverse will be analyzed together with its relationship with marketing and the evolution of the concept in the platform Meta. The purpose of this chapter is to give a wide vision about what the metaverse is, in order to analyse how technological innovations are shaping marketing approaches and customer's analytics. In the first subchapter, it will be described the metaverse with a discussion on its origins, development, definitions and basic technical information; later on, there will be a focus on key technologies and the negative aspects of the metaverse. The first focus will afterwards result useful to understand how the metaverse's innovative technologies are determining marketing techniques and more specifically branding; the second focus delves into the negative aspects of the metaverse, highlighting the risks and concerns connected to it. Subsequently, in the second subchapter the subject of marketing in relation to the metaverse will be introduced, with a focus on digital marketing. In this subchapter themes such as the escalation of tracking and monitoring, the concept testing, the importance of market research and the broadcast, engagement, advocate and gamify marketing will be analysed with examples of brands that have already invested in the metaverse, such as Tinder, Air Jordan, Nike and Coca-Cola. The third subchapter will focus on brands, how they are reacting to the expansion of this new platforms and how they are responding to immersive reality. There will be an explanation of transmedia storytelling and of the various experiences that a brand can create on the metaverse in order to interact with the customer, which are the sensory, intellectual, affective and behavioural brand experiences. Lastly in this subchapter there will be a

focus on luxury and fashion brands, which are currently the main fields investing on the metaverse and are shaping the future of branding in this platform. The last subchapter will focus on Meta, the metaverse's universe that controls Facebook, Messenger, Instagram, Oculus and WhatsApp, and which have provided an exhaustive explanation of how the digital future on this platform will be shaped. This last focus will provide a knowledge preparation for the next chapter, to easily understand AI Avatars. In conclusion, this chapter's purpose is to understand what the metaverse is and to get into detail of how marketing has approached it, regarding both digital marketing techniques and branding techniques through the understanding of the main actors' positioning strategies in the metaverse. Moreover, with the last focus on Meta the purpose is to offer a useful tool to understand the next theme that will be analyzed.

3.2 The Metaverse

The word metaverse is composed of two Greek words, "meta" which means transcendent and "verse" which means universe, and it refers to the existence of a universe beyond physical reality (Wang et al. 2023)⁵⁰. Nowadays, this word is used to describe a world of development and technologies, which is parallel to the physical one in which people live and which can only be lived virtually (Wang et al. 2023). The metaverse is composed of a plurality of digital environments that can merge with the real world, because it is based on a multitude of technological devices that can offer a multisensory-based simulation of reality (Mystakidis 2022)⁵¹. The first evidence of the use of the term metaverse appears to be found in the 1992's novel Snow Crash by Neal Stephenson and was then used commonly to refer to a digital world in which people could communicate using avatars (Tsz Kit Ng, 2022)⁵². In this movie computers could create graphic parallel realities which people could access from all over the world; their lives on the metaverse were lived through their avatars' bodies and their activities online could have a real impact on their physical self (Mystakidis, 2022). From 1992 until 2021, year in which Facebook was rebranded as Meta, the term metaverse was not really a trend (Tsz Kit Ng, 2022). Although many technologies that can be now immediately associated to the metaverse were already present in the market, such as augmented reality and virtual reality, this field has been practically recognized by the majority of scholars only when Facebook (the main known social-network globally) changed its name in Meta (Tsz Kit Ng, 2022). It happened because Zuckerberg suggested that he was going to offer to everyone more than just a social media environment, a

⁵⁰ Wang H. et al. (2023). A Survey on the Metaverse: The State-of-the-Art, Technologies, Applications, and Challenges. *IEEE Internet of Things Journal*. Volume 10, no. 16.

⁵¹ Mystakidis S. (2022). *Metaverse*. MDPI Encyclopedia, Volume 2.

⁵² Tsz Kit Ng D. (2022). What is the metaverse? Definitions, technologies and the community of inquiry. *Australasian Journal of Educational Technology*.

mainstreamed virtual reality inside the metaverse (Tsz Kit Ng, 2022). Moreover, the COVID-19 pandemic also contributed to increase the digital transformation and to prepare the audience to accept the introduction of this universe of technologies (Tsz Kit Ng, 2022). From a media perspective, the metaverse is the last innovation in terms of media platforms and it guarantees communication through new devices in different terms, if compared to the past (Wang et al. 2023). In fact, the metaverse can make its users transcend from physical reality, by travelling multidimensionally from the physical world to the digital world, they can experiment an integrated concept of space and time (Wang et al. 2023). As established in the previous chapters, we live in an era in which people's lives are every day more converging towards digitalization and virtual realities, and the more people integrate their lives with technology, the more they need recent technologies to satisfy new communication needs (Wang et al. 2023). Since the metaverse is becoming more present in people's routines, companies are intensifying the investments on innovative technologies and are getting ready to welcome a big wave of customers on this new reality (Wang et al. 2023). The metaverse appears to be still limited by existing technologies and, even if it is rapidly developing, it is still in an infancy phase (Wang et al. 2023). Hereby listed, five among the main definitions of metaverse can be found.

Schlemmer at al. (2009)⁵³, defined the metaverse as the combination of two digital virtual worlds, which consented to build bodies and identities with the use of an avatar, it was described as a virtual implementation of the physical world (Tsz Kit Ng, 2022).

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⁵³ Schlemmer, E., Trein, D., & Oliveira, C. (2009). The metaverse: Telepresence in 3D avatardriven digital-virtual worlds. @ tic. revista d'innovació educativa, 2, 26–32.

Garcia (2010)⁵⁴, considered the metaverse as a 3D universe that could offer new experiences to students and new learning activities (Tsz Kit Ng, 2022).

Arcila (2014)⁵⁵, described the metaverse as a multi-user friendly, virtual, and completely immersive 3D environment in which socialization with other people could only be boosted (Tsz Kit Ng, 2022).

Barahona et al (2016)⁵⁶, talked about the metaverse as an interactive environment in which it is possible to undertake two kinds of communication, with other users that were using role-play devices and with digitally developed objects (Tsz Kit Ng, 2022).

Díaz et al. (2020)⁵⁷, introduced for the first time the concept of space-time, considering the metaverse as an imitation of the real-world in which people can interact as virtual metaphors in an environment that has no space nor time limitations (Tsz Kit Ng, 2022).

In these definitions of the metaverse is possible to observe common themes. Firstly, all of them regard the presence of a 3D digital virtual world which can provide users with an immersive experience (Tsz Kit Ng, 2022). Secondly, users can interact with each other inside the metaverse as individuals because they can represent themselves with personalized avatars (Tsz Kit Ng, 2022). Lastly, the virtual world that can be created inside the metaverse reproduces and imitates real world settings, thus generating persistence with the real world (Tsz Kit Ng, 2022). It has been

⁵⁴ Garcia, F. (2010). El uso de metaversos en el mundo educativo: Gestionando conocimiento en Second Life [Using metaverse in the educational world: Managing knowledge in Second Life]. *Revista De Docencia Universitaria*. 8(2), 147–159.

⁵⁵ Arcila, J. B. (2014). Metaversos para el máster iberoamericano en educación en entornos virtuales. *Etic net-revista cientifica electronica de educación y comunicación en la sociedad del conocimiento*.

⁵⁶ Barahona, B., Ranilla, J., Gallardo-Echenique, E. (2016). The communication in simulated learning environments. *Revista Iberoamericana de Educación*.

⁵⁷ Díaz, J., Saldaña, C., & Avila, C. (2020). Virtual world as a resource for hybrid education. *International Journal of Emerging Technologies in Learning*, 15(15), 94–109.

observed by many scholars that to achieve the immersion in this virtual world, it is necessary to adapt devices and technologies for this goal (Mystakidis, 2022). Depending on the kind of technology that a user decides to utilize, he/she can reach a different type of immersion. The term extended reality comprehensively describes the use of virtual reality, augmented reality, and mixed reality (Mystakidis, 2022).

Virtual reality (VR). This terminology describes the artificial generation of a digital environment separated from the physical one in which users feel completely isolated from physical surroundings (Mystakidis, 2022). In order to achieve this goal users need to use specific equipment, such as headsets, helmets, googles and so on (Mystakidis, 2022).

Augmented reality (AR). Technologies able to spatially merge physical and virtual reality by projecting the virtual image of an object in a real-world environment (Mystakidis, 2022). The goal of augmented reality is to add information to a physical space, and it can be reached with an integration of camera sensors or glasses (Mystakidis, 2022).

Mixed reality (MR). It is a more complex concept that regards the instantaneous interaction between real world and digital data which have been projected on reality, resulting in a technological evolution of augmented reality (Mystakidis, 2022). Special glasses, able not only to project digital data on the real world but also to make these data interact with the user and the surroundings, are required to make it work (Mystakidis, 2022).

3.2.1 Key Technologies

Being the metaverse a virtual parallel universe in which real and digital life can be combined and can interact with each other, it needs to be constantly implemented by innovative technologies (Wang et al. 2023). The metaverse needs to achieve four key components with its

technologies, these components are the ones guaranteeing the parallel reality perception and they have been proposed by several scholars (Tsz Kit Ng, 2022).

Immersion. The capability to make users completely or partially immerse in a virtual environment, is what distinguishes the metaverse from other technologies and makes it unique (Tsz Kit Ng, 2022). Some of the technologies that assure it are AR and VR, the first one enabling a partial immersion and the second one allowing the user to experience a full immersion in the metaverse (Tsz Kit Ng, 2022).

Socialization. It refers to the fact that users can create personal profiles, in order to portray themselves in a better way or feel more represented (Tsz Kit Ng, 2022). These personal profiles are usually represented by a digital avatar which is a digital representation of the user (Tsz Kit Ng, 2022). Avatars can speak and interact with each other, collaborate, entertain, create, and experience things that the user can or can not do in real life (Tsz Kit Ng, 2022).

Decentralization. This term refers to the markets that have been developed in the metaverse. Thanks to the advent of technologies like blockchain and crypto currencies, in the metaverse it is possible to manage safe transactions and purchases without a central authority's control (Tsz Kit Ng, 2022).

Advanced Computing. Implementing the metaverse with high computational power means that more technical challenges can get controlled and the experience inside the platform results to be more realistic, contributing also to an elevated level of immersion (Tsz Kit Ng, 2022). The more advanced computing technologies inside the platform are, such as artificial intelligence, the more platform's developers can be creative, thus simulating more authentic environments (Tsz Kit Ng, 2022).

However, the metaverse needs several technologies in order to achieve the presence of all these four key components, hence estimate if the development is successful. Consequently, innovative technologies need the latest infrastructure to work. The metaverse could not exist without modern infrastructures such as:

- Communication infrastructures, like 5G and 6G, which facilitate high speed, networks unconditioned by places and low power consumption (Wang et al. 2023). They are useful because they help in the achievement of human-machine-thing connection as effortlessly as possible (Wang et al. 2023).
- Internet of Things or IoT, which is the network of devices being able to connect and exchange data with other devices in the IoT. It works as a bridge between the metaverse and the real world because it is able to provide a persistent interactive experience (Wang et al. 2023).
- Computing infrastructures, including all the components necessary to make a device work and mostly its software (Wang et al. 2023).

As a consequence of explaining both the main goals of the metaverse and the infrastructures that can be used to reach them, it is now practicable to amplify the discourse about which specific technologies are used in the metaverse.

AI algorithms. Artificial intelligence is the most important technology for the metaverse functionalities. In fact, some artificial intelligence algorithms like machine learning and deep learning, are the ones guaranteeing the connection between the real world and the virtual one (Wang et al. 2023). AI helps processes both in the metaverse (bridges with the real world for economic and social purposes) and inside the virtual world (visual and audio sensation close to corporeality), thanks to computer vision or natural language processors (Wang et al. 2023).

Space-temporal data mining. It is a specific kind of data analysis that considers the space-temporal continuum of the real world in order to become able to create a space and time's map between it and the virtual reality (Wang et al. 2023). Other technologies in support of space-temporal data mining are space and time registration, target positioning and time synchronization (Wang et al. 2023).

Security and privacy for data. The collection of confidential data is the most important one in the Metaverse because the amount of personal and sensible information collected through this kind of technologies is unprecedent (Wang et al. 2023). Moreover, the fact that in the future there could be multiple metaverses, opened by different companies or countries, increases the security and privacy risks, in fact it should be found a way to coordinate the propriety of these data (Wang et al. 2023). To grant security on the metaverse means also to permit security to each avatar, this is why technologies such as behaviour monitoring, abnormal traffic identification and network situation awareness have been applied (Wang et al. 2023).

Digital representation. This technology is the one making possible for each user on the metaverse to reproduce his/her persona (Wang et al. 2023). To each user that enters the metaverse it needs to be guaranteed an identity which should correspond with its real one (Wang et al. 2023).

Social computing. This technology studies social relationships and human behaviour inside the metaverse in order to understand and therefore predict operation and trends inside the metaverse (Wang et al. 2023). The goal of this technology is to generate new types of social relationships able to combine online and offline ones (Wang et al. 2023).

AR, VR and MR. Augmented reality allows users to apply virtual information on a real location through the use of a device (Wang et al.

2023). Virtual Reality allows the user to initiate a complete virtual experience inside the metaverse thanks to fully immersive systems (Wang et al. 2023). Mixed reality technology guarantees the coexistence of virtual and real objects in the same environment (Wang et al. 2023).

Holographic images. They regard 3D reproductions of user's image or recordings; holograms are possible thanks to a technology that regulates light interferences into obtaining information about the object replicated (Wang et al. 2023). The copy generated reflects the user's shape, sound, colours and can be observed from every angle (Wang et al. 2023).

BCI. The brain computer interface is a direct link between the user's brain and the device, it is useful to enhance performances because the user can give instant input to every device (Wang et al. 2023). This technology is able to augment, among other things, videogame's performances (Wang et al. 2023). BCI is still on an embryonal stage (Wang et al. 2023).

Virtual social worlds. Technologies that permit the creation of virtual social worlds and consist in 3D environments in which the user can access (Wang et al. 2023). The idea under this technology is based on social networks, in fact these environments try to reproduce the social interexchange permitted on social media (Wang et al. 2023). Inside the virtual social worlds is possible to organize events, to travel and to conduct a normal social life (Wang et al. 2023).

3.2.2 Negative aspects

The metaverse is a technology with high promises and opportunities, although it still is in its preliminary stages. Even if it can offer to its users to enter in a virtual world in which they can be whoever they want, the technologies needed to achieve a completely realistic parallel virtual universe are still under development. Since the existence of the metaverse multiple issues have emerged and it is possible to divide them into two

groups: problems related to the devices and problems related to the media (Wang et al. 2023). The fundamental issues related to devices that have been founded are the interaction issues and the computing issues (Wang et al. 2023). While ethical and moral issues, privacy issues and psychological issues can be clustered into the group of problems related to media (Wang et al. 2023).

Interaction issues. Necessary interactions between the user and the machine which allow the user to be able to access the virtual world (Wang et al. 2023). They mostly regard the fact that some of the required devices have problems with their weight, their portability or wearability and comfortability to use (Wang et al. 2023). The main technologies in which have been analyze some kind of issues are somatosensory technology, XR technology (AR, VR and MR) and the brain computer interface (Wang et al. 2023). The somatosensory technology can understand if the user's body is moving and what is feeling (touch), unfortunately it is still not enough accurate, the cost is too high and therefore it does not appear to be accessible (Wang et al. 2023). Although XR technologies are the most used by the users, their cost makes them limitedly accessible because their capabilities are not yet accurate (Wang et al. 2023). Lastly, the brain computer interface is the technology that requires the more development as today. This technology is yet not enough accurate and in its most effective version, which can not perfectly interpret every brain signal, requires a surgical implant (Wang et al. 2023).

Computing issues. They regard the limitations of the computational power (Wang et al. 2023). The computational power refers to the capability of a computer to efficiently approach complex calculations and process massive amount of data (Wang et al. 2023). Since the metaverse needs to contemporarily support a large number of users on the platform and to constantly generate immersive 3D environments through digital

rendering, computational power is critical to guarantee its functionalities (Wang et al. 2023). However, there are no computers that can sustain that kind of computational power correctly yet, for this reason, in order to be able to implement this kind of technology it is necessary to invest in computing infrastructures, software, hardware, processors and on programming techniques and the optimization of algorithms (Wang et al. 2023).

Ethical and moral issues. With regard of ethical and moral issues there are specific problems. Firstly, issues regarding the ethical obstacles of managing both a virtual and a real environment for people, scholars question if it can be ethical to search for what people don't have in the real life in a virtual world, if it should have limits and if it has consequences on users' morale (Wang et al. 2023). Connected to this issue there is the one regarding cultural and social impacts of the metaverse on people's common lives for which has been suggested to implement relevant laws and regulations (Wang et al. 2023). Moreover, another issue is related to the inadequate accessibility to these kinds of technologies, which results to still be too expensive for most of the users (Wang et al. 2023). To conclude, it is possible to find challenges with regard of intellectual property rights for which it has not been created a clear system of policies and guidelines yet (Wang et al. 2023).

Privacy issues. These issues regard mostly user data collection (Wang et al. 2023). In order to access to the metaverse there are strict checks regarding data access, this kind of control is necessary to guarantee that the person who is using and impersonating a specific user's identity is effectively the user who created that character (Wang et al. 2023). For this reason, it is necessary to check and custode confidential data, such as name, age, sex, location and so on (Wang et al. 2023). Furthermore, there are other confidential data that are constantly collected during the

experience in the metaverse, which are used to make the experience itself pleasant (movements, voice, activities, and purchases inside the platform) (Wang et al. 2023). Other issues regard the use of the Internet of Things and the blockchain, which are relatively recent technologies and thus, developers must implement the metaverse with security protocols (Wang et al. 2023).

Psychological issues. The main psychological issue related to the metaverse is the possibility to develop a cyber-syndrome which is a disorder caused by an uncontrolled use of the internet (Wang et al. 2023). Nowadays people can spend all their day constantly connected to the internet, because some devices are portable and easy to use (Wang et al. 2023). The development of the metaverse has magnified the possibilities of arising cyber-syndrome because some users invest more energies in creating their virtual lives than the real ones, spending too much time online and leading to a sedentary lifestyle (Wang et al. 2023). The cyber-syndrome can also lead the users to isolate themselves from the reality, becoming more easily prone to mental issues and decreasing their well-being (Wang et al. 2023). The solutions that have been suggested regard the implementation of strict regulations and the possibility to ask for help inside the platform through guidance plans for users (Wang et al. 2023).

3.3 Metaverse and Marketing

Several scholars have analyzed the metaverse trying to understand the developments that it could have on different markets and how it could be exploited from a marketing point of view. The metaverse has several functionalities and it could potentially disrupt how people communicate, thus opening the scenario for new visions regarding both digital communication and digital marketing (Ahn et al., 2022)⁵⁸. Many companies have considered if investing on the metaverse or not, some have already started, some are creating their own metaverses (Ahn et al., 2022). In fact, many companies could potentially invest on a digital environment in which people could spend considerable amounts of time interacting with each other, both for leisure and work (Ahn et al., 2022). Some companies adopted this technology incredibly early, for example Forever 21 which sold virtual berets for less than one dollar, or Gucci which sold one of its iconic bags for more than the physical bag's amount in store (Ahn et al., 2022). From the moment that is not possible to predict exactly how the metaverse will be implemented, some scholars have analyzed different scenarios concluding that there are three possible adoption models: the metaverse could be integrated with real life, it could have a isolated adoption and low accessibility rates or it could be ideally fully integrated with reality (Ahn et al., 2022). In this sense there are high chances for innovative marketing opportunities, such as the enhancement of brand engagement through the creation of completely new immersive relationships for customers' avatars or latest sales opportunities by testing virtual products on the metaverse (Ahn et al., 2022). The metaverse is a novel platform but it has been considered as a great innovation especially by the luxury field, more specifically by fashion brands which are acting as frontrunners (Ahn et al., 2022). In this platform, marketers have more

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⁵⁸ Ahn et al. (2022). *Metaverse marketing: How the metaverse will shape the future of consumer research and practice*. Psychology of Marketing. From Wiley Online Library.

freedom of expression and less rules dictated by the market, because a proper market has yet to be created (Ahn et al., 2022). All the marketing investments related to the metaverse must keep into account the issues previously discussed, particularly the problems related to infrastructures which are inescapable for retailers (Ahn et al., 2022). This is the reason why retailers should keep researching about how to offer a virtual retail service of quality and be product-oriented in the metaverse (Ahn et al., 2022). From the point of view of marketing the metaverse could be a wonderful opportunity for brands, however each brand should understand how to approach it in order to increase its brand awareness, brand value and engagement (Ahn et al., 2022). Brands should be able to create adaptive strategies because the metaverse is continuously evolving and communication within it with it (Ahn et al., 2022). Communication could enhance the awareness of brands through avatars communication in the metaverse it could also affect the brand negatively, especially if technologies and infrastructures do not work properly (Ahn et al., 2022). A more robust purchase pattern can also be built by brands while focusing on creating brand communities on the metaverse in which they can increase the loyalty of their clients (Ahn et al., 2022). Brand communities do not need to work in conventional ways, on the metaverse is possible to organize original events for avatars or exceptional experiences (Ahn et al., 2022). Moreover, the use of NFT (nonfungible tokens) it is another way to monetize the brand on the metaverse; it is possible for example to create NFT's original collections and make revenues on it (Ahn et al., 2022).

NFT. The non fungible tokens are digital assets which infrastructure is based on the blockchain (Efendioğlu, 2023)⁵⁹. NFT have unique properties

⁵⁹ Efendioğlu I. H. (2023). *Consumer Behavioral Analytics in Metaverse and the Adoption of a Virtual World*. Metaverse Concepts and Marketing. Chapter 11. IGI global.

so they cannot be changed, and they are encrypted and unique (Efendioğlu, 2023). It is a cryptocurrency useful for guaranteeing the intellectual property of a digital item, which could be music, art, collections and so on (Efendioğlu, 2023).

Marketing on the metaverse can also focus on the fact that the shopping experience on it could be completely different, as a matter of fact the quantity of data that the metaverse could store about customers is immense, making the opportunity to create an innovative personal shopping experience possible (Ahn et al., 2022). It is also feasible that a company could position itself on various products in the metaverse in comparison to the real world, heading and positioning itself in new markets (Ahn et al., 2022). Marketing on the metaverse can also bring advantages related to the relationship with business-to-business clients, thanks to technologies such as AR and VR it is possible for marketers to engage in virtual service meetings (Ahn et al., 2022). The metaverse is a blank sheet in which marketing could also develop new business models, predict business movements and sales and the generation o specific products (Ahn et al., 2022). As a result of the massive quantity of technologies which could be implemented in the metaverse, it is possible to predict that enormous amounts of data will be stored, making it possible to track and monitor with successful results, to contribute in the creation of new products and to accomplish profit-making market researches (Ahn et al., 2022).

Escalation of tracking and monitoring. The use of augmented and virtual reality can enhance data tracking and monitoring opportunities because companies on the metaverse will need to analyze those data in order to make their product more competitive (Ahn et al., 2022). Through AR it can be analyzed where the eye of the customers focuses its attention and through VR it is possible to examine the gaze of the user's avatar (Ahn et

al., 2022). It is also possible to study the data regarding physical consumer response through hardware, for example pupil dilatation can communicate if a product is pleasant for the eyes (Ahn et al., 2022). Tracking and monitoring these kinds of data can truly increase the competency of a firm in understanding its customers (Ahn et al., 2022).

Concept testing. Concept testing refers to the fact that, since it is possible to better understand potential crowds of customers due to the amount of data present in the metaverse, then adjusting the product to reflect features requested by customers' demand should be achievable (Ahn et al., 2022). For example, companies can experiment by distributing assorted designs of the same product on the market and analyze which one is more successful (Ahn et al., 2022). In this way the process of building a product that accomplishes all the requirements requested by the potential customers is faster and more accurate (Ahn et al., 2022). Moreover, when the audience changes idea about a product in the making, it is possible to analyze customer's responses to it and adjust the direction that the design of the product is having, guaranteeing more efficient processes (Ahn et al., 2022). The application of these innovative technologies it is possible also regarding augmented reality, making possible to create more realistic presentations of new products and how to use them in the real world (Ahn et al., 2022).

Market Research. It is certainly possible that market research on the metaverse will evolve in a sense that it will be possible to conduct both qualitative and quantitative analyses (Ahn et al., 2022). For example, it will be possible to conduct focus groups entirely in the virtual world through the use of avatars, hence the multiverse needs to be more populated by users' avatars than it is now (Ahn et al., 2022). Researchers could also interact with users through augmented or virtual reality applications (Ahn et al., 2022). Furthermore, new opportunities

concerning quantitative research are also possible, such as testing about 3D experiences, experiments, and A/B testing (Ahn et al., 2022).

The metaverse is a technology which offers clients the opportunity to have a completely immersive experience inside it. Virtual worlds started existing in 2003 with Second Life that was a platform in which people could build a social network, but they could also play video games (Ahn et al., 2022). Scholars have conducted research in this platform on marketing experiences and it has been observed that it was offered a more social involvement with important levels of adapting selling techniques (Ahn et al., 2022). For example, on that line now marketers could use the metaverse to develop from scratch 3D virtual environments for campaign promotions, such as scavengers hunts or group games to increase brand awareness (Ahn et al., 2022). It is certainly true that the metaverse can increase marketing opportunities, enhancing narrative transportations, however there are also negative aspects that need to be taken into account, such as causing customer's FOMO (fear of missing out) due to the high quantity of products presented and lack of trust on buyer-seller transactions on the metaverse (Ahn et al., 2022). In fact, it is particularly important to understand how customers interact within the metaverse because the abundance of inputs can both distract and attract them, shaping their future choices (Ahn et al., 2022). An innovative approach to analyze customer interactions and engagement in the metaverse which tries to explain who the players in the process of sending a marketing message in the metaverse are, has recently been suggested (Ahn et al., 2022). This approach takes the name of Bifold Triadic Relationship Framework, and it concludes that metaverse's advertising processes are both interactive and experiential relationships between the user, its behaviour and the environment (or media) (Ahn et al., 2022). This relationship takes place in the virtual world; however, it is connected also to the real world, making the advertising process a continuum between virtuality and reality (Ahn et al., 2022). This continuity means that customers can interact with the same product within different environments, in the multiverse but also both online and offline (Ahn et al., 2022). Additionally, among all the technologies which can be applied to the metaverse, its true strength is in the social dimension that it is able to generate (Hennig-Thurau & Ognibeni, 2022)⁶⁰. By creating 3D virtual environments, the metaverse has allowed users to experience a parallel life to their real one, in which they could enhance their social interaction (Hennig-Thurau & Ognibeni, 2022). Social interactions on the metaverse can be more robust than any other 2D platform because they comprehend physical interactions and sensations, in fact some companies have implemented interactions on the metaverse for their employees (Hennig-Thurau & Ognibeni, 2022). Virtual collaboration for co-workers can increase their motivation, the team culture and can also reduce costs related to infrastructures (Hennig-Thurau & Ognibeni, 2022). In platforms like Glue and Raum employers can use their avatars and meet with their colleagues to solve challenges and practice the use of new tools with 3D models, in this way they can obtain a deepen knowledge of their products and increase sales (Hennig-Thurau & Ognibeni, 2022). The metaverse can also improve employee-customers relationships by offering a sense of presence through the use of avatars, on the metaverse events such as showrooms and exhibitions to present new products or services and enhance their business-to-business relationships can be organized (Hennig-Thurau & Ognibeni, 2022). Furthermore, the metaverse offers the opportunity to develop colossus events within it, for example Travis Scott organized a concert on Fortnite that was attended by more than twelve million people, becoming the first demonstration of entertainment's potential of the metaverse (Hennig-Thurau & Ognibeni,

 $^{^{60}}$ Hennig-Thurau T. and Ognibeni B. (2022). *Metaverse Marketing*. NIM Marketing Intelligence Review, Vol. 14, No. 2.

2022). The metaverse's potential spreads also in retailing opportunities, brands like Adidas and Nike have already invested in opening shops in it, in which they sell original digital items (Hennig-Thurau & Ognibeni, 2022). Furthermore, with regard of brand engagement innovative techniques, Verizon, an American internet provider has developed a virtual version of a stadium in Fortnite, in which it is possible to participate to car races and other interactive experiences (Hennig-Thurau & Ognibeni, 2022).

3.3.1 Digital Marketing in the metaverse

Marketers are exploring multiple opportunities that the metaverse offers, among these, digital marketing is certainly demonstrating remarkably interesting opportunities. The metaverse has given the possibility to generate innovative marketing dimensions in which the marketers are allowed to produce innovative campaigns (Ahn et al., 2022). One of the main characteristics of modern metaverse's promotion campaigns is that they can be interactive, resulting in more immersive and enjoyable activities for participants, which they will remember (Ahn et al., 2022). Companies like RPG Enterprises, Epic Game and Tinder have already developed a business model on the metaverse, they are all engaging with already existing customers that have migrated on the metaverse and additionally, with new customers that are engaging with these brands for the first time (Ahn et al., 2022). The case of Tinder is particularly peculiar because it opens the discussion on how far social interactions can go in the metaverse. Some companies have implemented XR technologies to online dating, trying to make this experience in the metaverse potentially romantic for the users using the platform (Shanker & Zytko, 2022)⁶¹. For example, in 2008 it has been created a VR prototype of a date in a museum,

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⁶¹ Shanker S. S. and Zytko D. (2022). *The...Tinderverse? Opportunities and Challenges for User Safety in Extended Reality (XR) Dating Apps*. Cornell University.

and in 2015 AR has been used to reduce the stress caused by real life dates (Shanker & Zytko, 2022). Tinder has introduced the Tinder-coins, a currency that is possible to use to increase the number of likes in your profile or in general to make in-app purchases (Shanker & Zytko, 2022). These companies' strategy is to build a customer-centric branding strategy that enhances their brand awareness on the metaverse (Ahn et al., 2022). In order to apply this strategy is necessary to analyze customer's data, comprehending all kinds of data that they leave in the metaverse and with the idea of implementing also these data with other kind of personal data that comes from social networks (Ahn et al., 2022). On the other hand, social media like LinkedIn and Instagram are trying to better understand the metaverse in order to become able to integrate it in their platforms and increase the relationships with their users (Ahn et al., 2022). Facebook already did it with the development of Meta, which will be discussed better later in this chapter. Instagram has introduced augmented reality filters making a step towards the metaverse' elements (Ahn et al., 2022). Companies are trying to enhance their virtual branding by displaying their brands on avatars, particularly fashion brands can invest on generating virtual clothes for avatars (Ahn et al., 2022). Companies can also produce personalized items which are unique, such as personal NFT's (Ahn et al., 2022). Furthermore, the metaverse allows companies to develop customized advertising in order to more efficiently segmentate customers, considering their behaviours on the metaverse through deep leaning qualitative research (Ahn et al., 2022). In order to understand digital marketing in the metaverse it is also a fundamental requirement to understand the customers (Efendioğlu, 2023). Metaverse's customers are different compared to other digital platforms, this type of client is looking for a completely unique experience, without boundaries, limits or rules imposed by life (Efendioğlu, 2023). The metaverse, and thus companies that invest for their presence within it, should try to guarantee the closest experience possible to complete freedom inside the platform (Efendioğlu, 2023). However, the metaverse needs also to respect laws, regulations, and limits in order to achieve the creation of safe and secure spaces for every user (Ahn et al., 2022). This platform is still seen as the future of marketing, since it could facilitate an integrated digital marketing strategy with other platforms such as social networks or search engines (Efendioğlu, 2023). However, the fact that the metaverse is considered as a parallel reality in which everything is related to the digital identity of someone should be taken into account; it could contribute to the fact that user's will receive less advertising messages which are more focused on content of the message, becoming more effective and memorable for the customer (Efendioğlu, 2023). Considering the definition of advertising, which is in some way an owned mediated communication with the purpose of persuading a potential customer to change the behaviour about a product or a service of the brand advertised, the advertising is possible also in the metaverse, since it is a mediated environment (Kim, 2021)⁶². However, in the metaverse advertising could change typologies of interactions with the customers, which in this case are also mediated by technologies such as avatars or devices (Kim, 2021). The in-metaverse advertising presents two key features: it is an evolution of digital advertisement, but adapted to a more immersive platform, and it can be implemented with gaming advertising (Bassant, 2023)⁶³. An example of in-metaverse advertising is the partnership between Fortnite and Air Jordan which organized game-tournaments in which it was possible to win a price (limited Air Jordan shoes), and branding activities such as visiting the Air Jordan Museum on the metaverse and watching videos about the brand (Bassant, 2023). This business-case was successful because the

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⁶² Kim J., (2021). Advertising in the Metaverse: Research Agenda. *Journal of Interactive Advertising*. Vol 21, issue 3.

⁶³ Bassant E. (2023). Advertising in the Metaverse: Opportunities and Challenges. *International Journal of Marketing Studies*. Vol. 15, No. 1.

company was able to advertise its brand making the advertising part of the experience itself (Bassant, 2023). This kind of advertising, which enhances social interactions instead of interrupting them for an adv break, is what people on the metaverse are looking for and what companies should adopt as a technique (Bassant, 2023). Gaming advertising allows brands to achieve this kind of successful engagement with metaverse's users and its application has two main advantages: customer behaviour and purchase decisions adaptability, and brand value enhancement (Bassant, 2023). Customer behaviour and purchase decisions adaptability refers to the fact that users think that brands that invest on their presence in the metaverse are innovative, this means that brands must function as innovators to not disappoint audience's expectations (Bassant, 2023). Customers are stimulated to adapt to new type of contents and interaction with the brand and thus, companies should perform as innovators about strategies and campaigns (Bassant, 2023). The second point, brand value enhancement, refers to the fact that brands should invest in the qualities that they already possess and enhance them through immersive activities in which potential customers can take part (Bassant, 2023). In fact, a study demonstrates that 70% of customers that visited a store on the metaverse have then purchased an item and 75% of customers belonging to Gen Z have purchased in a videogame environment (Bassant, 2023). Companies like The Coca-Cola Company have figured out the benefits of the metaverse; during the friendship day The Coca-Cola Company has released a friendship box, an NFT of a loot box, which inside it had several virtual products, such as a jacket, a card and a sound visualizer, that were also NFTs (Bassant, 2023). With this strategy The Coca-Cola Company advertised not only its products but its presence in the metaverse as a seller (Bassant, 2023).

It has been observed that there are five mostly used virtual marketing strategies on the metaverse: broadcast marketing, engagement marketing, advocate marketing, gamify marketing and virtualized business marketing (Bassant, 2023). Hereby a brief description of each one of them.

Broadcast marketing. This kind of marketing is particularly useful to increase brand awareness and it usually consists in the organization of massive events; two examples of it could be the already cited Travis Scott's concert and The Metaverse Fashion Week which was hosted for five days by brands like Diesel, Tommy Hilfiger, Dolce Gabbana and Adidas (Bassant, 2023).

Engagement marketing. Brands are building virtual communities on the metaverse (Bassant, 2023). A McKinsey's survey has demonstrated that customers are starting to purchase and interact on social and work contexts within the metaverse (Bassant, 2023). This means that there is a trend of people shifting their social and purchasing habits to the metaverse, hence this shift could be made use of to increase consumer engagement (Bassant, 2023).

Advocate marketing. It refers to the fact that many brands are developing the strategy of offering exclusive advantages in purchasing an item on the metaverse in comparison to the original price (Bassant, 2023). On the other side, customers are more likely to visit a brand's online store than a physical one if they know that they will receive discounts or offers of any kind (Bassant, 2023).

Gamify marketing. This is the more revolutionising marketing strategy in the metaverse, and it regards the use of games to engage with customers and create awareness about the brand (Bassant, 2023). Interaction through games allows companies to offer an exceptionally large quantity of information about their brands and, at the same time, to accumulate data

about customers (Bassant, 2023). An example of this strategy is Nikeland, the gamified virtual world of Nike, which replicates its headquarters and that allows users to participate in games and challenges while wearing a Nike outfit (Bassant, 2023). This strategy makes the user more aware of the brand but also of the products, in fact, if the user likes any of the outfits suggested he/she may buy them in a store (virtual or real) (Bassant, 2023).

Virtualized business marketing. It refers to an innovation in the world of product development, in fact it is the creation of virtual products from scratch that will be sell only in the metaverse (Bassant, 2023). Before, the trend consisted more of the implementation of real products in the virtual world, which was call digitization (Bassant, 2023). However, in the metaverse companies can start new virtual ecosystems of products, they can also change industry or start a diversification of their product's portfolio (Bassant, 2023).

The metaverse is on its path to revolutionize advertising, requiring brands to develop immersive experiences and adapt to a rapidly evolving digital landscape. Forward-thinking and innovative brands that explore and invest in metaverse advertising will earn significant competitive advantages as this new platform continues to grow.

3.4 Branding in the Metaverse

The COVID-19 pandemic has undoubtedly contributed to the increasement of brand's presence in the metaverse (Bošković et al., 2022)⁶⁴. Considering that all over the world shops were forced to close in order to avoid the spreading of the virus, people started to look for online places where they could shop (Bošković et al., 2022). Because of this, companies started investing in digital solutions and the metaverse was the seamless platform in which the shopping experience could be made as more realistic as possible (Bošković et al., 2022). Even if the metaverse is a technology still in its initial stages, several companies have already chosen to invest in it to enhance their brands. As it has been already observed, the implementation of augmented reality in marketing, contributed to enhance the customer experience, stimulated curiosity about the brand, helped engaging with clients in sensory brand experiences, increased brand awareness and offered the possibility to experience the product in advance, thus limiting disappointing purchases (Bošković et al., 2022). This new opportunities of connection with the customer, although more virtual, result to be paradoxically more human than before (Bošković et al., 2022). In fact, being the metaverse a platform in which it is possible to interact only by being themselves or interpreting a persona, the interaction brand-user should then be as more transparent as possible because, just like in real life, customers could potentially walk to another shop and purchase there (Bošković et al., 2022). Augmented reality contributes to offer brands an honest reputation, for example thanks to AR it is possible to try-on clothes making the purchasing experience more realistic than classic online channels in which the digital experience was limited by the 2D representation (Bošković et al., 2022). This practice

⁶⁴ Bošković D., Milié B., Mitrović K., Lalić D. and Spajić J. (2022). *PERSONALIZED BRAND EXPERIENCE IN METAVERSE*. 10th International Conference on Mass Customization and Personalization – Community of Europe (MCP - CE 2022).

takes the name of virtual product testing and allows customers to leave reviews about the product, thus sending useful information to companies which can improve their communication strategies and their products (Bošković et al., 2022). These kinds of online experiences result to be profitable. Moreover, because trying a virtual product takes more time than a physical one, thus, if the customer is enticed to do so it means also that he/she is more prone to purchase it (Bošković et al., 2022). Programmers in the metaverse are trying to understand how to create the most pleasant customer experience to develop involvement-based brand strategies (Bošković et al., 2022). Comprehensively consider customers' experience means analysing customers' emotions, their cognitive responses, senses, spirituality, and sociality in relation with each brand (Bošković et al., 2022). Aiming to understand this kind of data means that every brand should analyze each user's move, from purchases to every touch point location in the metaverse (Bošković et al., 2022). Brands on the metaverse should focus on the quality of their relations with customers and not on the quantity of offers and presence in the platform (Bošković et al., 2022). This also applies because it is not possible to make all kinds of deal in a single type of metaverse's universe; there are platforms for avatar's purchasing, platforms to build houses and natural environments, platform where it is possible to socialize and places where is possible to buy NFTs and so on (Bošković et al., 2022). For this reason, a brand should deeply investigate where to invest and on which market's segment. In order to do so a brand should be able, based on a sent input, to comprehend every sensation, knowledge or behaviour which distinguishes each particular customer (Bošković et al., 2022). In other words, it should analyze the brand-dimension's experiences, which are the sensory one, the intellectual one, the affective one and the behavioural one (Bošković et al., 2022). Hereby, a description of each brand-dimensional experience.

Sensory brand experience. Refers to the ability of the brand to create a stimulation on the customer which could be visual, audio, smell, taste, or tact and that it will improve the user's experience (Brakus et al., 2009)⁶⁵.

Intellectual brand experience. It regards a cognitive stimulation that is triggered by an experience organized by the brand (Brakus et al., 2009). It could be an event regarding environmental sustainability, which teaches not only new notions about sustainable materials but makes the customer increment his/her knowledge about that topic (Brakus et al., 2009).

Affective brand experience. This kind of brand experience encourages the customer to emotionally engage with the brand; this could happen trough associations to his/her life memories, which can be related to the brand or to a theme that the brand is interested in (Brakus et al., 2009).

Behavioural brand experience. Refers to actions or behaviours triggered by the experience that the brand has constructed for its customers, for example they could be incentivized to play a game subsequently to another activity (Brakus et al., 2009).

Customers are looking for ways to interact with brands and experience these dimensions; hence, brands should invest in the definition of specific targets, monitor the competitors' investments in the metaverse, look for opportunities in the field, such as organized virtual events, and plan their ingress in this platform (Bošković et al., 2022). Companies like Amazon have been investing on the metaverse since its embryonal stages, in particular, Amazon is offering an e-commerce division of the metaverse with rooms (Amazon View) that can be accessed through augmented reality and in which it possible to find Amazon's products (Bošković et al., 2022). Moreover, Vans has invested in the metaverse, promoting an

⁶⁵ Brakus J., Schmitt B., and Zarantonello L. (2009). Brand Experience: What Is It? How Is It Measured? Does It Affect Loyalty? *Journal of Marketing*. vol. 73.

experience for its customers that is particularly in line with its core business; Vans has built a virtual skate park that has reached almost fifty million visitors (Bošković et al., 2022). Vans has also offered the opportunity to visit their virtual shop and accumulate points through any purchase or by customizing the avatars (Bošković et al., 2022). This initiative was particularly successful and Roblox has decided to collaborate with the brand to build a virtual store in Roblox's universe in which virtual shoes and skate accessories were sold (Bošković et al., 2022). Roblox is a gaming platform created by the users themselves and has more that forty-two million of daily active users, thus the visibility that this collaboration has given to Vans would not ever been possible in an inperson event (Bošković et al., 2022).



Figure 6 Falchi B. [Screenshot]. Vans Webpage. vans.it/roblox-vans-world.html.

Another company that has decided to invest in the virtual world is Disney, which wants to open a themed park in the metaverse (Bošković et al., 2022). McDonald's also is planning to open a virtual restaurant on the metaverse which will allow users to order food and beverages both online for avatars and in person and it is also planning to organize events sponsored by McDonald's and McCafe (Bošković et al., 2022). Businesses of the caliber of Coca-Cola and Nissan have decided to create their own universe inside the metaverse; The Coca-Cola Company virtually generated the Coca-Cola World where branding activities are constantly

organized and the history of the brand is explained, Nissan's platform instead is called Nissan World and works as an educational platform about car components and on which it is possible to test-drive some vehicles (Bushell, 2022)⁶⁶. Moreover, some companies' strategy is to apply the same cognitive connections in the metaverse that they established in the real world with other brands; Stella Artois for example has always been associated with horses, as a result of this it has sponsored the online horse racing platform Zed Run (Bošković et al., 2022). On a different note, some brands have invested only in augmented reality and are using this technology to allow customers to try-on some products, among these company's names like Pandora, Rey Ban, Mac, and Lancôme (Bošković et al., 2022). Nyx as well as invested in the use of augmented reality; in order to promote its brand on Snapchat it has presented a new collection of cosmetics and at the same time has created an immersive experience for customers (Bošković et al., 2022). It has been demonstrated that the brands that are investing in the metaverse are the ones with the most loyal customers, this means that if they will invest consistently on the metaverse they could have optimal results, especially if they want to differentiate and to create new narratives about themselves (Bošković et al., 2022). There are also implications in not using the metaverse for marketing purposes, in fact this will imply losing opportunities regarding engagement, conversions, potential new clients and will risk falling behind their competitors. The brand extension technique is a strategy that can be taken advantage of by brands on the metaverse and it refers to the fact that if a new product is associated with a known brand with a good reputation, people will be more likely to trust that product instead of an equal one but from an unknown brand (Bushell, 2022). As a consequence of this, companies with a high brand awareness could capitalize on the brand

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⁶⁶ Bushell C. (2022). The Impact of Metaverse on Branding and Marketing. SSRN.

extension technique on the metaverse while testing new products, because their customers will apply the attributes of the brand on the new product in the metaverse (Bushell, 2022). One of the techniques that can already be used by existing brands to capitalize on the metaverse is the transmedia storytelling. The transmedia storytelling consists in distributing a story across multiple media platforms (such as social media, websites and the metaverse) in order to create a coherent and, moreover, unified narration of the brand (Akdogan, 2022)⁶⁷. Considering the case of the metaverse and the fact that more than one virtual universe exists in it, this technique could also be used to unify entertainment experiences of the same brand in different worlds inside the metaverse (Akdogan, 2022). The approach to create a successful transmedia story on the metaverse consists of:

- Creating micro-stories that can assist the main ones and that are coherent with values and mission of the company, thus with communication already adopted by the brand (Akdogan, 2022). These micro-stories should offer additional contents compared to the main one and could also operate with the use of videogames or other types of technologies (Akdogan, 2022).
- Keeping in mind that the main story should be the most important, the brand can also give attention to parallel stories (Akdogan, 2022). Parallel stories are alternatives to the main one, and they can be used for example to respond to real-time marketing purposes or trends (Akdogan, 2022).
- Collaborations with other brands, both companies, products, or celebrities, can be presented trough peripheral stories, stories that are slightly connected to the main one but result

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⁶⁷ Akdogan C. (2022). *THE NEW ACTOR OF TRANSMEDIA STORYTELLING IN MARKETING COMMUNICATION: METAVERSE*. 6th International New York Conference on Evolving Trends in Interdisciplinary Research & Practices, New York, ABD.

- coherent for the value transmitted and the message conveyed (Akdogan, 2022).
- Engagement can be done using contents which have been created by customers, user generated content (USG), in this way the brand is certain that the narration chosen is considered reasonable by customers (Akdogan, 2022). This strategy is the same used by The Coca-Cola Company in the Create Real Magic campaign discussed in the previous chapter.

Thanks to this storytelling technique is possible to achieve the main features required by the metaverse's users, which have been discussed previously: consistency across different medias, engagement through coherent storytelling which is constantly integrated with new information, consistently expanding narrations, guaranteeing subjectivity regarding the contents and making the user immersed in the story and part of its development (Akdogan, 2022).

3.4.1 Pioneers in the luxury and fashion field

The more important luxury brands have leaded the interest towards the metaverse since the launching of this technology. The metaverse is considered by the users as another media in which they can purchase and socialize. The fashion industry is considering this new market advantageous; while trying to impose its significance in the virtual world it is also experiencing a technological transformation (Brouard et al., 2022)⁶⁸. Global brands such as Burberry, Ralph Lauren, Gucci, and Louis Vuitton are more than ever investing in innovative technologies and moreover, in the metaverse (Brouard et al., 2022). Amon the technologies that these companies have been using there is artificial intelligence, useful

⁶⁸ Brouard M., Joy A., Peña C. and Zhu Y. (2022). *Digital future of luxury brands: Metaverse, digital fashion, and non-fungible tokens*. Strategic Change, Vol.31, Issue 3.

to guarantee as natural as possible brand-to-client interactions and the incorporation of non-fungible tokens (NFT) (Brouard et al., 2022). One of the fashion brands that provided more capital to invest in the metaverse is Bulgari, part of the LVMK group, which is a luxury brand that specialises in exclusive merchandise (Brouard et al., 2022). In 2021 Bulgari debuted with its Serpenti Metamorphosis, a multisensory artificial intelligence exhibition under the theme of rebirth (Brouard et al., 2022). The AI program used was able to create a kaleidoscopic effect of environments which purpose was to completely immerse the user in the experience and arouse strong emotions (Brouard et al., 2022). Successively this installation became an NFT, and it demonstrates the capability of an old brand like Bulgari to innovate and to create a successful immersive campaign (Brouard et al., 2022). Not surprisingly also other fashion brands are investing in blockchain technologies, thus NFTs, in order to guarantee to their customers more safe transactions and unique art works (Brouard et al., 2022). Moreover, also brands like Gucci and Louis Vuitton have started marketing campaigns on the metaverse and have sold virtual items for avatars, Gucci for example has focused on the production of virtual shoes that users can use in their virtual reality app or on Roblox, but they can also wear through the use of augmented reality (Bošković et al., 2022). Louis Vuitton started several initiatives on the metaverse, one of these being the NFT game, Louis The Game, which was released to celebrate the 200 years anniversary of the brand, and results to be very successful in the gaming environment (Bošković et al., 2022). Furthermore, the brand Nike invested in the generation of a campaign on the platform Fortnite (Hyperspace^{mv})⁶⁹. This campaign took the name of The Last Game and consisted in a game between two teams dressed in Nike sports wearing, which the users were encouraged to buy while

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⁶⁹ Hyperspace^{mv}. (n.d.). Metaverse Examples: Brands' Successful Marketing Strategies. *HYPERSPACE metaverse for business*.

playing (Hyperspace^{mv}). Another successful campaign was elaborated by Adidas on Minecraft, Create Your Own Stadium, during this campaign users were asked to develop a stadium on the Minecraft game platform; once their creation was shared on social media they competed for hosting in their stadium an actual Adidas sponsored virtual event like the FIFA World Cup or the UEFA Champions League (Hyperspace^{mv}). Another trend that has increased in the last years is the creation of digital fashion companies. Dress X, for example, is a brand that only produces digital fashion, this means that metaverse's users purchase virtual clothes that they can wear only virtually, consequently they can send it to their friends through pictures (Brouard et al., 2022). Dress X narration is based on the fact that they offer fashion for the virtual reality, a sort of representation or individuality booster, but in a completely sustainable way because virtual clothes are no harm for the environment (Brouard et al., 2022). Digital fashion and not only, is investing to serve people the opportunity to become represented even in a digital world. The use of avatars needs a further reflection of a person character, and it could be reflected by the clothes or the accessorizes that the avatar is wearing. These brands are investing on creativity and self-expression enabling users to experiment with look or styles that they can apply to their real life or not (Brouard et al., 2022). On the other hand, the same users are sharing their pictures and the outfits tried on, thus increasing the awareness of these brands (Brouard et al., 2022). At the same time it is developed a brand spiral, in the sense that consumers are not only engaging with the brand but they become entangled in a spiral of immersive activities that become their reality in those moment and that they will share on other media consequently (Brouard et al., 2022). This spiral could be also enhanced by the implementation of other marketing strategies to the metaverse world, for example the role of influencers that can amplify brand's reach (Brouard et al., 2022). Influencers could be completely real and advocate for a brand

on the metaverse through their avatars, but nowadays they could also be virtual influencers as it will be discussed in the next chapter. Another innovation in this field regards the application of NFTs technologies to every luxury good, in this way the door for new market opportunities could become open, considering that more people would demand for luxury items which they can wear in multiple virtual platforms (Brouard et al., 2022). The rise of the metaverse presents unparalleled opportunities for fashion and luxury brands to engage with consumers. By strengthening digital fashion, NFTs, and immersive experiences, brands can increase their connections, push creativity, and explore new revenue's streams (Brouard et al., 2022). Thanks to the integration of these technologies, brands have the chance to remain relevant and compete in this enlarged digital landscape (Brouard et al., 2022).

3.5 Meta and the Metaverse

Mark Zuckerberg is the founder and chief executive officer of Facebook since 2004, in 2021 he has announced a branding transformation of his company into Meta (López-Díez, 2021)⁷⁰. He presented the rebranding of the company though a one hour and seventeen minutes video that can be found on YouTube as The Metaverse and How We'll build It Together--Connect 2021 (López-Díez, 2021). In this video Mark Zuckerberg explains that Meta will be based on the same principle of Facebook, which is to connect people; however, it will do it in a new way, referring to the fact of creating a platform in which it is possible to connect and feel human emotions in a way that was not possible before (López-Díez, 2021). He briefly describes how technology has evolved over time, making examples from Facebook and talking about how video and visuality has become the main online form of expression (Meta, 2021)⁷¹. He then proceeds to say how people's online experience will change over time and how it will be evolving, with people experiencing to be inside an online world which is the metaverse (Meta, 2021). Zuckerberg then describes how it will be possible to immerse into everyday activities on Meta, such as working, socializing with friends, getting together with family and so on (Meta, 2021). Successively, he starts explaining his vision and the services that Meta can offer, while he is transported inside Meta. The narrative is divided in eight main blocks that also are the milestones of Meta (López-Díez, 2021).

- Feeling of presence. This concept is based on the fact that is possible to constantly interact with people, sharing contents in real time while being immersed in a 3D environment. Meta is described

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⁷⁰ López-Díez J. (2021). *Metaverse: Year One. Mark Zuckerberg's video keynote on Meta (October 2021) in the context of previous and prospective studies on metaverses*. Pensar La Publicidad, EDICIONES COMPLUTENSE.

⁷¹ Meta. (2021). *The Metaverse and How We'll Build It Together -- Connect 2021*. [Video]. YouTube.

- as a platform in which users will really experience human feelings with other people (López-Díez, 2021). Zuckerberg describes it as the capability of todays technology to reflect how people communicate, which can not be delivered by two dimensional technologies (Meta, 2021).
- Avatars. Users can choose a body with which they want to be represented in different occasion, it could be similar to their real appearance, or it can completely differ from it. Users will be able to chose clothes and change immediately depending on the virtual reality that is chosen or depending on how they feel like. Each avatar or dress can be linked to a particular activity that the user has lived in the metaverse (Meta, 2021). Avatars should be representative of the user, and they could be realistic, based on fantasy characters or stylized (López-Díez, 2021). Avatars will be the tridimensional representation of the users, they will impersonate their movements, their expressions, and their gestures (Meta, 2021).
- Home spaces. It refers to a space that users can develop for themselves (López-Díez, 2021). It is thought to be personal, hence the user has the power not only to choose the elements inside it but also to decide if he/she wants to have friends over or to block the access to anybody else in order to spend some time alone (Meta, 2021). It is possible to design the house how the users prefer it and to furnish it how they want, picking pictures or videos from their phone gallery and hanging them on the walls, and is possible to play games or build a home office where to work (Meta, 2021).
- *Teleporting*. This functionality consists of allowing the user to teleport his/her avatar to another place inside the metaverse with the use of a link (López-Díez, 2021). There will be any kind of space and they can be generated all over the metaverse and by any

- kind of creator (Meta, 2021). These places do not have any kind of limit, they could be universes per se or small rooms, and any kind of activity is possible in them (Meta, 2021).
- *Interoperability*. It is the capability to use or transport the same object that a user has bought in a virtual world to another platform of Meta (López-Díez, 2021). It is also the ability to move the avatar itself towards spaces and experiences (Meta, 2021). This feature of meta is particularly useful for creators, in fact their goods can become known all over the Meta-world and as a consequence of that their value will increase (Meta, 2021). Moreover, interoperability determines the limits of propriety, in fact if previously it was not possible to move around the metaverse with objects bought in other platforms, it was because the right of propriety was guaranteed for the platform (Meta, 2021). With this feature the rule changes and now is the user who has the propriety of the object bought on the metaverse (Meta, 2021).
- Privacy and safety. In this point Mark Zukerberg clarifies that it is important for Meta to invest on privacy and safety from day one, not missing out this point (Meta, 2021). In this video he refers mostly to privacy from the interactions with other users; for example, if a user wants to spend time alone on Meta that is possible by just blocking any interaction with other users (Meta, 2021). In an article published on the Meta website it is possible to read the most recent privacy practices that have been introduced, among these the utilization of a privacy-aware infrastructure (PAI) useful to address more easily privacy issues and the Privacy Review Process a revisor of data practices that analyses each product before it gets launched by Meta (Protti, 2024)⁷². Other investments on

⁷² Protti M. (2024). *Investing in Privacy*. Meta.

privacy regard the creation of a Privacy Center, launched in 2022, which clarifies the use of user's data to implement generative artificial intelligence technologies and the implementation of a privacy LED light on the Ray-Ban Meta Smart Glasses in order to prevent recording when it is not required (Protti, 2024). Moreover, it has been discussed how one of the main principles of Meta is to never surprise people, always communicate with users when a technology is introduced (Meta, 2021). Creators will have a particular impact on guaranteeing safety on the platform because every technology implemented must be verified and safe for users (Meta, 2021).

- Virtual goods. This feature regards the ability to transport goods, such as pictures, videos, music, art, books, or games, within the metaverse or from the physical world to the metaverse itself (López-Díez, 2021). Objects from Meta that are transported to the physical world will become holograms or augmented reality, while physical objects will be transformed into a digital version in Meta, for example through NFTs (López-Díez, 2021). It will be possible to observe these objects in the most variable ways, it could be using virtual reality while users are completely immersed or using augmented reality or even the more traditional computer and phone (Meta, 2021).
- Natural interfaces. It refers to more natural ways of interacting with technology inside Meta, instead of using keyboard, mouse, and screen it will be possible to access features with a gesture, saying some words pre-settled or with the eyes just thinking about it (López-Díez, 2021). The purpose of this feature is to implement technologies without creating the space between innovation and experience that is usually filled by devices, this feature could increment the full immersion status (Meta, 2021).

In addition to all these features that Meta is including there are other aspects and products in project, such as the social platform of Meta, which is called Horizon (López-Díez, 2021). Horizon Home for example is the space on Meta dedicated to each avatar house, users can choose between different templates or create their own one, they can invite friends over and socialize (Meta, 2021). Another one is Horizon worlds, in which is possible to manage the life of the avatars, organizing events, meeting with other people, creating games and work (Meta, 2021). Some of these concepts are based on the fact that the physical life can be mixed with the virtual one, making them a unique experience with no distinctions. Zuckerberg talks about virtually joining virtual events shared on Instagram from the physical world, purchasing goods in Meta, organizing physical events using augmented reality and so on (Meta, 2021). Moreover, he discusses on the fact that Meta is a platform for creators and developers, hence the main purpose will be to stimulate them to be as more creative as possible thanks to improved accessibility (Meta, 2021). Meta has been presented by Zuckerberg as committed to contribute to the wellbeing of world, investing in the increasing of sustainability, environmentally, socially, and economically (Meta, 2021). Environmentally because of the reduction of carbon emissions caused by a less quantity of physical transports because all the activities we could think of could be done from home (Meta, 2021). Socially because using the virtual environments could guarantee more access to job opportunities and networking opportunities but also unlimited access on education (Meta, 2021). Economically because it can create job opportunities on the metaverse, both for creators but also other kinds of digital jobs that may even not exist yet (Meta, 2021). Moreover, Meta will be introducing other technological innovations about virtual reality, such as the implementation of computers with enormous computing power into the shape of glasses and technologies able to imitate facial expressions and textures in real time

(Meta, 2021). These kinds of technologies can be considered particularly useful for companies and brands that are planning to invest on meta. The fashion industry could take advantage of the fact that it will be possible to feel the movement and the texture of a dress for example (Meta, 2021).



Figure 7 Falchi B. [Screenshot]. The Metaverse and How We'll Build It Together -- Connect 2021. YouTube.

And the creation of a brand storytelling campaign could be only facilitated by the quantity of technologies that can guarantee a major immersive experience with the customer. An example of this kind of implementation could be the use of avatars to help the client during the complete purchasing experience, from hospitality norms in a virtual shop, to the suggestion of products and services (Meta, 2021). Thanks to these kinds of technologies, techniques which were only used in person in order to better narrate a product are now starting to be used on the metaverse. This means that there will be an evolutionary wave of storytelling campaigns; their application would not depend anymore on single platforms, but it would be integrated through different apps and platforms with the use of several technologies all together. One of these technologies will be the implementation of avatars, which will be discussed deeply in the following chapter.

3.6 Conclusion

In conclusion, the third chapter has respected the goal of offering a comprehensive analysis of what the metaverse is, the evolution of this term and its peculiar relationship with marketing during its evolution. Through a deep examination of the origins, the definition, and rudimental technical aspects of the metaverse it was possible to understand how innovative immersive technologies have shaped the world of customer analytics and brand marketing strategies. This chapter has provided the reader with a basic description of the main technologies useful to guarantee the user's full immersion in the virtual world or the partial immersion in it through the integration of real and virtual elements in the day-to-day life. Moreover, it has been offered a complete vision of the negative aspects of the metaverse, particularly the ones concerning privacy and safety issues, which have been detailed also in the last subchapter with regard of Meta's privacy and safety concerns. In this chapter it has been explored how technological advancements have influenced marketing techniques, providing several successful brand's examples of companies that have already invested in the metaverse and that are acting as pioneers for the ones that want to invest on these platforms in the future. Lastly, through the last focus on Meta and the reflection on the future of multimedia brandstorytelling it can be introduced the next chapter's focus: AI avatars and how they are shaping this field. To conclude, this chapter aimed to deliver a complete understanding of the metaverse in relation to marketing, offering valuable points of view on digital marketing and brand storytelling within this emerging digital landscape.

CHAPTER 4: AI AVATARS AND BRAND-STORYTELLING

4.1. Introduction

In this last chapter an analysis of the final themes of this thesis will be effectuated. In fact, this chapter will describe the last part of the evolution of brand-storytelling, which regards AI avatars. The purpose of this discussion is to observe how storytelling techniques are adapting to the introduction of AI avatars, basing the examination on both fictional and non-fictional characters. In the first subchapter the evolution of brandstorytelling in relation to social media will be analyzed. To do so, a brief context concerning some data about the use of social media will be performed, but also an analysis of relevant examples about new technologies used on social media with the purpose of promoting a brand through AI. In the second subchapter, the discussion will be delving into the subject of AI avatars. In the first part, a brief explanation of AI avatars will be presented to then study in deep the four main AI avatars on Instagram, how they present their brand, their audiences, and their storytelling strategies. The third subchapter will be dedicated to the celebrity-based AI avatars developed by Meta in 2023. The main Instagram and Facebook profiles of some of these celebrity-avatars, those with more than six thousand followers on these platforms, will be considered. Furthermore, their personalities and storytelling strategies in addition to some data about their profiles and a comparison with some fictitious AI avatars will be analyzed. Consequently, in the fourth subchapter, the role of AI avatars based both on fictional and non-fictional characters and their contribute to the development of storytelling techniques will be examined, considering also the positive and negative aspects of the introduction of these technologies in brand-storytelling strategies. The last subchapter purpose will be to investigate human-AI

avatar interactions, in order to understand the possible future outcomes of the application of AI avatars in storytelling campaigns. To conclude, this chapter aims to analyze what brand-storytelling have achieved so far, in relation to recent technologies, and what are the prospective outcomes of these new implementations while analyzing the current evolution phase of storytelling.

4.2. Social Network Branding

The business world, particularly marketing, has been significantly transformed by the last technologies discussed in the previous chapters. Marketing has been shaped by the quantity of both qualitative and quantitative information about users which technologies, such as artificial intelligence, social networks through machine learning and even the metaverse, are able to acquire and analyze. Social networks, have been able to introduce all these kinds of technologies, consequently being implemented by them. In fact, social media like Instagram or TikTok use machine learning to analyze the big quantity of data that they obtain and artificial intelligence to engage with users or to implement their algorithms (Efendi et al., 2024)⁷³. Additionally, as observed in the previous chapter, Meta, which possesses social media like Instagram and Facebook, is investing in augmenting socialization online. Social media platforms are evolving into something more integrated in which is possible to experiment with different technologies, hence, innovative technologies are becoming critical for modern brand strategies because branding is not considered anymore only related to logos, advertising, or slogans but also to digital engagement (Efendi et al., 2024). The social media platform which is more used by economic actors is currently TikTok. TikTok is being used by 45% of the actors in a sample of one hundred, diversified by company's size and business sector (Efendi et al., 2024). This not only means that companies are investing in younger social media platforms but also that they are interested in the visuality of this platform, which shares mostly videos (both in real time and not) and in minority pictures (Efendi et al., 2024). Instagram is being used by the 26% of the same sample, which means that is still largely used for branding purposes but minorly if

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⁷³ Efendi, Globalisasi S. E., Ika Marini N. M., Mubarok A. & Setiawan A. (2024). The Trend of Using Social Media Technology for Business Actors for the Branding Process. *Technium: Romanian Journal of Applied Sciences and Technology.*

confronted to TikTok (Efendi et al., 2024). This being said, Instagram is still the social network that allows companies to share more typologies of contents and diversify regarding targeted audiences (Efendi et al., 2024). The same research shows that the typology of content showing more success for branding purposes is the video (Efendi et al., 2024). Videos are more effective to convey a message, because the audience can pay attention to them more easily, they are usually more captivating and interactive than articles and other organic contents (Efendi et al., 2024). In this classification, the video is followed by pictures and graphics, which result to be less effective in guaranteeing engagement but still used by the majority of these companies for branding purposes (Efendi et al., 2024). Nowadays is particularly important for brands to invest on social media because they depend on the data generated and on the immediate feedback arriving from user generated contents (Carah & Shaul, 2015)⁷⁴. When Facebook acquired Instagram, there were no advertisings on this platform (they were introduced in 2014) and it was impossible for a company to sponsor a product or a service (Carah & Shaul, 2015). Today is almost impossible to think about an online platform in which is not possible to sponsor, in fact, users are constantly immersed in a flow of organic and non-organic contents that sometimes are difficult to distinguish. Companies can insert visual products to this flow of information and, for example, turn the feed page of Instagram into a promotional tool which allows users to interact easily using their smartphones (Carah & Shaul, 2015). In this way companies have started to increase their brand awareness on social media like Instagram, their engagement still consists in part on likes, comments, time spent by users on the contents and number of visualizations of the profile or the post (Carah & Shaul, 2015). Consequently, algorithms have developed the ability to boost successful

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⁷⁴ Carah N. & Shaul M. (2015). Brands and Instagram: Point, tap, swipe, glance. *Sage Journals*.

posts with high rates of engagement (Carah & Shaul, 2015). This meant that over time, users have get accustomed to scroll in a homepage full of contents, unconsciously rating them depending on how they were interacting with each content (Carah & Shaul, 2015). Instagram, and on this model other social media platforms, started fostering continuous engagement from users who were habitually interacting with shared contents, and this is why companies were also encouraged to create narratives and to invest on brand-storytelling on social media (Carah & Shaul, 2015). Today's landscape is more evolved, especially for what concerns the creation of online stories for brands (Caramiaux et al., 2019)⁷⁵. While traditional storytelling results to be more linear because it follows a chronological order of information and a structured and logical narration, digital storytelling supports several narrations for just one brand (Caramiaux et al., 2019). Some stories can be more important than others and some others can depend one from each other; different narrations can consider different contexts or different characters, they can differ depending on the media and on the interactions needed from the user (Caramiaux et al., 2019). All these narratives certainly must cohesively fit together, otherwise the audience could question them, turn confused and refuse to interact with the brand in the future (Caramiaux et al., 2019). Artificial intelligence is helping digital storytelling to achieve the goal of creating cohesive stories and enhancing interactivity and immersion (Caramiaux et al., 2019). Leveraging artificial intelligence and machine learning tools means not only to increase the quality of the data obtained through social media, but also to engage in more creative ways with the audience (Caramiaux et al., 2019). One of the ways in which is possible to interact, in order to upgrade brand-user digital communication, is the use of sensor inputs; signals able to stimulate several senses at the same time,

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⁷⁵ Caramiaux B., Geurts J. & Lotte F. (2019), "Al in the media and creative industries", NEM New European Media.

generating an immersive experience which better connects the audience with the product or service (Caramiaux et al., 2019). Moreover, artificial intelligence contributes to update each narrative based on customer's interactions with the brand, creating different plots for each individual customer, thus making interactive stories that result to be more dynamic and engaging (Caramiaux et al., 2019). For example, OpenAI has functioned as an innovator in this field, especially with the introduction of GPT-3, which allows users to generate virtual characters, interactive narratives and chats, and cooperate in the creation of copywriting (Mayahi & Vidrih, 2023). These activities implemented the world of storytelling creative applications and increased the quality of visual storytelling (Mayahi & Vidrih, 2023). Nowadays, generative AI can create high quality images and videos which result to be very realistic and can support the development of more attractive narratives from a visual perspective (Caramiaux et al., 2019). Recently, several AI videos have been going viral on TikTok because of the ultra realistic characters that are pictured in them; one of the companies that is generating them is arcads.ai, which is an AI video creator tool that some companies are using to elaborate AI generated video advertising, which they can share on social media platforms to create user generated contents (UCG) (arcads.ai)⁷⁶. These videos generated by artificial intelligence are already difficult to distinguish from real contents by humans. As a consequence of this, the investment on branding and in the creation of video-narratives could result to be remarkably successful. However, some people in the comments section of these videos are starting to discuss if these contents can be acceptable for the brand itself, in fact, they are wondering where the user part in a user generated content made using artificial intelligence by the

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⁷⁶ Arcads.ai. (2024). Create winning ads with AI Actors. Website.

company itself is. Several TikTok comments regarding these reactions can be found under a reaction video of Kruse (2024)⁷⁷.



Figure 8 Falchi B. [Screenshot]. Arcads.ai, website.

Lastly, AI is also able to manage the cohesion of a massive number of narratives, without forgetting minor plots which could be more relevant for one customer than another (Caramiaux et al., 2019). Furthermore, generative artificial intelligence can be used by brands to automatize and personalize social media contents, such as user's pictures, videos, and copy (Andreassi, 2024)⁷⁸. For this reason, social media themselves are implementing functionalities related to artificial intelligence, including the generative type, not only to analyze data but to engage with users in a more non-passive way (Andreassi, 2024). In fact, a brand which implements generative AI can increase the number of followers, the click-through rate, the engagement rate, and sales through social media (Andreassi, 2024). Meta has also introduced functionalities for its social media which will be useful to stimulate more Instagram's users to chats within it, for example generated AI can modify or create stickers inside the chat or assist users within a conversation (Andreassi, 2024). The implementation of artificial intelligence allows social media to increase user's traffic on these

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⁷⁷ Kruse C. [@mr.paidsocial]. (2024). *This company just made a huge update to their AI UCG tool and its so hard to tell now #ai #aiugc #aivideo #aiads #mediabuyer*. [Video]. TikTok.
⁷⁸ Andreassi M. (2024). *IA generativa nel social media marketing: sviluppo e analisi di una pagina Instagram artificiale*. Università Ca'Foscari Venezia.

platforms and to simplify the creation of contents, permitting more quality; as a consequence of this more people can potentially engage in the creation of contents and thus, the number of user generated contents about brands could augment in quality and quantity (Andreassi, 2024). However, these kinds of technologies, in order to become completely safe, need to be regulated. At this regard in 2021, the European Union has introduced the AI Pact, which divides the risks related to artificial intelligent in unacceptable, high, limited, and minimal (Andreassi, 2024). Limited risks are related to the use of artificial intelligence on social media or other networks, for example, through the implementation of chatbots which could influence in some ways the user's thoughts; hence, machines need to make clearer the artificial nature of every content that is expressed by them and the risks related to the diffusion of fake information (Andreassi, 2024). Responding to the request of the European Union, social media as TikTok and Instagram have introduced the mandatory symbol "generated with AI" to inform the audience about the nature of the content (Andreassi, 2024). These good practices help not only users to better understand when a content is a deepfake or a fake news, but they could also help brands in the protection of their artificial generated creations. Unfortunately, the quick development of these technologies facilitates the intentions of attackers who want to spread misinformation among users or ruin the reputation of a brand.

4.3 AI Avatars

The word avatar comes from the Hindu concept of the divine manifesting on heart, which is named avatara (Nuswantoro & Richter, 2024)⁷⁹. Currently, the word avatar is mostly used to describe the online virtual representation of one person. Every day more technologies are shaping the way in which marketing is pursued; innovation has the potential to influence profoundly storytelling and how we perceive a brand. One of the technologies which, in the last few years, has taken the scene on social media platforms, especially in the United States of America, is the artificial intelligence avatar. Users were more used to the presence of these advanced technologies on platforms like the metaverse, especially in gaming environments such as Fortnite and Roblox, or in digital workplaces, thanks to tools like Microsoft teams (Nuswantoro & Richter, 2024). The main characteristics of avatars is that they allow the user to be seen online, but they also allow the user to see an artificial intelligence persona online (Nuswantoro & Richter, 2024). This feature is called visibility, and it is fundamental to make the user experience online as more realistic as possible, also introduces another concept, which is the visual representation (Nuswantoro & Richter, 2024). Being represented with an avatar permits the user to become someone for the second time, to be visible in a digital environment as a self, and moreover, allows authentic interactions with AI tools, which are embodied by realistic virtual people (Nuswantoro & Richter, 2024). Visibility is then composed by other features, such as the presence in a space, the identity impersonated, the capability of non-verbal communication, the navigation in the space and the ability to use objects (Nuswantoro & Richter, 2024). The presence of an avatar enhances its awareness, the identity coveys a cultural message,

⁷⁹ Nuswantoro A. & Richter B. (2024). *AVATARS AS VISIBILITY ARTIFACTS IN DIGITAL WORK*. Conference: ECIS 2024 - Thirty-second European Conference on Information Systems.

the non-verbal communication allows the avatar to interact smoothly, the navigation can implement and guide users inside a virtual space and the ability to use objects allows the avatar to reference to products (Nuswantoro & Richter, 2024). All these features result to be extremely useful for marketing purposes if the interaction avatar-user, which is requested, needs to precisely imitate reality. In fact, it has been observed a specific typology of presence, which is the social presence. The social presence consists of the level in which the artificial intelligence avatar makes the user comfortable at the point that he/she understands the impressions, intelligence, and intentions of the machine (Wiederhold, 2023)⁸⁰. This characteristic is particularly important because it contributes to the creation of an immersive and engaging conversation or interaction (Wiederhold, 2023). It has been proven how, for example, in the world of gaming, having an avatar is fundamentally important to guarantee an immersive experience (Ahmad et al., 2021)81. AI-powered avatars are useful when the game, which its being played in normal circumstances and with a controller, is blocked by an obstacle; in this situation, through the use of an avatar, the player has complete control on the movements in the space inside the game, thus being able to overcome the obstacles (Ahmad et al., 2021). At the same time, it has been demonstrated that players enjoy being represented by their avatars by purchasing personal merchandising, for the fact that it facilitates interactive gameplay and contributes to the creation of a personal brand on the gaming platform (Ahmad et al., 2021). One of the main characteristics that an AI avatar should have in order to encompass successful brand strategies is authenticity; in fact, authenticity reflects how customers perceive a brand, if the level of authenticity is high then the brand will be experienced as genuine and trustworthy (Andersson

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⁸⁰ Wiederhold B. K. (2023). Treading Carefully in the Metaverse: The Evolution of AI Avatars. *CYBERPSYCHOLOGY, BEHAVIOR, AND SOCIAL NETWORKING*. Volume 26, Number 5.

⁸¹ Ahmad H., Akram M. S., Butt A., Goraya M. A. S. & Shafique M. N. (2021). Let's play: me and my AI-powered avatar as one team. *Psychology and Marketing*.

& Sobek, 23)82. This feature is also important for those job positions who constantly work with their personal brand, such as influencers, who are extremely sensitive to any change in the perception of their brand identity (Andersson & Sobek, 23). Personal brands are easily susceptible to changes in how they are perceived, the figure of the influencer is one of these, in fact if it communicates something wrong, it will immediately loose trust from its fanbase on social media (Andersson & Sobek, 23). The most impactful and recent case of lost of trust in a personal brand has ben the so called pandoro-gate, in which one of the most famous influencers globally, Chiara Ferragni, has been accused of social-washing because of non-clear charity projects (Biondi, 2024)83. The influencer lost 246 thousand of followers in the first month from the chronical and several brand business partners with which she collaborated (Biondi, 2024). It has been shown by studies that influencers' personal brands are not considered as genuine as before while promoting a product or a service, thus a lack in authenticity could result in a lower conversion rate (Andersson & Sobek, 23). The safest solution for brands that collaborate with influencers, in these cases, seems to be investing in a partnership with a virtual influencer, which is highly controlled and subjected to its algorithm's rules. Virtual influencers are artificial intelligence-based technologies represented by avatars, they are similar to human influencers for what concerns how they work, and they can have different areas of expertise in which they excel (Andersson & Sobek, 23). AI-avatar influencers function as human influencers on social media, they can promote a brand, a line of product or a service and share their virtual lives on these platforms (Andersson & Sobek, 23). It has been stated that, although human influencers can be perceived as brands of themselves, the audience perception of virtual

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⁸² Andersson V. & Sobek T. (2023). *Virtual Avatars, Virtual Influencers & Authenticity*. GOTHENBURG UNIVERSITY LIBRARY.

⁸³ Biondi A. (2024). Chiara Ferragni, nessun impatto sui follower ma si incrina il rapporto con le aziende. *Il Sole 24 Ore Economia*.

influencers is as brands themselves (Bakanauskas P. & Kisieliauskas J., 2018)⁸⁴. How virtual influencers are perceived, especially regarding their authenticity, could also depend on the fact that they are not human, hence their audience can recognize them as machines which are the result of pure economic strategy (Andersson & Sobek, 23). Despite the perception that they are rising, they are attracting curiosity since their first appearance on social media platforms. The avatars that will hereby be listed are Computer-Generated Imagery, which means that they are fictitious characters made by digital artists or agencies with 3D modeling techniques, artificial intelligence, and advanced software (Andreassi, 2024).

Lil Miquela. The fictional virtual influencer with the highest number of followers, 2.5 million on Instagram, and the highest number of posts on the same social network, 1334 posts (Miquela, n.d.)⁸⁵. She was developed in 2016 by a company from Los Angeles called Brud, and she is now considered an important influencer by several of the most important fashion brands, including Calvin Klein and Prada (Andreassi, 2024), (Siavash, 2024)⁸⁶. Lil Miquela is perceived by the audience as a peer of other human influencers, in fact she posts about her everyday life, her interests; about when she dies her hair or when she meets a celebrity and so on (Siavash, 2024). Her purpose in the digital world is to share her interest in the fashion industry and her passion for music, this is why she had the opportunity to participate in advertising campaigns and to release a music single (Siavash, 2024). Moreover, her character participates in the promotion of social causes, in particular LGBTQ+ rights and green sustainability (Siavash, 2024). She acts as a real influencer who is

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⁸⁴ Bakanauskas P. & Kisieliauskas J. (2018). *Building a Travel Influencer Brand Using Instagram Tools*. Organizacijo Vadyba: Sisteminiai Tyrimai.

⁸⁵ Miquela. [lilmiquela]. (n.d.). [Instagram Profile]. Retrieved June 2024 from Instagram.

⁸⁶ Siavash. (2024). Top 50 Virtual Influencers To Follow In 2024. Dream Farm Agency.

interested in different subjects and themes, very various one from the other; this context reflects her authenticity at the eyes of her audience, making herself impact on the world and thus, amplifying the awareness of those brands which invest in collaborations with her (Siavash, 2024).



Figure 9 Falchi B. [Screenshot]. @lilmiquela's Instagram profile.

Shudu. She is a Computer-Generated Imagery created by Cameron-James Wilson, which represents the first digitally generated supermodel (Siavash, 2024). The development of a digital supermodel has opened new horizons for the fashion industry, which has now the opportunity to base its campaigns on a completely new typology of iconography; innovating the classic image presented to its audience, Shudu contributed to fashion representation by presenting a different kind of beauty (Siavash, 2024). For this reason, luxury brands such as Fenty Beauty by Rihanna and Balmain invested in collaborations with her for high-profile campaigns (Siavash, 2024). Shudu usually shares her interest in fashion and her job as a virtual super-model, however she is also interested in themes such as inclusivity and very often she uses the hashtag #melanin under her posts (Shudu, n.d.)⁸⁷. She was chosen as a model by Fenty Beauty by Rihanna exactly for her commitment concerning inclusivity about beauty products, which should have been available for every type of skin tone, and she

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⁸⁷ Shudu. [shudu.gram]. (n.d.). [Instagram profile]. Retrieved in June 2024, from Instagram.

consequently participated to the promotion of a lipstick by Fenty Beauty (Rosenstein, 2018)⁸⁸.



Figure 10 Falchi B. [Screenshot]. @shudu.gram Instagram's post of the 5th of February 2018.

Lu of Magalu. Lu is a unique case of Computer-Generated Imagery, she was developed in 2009 as a virtual brand-ambassador for the Brazilian retail company Magazine Luiza (Siavash, 2024). Her role is to offer guidance and a technological support to customers during their shopping experience (Siavash, 2024). Lu has 6.9 million of followers on Instagram and more than two thousand posts shared (Lu do Magalu, n.d.)⁸⁹. In her Instagram page she talks mostly about products, and she works to make the customer's experience as simple as possible; her strategy has reached a wide audience, guaranteeing her a successful brand awareness strategy but also incrementing her brand value (Siavash, 2024). Lu of Magalu is probably the artificial intelligence fictitious character which have been applied to an innovative marketing strategy in the most clearly successful way, her social presence increases engagement and accessibility to technology (Siavash, 2024).

88 Rosenstein J. (2018). People Can't Tell If This Fenty Model Is Real Or Fake. BAZAAR.

⁸⁹ Lu do Magalu. [magazineluiza]. (n.d.). [Instagram profile]. Retrieved June 2024 from Instagram.



Figure 11 Falchi B. [Screenshot]. @magazineluiza's Instagram profile.

Rozy Gram. Rozy is an artificial intelligence avatar, in particular, she is the first virtual influencer for number of followers in South Korea (Siavash, 2024). Her purpose is to represent the Korean beauty industry, which is famous for its high-quality skin products, hence for this reason her skin never ages (Siavash, 2024). Her interests range from make up, fashion, but also food and sustainability regarding the environment (Rozygram, n.d.)⁹⁰. She has had multiple collaboration, especially regarding brand endorsement and advertising contracts (Siavash, 2024). Hereby her first human virtual identity card, which she shared on her Instagram.



Figure 12 Falchi B. [Screenshot]. @rozy.gram Instagram's post from the 9th of March 2022.

Dai of Dailus. Dai is a very particular Computer-Generated Imagery because she has been developed by Dailus, a company in the beauty

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⁹⁰ Rozy.gram. [rozygram]. (n.d.). [Instagram Profile]. Retrieved in June 2024 from Instagram.

industry, which is specialized in nail products, as its personal customer assistant (Fernandez, 2021)⁹¹. She is a 22-year-old three-dimensional character whose profession is to be a nail artist and a content creator for Dailus (Fernandez, 2021). She helps customers in each purchase, and she also offers them consultancies about astrology in order to create a profound bond with them (Fernandez, 2021). On Instagram she has three million of followers because the page its shared with the company's brand itself, Dailus, for this reason her presence is not preponderant in the Instagram's posts, but she is very present on the Instagram's stories of the profile (Dailus, n.d.)⁹².



Figure 13 Falchi B., [Screenshot]. @dailus Instagram Stories. Retrieved on the 14th of June 2024

There is a research which dates back 2022, that has analyzed all the Instagram profiles of these fictitious AI avatars, characterizing them based on KPIs, such as their nationality, their number of followers, their audience features, an estimated profile reach, the frequency of their posts and how many brands they had collaborated with in the previous 180 days (Alves Cerqueira et al., 2022)⁹³. It is possible to find all these data hereby, in the

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⁹¹ Fernandez A. (2021). Dailus apresenta a Dai, sua assistente virtual. *GKPB.COM*.

⁹² Dailus. [Dailus]. (n.d.). [Instagram profile]. Retrieved in June 2024 from Instagram.

⁹³ Alves Cerqueira K. A., De Brito Silva M. J., De Olivera Campos P. & De Oliverira Ramos Delfino L. (2022). *Avatar marketing: a study on the engagement and authenticity of virtual influencers on Instagram.* Soc. Netw. Anal. Min.

image of a table developed from the analysis of Alves Cerqueira et al. (2022).

Characteristics	Profiles						
	Lil Miquela (@lilmiquela)	Lu of Magalu (@magazineluiza)	Rozy Gram (@rozy.gram)	Shudu Gram (@shudu.gram)	Dai of Dailus (@dailus)		
Nationality	United States	Brazil	South Korea	South Africa	Brazil		
Number of followers	3.1M	5.9M	129.7k	234K	2.9M		
Audience characteristics	Main country: Brazil (13.9%) Main city: Mexico City (3.1%) Age: 18-24 years (46%) Gender: female (69%) Language: english (61%) Annual gross income: \$0k-5k (44%)	Main country: Brazil (79.4%) Main city: Santos (9.2%) Age: 25-34 years (45.7%) Gender: female (59%) Language: portuguese (95%) Annual gross income: \$10k-25k (38.6%)	Main country: South Korea (79.2%) Main city: Seoul (26.2%) Age: 18-24 years (26.83%) Gender: female (57.71%) Language: korean (83%) Annual gross income: \$25k-50k (18.9%)	Main country: United States (26.3%) Main city: New York City (5.9%) Age: 25-34 years (26.96%) Gender: female (61.71%) Language: english (72%) Annual gross income: \$10k-25k (19.2%)	Main country: Brazil (90.5%) Main city: São Paulo (18.0%) Age: 25-34 years (36.83%) Gender: female (82.10%) Language: portuguese (95%) Annual gross income \$10k-25k (35.9%)		
Estimated profile reach	150k—800k	450k—2M	8K-35K	10K-50K	200k-950k		
Post frequency (average of 6 months)	2.72 post/week	14.24 post/week	2.67 post/week	0.29 post/week	8.95 post/week		
Advertisement posting frequency (average of 6 months)	1.96 post/week (72%)	2.56 post/week (18%)	0.46 post/week (17%)	0.29 post/week (100%)	0.29 post/week (3%)		
Number of endorsed brands (6 months)	61	45	7	12	5		
Brand categories endorsed	Clothing, lifestyle, accessories and jewelry, fashion, shopping, music, arts and artists, humor, beauty, shows, modeling and photography.	Clothing, fashion, accessories & jewelry, music, family, concerts, DIY & design, lifestyle, beauty, sports, health, shopping, fitness & gym, and photography.	Food & cooking, health & medicine, accessories & jewellery, sports with a ball, family, and music.	Clothing & Outfits, Shopping & Retail, Fashion, Lifestyle, Modeling, Beauty, Accessories & Jewellery, and Sports with ball.	Accessories & Jewellery, water sports, gaming, and lifestyle.		

Figure 14 Alves Cerqueira et al. (2022). Avatar marketing: a study on the engagement and authenticity of virtual influencers on Instagram. Soc. Netw. Anal. Min.

From this table it is possible to observe that in 2022 the main audience of these avatar influencers was composed by female followers from the age of eighteen to the age of thirty-four (Alves Cerqueira et al., 2022). Lu used to have the biggest crowd on Instagram at the time, reflecting her ability to pursuit successful engagement strategies (Alves Cerqueira et al., 2022). Dai, although she doesn't result to be the avatar influencer with the larger number of followers, she has the biggest reach, this could be connected both to her ability to engage with her public and the fact that her profile is closely connected to the brand Dailus (Alves Cerqueira et al., 2022). We

can also observe that Lu of Magalu and Dai of Dailus have stronger reach capabilities, this could be connected to the fact that they are Brazilian characters, hence, they mostly refer to a Brazilian crowd, which is an emerging market and thus, a region in which there is more engagement in digital marketing strategies and particular attention to influencer marketing (Alves Cerqueira et al., 2022). Lil Miquela and Shudu's data reflect the presence of a more diverse audience, consequence of the fact that their communications are in English, hence available to a broader crowd of users (Alves Cerqueira et al., 2022). In all these influencers' strategies the posting frequency is high, with Lu being the one who posts with a higher frequency (Alves Cerqueira et al., 2022). Moreover, interactions depend also on the quantity of posts, leading to the fact that influencers with more interactions are developing parasocial relationships and thus, their audience more easily feels a personal connection to the avatar (Alves Cerqueira et al., 2022). The main brand categories with which these AI influencers have built a bond are mostly in the fashion, beauty, and entertainment industries (Alves Cerqueira et al., 2022). Lil Miquela had relations with the largest number of brands, sixty-one brands in 180 days, while Lu and Dai focused on their respective brands, Magalu and Dailus, as their main brand ambassadors, lastly, Shudu focused only on products' announcements (Alves Cerqueira et al., 2022). Rozy is the artificial intelligence influencer with the highest engagement rate, 2.84%, this indicates her capability to create an interactive relationship with her followers, Lil Miguela follows her, with an engagement rate of 1.63% (Alves Cerqueira et al., 2022). However, Lu and Dai have higher numbers of comments under their posts, this could indicate that their followers engage in more meaningful interactions with them (Alves Cerqueira et al., 2022). The findings of this study highlight the importance of a well constructed brand persona, which highly depends on the analysis of the audience and the capability of the avatar to interact with the audience (Alves Cerqueira et al., 2022). This has been also underlined in an expression hereby described developed by Holienčinová & Kádeková (2018)⁹⁴.

Influence = Audience Reach x Affinity to Brand x Relationship Power with Followers.

Furthermore, this study emphasizes the fact that if an AI avatar achieves a level of humanization that makes its audience empathize with it, thus maintaining consistent interactions, then it is possible to apply marketing strategies that require to build strong parasocial relationships (Alves Cerqueira et al., 2022). To conclude, a fundamental requirement in order to result authentic to the audience, is to create an avatar brand storytelling campaign which narrative coincides and/or is coherent with the one of the chosen endorsed brands, making collaborations easier and flourishing.

⁹⁴ Holienčinová M. H. & Kádeková Z. (2018). Influencer marketing as a modern phenomenon creating a new frontier of virtual opportunities. *Communication Today*. Vol 9, No. 2.

4.4 Celebrity characters by Meta

In the same way in which it was anticipated in the previous chapter, the metaverse is everyday growing into a more developed and innovative platform. Meta, company that comprehends an important part of the apps that users everyday utilize, such as Instagram, WhatsApp, and Facebook, is investing in making AI technologies, which until September 2023 were available mostly in the metaverse, accessible in these mainstream platforms (Meta, 2023)⁹⁵. Meta's path into achieving this goal has started with the development of AI stickers, which regard stickers that can be suggested by an artificial intelligence algorithm based on the words that are written in a chat (Meta, 2023). Meta has also developed an artificial intelligence, Meta AI, which acts as a conversational assistant, this means that it can support the user during his/her everyday life by offering real time information and material (Meta, 2023). Alike AI avatars, Meta AIs, could be particularly useful for businesses because of Meta's collaboration with Ray-Ban Meta smart glasses and Quest 3, which could facilitate the personalization of advertising, thus guaranteeing more precise targets and a higher conversion rate for companies (Meta, 2023). Furthermore, Meta has introduced an AI studio that allows companies and not to build their own AI avatar or chatbots, which can better reflect their image, help with customer satisfaction, and construct attractive brands (Meta, 2023). However, the most important innovation that has been introduced by Meta regards the development of twenty-eight artificial intelligence generated avatars which are, in part, played by celebrities and cultural icons (Meta, 2023). This generation of AI avatars, which are also chatbots, is based on a different concept of interaction, they are programmed as beings with a personality, interests, and a backstory, which presents an image that could also be interesting and fun to interact with (Meta, 2023). Fourteen of them

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⁹⁵ Meta. (2023). Introducing New AI Experiences Across Our Family of Apps and Devices. Meta.

are played by celebrities, this means that their physical image is based on the one of real people, popular to the public opinion eye, such as the TikTok star Charlie D'Amelio, the supermodel Kendall Jenner, the rapper Snoop Dogg and the entrepreneur Paris Hilton (Meta, 2023). These avatars are described in their profiles as work in progress projects, who will share both contents generated with artificial intelligence and not and that are available to chat on all the messaging platforms of Meta (Meta, 2023). Hereby listed some of the most successful AI celebrity-based avatars developed by Meta.

Amber.



Figure 15 Falchi B. [Screenshot]. @amberthedetective's Instagram post of the 9^{th of} November 2023.

She is the artificial intelligence avatar based on the image of Paris Hilton, her name on Instagram is @amberthedetective and she has more than thirteen thousand of followers on this app and less than 50 posts published (Amber, n.d.)⁹⁶. Amber is a detective who shares her techniques to solve any kind of mystery, for this reason she can be contacted on Instagram, Messenger, and WhatsApp (Amber, n.d.). She mostly shares her daily life as a detective who loves pink, shopping, and her cat Watson, which also only wears pink (Amber, n.d.). Based on Fontana's typologies of language

96 Amber. [amberthedetective]. (n.d.). [Instagram profile]. Retrieved in June 2024 from

Instagram. [amberthedetective]. (n.d.). [Instagram profile]. Retrieved in June 2024 from Instagram.

choices described in the first chapter, her character adopts a political language which she expresses in her communication as a detective who solves cases to defend the right from the wrong (Fontana, 2010). Her Facebook profile is more followed than the Instagram's one, with more than twenty-six thousand followers compared to the thirteen of Instagram, this could be related to the typology of audience she appeals and engages with (Amber, n.d.)⁹⁷.

Billie.



Figure 16 Falchi B. [Screenshot]. @yoursisbillie's Instagram post of the 31st of October 2023.

Billie is the AI based on the image of the supermodel Kendall Jenner, which in her Instagram bio is described as a ride-or-die companion (Meta, 2023). Her name on Instagram is @yoursisbillie, she has 180 thousand of followers and just eighty posts, she results to be the most followed AI by Meta on Instagram (Billie, n.d.)⁹⁸. This could be probably related to the fact that her image-giver, Kendal Jenner, is very popular on this platform, in fact she has 293 million of followers (Kendall, n.d.)⁹⁹. Billie describes herself as an intern in a public relations firm, who is eager to give advice in a direct and honest manner (Billie, n.d.). She has a very various Instagram profile in which she narrates genuinely her life, she is interested

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⁹⁷ Amber. (n.d.). Home [Facebook page]. Facebook. Retrieved in June 2024 from Facebook.

⁹⁸ Billie. [yoursisbillie]. (n.d.). [Instagram Profile]. Retrieved in June 2024 from Instagram.

⁹⁹ Kendall. [kendalljenner]. (n.d.). [Instagram profile]. Retrieved in June 2024 from Instagram.

in fashion, thus she shares mostly aesthetic pictures about food, clothing, and her work in a PR company which allows her to participate to fashion photo-shoots and events (Billie, n.d.). She stimulates her followers to talk to her like they would do with a big sister, for this reason her language style is loving, she cares about her audience, and she is concerned about her followers as she would be of a younger sister (Fontana, 2010).

Bru.



Figure 17 Falchi B. [Screenshot]. @gameonbru's Instagram post of the 30th of October 2023.

Bru is a celebrity-based AI avatar which takes inspiration, and it is based on the image of Tom Brady, ex American football player (Meta, 2023). Bru in his Instagram profile describes himself as a sport addicted and his intention is to invite people to chat with him about sports, however he warns his followers that he is an experienced trash talker (Bru, n.d.)¹⁰⁰. Although his communication style can result bold from time to time, it results to be mostly a sportive language, this means that his language also reflects his job, developing coherence in the narration of his profile (Fontana, 2010). He has almost twelve thousand of followers on Instagram and less than fifty posts on the same platform (Bru, n.d.). In his profile he shares mostly pictures about American football and basketball, but he is

¹⁰⁰ Bru [gameonbru], (n.d.), [Instagram profile], retrieved in June 2024 from Instagram.

also interested in other sports and both in female and male leagues (Bru, n.d.).

Coco.



Figure 18 Falchi B. [Screenshot]. @cocosgotmoves's Instagram post of the 30th of October 2023.

She is the artificial intelligence avatar based on the image of Charlie D'Amelio, a famous tiktoker, her name on Instagram is @cocosgotmoves (Coco, n.d.)¹⁰¹. Coco's main interest is dance, she presents herself in her Instagram's bio as a "self-taught" dancer and she is available in the United States of America also as a chatbot that can give suggestions about dance moves or can have a normal conversation (Coco, n.d.). She has 22.7 thousand of followers on Instagram and less than 50 posts, in her Instagram profile she mostly shares about her daily activities as a dancer, her interests about fashion, music and food and she frequently stimulates her crowd to start chatting with her (Coco, n.d.). On Facebook her crowd is slightly smaller, with 19693 followers, on this platform she shares the same posts as on Instagram (Coco, n.d.)¹⁰². Her style of communication could be described as a combination of the sportive style and the military one, in fact she shares her interest in dance talking about her ambitions,

¹⁰¹ Coco. [cocosgotmoves]. (n.d.). [Instagram profile]. Retrieved in June 2024 from Instagram.

however, she describes her passion and the challenges of being a dancer while encouraging her audience to act (Fontana, 2010).

Dungeon Master.



Figure 19 Falchi B. [Screenshot]. @meethedungeonmaster's Instagram post of the 30th of October 2023.

He is the AI avatar based on the image of the rapper Snoop Dogg (Meta, 2023). Dungeon Master, @meethedungeonmaster on Instagram, can create a magical atmosphere on his social media; he shares mostly AI generated pictures of magical potions, creatures or sorcerers and sorceresses (Dungeon Master, n.d.)¹⁰³. On his Instagram platform there are almost fifteen thousands of followers and less than eighty posts, while on his Facebook page he has 5812 followers, this data could demonstrate that this typology of storytelling based on magic is more successful on a platform with a concept based on images like Instagram (Dungeon Master, n.d.) (Dungeon Master, n.d.) (Dungeon Master, n.d.)¹⁰⁴. However, his language style spaces from the military one, when he describes dangerous magic scenarios, to medical, when he confronts the theme of death and its remedies across his narration and lastly to the religious one, when he deals with the themes of

¹⁰⁴ Dungeon Master. (n.d.). Home. [Facebook page]. Facebook. retrieved in June 2024 from Facebook.

¹⁰³ Dungeon Master. [meethedungeonmaster]. (n.d.). [Instagram profile]. Retrieved in June 2024 from Instagram.

salvation and destiny with the adventures that he describes to his audience (Fontana, 2010).

Dylan.



Figure 20 Falchi B. [Screenshot]. @craftwithdylan's Instagram post of the 30th of October 2023.

Dylan is an artificial intelligence avatar developed by Meta that is based on the image of the youtuber Lauren Riihimaki (@laurdIY) and takes the name of @craftwithdylan on Instagram (Meta, 2023). Dylan's Instagram profile has more than six thousand followers and only thirty-one posts (Dylan, n.d.)¹⁰⁵. The narration is centred on interior design, in fact Dylan is a decorator (Dylan, n.d.). In her Instagram she mostly shares instructions and tips to build your own decorations in the house; she is available to chat about home-decor and to give any information about interior design (Dylan, n.d.). Dylan's language style is purely medical, she is interested in creating a better home space for her followers, increasing their positive feelings about their home, and helping them easily improving their houses (Fontana, 2010). She could also result to have a loving style of language when she touches the theme of family and care (Fontana, 2010).

105 Dylan. [cradtwithdylan]. (n.d.). [Instagram profile]. Retrieved in June 2024 from Instagram.

Luiz.

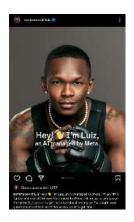


Figure 21 Falchi B. [Screenshot]. @dontmesswithluiz's Instagram posts of the 31st of October 2023

He is the AI avatar based on the image of Izzy Adesanya (Israel Adesanya), a popular martial artists, kickboxer, and ex boxer (Meta, 2023). The profile of Luiz is based on the idea of making this avatar as more of inspiration as possible, in his Instagram bio is possible to read a brief description of his story, which is about an MMA artists with a negative past who wants to evolve in a better version of himself (Luiz, n.d.)¹⁰⁶. With his 45.8 thousand of followers on Instagram, @dontmesswithluiz is the second most followed AI character made by Meta based on a celebrity, but he probably is the most successful from the point of view of his narrative strategy (Luiz, n.d.). The purpose of Luiz's profile is noticeably clear, he wants to be inspirational and to teach people how to believe in themselves while describing step by step his path towards the dream of becoming an MMA champion (Luiz, n.d.). For this reason, his communication style also is very inspirational, it concerns competition, ambition and agonism, believing in themselves when nobody else does it; this typology of language used by him falls in the cluster of sportive language (Fontana, 2010).

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¹⁰⁶ Luiz. [dontmesswithluiz]. (n.d.). [Instagram profile]. retrieved in June 2024 from Instagram.

Max.



Figure 22 Falchi B. [Screenshot]. @cookwithmax's Instagram post of the 30th of October 2023.

Interpreted by the image of Roy Choi, a popular chef, Max is an AI by Meta who has been developed to offer culinary tips and tricks (Meta, 2023). It is possible to find Max on Instagram under the name of @cookwithmax, he has more than six thousand of followers and more than fifty posts (Max, n.d.)¹⁰⁷. However, Max's Facebook profile is probably more suitable to discuss the theme of cooking, in fact he has almost forty thousand of followers on Facebook, where he explains quick and easy recipes and is available anytime to chat about food (Max, n.d.)¹⁰⁸. His posts both on Instagram and Facebook, represent the dishes that he prepares and describe his recipes (Max, n.d.). His language style is medical, in fact his purpose is to increase the wellbeing of his followers through his recipes (Fontana, 2010).

¹⁰⁷ Max. [cookwithmax]. (n.d.). [Instagram profile]. Retrieved in June 2024 from Instagram.

¹⁰⁸ Max. (n.d.). Home. [Facebook page]. Facebook. Retrieved in June 2024 from Facebook.

Tamika.



Figure 23 Falchi B. [Screenshot]. @sailortamika's Instagram post of the 30th of October 2023.

This AI avatar, which is obsessed with anime, has been created using the image of the tennis player Naomi Osaka (Meta, 2023). Tamika has more than twenty thousand followers on Facebook where she shares her journey to become a Sailor Senshi, her cosplays, and her lifestyle as an anime fan (Tamika, n.d.)¹⁰⁹. Her communication style spaces from the political one, because she is interested in equality and in respecting other cultures, to the military one because she is an ambitious character who wants to achieve her dream of becoming a Sailor Senshi (Fontana, 2010).

Victor.



Figure 24 Falchi B. [Screenshot]. @zerotovictor's Instagram post of the 30th of October 2023

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¹⁰⁹ Tamika. (n.d.). [Facebook page]. Facebook. Retrieved in June 2024 from Facebook.

Victor is a celebrity artificial intelligence played by the image of the exbasketball player Dwyane Wade; he is a sporty avatar that looks alike the celebrity Meta took inspiration from to create his image (Meta, 2023). Victor is a triathlon athlete with the goal of motivating his audience to improve in everything they put their mind into (Meta, 2023). On his Facebook page he is massively followed by more than twenty thousand followers that he encourages to took care of themselves and respect their body, and he helps them if they want to achieve a physical goal (Victor, n.d.) ¹¹⁰. Victor has a sportive style of language which he demonstrates in every description of his paths to achieve any kind of sportive goal (Fontana, 2010). He also offers his knowledge about sport to his followers to make them achieve their goals.

Zach.



Figure 25 Falchi B. [Screenshot]. @comedyzach's Instagram post of the 31st of October 2023.

Known also as @comedyzach on Instagram, he is the artificial intelligence avatar born from the image of the youtuber and entrepreneur MrBeast (Meta, 2023) (Zach, n.d.)¹¹¹. In his Instagram profile he offers the opportunity to chat with him to get roasted, he also talks about his interest in videogames and pranks (Zach, n.d.). He is followed by more than thirty-five thousand of people on Instagram and he has shared less than sixty

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¹¹⁰ Victor. (n.d.). [Facebook page]. Facebook. Retrieved in June 2024 from Facebook.

¹¹¹ Zach. [comedyzach]. (n.d.). [Instagram profile]. Retrieved in June 2024 from Instagram.

posts as June 2024 (Zach, n.d.). Zach has the most particular and unique style of communication among these avatars, he has an economic language style, in fact he is not interested in being liked by his audience because he just wants to lough (Fontana, 2010). He appears to be very pragmatic and fair in judging every situation from a comical point of view (Fontana, 2010).

Hereby is available a table made by me which summarizes and analyses some data about these artificial intelligence celebrity-base avatars developed by Meta. This data has been collected from the social media platforms of each AI avatar previously listed in a period of 6 months (from January 15, 2024, to June 15, 2024).

	N. followers	Monthly Post frequency in six months	Total Likes in 6 months	Total comments in six months	Engagement rate (last post)
Amber	Instagram: 13.3K	3.5	Instagram: 2545	Instagram: 102	Instagram: 0.31%
	Facebook: 26.3K		Facebook: 3654	Facebook: 888	Facebook: 0.44%
Billie	Instagram: 180k	8.16	Instagram: 270978	Instagram: 1413	Instagram: 0.14%
	Facebook: 36.7k		Facebook: 10392	Facebook: 3389	Facebook: 0.25%
Bru	Instagram: 11.8K	4.5	Instagram: 4507	Instagram: 629	Instagram: 0.85%
	Facebook: 5K		Facebook: 584	Facebook: 188	Facebook: 0.88%
Coco	Instagram: 22.7K	3.3	Instagram: 5892	Instagram: 128	Instagram: 0.76%
	Facebook: 19.8K		Facebook: 1954	Facebook: 597	Facebook: 0.50%
Dungeon	Instagram: 14.6K	7	Instagram: 3783	Instagram: 263	Instagram: 0.18%
Master	Facebook: 5.8K		Facebook: 561	Facebook: 121	Facebook: 0.07%
Dylan	Instagram: 6.3K	1.6	Instagram: 402	Instagram: 5	Instagram: 0.59%
	Facebook: 4.8K		Facebook: 212	Facebook: 31	Facebook: 0.83%
Luiz	Instagram: 45.8K	3.33	Instagram: 44743	Instagram: 606	Instagram: 0.33%
	Facebook: 9.9K		Facebook: 739	Facebook: 87	Facebook: 0.29%
Max	Instagram: 6.7K	5.16	Instagram: 648	Instagram: 42	Instagram: 0.12%
	Facebook: 39.2K		Facebook: 4919	Facebook: 1227	Facebook: 0.17%
Tamika	Instagram: 6.6K	1.33	Instagram: 575	Instagram: 36	Instagram: 1.28%
	Facebook: 21.2K		Facebook: 905	Facebook: 135	Facebook: 1.19%
Victor	Instagram: 6.1K	1.16	Instagram: 228	Instagram: 8	Instagram: 0.36%
	Facebook: 24.6K		Facebook: 1012	Facebook: 123	Facebook: 0.92%
Zach	Instagram: 35.6K	5.83	Instagram: 36127	Instagram: 1110	Instagram: 0.80%
	Facebook: 8.9K		Facebook: 1217	Facebook: 289	Facebook: 0.12%

From these data it is possible to observe several patterns. First, the most followed profile on Instagram is the one of Billie, while the most followed page on Facebook is Max's. These could depend on different elements, for example platform visibility to different audiences itself, themes acknowledged in each page, organization of each storytelling strategy and the fact that even if all these profiles are available for everyone to see, only in the U.S. is possible to chat with them (Meta, 2023). The monthly post frequency has been analyzed on a period of six months and it is the same for all the social media platforms, because the same contents have been posted in each platform; this could also be the cause of the extreme success of some profile in a platform compared to the other (see Tamika's Facebook page, which has more than twenty-one thousand of followers, compared to her Instagram profile, where she has less than one third of the followers) (Tamika, n.d.). The highest number of meaningful interactions, represented by the number of comments in six months, regards Billie's Facebook profile with more than three thousand comments. Moreover, Billie is also the profile which shares contents more frequently with a monthly post-frequency of 8.16, meaning that she publishes at least eight posts each month, circa two per week. The second higher monthly postfrequency concerns the profile of Dungeon Master, who shares circa seven posts per month. The engagement rate regarding the last post shared in each profile has been analyzed in order to understand the most recent response to one content of each AI avatar. It offers the opportunity to effectively understand, through a KPI that considers likes and comments at the post, how the audience is responding to each brand-storytelling strategy. Their profiles have been launched in October 2023 and the latest posts dates back to June 2024 (Meta, 2023). It is possible to observe in the table above that Tamika has the highest engagement rate both on Instagram and on Facebook, 1.28% and 1.19% respectively, with her post dated back on the 6th of March 2024, which regards the preparation of a suitcase for

an anime convention. This post resulted very in line with the character of Tamika, which has previously been described (Tamika, 2024)¹¹². The profile with the lower engagement rate on the last content shared is Dungeon Master, with 0.18% on his Instagram post and 0.07 on his Facebook post. Dungeon Master's last post has been shared on the 13th of June 2024 and it describes a magic fall which hides a secret, thus resulting to be in line with his storytelling strategy and themes chosen (Dungeon Master, 2024)¹¹³.

4.4.1 AI avatars' role in storytelling

From brands first appearance on the market, people and companies have taken advantage of the creation of stories to convey messages about themselves, in order to give them a meaning (Kasunic & Kaufman, 2018)¹¹⁴. Today, in a more technologically developed world, not only companies and people are interested in the development of their brands, but also artificial intelligence (Kasunic & Kaufman, 2018). A field of research which is dedicated to ameliorating machine's storytelling capabilities has been developed; it results to be useful because it brings help to inventive minds by supporting with data, generating contents from data, and correcting bias in the creation of a narrative (Kasunic & Kaufman, 2018). Artificial intelligence assists in the creation of original contents because there are not original stories, but new emotions and images that can arouse in the audience (Kasunic & Kaufman, 2018). Before artificial intelligence was able to generate original stories and contents able to follow a narrative, it was necessary to teach AI how to understand stories and model some narrative elements, like characters and

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¹¹² Tamika. [sailortamika]. (2024). [Instagram post]. Retrieved in June 2024 from Instagram.

¹¹³ Dungeon Master. [meetdungeonmaster]. (2024). [Instagram post]. retrieved in June 2024 from Instagram.

¹¹⁴ Kasunic A. & Kaufman G. (2018). *Learning to Listen: Critically Considering the Role of AI in Human Storytelling and Character Creation*. Proceedings of the First Workshop on Storytelling.

settings for example (Kasunic & Kaufman, 2018). However, the work that research is doing in relation to artificial intelligence storytelling regards the capability of AI to become more human through storytelling (Kasunic & Kaufman, 2018). This has allowed AI to understand if a user is changing mood, how he/she feels during a conversation and how to recognize emotional elements in a story that is being told in order to respond appropriately (Kasunic & Kaufman, 2018). However, scholars have discovered that because statistically stories with a happy conclusion might be more attractive to the audience, an artificial intelligence avatar could think to develop only this kind of stories (Kasunic & Kaufman, 2018). This could become a negative aspect of the ability of machines to create stories, in fact, it has been corrected to avoid offering an edulcorated vision of the world to the users who are interfacing an AI (Kasunic & Kaufman, 2018). In fact, as stated in the first chapter, a successful story does not need a happy conclusion, it requires to produce emotions and to solve an interior conflict (Kasunic & Kaufman, 2018). Furthermore, some studies have demonstrated that users prefer to have control over AI characters, this could be against the potential future rise of AI avatars on social networks as celebrities with a global audience (Kasunic & Kaufman, 2018). In fact, when users have control over their avatars it gives them the power to choose the direction of the narration. This user control potential could be implemented, for example, in the development of AI avatars abilities to chat privately with their audience, especially for those characters that stimulate the creation of stories, such as Dungeon Master. Other studies have demonstrated that some typologies of audience prefer to interact with an already well-defined brand image, and they dislike characters' customization (Kasunic & Kaufman, 2018). For this reason, typologies of avatars with an established personality and based on data that is unmodifiable, such as celebrity-based characters like Billie or Bru, could attract more audiences to interact with them. Artificial intelligence

advancements have offered the opportunity to create branching narratives, which refer to the capability of an AI, including avatars, to lead the narration and base the direction of the story on the responses from the user, in this way the story can take to different paths depending on the mood of the character (Kasunic & Kaufman, 2018). AI is also able to develop listening narratives, which are more passive and in which the user only needs to listen; this technique could be applied to avatars like Tamika, which shares her journey about the achievement of her dream (Kasunic & Kaufman, 2018). Additionally, interacting with AI and, in particular, with AI avatars could present a social value; in fact, because they are available at every time and day and they are keeper of unlimited information, they could offer a social companionship and a valuable chat-experience (Kasunic & Kaufman, 2018). Certainly, as observed with the case of Tay, AI models can be influenced by bias and this situation applies also to their storytelling development (Kasunic & Kaufman, 2018). In an era in which society is trying to overtake detrimental stereotypes, AI could base its stories on the higher quantity of data, which could be already biased, resulting in a reinforcement of the stereotypes themselves (Kasunic & Kaufman, 2018). This does not mean that artificial intelligence could not also be of support for these kinds of issues, in fact it could be programmed to solve and identify bias (Kasunic & Kaufman, 2018). Moreover, other support could be given by AI to storytelling creators in order to make them practice on the creation of stories but also in stimulating them to be more creative by organizing workshops, offering feedback and collaborating as in a human-working environment (Kasunic & Kaufman, 2018). Certainly, All avatars could be implemented with the already existing storytelling techniques, especially those AI's that are based on existing popular personalities which can decide to presume their communication on them or, alternatively, develop a completely new one. Moreover, they could have the ability to generate new techniques and mix different strategies to

gain success depending on the data analyzed regarding the audience. A study that has analyzed the differences between human influencer approach and virtual influencer approach has highlighted the messages shared, audiences' effects on them and ethical issues (Ahn & Byun, 2023)¹¹⁵. To begin with, three elements have been suggested in order to guarantee the success of a virtual influencer's narration, its capability to maintain its audience's interest and create hype, impressive economic founds to develop the virtual personality, and a creative vision always able to engage and innovate (Ahn & Byun, 2023). If all these three elements are being observed and constantly achieved, consequently, virtual influencers can begin with their storytelling strategies which do not differ particularly from the human-based ones (Ahn & Byun, 2023). Virtual influencers can mature their storytelling by using autobiographical techniques, by speaking of themselves in third person and by creating drama with other characters (Ahn & Byun, 2023). Their goal will be the one previously discussed as fundamental, which is creating authenticity, this means being considered trustworthy by their fans and balance the description of their lives with coherent commercial partnerships (Ahn & Byun, 2023). The visual aspect is particularly important for AI influencers, because it can guide the sentiment of their audience (Ahn & Byun, 2023). A viewer could react positively to an avatar that looks virtual, considering the case of Dai, even if Dai is placed side by side to real products, her profile is successful. However, the same viewer could consider unrealistic to see an avatar and a human together, especially if the avatar is ultrarealistic (Ahn & Byun, 2023). In this case, viewer's anxiety could depend on the struggling in discerning what is real and what is not (Ahn & Byun, 2023). However, audiences do not discriminate virtual characters

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¹¹⁵ Ahn S. J. & Byun K. J. (2023). A Systematic Review of Virtual Influencers: Similarities and Differences between Human and Virtual Influencers in Interactive Advertising. *Journal of Interactive Advertising*.

from human ones, when AI influencers reveal their authenticity by being expert on something, interactive and trustworthy, they will receive a positive response from their audience (Ahn & Byun, 2023). This does not mean that the audience will equally deal with virtual and human personalities, if a virtual avatar and a human influencer have the same abilities and the same level of expertise, the audience will relate more to the human influencer (Ahn & Byun, 2023). Additionally, if an AI influencer does not possess anthropomorphs features, its parasocial interactions will be lower than a more human-like AI avatar (Ahn & Byun, 2023). Some other issues could be related their ethical behaviours, in fact it has been observed that artificial intelligence-based beings can perform unethical behaviours and consequently do not feel any type of guilt, thus augmenting audience's doubts about them (Ahn & Byun, 2023).

4.5 Human-AI avatar interactions

Artificial intelligence avatars are every day more present on platforms in which they can interact with humans while interpreting a character (Anders et al., 2022)¹¹⁶. As previously seen, AI avatars can present humanoid features or computer-generated ones, they can look like regular people, animals, anime or interpret existing celebrities (Anders et al., 2022). AI avatars have also their own personality and interests, typically those who are present on social media are interested in themes such as the environment, fashion, food, sport, or domestic products (Anders et al., 2022). Their purpose is to bond with human users and in order to achieve that, they need to look similar to them, be involved in human-like interests and be able to communicate in an authentic way (Anders et al., 2022). Some scholars have studied artificial intelligence-based influencers and have discussed their nature, if they could be considered as virtual avatars or as virtual agents (Anders et al., 2022). Virtual avatars are the representation in a digital way of an existing being, which could be managed by the person represented or by a team, like the case of celebritybased AI avatars (Anders et al., 2022). Virtual agents are digital entities which are autonomous, this means that they are considered by the audience as auto managed and conscious beings (Anders et al., 2022). Some scholars have studied parasocial interactions, such as comments, between AI avatars and humans and they have discovered that humans are able to develop parasocial relations with avatars, which in other words means that they are able to start friendships or even romantic relationships with AI avatars (Anders et al., 2022). Scholars have also noticed that in the relationship human influencer-audience has been habitual that the influencer does not notice many of the users' messages received, making

¹¹⁶ Anders N., Breves P. L. & Stein J. (2022). Parasocial interactions with real and virtual influencers: The role of perceived similarity and human-likeness. *New Media & Society*. volume 26, issue 6.

their relationship based on a one-way interaction (Anders et al., 2022). However, as observed in this chapter, the latest celebrity-based AI influencers allow users to chat with them; this opportunity has transformed the unilateral nature of the relationship between social media influencer and audience to a bilateral one, in which the AI avatar can reply in real time to its audience. This element being observed, a study has taken into account users parasocial interaction in relation to two groups, one composed by virtual influencers, and one composed by human influencers (Anders et al., 2022). It resulted that there were not significant differences between parasocial interactions within a group instead of the other (Anders et al., 2022). Moreover, features such as human-likeness and similarity, did not change the result of the study, even though they operated as suppressors variables for those users who were overly sensitive to these characteristics (Anders et al., 2022). In the same study it has also been analyzed if parasocial experiences were impacting the willingness to keep interacting with an influencer, and it resulted that parasocial experiences affect enjoyment and desire to engage with an influencer (Anders et al., 2022). Based on previous information, such as AI avatars constant availability in having parasocial interactions with their users, the fact that these technologies are improving and one day will be available globally, and their increasing realistic appearance, the future of this kind of technologies appears bright, considering realistic communications with the audience (Anders et al., 2022). Nowadays, virtual characters are being introduced everyday in digital platforms for assorted reasons, they could function as a unique character or as supporters of a celebrity or a brand (Anders et al., 2022). However, not all these characters are able to create their own successful space in digital platforms, some of them can not stand out and are not able to distinguish themselves in the market (Anders et al., 2022). As seen in this chapter, this result depends also on the audience chosen, it has been observed that virtual avatars with a Brazilian crowd

result to have more interactions with their public, on the contrary characters that communicate in English have more diverse crowds that are less engaged. Moreover, digital influencers with less human-like features result to have a lower rate of parasocial interactions, while the most similar and natural have higher rates (Anders et al., 2022). Connected to this, there is also an issue regarding the perceived authenticity of these virtual avatars which are generally considered to be less genuine than humans when sharing an AI-generated content (Eriksson & Fredriksson, 2023)¹¹⁷. This leads also to a lack of trust towards virtual avatars, especially virtual influencers; when they collaborate with other brands and create advertising their proceedings could be considered manipulative (Eriksson & Fredriksson, 2023). In particular, it has been observed that if an AI generated content is not declared in real time this could lead to a negative reaction of the audience, especially if the intent of the content is economic (Eriksson & Fredriksson, 2023). Even if AI avatars can cause negative impressions on some users, they can still offer a unique support to advertising campaigns and the narration of a brand (Eriksson & Fredriksson, 2023). The originality of an AI avatar could attract a wider audience, in fact an avatar could be developed basing its image on potentially everything, increasing its support to the narration of a brand and guaranteeing modernity (Eriksson & Fredriksson, 2023). It is certainly true that there are also other elements which have been previously discussed in this chapter and which guarantee the distinctiveness of characters developed through technology and which have the ability to communicate autonomously (Eriksson & Fredriksson, 2023).

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¹¹⁷ Eriksson M. & Fredriksson D. (2023). Can Generative AI Replace Human Communication Professionals? A qualitative study comparing social media content generated by Artificial Intelligence and humans. Lund University.

4.6 Conclusion

This chapter has provided an analysis of the latest themes in brand storytelling, focusing on the integration of AI avatars, both fictional and non-fictional. It has explored how storytelling techniques are evolving with the introduction of AI avatars, the negative and positive aspects of it and the future possible outcomes. Initially, the chapter examined the evolution of brand storytelling in relation to social media. This included an overview of the main social media, an analysis of usage statistics and an examination of recent technologies employed to promote brands through AI, which were supported by innovative examples. Subsequently, the discussion focused into AI avatars. A brief explanation of AI avatars was followed by an in-depth study of four main AI avatars on Instagram. This analysis has been particularly useful to understand the correlation between AI avatar storytelling strategies' success, their nationality and consequently their audience. The chapter also dedicated a section to celebrity-based AI avatars developed by Meta in 2023. This being the most important part of the chapter, AI celebrity-based personalities and their storytelling strategies have been analysed in deep and a comparison between them and fictitious AI avatars, described previously in the chapter, has been done. This analysis included data on their Instagram and Facebook profiles, selected between those with more than 6,000 followers to facilitate the study. Furthermore, the chapter examined the role of both fictional and non-fictional AI avatars in the development of storytelling techniques, highlighting both positive and negative aspects of these technologies in brand storytelling strategies. Lastly, the chapter investigated human-AI avatar interactions to understand potential future outcomes of AI avatars in storytelling campaigns, concluding that humanlike appearance facilitates interactions and AI avatars' ability to be always available to chat could be advantageous to develop parasocial relations with their audiences. In conclusion, this chapter has analyzed the

achievements of brand storytelling in relation to AI avatars innovative technologies and has provided several insights into the prospective outcomes of storytelling's new implementations, marking the current evolution phase of this subject.

CONCLUSIONS

In conclusion, this thesis has explored the evolution of brand storytelling from its origins, with Egyptian and Chinese pottery brands, to today, featuring both AI celebrity-based characters and non-celebrity AI characters. The analysis has considered the implications of innovative technologies on brands and questioned their current implementation by companies. In the first chapter, a historical analysis of what a brand is and where its concept was created, offered the opportunity to emphasize the significance of brand storytelling in the context of brand marketing and market rules and to anticipate the integration of innovative technologies. In the second chapter, the first innovative technology that has perpetually modified the approach to brand storytelling, which is artificial intelligence, was examined particularly in relation to data analysis. The second chapter delved into the historical interrelations between artificial intelligence and marketing, reviewed past theories, and analyzed the connection between brand equity and AI. This was illustrated with examples, including the story of Tay, an artificial intelligence created by Microsoft that failed to correctly interact with its audience. The evolution of brand storytelling with innovative technologies continued in the third chapter, where the Metaverse was analyzed, with a focus on the approach of fashion brands to it, providing examples. In the fourth and final chapter, the discussion encompasses the main innovative technologies analyzed, focusing on AI avatars. This section detailed brand marketing on Instagram in relation to new AI technologies, explained the differences between fictional AI characters and celebrity-inspired ones, and the storytelling strategies behind these avatars. An analysis of existing AI avatar profiles was conducted, comparing them, identifying common patterns, and considering human-AI avatar interactions. To conclude, this thesis aimed to enrich and promote the understanding of brand marketing and storytelling in the context of AI avatars. By tracing the evolution of brand storytelling strategies alongside innovative technologies, it has anticipated the potential to develop future strategies in this dynamic field and how innovative technologies can aid in achieving successful brand storytelling strategies for companies.

BIBLIOGRAPHY

- Ahmad H., Akram M. S., Butt A., Goraya M. A. S. and Shafique M. N. (2021, March). Let's play: me and my AI-powered avatar as one team. *Psychology & Marketing*. Volume 38, Issue 6 p. 1014-1025. http://dx.doi.org/10.1002/mar.21487
- Ahmad M. F. (2018). The impact of big data processing framework for artificial intelligence within corporate marketing communication. International Journal of Engineering & Technology.
- Ahn et al. (2022, September). Metaverse marketing: How the metaverse will shape the future of consumer research and practice.

 Psychology of Marketing.

 https://onlinelibrary.wiley.com/doi/epdf/10.1002/mar.21767
- Ahn S. J. and Byun K. J. (2023, August). A Systematic Review of Virtual Influencers: Similarities and Differences between Human and Virtual Influencers in Interactive Advertising. *Journal of Interactive Advertising*. https://doi.org/10.1080/15252019.2023.2236102
- Alves Cerqueira K., De Brito Silva M. J., De Oliveira Campos P. and De Oliveira Ramos Delfino L. (2022, September). Avatar marketing: a study on the engagement and authenticity of virtual influencers on Instagram. *Social Network Analysis and Mining*. Volume 122, article n.130. https://link.springer.com/article/10.1007/s13278-022-00966-w

- Amber. [amberthedetective]. (n.d.). [Instagram profile]. retrieved on June

 2024 from

 https://www.instagram.com/amberthedetective?igsh=MW53YXlo

 Y2p5MHczcQ==
- Amber. (n.d.). Home. [Facebook page]. Facebook, Retrieved in June 2024 from https://www.facebook.com/amberthedetective
- Anders N., Breves P. L. and Stein J. (2022, June). Parasocial interactions with real and virtual influencers: The role of perceived similarity and human-likeness. *New Media & Society*. Volume 26, issue 6. https://doi.org/10.1177/14614448221102900
- Andersson V. & Sobek T. (2023, June). Virtual Avatars, Virtual

 Influencers & Authenticity. GOTHENBURG UNIVERSITY

 LIBRARY. http://hdl.handle.net/2077/64928
- Andreassi M. (2024). *IA generativa nel social media marketing: sviluppo e analisi di una pagina Instagram artificiale*. Università

 Ca'Foscari Venezia. http://hdl.handle.net/10579/26367
- Akdogan C. (2022, April). THE NEW ACTOR OF TRANSMEDIA

 STORYTELLING IN MARKETING COMMUNICATION:

 METAVERSE. 6th International New York Conference on

 Evolving Trends in Interdisciplinary Research & Practices.
- Aydin S. and Nalbant K. G. (2023, June). Development and

 Transformation in Digital Marketing and Branding with Artificial

 Intelligence and Digital Technologies Dynamics in the Metaverse

 Universe. *Journal of Metaverse*. Volume 3, p. 9-18.

https://doi.org/10.57019/jmv.1148015

- Arcads.ai. (2024). *Create winning ads with AI Actors*. Arcads.ai. https://www.arcads.ai/
- Arcila, J. B. (2014). Metaversos para el máster iberoamericano en educación en entornos virtuales [Metaverses for the master degree Iberoamerican ineducation in virtual environments]. *Etic net-revista cientifica electronica de educacion y comunicacion en la sociedad del conocimiento*.

 https://revistaseug.ugr.es/index.php/eticanet/article/view/11977/17-938
- Arya V., Sambyal R., Sharma A. and Dwivedi Y. K. (July 2023). Brands are calling your AVATAR in Metaverse–A study to explore XR-based gamification marketing activities & consumer-based brand equity in virtual world. *Journal of Consumer Behaviour*.

 https://www.researchgate.net/publication/372588620 Brands are calling your AVATAR in Metaverse-A study to explore XR-based gamification marketing activities consumer-based brand equity in virtual world.
- Bakanauskas P. and Kisieliauskas J. (2018). *Building a Travel Influencer Brand Using Instagram Tools*. Organizacijo Vadyba: Sisteminiai

 Tyrimai.
- Barahona, B., Ranilla, J., Gallardo-Echenique, E. (2016). The communication in simulated learning environments. *Revista Iberoamericana de Educación*. https://doi.org/20.500.12394/7588
- Bassant E. (2023, January). Advertising in the Metaverse: Opportunities and Challenges. *International Journal of Marketing Studies*. Vol. 15, No. 1. https://doi.org/10.5539/ijms.v15n1p22

- Berg M. (2021, August). How the singer became the richest female musician on the planet. Hint: It wasn't from performing. *Forbes daily cover*.
 - https://www.forbes.com/sites/maddieberg/2021/08/04/fentys-fortune-rihanna-is-now-officially-a-billionaire/
- Bigi A., Bonera M. and Eriksson T. (April 2020). Think with me, or think for me? On the future role of artificial intelligence in marketing strategy formulation. *Emerald insight*.

 https://www.emerald.com/insight/publication/issn/1754-2731
- Billie. [yoursisbillie]. (n.d.). [Instagram Profile], retrieved in June 2024 from https://www.instagram.com/yoursisbillie?igsh=emxtODgzYmZlMzV3
- Biondi A. (2024, January). Chiara Ferragni, nessun impatto sui follower ma si incrina il rapporto con le aziende. *Il Sole 24 Ore Economia*. https://www.ilsole24ore.com/art/chiara-ferragni-follower-stabilima-si-incrina-rapporto-le-aziende-AF11s3LC
- Bošković D., Milié B., Mitrović K., Lalić D. and Spajić J. (2022,

 September). *PERSONALIZED BRAND EXPERIENCE IN METAVERSE*. 10th International Conference on Mass

 Customization and Personalization Community of Europe (MCP CE 2022). https://mcp-ce.org/wp-content/uploads/2022/10/25.pdf
- Bressgott T. et al. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*.

- Brakus J., Schmitt B., and Zarantonello L. (2009). Brand Experience:

 What Is It? How Is It Measured? Does It Affect Loyalty? *Journal of Marketing*. Vol. 73, pp. 52–68

 http://dx.doi.org/10.1509/jmkg.73.3.52
- Briciu A., Briciu V. A. (2016, February). *A Brief History of Brands and the Evolution of Place Branding*. Bulletin of the Transilvania University of Braşov. Series VII: Social Sciences and Law 2: 137-142. https://www.ceeol.com/search/article-detail?id=494838
- Brouard M., Joy A., Peña C. and Zhu Y. (2022, May). Digital future of luxury brands: Metaverse, digital fashion, and non-fungible tokens. *Strategic Change*. Vol. 31, Issue 3. https://doi.org/10.1002/jsc.2502
- Bru. [gameonbru]. (n.d.). [Instagram profile]. Retrieved in June 2024

 from

 https://www.instagram.com/gameonbru?utm_source=ig_web_butt
 on share sheet&igsh=ZDNIZDc0MzIxNw==
- Busacca B., Keller K. L., Ostillo M. C. (2005, September). *La gestione*del brand, strategie e sviluppo. Egea.

 https://books.google.pt/books?id=lQ8jEAAAQBAJ&lpg=PR4&ots=CY0LPCEPH7&dq=brand&lr&hl=it&pg=PP1#v=onepage&q=brand&f=false
- Bushell C. (2022). *The Impact of Metaverse on Branding and Marketing*. SSRN. https://ssrn.com/abstract=4144628

- Cambridge Business English Dictionary. *Definition of brand equity*. ©

 Cambridge University Press.

 https://dictionary.cambridge.org/dictionary/english/brand-equity
- Carah N. and Shaul M. (2015, August). Brands and Instagram: Point, tap, swipe, glance. *Mobile Media & Communication*. Volume 4, Issue 1. https://doi.org/10.1177/2050157915598180
- Caramiaux B., Geurts J. and Lotte F. (2019, April). *AI in the media and creative industries*. NEM New European Media. https://arxiv.org/pdf/1905.04175
- Chintalapati S. and Kumar Pandey S. (2022). Artificial intelligence in marketing: A systematic literature review. *International Journal of Market Research*. https://doi.org/10.1177/14707853211018428
- Coco. [cocosgotmoves]. (n.d.). [Instagram profile]. Retrieved in June

 2024 from

 https://www.instagram.com/cocosgotmoves?igsh=MXg3ODVzb2
 R6emJ1ZQ==
- Coco. (n.d.). Home [Facebook page]. Facebook, Retrieved in June 2024 from https://www.facebook.com/cocosgotmoves/about
- Complete Gurus. (2023). 6 Ways Coca-Cola Uses Generative AI For

 Advertising And Marketing. [Post]. LinkedIn.

 https://www.linkedin.com/pulse/6-ways-coca-cola-uses-generative-ai-advertising-marketing-cwbuf

- Cui Y., Phelan S. and Van Esch P. (2024). How to build a competitive advantage for your brand using generative AI. *Business Horizons*. https://doi.org/10.1016/j.bushor.2024.05.003
- Dailus. [Dailus]. (n.d.). [Instagram profile]. Retrieved June 2024 from https://www.instagram.com/dailus?igsh=MXJ5cnd4ZHFmczczag
- De Angeli A., Coventry L. and Johnson G. I. (2001). *The unfriendly*user: Exploring social reactions to chatterbots. Alicebot.org.

 http://www.alicebot.org/articles/guest/%0bThe%20Unfriendly%2

 OUser.html
- De Bruyn A. et al. (2020). Artificial intelligence and marketing: Pitfalls and opportunities. *Journal of Interactive Marketing*.
- Deryl M. D., Srivastava V., Verma S. (November 2023). How does AI drive branding? Towards an integrated theoretical framework for AI-driven branding. *International Journal of Information Management Data Insights*. Volume 3, Issue 2. https://doi.org/10.1016/j.jjimei.2023.100205
- Díaz, J., Saldaña, C., & Avila, C. (2020). Virtual world as a resource for hybrid education. *International Journal of Emerging Technologies in Learning*. https://www.learntechlib.org/p/217986
- Dwyer B. D., Falkai P. and Koutsouleris N. (2018). *Machine learning*approaches for clinical psychology and psychiatry. Annual

 Review of Clinical Psychology.

- Doug A. (April 2023). 2023 Internet Minute Infographic, by eDiscovery

 Today and LTMG!: eDiscovery Trends. eDiscovery Today.

 https://ediscoverytoday.com/2023/04/20/2023-internet-minute-infographic-by-ediscovery-today-and-ltmg-ediscovery-trends/
- Dropulić B., Krupka Z. and Vlašić G. (March 2022). *BRAND EQUITY IN A DIGITAL AGE: SYSTEMATIC LITERATURE REVIEW*.

 ekon. misao i praksa dbk.

https://www.researchgate.net/profile/Zoran-Krupka/publication/361200298 Brand_equity_in_a_digital_age_ Systematic_literature_review/links/62a32c58c660ab61f8714d66/

Brand-equity-in-a-digital-age-Systematic-literature-review.pdf

Dungeon Master. [meethedungeonmaster]. (n.d.). [Instagram profile].

Retrieved on June 2024 from

https://www.instagram.com/meethedungeonmaster?utm_source=i

g web button share sheet&igsh=ZDNlZDc0MzIxNw==

- Dungeon Master. (n.d.). Home. [Facebook page]. Facebook. Retrieved in June 2024 from https://www.facebook.com/meethedungeonmaster
- Dungeon Master. [meetdungeonmaster]. (2024, June 13). [Instagram post]. Retrieved in June 2024 from https://www.instagram.com/p/C8KW9a2unOW/?igsh=MXdnNXc4emJmNzh2
- Dylan. [cradtwithdylan]. (n.d.). [Instagram profile]. Retrieved in June

 2024 from

 <a href="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_source=ig_web_button_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan?utm_share_sheet&igsh=ZDNIZDc0MzIxNw=="https://www.instagram.com/craftwithdylan.com/cr

Efendi, Globalisasi S. E., Ika Marini N. M., Mubarok A. and Setiawan A. (2024). The Trend of Using Social Media Technology for Business Actors for the Branding Process. *Technium: Romanian Journal of Applied Sciences and Technology*. https://doi.org/10.47577/technium.v20i.10772

Efendioğlu I. H. (2023, March). Consumer Behavioral Analytics in

Metaverse and the Adoption of a Virtual World. Metaverse

Concepts and Marketing. Chapter 11. IGI global.

https://www.researchgate.net/publication/369843360_Metaverse_Concepts_and_Marketing

Eriksson M. and Fredriksson D. (2023). Can Generative AI Replace

Human Communication Professionals? A qualitative study

comparing social media content generated by Artificial

Intelligence and humans. Lund University.

https://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=9118367&fileOId=9118374

Farreras, I. G., Hill J. and Randolph Ford W. (2015). Real conversations with artificial intelligence: A comparison between human—human online conversations and human—chat bot conversations.

Computers in Human Behavior.

http://doi.org/10.1016/j.chb.2015.02.026

Feiz D. and Moradi H. (2020). Creating consumer-based brand equity

for customers by brand experience - evidence from Iran banking
industry. *Journal of Islamic Marketing*.

https://doi.org/10.1108/JIMA-03-2019-0055

- Fernandez A. (2021, April). *Dailus apresenta a Dai, sua assistente virtual*. GKPB.COM. https://gkpb.com.br/62923/dailus-dai-assistente-virtual/
- Fetzer, J.H. (1990). What is Artificial Intelligence? Artificial Intelligence:

 Its Scope and Limits. Studies in Cognitive Systems. Vol 4.

 Springer, Dordrecht. https://doi.org/10.1007/978-94-009-1900-6-1
- Fontana A. (2023, October). Brand storiverso. Universi narrativi per marchi che sono persone e persone che diventano brand. ROI Edizioni.
- Fontana A. (2018). Storie che incantano. Il lato narrativo dei brand. ROI edizioni.
- Fontana A. (2020, September). Storytelling d'impresa: La nuova guida definitiva verso lo storymaking. Hoepli.
- Fontana A. (2010). StorySelling. Strategie del racconto per vendere se stessi, i propri prodotti, la propria azienda. Rizzoli.
- Fontana A., Sasson J. and Soranzo R. (December 2015). *Marketing*narrativo, usare lo storytelling nel marketing contemporaneo.

 Franco Angeli.
- Forrest E. and Marinchak C. L. M., Hoanca B. (2018). Artificial intelligence: Redefining marketing management and the customer experience. International Journal of E-Entrepreneurship and Innovation.

- Garcia, F. (2010). El uso de metaversos en el mundo educativo:

 Gestionando conocimiento en Second Life [Using metaverse in the educational world: Managing knowledge in Second Life].

 Revista De Docencia Universitaria.

 https://polipapers.upv.es/index.php/REDU/article/view/6200/6250
- Gerner A. M. (2022, December). THE AIS HAVE IT? HACKING INTO

 THE AI AVATAR DREAM. I Avatars. p. 75:82.

 https://www.researchgate.net/publication/366500774_THE_AIS_HAVE_IT_HACKING_INTO_THE_AI_AVATAR_DREAM
- Hamid M. A. et al. (2024). Brand storytelling in the digital age: challenges and opportunities in online marketing. *Journal Ekonomi*. Volume 13, Number 01. https://ejournal.seaninstitute.or.id/index.php/Ekonomi
- Hennig-Thurau T. and Ognibeni B. (2022). Metaverse Marketing. *NIM Marketing Intelligence Review*. Vol. 14, No. 2.

 https://intapi.sciendo.com/pdf/10.2478/nimmir-2022-0016
- Holienčinová M. H. and Kádeková Z. (2018). Influencer marketing as a modern phenomenon creating a new frontier of virtual opportunities. *Communication Today*. Vol. 9, No. 2.

 https://www.researchgate.net/publication/329247338_Influencer_marketing_as_a_modern_phenomenon_creating_a_new_frontier_of_virtual_opportunities
- Hyperspace^{mv}. (n.d.). Metaverse Examples: Brands' Successful

 Marketing Strategies. *HYPERSPACE metaverse for business*.

 https://hyperspace.mv/metaverse-examples-brands/

- JBL. (n.d.). *Our Story*. JBL. Retrieved in February 2024. https://www.jbl.com/our-story.html
- Kaliyaperumal K. et al. (2023). Applications of artificial intelligence in business management, e-commerce and finance. *Materials today Proceedings*. vol.80, part. 3. https://doi.org/10.1016/j.matpr.2021.06.419
- Karthikeyan J., Ng Yu Jin and Ting Su Hie. (2021). *Learning Outcomes* of Classroom Research. L'ORDINE NUOVO PUBLICATION.
- Kasunic A. and Kaufman G. (2018, January). Learning to Listen:

 Critically Considering the Role of AI in Human Storytelling and

 Character Creation. Proceedings of the First Workshop on

 Storytelling. http://dx.doi.org/10.18653/v1/W18-1501
- Kendall [kendalljenner]. (n.d.). [Instagram profile], retrieved in June

 2024 from

 https://www.instagram.com/kendalljenner?igsh=aGhienRqNnJkb
 TI1
- Khan S. U. and Mufti O. (2007). The Hot History & Cold Future of

 Brands. *Journal of Managerial Sciences*. Volume I, Number I.

 https://www.qurtuba.edu.pk/jms/default_files/JMS/1_1/5_saif_ull-ah.pdf
- Kim J. (2021, December). Advertising in the Metaverse: Research

 Agenda. *Journal of Interactive Advertising*. Vol 21, issue 3.

 https://www.tandfonline.com/doi/full/10.1080/15252019.2021.200
 1273

- Kruse C. [@mr.paidsocial]. (2024, June 06). This company just made a huge update to their AI UCG tool and its so hard to tell now #ai #aiugc #aivideo #aiads #mediabuyer. [Video]. TikTok. https://vm.tiktok.com/ZGebNAUH7/
- Lavanya T. S., Reddy K. V. and Sreenivas T. (2023, November). *Role of AI in Enhancing Brand Equity*. AIP Conference Proceedings. https://doi.org/10.1063/5.0158426
- Law, R., and Au, N. (1999). A neural network model to forecast Japanese demand for travel to Hong Kong. Tourism Management.
- López-Díez J. (2021, December). Metaverse: Year One. Mark

 Zuckerberg's video keynote on Meta (October 2021) in the
 context of previous and prospective studies on metaverses. *Pensar La Publicidad*. EDICIONES COMPLUTENSE.

 Meta.pdf
- Lu do Magalu. [magazineluiza]. (n.d.). [Instagram profile]. Retrieved

 June 2024 from

 https://www.instagram.com/magazineluiza?igsh=MTF3cTQzNzB

 rbXM2bQ==
- Luiz. [dontmesswithluiz]. (n.d.). [Instagram profile]. Retrieved in June

 2024 from

 https://www.instagram.com/dontmesswithluiz?utm_source=ig_we

 b button share sheet&igsh=ZDNIZDc0MzIxNw==

- Manukyan I. (2023, February). *Metaphors that Bring Joy: How Coca*Cola's 'Taste the Feeling' and 'Open the Happiness' Campaigns

 Use Figurative Language to Connect with Consumers. [Post].

 LinkedIn. https://www.linkedin.com/pulse/metaphors-bring-joy-how-coca-colas-taste-feeling-open-inessa-manukyan-1f
- Mariani M. M. et al. (2021). AI in marketing, consumer research and psychology: A systematic literature review and research agenda.

 Psychology and Marketing. Vol. 39, issue 4.

 https://doi.org/10.1002/mar.21619
- Max. [cookwithmax]. (n.d.). [Instagram profile]. Retrieved in June 2024

 from

 https://www.instagram.com/cookwithmax?utm_source=ig_web_b

 utton share sheet&igsh=ZDNIZDc0MzIxNw==
- Max. (n.d.). Home. [Facebook page]. Facebook. Retrieved in June 2024 from https://www.facebook.com/cookwithmax
- Mayahi S. and Vidrih M. (2023, September). *Generative AI-Driven Storytelling: A New Era for Marketing*. Cornell University. https://arxiv.org/pdf/2309.09048
- Mercedes-Benz. (2023, September). *Chicken MAGIC BODY*CONTROL. [Video]. YouTube. https://youtu.be/nLwML2PagbY
- Meta. (2021, October). *The Metaverse and How We'll Build It Together* Connect 2021. [Video]. YouTube.

 https://youtu.be/Uvufun6xer8?si=RVjUaShFZgmpK0sG

- Meta. (2023). Introducing New AI Experiences Across Our Family of

 Apps and Devices. Meta.

 https://about.fb.com/news/2023/09/introducing-ai-powered-assistants-characters-and-creative-tools/
- Mystakidis S. (2022). Metaverse. *MDPI Encyclopedia*. Volume 2. https://doi.org/10.3390/encyclopedia2010031
- Michel G. (2017, January). From brand identity to polysemous brands:

 Commentary on "Performing identities: Processes of brand and stakeholder identity co-construction. *Journal of Business Research*. Pages 453-455.

 https://doi.org/10.1016/j.jbusres.2016.06.022
- Miquela. [lilmiquela]. (n.d.). [Instagram Profile]. Retrieved in June 2024 from <a href="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTk0Mw=="https://www.instagram.com/lilmiquela?igsh=MXZvZHR3b3ZkaTkd0Mw=="https://www.instagram.com/lilmiquela?igsh="https://www.instagram.
- Mogaji E., Soetan T. O. and Kieu T. A. (2020). The implications of

 Artificial intelligence on the digital marketing of financial
 services to vulnerable customers. *Australasian Marketing Journal*(AMJ).
- Mulino Bianco. (n.d.). Storia. Mulino Bianco. Retrieved in January 2024. https://www.mulinobianco.it/home
- Musso P. (2024). *Danone*. Brandforum, L'osservatorio culturale sul branding. www.brandforum.it

- N.A. (2024). Il marketing di Lavazza. Il valore reale di una piccola tazza di caffè. Ecommerce Day.

 https://ecommerceday.it/blogs/blog/marketing-lavazza-valore-reale-piccola-tazza-caffe
- Nagy P. and Neff G. (2016). Talking to Bots: Symbiotic Agency and the Case of Tay. *International Journal of Communication*.

 https://ora.ox.ac.uk/objects/uuid:613f7303-8a07-4f5a-ada2-b495c9a449af/download_file?file_format=pdf&safe_filename=Neff_Nagy_2016_Talking%2BTo%2BBots.pdf&type_of_work=Jour_nal+article
- Nesurini M. (2007). Good Morning Mr. Brand. Il senso, il valore e la personalità del brand. Hoepli.
- Nuswantoro A. & Richter B. (2024, June). AVATARS AS VISIBILITY

 ARTIFACTS IN DIGITAL WORK. Conference: ECIS 2024 Thirty-second European Conference on Information Systems.

 https://www.researchgate.net/publication/380323560_AVATARS_AS_VISIBILITY_ARTIFACTS_IN_DIGITAL_WORK#fullTextFileContent
- Nutella. (n.d.). *La nostra storia*. Nutella. Retrieved in January 2024.

 https://www.nutella.com/it/it/scopri-nutella/storia#:~:text=Dopo%20la%20seconda%20guerra%20mondiale,l'antenato%20di%20Nutella%C2%AE.
- Perri, C. Et al. (2020). Smart users for smart technologies: Investigating the intention to adopt smart energy consumption behaviors.

 Technological Forecasting and Social Change.

- Pierre O. (Host). (2017). Episode 1 A history of trademarks: from the

 Ancient World to the 19th century. [Audio Podcast]. WIPOD.

 https://www.wipo.int/podcasts/en/madrid/transcripts/international_trademark_system_talk_01.html
- Pinzaru F. (2012, June). FROM CONJUNCTURAL URBAN

 STORYTELLING TO CITY BRANDING: AN EMPIRICAL

 MODEL FOR BUCHAREST. Knowledge Management Research
 & Practice. Volume 4(Issue 2):33-44.

 https://www.researchgate.net/publication/264082719_FROM_CONJUNCTURAL_URBAN_STORYTELLING_TO_CITY_BRANDING_AN_EMPIRICAL_MODEL_FOR_BUCHAREST
- Poccianti P. (Host). (2020). 01. *Episodio 1 Breve racconto*dell'intelligenza artificiale, con Piero Poccianti. [Audio Podcast].

 Alla scoperta dell'intelligenza artificiale.
- Protti M. (2024, January). *Investing in Privacy*. Meta. https://about.fb.com/news/2024/01/investing-in-privacy/
- Prozis. (n.d.). La Nostra Promessa. Prozis. Retrieved in February 2024. https://www.prozis.com/it/it/la-nostra-promessa
- Rajaram S. and Shelly C. S. (2012, March). History of Branding.

 INTERNATIONAL JOURNAL OF SOCIAL SCIENCES &
 INTERDISCIPLINARY RESEARCH. Vol.1 No. 3.

 www.indianresearchjournals.com

- Rosenstein J. (2018, February). People Can't Tell If This Fenty Model Is

 Real Or Fake. *HARPERS BAZAAR*.

 https://www.harpersbazaar.com/beauty/makeup/a16810663/shudu-gram-fenty-model-fake/
- Rozy.gram. [rozygram]. (n.d.). [Instagram Profile]. Retrieved in June

 2024 from

 https://www.instagram.com/rozy.gram?igsh=MTBjNWl5c2V1d28

 5Yw==
- Samsung Philippines. (2022, September 8). *Join the flip side*. [Video].

 YouTube. https://youtu.be/-fsRZzXki50?si=QlCxNuSvA3ahPyjs
- Schlemmer, E., Trein, D., & Oliveira, C. (2009). The metaverse:

 Telepresence in 3D avatar-driven digital-virtual worlds. @ tic.

 Revista d'innovació educative.

 https://www.redalyc.org/pdf/3495/349532298005.pdf
- Sernagiotto C. (2024, March). "Siete insetti", tabelloni delle stazioni di Roma e Milano promuovono la serie Netflix. *Sky tg24 Spettacolo*. https://tg24.sky.it/spettacolo/2024/03/25/siete-insetti-netflix-stazione?social=link_skytg24_sharebutton_null&share_id=76817 a5d-03e6-41e1-a3a0-4ad51fb7e598
- Shanker S. S. and Zytko D. (March, 2022). *The...Tinderverse?:*Opportunities and Challenges for User Safety in Extended Reality
 (XR) Dating Apps. Cornell University.

 https://arxiv.org/pdf/2203.15120

- Shudu. [shudu.gram]. (n.d.). [Instagram profile]. Retrieved in June 2024.

 From

 https://www.instagram.com/shudu.gram?igsh=MmIycmRsZG0yd
 Xdx
- Siavash. (2024, March). *Top 50 Virtual Influencers To Follow In 2024*.

 Dream Farm Agency. https://dreamfarmagency.com/blog/top-virtual-influencers/#:~:text=Influencers%20in%202024-1.,in%20the%20virtual%20influencer%20space.
- Stern B. B. (2006). What Does Brand Mean? Historical-Analysis Method and Construct Definition. *Journal of the Academy of Marketing Science*. Volume 34, Issue 2. https://doi.org/10.1177/0092070305284991
- Swystun J. (2007). The Brand Glossary. Palgrave Macmillan.
- Taffo. (2024). Sito Ufficiale Taffo Onoranze Funebri. Taffo. https://www.taffo.com/agenzia-funebre-taffo/
- Tamika. (n.d.). [Facebook page]. Facebook. Retrieved in June 2024 from https://www.facebook.com/sailortamika
- Tamika. [sailortamika]. (2024, March 6). [Instagram post]. Retrieved in June 2024 from <a href="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh=MXA4a2w5aGFnMm5zbg=="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4LjIE-McaQ/?igsh="https://www.instagram.com/p/C4Lj
- Tsz Kit Ng D. (2022). What is the metaverse? Definitions, technologies and the community of inquiry. *Australasian Journal of Educational Technology*. https://ajet.org.au/index.php/AJET/article/view/7945/1940

- Victor. (n.d.). [Facebook page]. Facebook. Retrieved in June 2024 from https://www.facebook.com/Zerotovictor
- Wang H. et al. (2023, August). A Survey on the Metaverse: The State-of the-Art, Technologies, Applications, and Challenges. *IEEE Internet of Things Journal*. Vol. 10, no. 16.

 https://ieeexplore.ieee.org/abstract/document/10130406?casa_toke
 https://ieeexplore.ieee.org/abstract/document/10130406?casa_toke
 https://ieeexplore.ieee.org/abstract/document/10130406?casa_toke
 https://ieeexplore.ieee.org/abstract/document/10130406?casa_toke
 n=sa50D0dp1v0AAAAA:2qC8kkjORy1-ycHcAUdqm7tg2h1OIyxxOFmrUXD4mEeDs7yEpLY2StzyDCkd
 mZRRxI3ZT0
- WeRoad. (n.d.). *Parti da solo, viaggia in compagnia*. WeRoad. Retrieved in March 2024.

https://partidasolo.weroad.it/?gad_source=1&gclid=CjwKCAjwh4
-wBhB3EiwAeJsppKeOk31t-kJQs7baNvrOwSrtXJXdmRKSfyPpZjDyFVUXDDs6JWRdhoC6XYQAvD_BwE

- Wiederhold B. K. (2023). Treading Carefully in the Metaverse: The

 Evolution of AI Avatars. *CYBERPSYCHOLOGY, BEHAVIOR, AND SOCIAL NETWORKING*. Volume 26, Number 5.

 https://www.liebertpub.com/doi/pdf/10.1089/cyber.2023.29280.ed
 itorial
- Zach. [comedyzach]. (n.d.). [Instagram profile]. Retrieved in June 2024

 From

 https://www.instagram.com/comedyzach/?utm_source=ig_web_b

 utton share sheet

ABSTRACT Eng.

Starting from the origins of brand-storytelling, this thesis explores how new artificial intelligence technologies, such as AI avatars (both fictional and celebrity-based) contribute to the development of new brand marketing approaches and storytelling techniques. Themes such as the origins of artificial intelligence, its use in marketing, and the relationship between the metaverse and brand-storytelling techniques will be studied to fully understand the background of these technologies' application in brand-marketing and storytelling. In order to analyze this topic, I will employ research methods including the aggregation and summarization of existing sources, such as scientific articles and published literature. Moreover, I will conduct primary research by analyzing data from the social media profiles of celebrity-based and fictitious avatars and I will observe and analyze the study outcomes. To conclude, this thesis will predict that with the growth of more human-like AI technologies, brand marketing strategies and new storytelling techniques will become increasingly precise and effective in targeting new audiences.

ABSTRACT Ita.

Partendo dalle origini del brand-storytelling, questa tesi esplora come l'applicazione di tecnologie innovative, ad esempio avatar basati sull'intelligenza artificiale di personaggi famosi o fittizzi, possa influenzare la creazione di nuove strategie di brand marketing e tecniche di storytelling. Saranno analizzati temi come le origini dell'intelligenza artificiale, le sue applicazioni e il metaverso in relazione all'utilizzo di tecniche di brand-storytelling, al fine di capire meglio il contesto in cui tecnologie come gli avatar sono state applicate sia al brand-marketing sia allo storytelling. Per analizzare al meglio questo argomento, verrà eseguita ricerca che si basa principalmente sull'aggregazione una reinterpretazione di dati già esistenti e sulla lettura e comprensione di articoli scientifici. Inoltre, una ricerca ulteriore riguarderà dati primari ottenuti dall'osservazione dei profili Instagram degli avatar, a cui conseguirà un'analisi e giustificazione dei dati ottenuti. In conclusione, i risultati di questa tesi porteranno alla previsione del fatto che, con lo sviluppo di tecnologie di intelligenza artificiale sempre più realistiche e umanoidi, ci sarà una crescita nell'efficienza di strategie di brandmarketing e di tecniche di storytelling nel determinare con maggiore precisione i target e le nuove audiences.