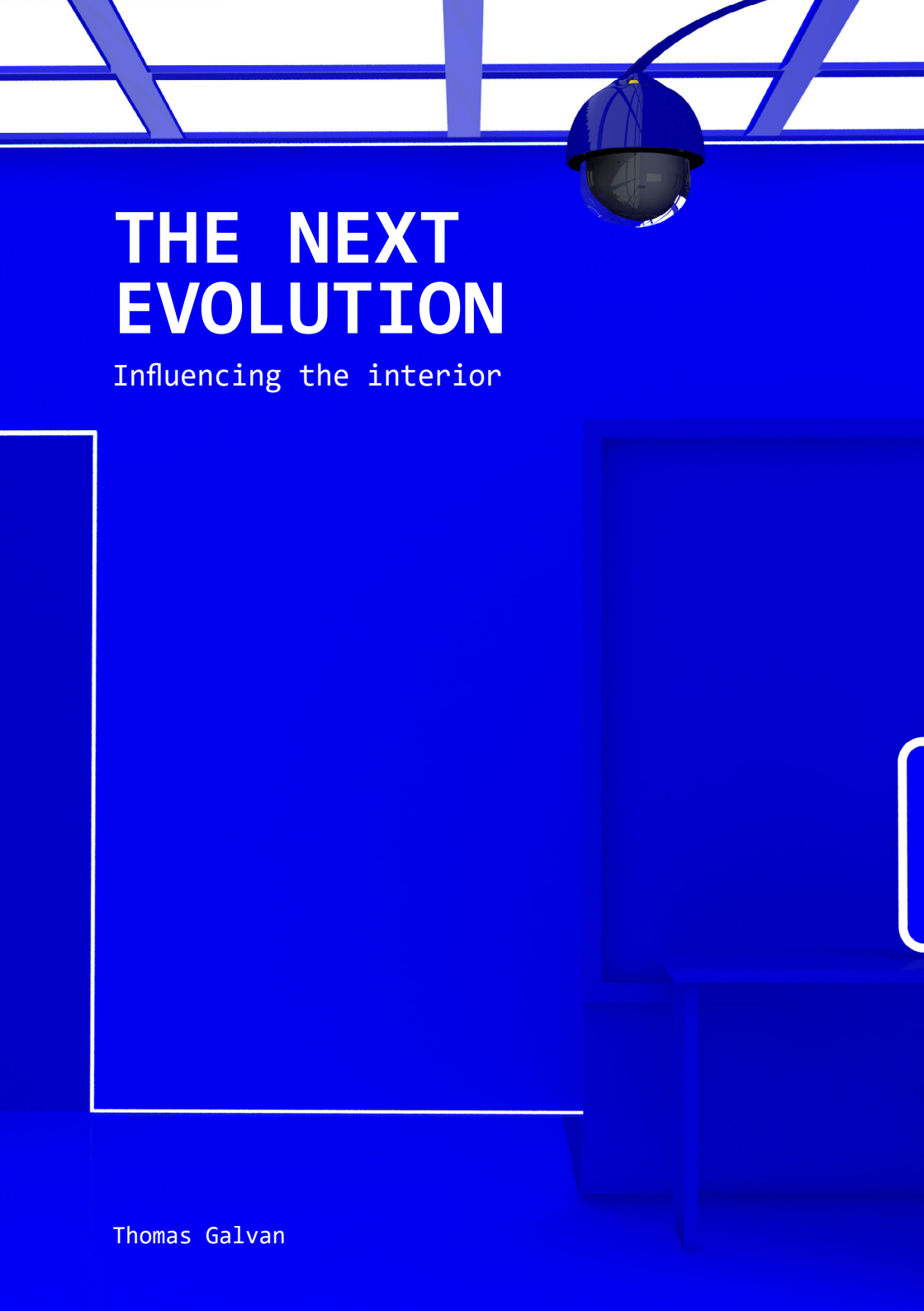

THE NEXT EVOLUTION

Influencing the interior

Thomas Galvan

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CONTENTS

ABSTRACT

My speculative scenario explores the potential future relation between human and machine, using social media as a tool to present it. Transhumanism argues that the human species has not yet reached its final evolution, and that artificial enhancement of the human body and mind will help mankind to reach a new evolutionary stage.

The aim of this paper is to explore the current and prospective developments of the technology that facilitate such enhancement, embedded in the transhumanism theories, and how they will influence the future of interiors, which will serve to recreate the framework of my speculative scenario.

INTRODUCTION

The Netflix series *Altered Carbon* gives a "bleak visions of the future" (Allen, 2018) of the merging of technology and human, while trying to give an answer to the future of technology and space. In fact, the use of technology in order to make simple almost every single daily life action has already become part of our reality.

This relationship with technology represents an important component of our society. According to the transhumanist movement, the **human race has not reached the final evolution, but it will be able to evolve with the help of advanced technology**.

However, this relationship will entail some issues in the future of humanity if we are not able to use it in a constructive way. Taking the socio-political and ethical point of view into account, this might result in the end of privacy, the rise of artificial intelligence and robotics, and the scaling effect of data agglomeration (Kelly, 2016). At the same time, it will create new spaces and interiors to satisfy and accommodate this merging.

This thesis presents a research about the transhumanist movement and the various theories raised by its schools of thought. Using social media and the artificially augmented influencer as a tool, a speculative scenario has been created. **This scenario takes place in our near future, in the year when most of these theories could enter the realm of reality: 2030.**

“At the start
of it all
there is He:
the classical
ideal of ‘Man’”

— Rosi Braidotti

MOTIVATION

My alarm clock sounds every morning at 8 am sharp. The sound originates from my phone, I grab the phone, stop it, but I am too sleepy to get up and start my day. I unlock it and check my social networks – such as Facebook and Instagram – to spend time while I slowly wake up. I watch videos, check my friends' last updates. Then I check the newly received emails without even realizing that I already spent the first 20 minutes of my day looking at a screen. Then I turn on the Bluetooth bulb on the ceiling through the Euro Domest app, because the light switch is too far from the bed, and I get up. I go towards the toilet, but not before switching on my Nespresso machine to warm it up. I take a shower, have my coffee, but I don't really enjoy silence so much so now I chromecast YouTube onto my TV and ask Cortana to play my morning playlist. I start to dress and get ready to go out, I wear my Apple watch and choose the music I will listen to while going to university and I connect it to my Bluetooth headphones. To summarize, in about one and a half hours, I have used six apps, pressed numerous buttons and utilized a minimum of three appliances.

"Technology is nestling itself within us and between us" (Van Est, 2015) and many of our actions require a technological device that helps us to do it faster and better, becoming a sort of extension of ourselves. **I find it extremely fascinating how the digital hack of our physical existence has become a necessity** in order to accomplish the tasks of our everyday life. I would like to investigate the influence that this evolution is having on society's fabric and its interiors. Moreover, with the advent of new realities, the virtual and the augmented ones, designers will have to deal with a new dimension, where there seem to be no rules and where there are endless possibilities of creating unimaginable environments, changeable and customizable.

As Donna Haraway stated: "Our machines are disturbingly lively, and we ourselves frighteningly inert" (Haraway, 1991). Humankind is slowly moving from an organic status to a brand new condition, and **the line between Man and machine is blurring**.

RESEARCH/ QUESTION

From smartphones to digital devices, humans are starting to perceive new technologies not just as a tool anymore, but as an extension of themselves. Our arms have been replaced by remote controls, changing for instance the setting of the living room by moving the couch further away from the TV. Apps, such as Skype, allow us to feel that we are in the same room as our friends and family who live far away from us, these technologies hence influencing and **reshaping a new space that is located between ours and theirs** (Busani, 2015).

Taking into consideration the transhumanist movement, I firstly analysed **how humankind is reshaping itself by creating a brand new configuration from the point of view of body**, behaviour and thoughts. How will digital developments influence the exterior and the "interior"?

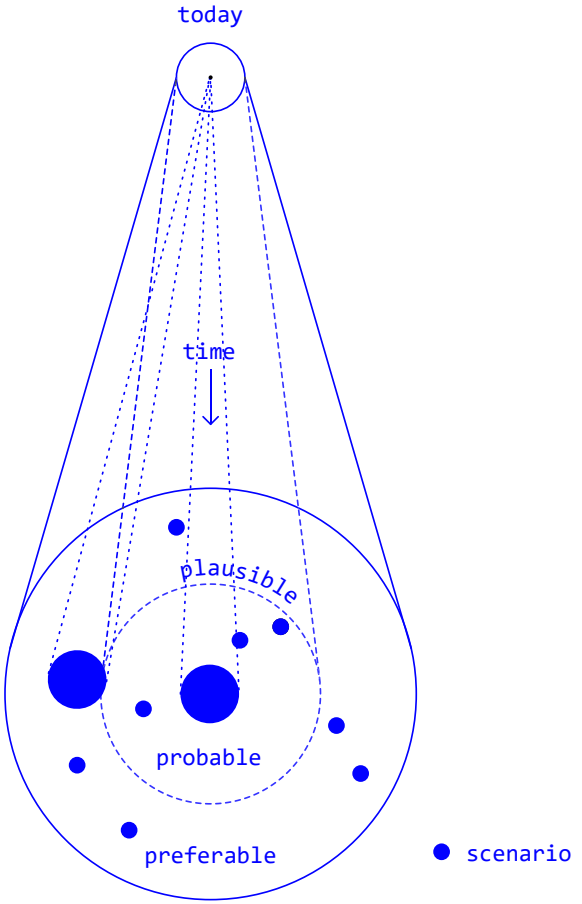
Secondly, I conducted a research on the evolution of the use of technology for social purposes. Indeed, **social media are taking over as a new method of connection with everyone**, known and unknown. Moreover, they are creating a need to share and show our lives never seen before. The question arises: **What is going to be the next evolution?** While in the beginning their purpose was to connect people, now, from posting pictures, to videos, to posting stories and finally lives, as in apps such as Facebook and Instagram, what is going to be the next step? Are we going towards a never-ending share of our private existence?

Finally, in order to answer these questions, I used as a tool for my research a figure strongly connected to the use of technologies and social: the **social media influencer**. Where is the influencer of the future, a human mentally and bodily enhanced by machines and with a life that is connected to the web, going to perform his daily tasks? How is the interior going to change in order to satisfy his needs? And based on data collection, how is going to be the experience of generating new solutions every day? What kind of new or advanced tools is he going to use? Additionally, with the advent of technology such as augmented and virtual reality, how are the added spaces and layers that such progresses allow going to be?

METHODOLOGY

Two different aspects will be taken into consideration in order to develop this thesis and help me during the process. **Fact and fiction** research is the method which better suits my investigation and pushes me to have a **speculative outcome** in the design project. Speculative design is a practice that uses design, such as products, services and scenarios, to address challenges and opportunities of the future speculating on how things could be (Optimal Workshop, 2016).

The factual research will be based on Frost & Sullivan's recently published study *Transhumanism: How humans will think, behave, experience, and perform in the future, and the implications to businesses* (2017) and the article written about



"A diagram of potential futures (PPPP). Probable: traditional design space. Plausible: alternative futures, linked with the today's world. Possible: includes all extreme scientifically possible scenarios. Preferable: using speculative design to debate and discuss what is the preferable future. Beyond cone: fantasy. Wild card scenarios: low-probability and high-impact – to think about and discuss a much wider set of possibilities." (Mitrovic, 2016)

it *Transhumanism And The Future Of Humanity: 7 Ways The World Will Change By 2030* for Forbes (Singh, 2017), regarding the future of technology and how it is going to influence the world in many aspects. From individuals to governments, many fields will change with the merging of human and machinery, as we are already experiencing today. Moreover, three aspects of humanity will be analysed: **body, thought, and behaviour**. The research will be enriched with the addition of real cases part of our daily life in order to provide a basis for the theories shown in Frost & Sullivan's report, and through a research of which are the answers that design gives to this phenomenon.

The second aspect, fiction, will be expressed through the design project and the technique of storytelling via the **presentation of a short movie**. Taking into consideration the research exposed previously, I will develop a speculative scenario presenting **a possible future of interior spaces**.

The tool for my story is a figure related to technology and its use in everyday life: the social media influencer. Nowadays, the influencer is a character that has made a profession out of the use of social media. The style of writing will be from the perspective of the first person, as it will be the influencer ***@ Zarathustra***, and the supporting character ***RazziBot***, who narrates the story and who will experience its speculative outcome. I will use some self-biographical elements in order to produce a more intimate and real story, but inserting myself in another environment and era. In fact, **2030** is the year where the created fiction will take place and the moment when the progresses anticipated in the research section will perhaps become truth.

As the gender of the influencer in general can be freely chosen and will not follow our current perspective of gender, the influencer will hereafter be referred to as ***"it"*** (Cuboniks Laboria, 2014).


1

“Like other species, we are the products of millions of years of adaptation”

— Max More

1. THE EVOLUTION OF HUMAN BODY

Until very recently, people thought that our species had stopped evolving and changing way far in the past. Instead, our capacity to peer inside the human genome has shown that actually **our biology keeps evolving and advancing in order to adapt to ever changing environments and situations** (Max, 2017).

Difficult environments are witnesses of how the human body can change and adapt. When we are in high altitudes, most of us feel breathless because our lungs need to put more effort to compensate the reduced level of oxygen. However, Andeans, for instance, have developed a genetically determined trait that allows them to catch more oxygen. Also deserts represent a big challenge for human bodies. An interesting case of

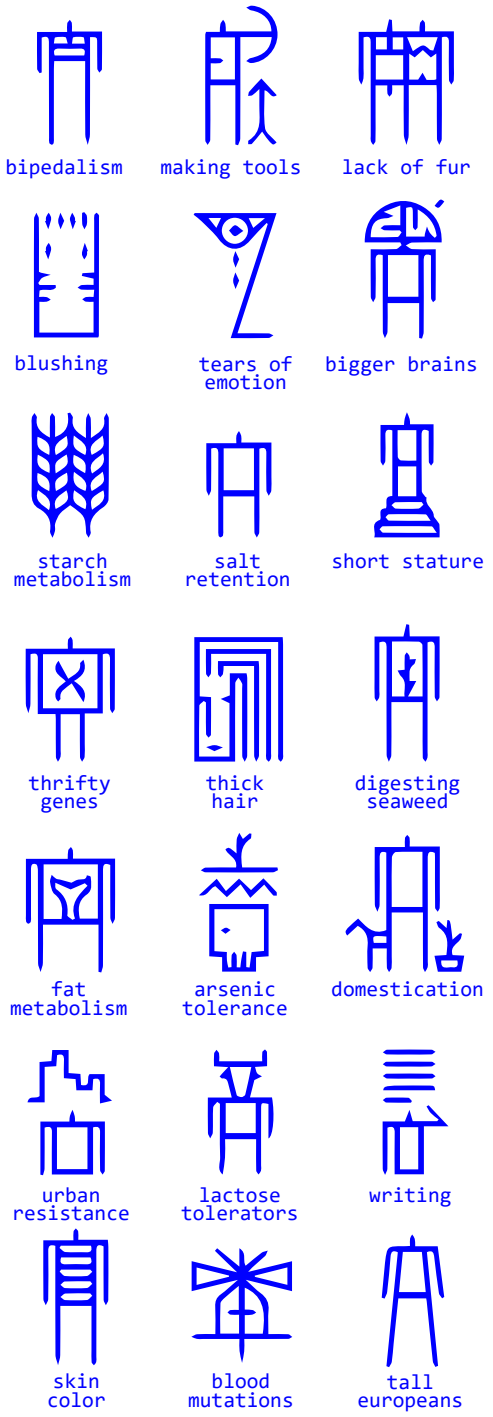


Fig. 01: Alvaro Valiño, Being Human.

Fig. 02: Bio-Suit designed by Dava Newman.

adaptation to this extreme environment is that of the inhabitants of Sahul, the continent that in the past united Australia, New Guinea, and Tasmania, who developed adaptations that allowed them to survive the high atmospheric temperature range that was below-freezing temperature at night and often reaching almost 40 degrees Celsius during the day. "Natural selection can take us on different paths to reach the same outcome: survival" (Max, 2017). However, with the invention of several new technologies, **the spirit of natural adaptation has transformed into artificial adaption**, with the use of external devices such as scuba gears or space suits, which evolved from the first one designed for the Russian Yuri Gagarin until one of the most modern named *Bio-Suit* "that uses elastic cords running through clothing made of nylon-spandex, elastic, or urethane-painted foam to maintain contact with the entire body" (Mann, 2011).

"The human desire to acquire new capacities is as ancient as our species itself. **We have always sought to expand the boundaries of our existence**, be it socially, geographically, or mentally. There is a tendency in at least some individuals always to search for a way around every obstacle and limitation to human life and happiness" (Bostrom, 2005). Nowadays, evolution is driven forward by **human-made developments** and is taking another path. Technology is part of our lives and comes to us from every angle in order to make things simpler for us. From science to education, "people use technology in every next moment of their life. It is one of the basic necessities of today's people" (Fascol, 2017). The present is ever-changing: are we witnesses of the beginning of a turning point in history or are we right in the middle and hence part of it? While 20 years ago the use of mobile phones as well as laptops, as we know today, was inconceivable, nowadays everyone owns one or two and couldn't accomplish most of their everyday tasks without them. The advent of new technologies made the world run faster, enhancing, optimizing the human and becoming part of our identity. **This transformation is a signal of a future of humanity that will blur our identities into "transhumanism"** (Singh, 2017).

2

“Transhumanism is a class of philosophies of life that seek the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations by means of science and technology, guided by life-promoting principles and values.”

— Max More

2. TRANSHUMANISM

Transhumanism is a way of thinking about the future based on the premise that the **human species in its current form does not represent the final stage of evolution**, but is instead an early phase that is still developing (Bostrom, 2003).

"Transhumanism promotes an interdisciplinary approach to understanding and evaluating the opportunities for enhancing the human condition and the human organism opened up by the advancement of technology. Attention is given to both present technologies, like genetic engineering and information technology, and anticipated future ones, such as molecular nanotechnology and artificial intelligence" (Bostrom, 2005).

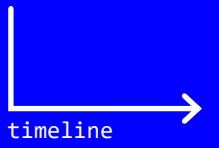
Fig. 03: James Young uses a prosthetic arm featuring a laser, a USB port and a mount for a tiny drone.

The transhumanist expectation is that through "technology, and other rational means we shall eventually manage to become Posthuman" (Bostrom, 2005). Moreover, another of the goals of transhumanism is no other but the **pursue of immortality**, either via uploading minds to computers or by rejuvenating human bodies bio-molecularly to avoid aging.

Transhumanists believe that humans might not be perfect, but they all have the potential to become so by improving themselves. To achieve this, they do not limit themselves to traditional humanistic methods, such as sports, education and cultural development, but they also recur to technological instruments that enable them to move beyond what we all know as human (Jasmuheen, 2011).

The term transhumanism was widely spread by an essay from Nick Bostrom - founder of *World Transhumanist Association* (WTA) - entitled *The Transhumanist FAQ: a general introduction*, where he states that the etymology of the term "transhuman" goes back to the futurist FM-2030, who introduced it as shorthand for **"transitional human"** (FM-2030, 1989). Moreover, in 1957, Julian Huxley published a collection of essays entitled *New Bottles for New Wine*. The volume opens with a short piece bearing the title *Transhumanism*, which contains a paraphrase of a definition of the term from 1951: "We need a name for this new belief. Perhaps transhumanism will serve; man remaining man, but transcending himself, by realizing the new possibilities of and for his human nature" (Huxley, 1959).

Transhumanism is a loosely defined movement that has **grown gradually over the past two decades**. However, this theory associated to the rise of technologies has spread since the beginning of the 20th century. In order to understand the growth and development of transhumanism's movement and thinking inside society, the online magazine "The Verge" (2017) published *A Timeline of Transhumanism: mind uploading, cryonics, artificial intelligence, robotics, space exploration, brain and body modifications, and the sci-fi roots of a technofuture* taking into consideration one century starting from the early transhuman thinking in 1906 until the last events of the 21st century.



1906

Russian philosopher Nikolai Fyodorov founds *the Russian Cosmism* supporting the idea of immortality, space exploration, and resurrection from biological expiration through science (The Verge, 2015).

1923

British scientist and Marxist J. B. S. Haldane publishes *Daedalus; or, Science and the Future* offering a first vision of transhumanist thought focused on the concern with the ethical implications of science's development (The Verge, 2015).

1929

British scientist John Desmond Bernal publishes *The World, the Flesh and the Devil*, introducing transhumanist such as liveable space habitats, and the future changes that science could bring to human intelligence and body (The Verge, 2015).

1931

Amazing Stories publishes, a short story by Neil R. Jones, about a man whose corpse is sent into orbit, and freezes for millions of years until a race of cyborgs which discovers it, defrosts its brain, and installs it in a robot's anatomy (The Verge, 2015).

1948

Inspired by *The Jameson Satellite* Robert Ettinger publishes his short story *The Penultimate Trump*. Ettinger proposes cryonic - low-temperature preservation - as "one-way medical time travel to the future" (The Verge, 2015).

1951

The British evolutionary biologist Julian Huxley, coins the term *"transhumanism"* at a lecture titled *Knowledge, Morality and Destiny* describing his philosophy as "the idea of humanity attempting to overcome its limitations and to arrive at fuller fruition" (The Verge, 2015).

1954

Jerry Sohl publishes the sci-fi story *The Altered Ego*, in which a man is able to make a digital duplicate of his mind and access it after his death. This represents the first debut of mind-uploading in fiction (The Verge, 2015).

1965

The British mathematician I. J. Good publishes *Speculations Concerning the First Ultraintelligent Machine* proposing a possible future intelligence explosion in machine learning (The Verge, 2015).

1973

FM-2030 - Iranian-American author, transhumanist and futurist – publishes a theory of politics and future society (Marcattilio-McCracken, 2015) called *Up-Wingers: A Futurist Manifesto* (The Verge, 2015).

1974

The Colonization of Space, published by the physicist Gerard K. O'Neill. He advocates "finding high quality living space for a world population that is doubling every 35 years; finding clean, practical energy sources; preventing overload of Earth's heat balance" (O'Neill, 1974).

1983

Natasha Vita-More publishes *The Transhuman Manifesto*, where she discusses the chances of a "radical life extension" (Vita-More, 1983) in the future.

1988

Max More and T.O. Morrow publish the first transhumanist magazine, *Extropy: Vaccine for Future Shock* subsequently renamed *The Journal of Transhumanist Thought* (The Verge, 2015).

1989

FM-2030 publishes the book *Are You a Transhuman?* (The Verge, 2015).

1990

Hans Moravec publishes *Mind Children*, where it is predicted the rise of super intelligent robots by 2030 (The Verge, 2015).

1991

The Extropians Mailing list is established, an online platform for transhumanist where to exchanged transhumanist ideas (The Verge, 2015).

1997

Vita-More updates her *The Transhuman Manifesto* which afterwards is sent with the Cassini Huygens space probe to Saturn (The Verge, 2015).

1998

Philosopher Nick Bostrom, with David Pearce, founds the *World Transhumanist Association* (The Verge, 2015).

2000

A.I. theorist Eliezer Yudkowsky establishes the *Singularity Institute for Artificial Intelligence*, which will then become the *Machine Intelligence Research Institute* (The Verge, 2015).

2004

Bostrom and James Hughes establish the *Institute for Ethics and Emerging Technologies*, which publishes the *Journal of Transhumanism* (The Verge, 2015).

2008

Bostrom and Anders Sanberg publish the manifest for mind-uploading called *Whole Brain Emulation Roadmap* (The Verge, 2015).

2011

Google's X Lab starts working on *Google Brain*, a deep learning artificial intelligence combining open-ended machine learning research with system engineering and Google-scale computing resources (Research Google, 2011).

2013

Ray Kurweil predicts the achievement of digital immortality through mind-uploading by 2045 (The Verge, 2015).

2014

Laboria Cuboniks, a group of 6 women working together online to redefine a feminism adequate to the 21st century, collectively write *Xenofeminsim: A Politics for Alienation*. They believe that we live in a world that "swarms with technological mediation, interlacing our daily lives with abstraction, virtuality, and complexity"(Cuboniks Laboria, 2014).

Observable in this timeline the development of the transhumanist movement brings us more than **100 years back**. Starting from ideas and thoughts that looked just like plain speculation or even science fiction, we ended up experiencing the **birth of new disciplines** such as nanotechnology, or advancements such as artificial intelligence.

By pushing the human mind forward, we prove that we are able to reach new levels and lead our existence toward a new and human-made evolution. **It is fascinating how the speed of creation of new technologies is showing developments in everyday life**.

“The evolution of the technium — the organism of ideas — mimics the evolution of genetic organisms.”

— Kevin Kelly

2.1 THE THEORIES OF TRANSHUMANISM

The transhumanist movement presents a vision about the changes the world will undergo in the next 10 to 15 years as well as how the birth of new issues will raise new questions. We always looked at technology as something exterior, made to enhance our actions, but a new tendency is taking over. Indeed, **the relationship between human and technology reached unprecedented degrees of intimacy and intrusion** (Braidotti, 2013): **both body and mind are finally taking part in this technological evolution**. Can we start to call it "body and mind" evolution instead?

Three fundamental aspects of humanity that will probably evolve in the next years are **our body, our thought, and our behaviour** (Singh, 2017). As a consequence, these three aspects are going to change and modify our social fabric on many different aspects, probably creating issues which we did not have to deal with before. The change will influence individuals, society, businesses, government, how we think, how we act, how we understand and relate with our world (Donahue, 2017), and, of course, **how we experience spaces and interiors**.

2.2 BODY AUGMENTATION

From the moment we are born, we enhance our body and our natural immune system through the use of vaccinations – which itself can be already seen as act of transhumanism –, medicines, and surgery improving the quality of our lives, protecting us from diseases or helping us to shape our bodies according to our desires. However, in the last years, we are raising the bar of these changes toward a different kind of development as a way of experiencing the world from a new and totally different approach.

Indeed, a more radical upgrade is starting to become possible with the birth of **a big amount of advanced body augmentation capabilities**. They will permit humans to become smarter, stronger, and more capable than today (Singh, 2017). We are already experiencing the growth of so-called cyborgs. As a matter of fact, since 2004, the Catalan-British artist Neil Harbisson, has been described by international media as the **world first living cyborg** (Radnedge, 2004) and afterwards legally and officially **recognized as a cyborg by a government**. Harbisson was born with a "rare visual condition called achromatopsia, which is total colour blindness" (Harbisson, 2012). However, since 2001 **he can "feel" colours through a cyborg antenna**. The device permits him to perceive colours as audible vibrations inside his head (Jeffries, 2014) allowing him to recognize them. In addition, he claimed that due to the antenna, he started having secondary effects: "Normal sounds started to become colours. I heard a telephone tone, and it felt green because it sounded just like the colour green. The BBC beeps, they sound turquoise, and listening to Mozart became a yellow experience" (Harbisson, 2012). Through different sounds, such as songs or famous speeches, he was able to export a range of colours connected to certain vibrations creating art pieces.

Beside this kind of technology made to make up for the lack of a natural human ability, in the future we can expect the arrival of **technologies that enhance humans capabilities**, such as, for instance, augmented lenses that can take pictures and videos or that allow the contact with "a layer of data on the top of what we normally see" (Templeton, 2017). For instance, the new Netflix cyberpunk drama series *Altered Carbon* (2018)

Fig. 04 – 07: the moment in which Kovacs wears the smart lenses and see the virtual reality attached to the reality.

presents a device that, through a fast implant in the eye, allows the main character, Takeshi Kovacs, to see a new environment: **an apparently normal street becomes a totally brand new place with the introduction of digital elements that add a new dimension.** As a consequence, we could experience the production of new interiors made to enclose this new digital environment: empty rooms could become spaces that keep changing and that can be customized based on tastes and trends.

We will also witness an increase in the use of implants such as **brain microchips and neural lace to 'radio-frequency identification'** (RFID), a chip that uses electromagnetic fields to automatically identify, track tags attached to

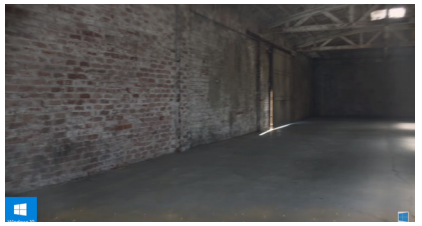


Fig 08 – 10: Windows Mixed Reality shows how from an empty room, the software can scan it and add new digital contents changeable and customizable.

objects (Wikipedia, 2018), and completely abandon the use of keys and passwords and, as a consequence, the **abandonment of doors latches or security system's interfaces.**

As we progressively develop "the tools to engineer any of these outcomes, some [people] will have to take priority over others" (Singh, 2017). Will this create a **new subdivision of social classes** where an elite class will emerge through physical as well as mental upgrades? Probably, at least in the beginning, these body and mind augmentations will be available only for a social class economically able to sustain the costs, keeping the update out of reach from a large part of society. On the other hand, according to Bostrom's thoughts, we already experience inequalities every day of our lives. For instance, in the medical field, experimental procedures are only available for research subjects and wealthy people. Subsequently, as these operations become routine, the costs drop and more people can afford

them. Bostrom puts forward a proposal, in order to address the issue, stating that “a wiser remedy would be progressive taxation and the provision of community-funded services such as education, IT access in public libraries, genetic enhancements covered by social security, and so forth” (2003).

The Russian writer Morozov criticizes the use that humanity is doing of technology stating that **“we must not fixate on what this new arsenal of digital technologies allows us to do without first inquiring what is worth doing”** (2014). On one hand, this statement can be supported since the use of technology often touches areas that humans are not so happy to be changed, such as the use of machinery to replace human labour, which creates economic issues and instability especially for the lower classes. On the other hand, we are in a time where we have to solve problems that cannot be solved in a natural way and following the natural paths. Since many improvements require the use of an intelligence way beyond the human one, we are in the middle of a new form of using technology, which is not anymore a tool, but an entity that can help us and make our lives better, enhanced, and, maybe, considerably longer.

This body-hacking will give rise to humans that are more resilient and enhanced. Morozov states “technology changes all the time; human nature, hardly ever” (2012). Considering that we are going towards a body that is adapting to this progressed and technological world, I would dare to reformulate this sentence and argue that **“technology changes all the time; human nature, [and human body, changes with it]**. This is just a little part of what the body augmentation will be actually capable to do and achieve: **will we be able to call ourselves transhumans?**

Fig. 11 – 12: The car is unlocked with the wave of a hand due to the RFID implant.

Fig. 13: RFID implant.

2.3 THOUGHT AND BEHAVIOUR ENHANCEMENT

Language is what allowed the big progress of human intelligence, an essential key for us to create and express, in articulate concepts, our thoughts. However, at the same time, language is also limiting to a certain extent: **the concepts that we handle are limited to the words that we have and use**. By mentally interacting with a machine on a non-language level, we will be able to push forward our intellectual capacities.

Both wearable and **implantable brain-machine interfaces (BMI)** will alter the ways in which we communicate with each other and with digital devices. BMIs will change all of this, enabling **communication at the speed of thought** in its full state. Through the BMI, we are able to erase the devices which allow, but also slow down, the contact between human and machine, such as mice, keyboards or joysticks, making the action faster and more natural (Singh, 2017). Through this totally new and advanced way of communicating, we could be at the brink of a **revolution of communication** both between humans and machines as well as between humans themselves. On the other hand, mind augmentation through the use of technologies such as BMI also represents an issue in today's society: a technology that might allow a machine to control a human has some undeniable risks. The **possibility of mind control through machines hacking** individuals whose minds have been artificially enhanced is a reality. However, this is mostly just a hype: current technologies "just give a tactile signal, they can't really control you like a puppet, and you could just rip the device off" (Rothman, 2015).

Fig. 14: Tiana Sinclair can control a drone through mindwave technology, which converts the energy of focused attention in the brain via a headset.

The connection between human mind and machines will also allow – as some technotopians proclaim –

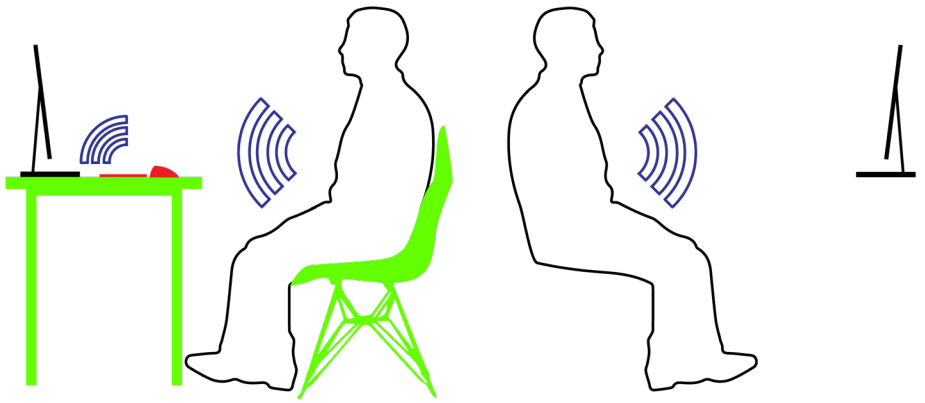


Fig. 15: the figure illustrates how the setting of an interior could change with the use of BMI.

the uploading of brains (or, to be more precise, minds or consciusnesses) and, as consequence, digital immortality. As a matter of fact, the American startup *Nectome* has recently developed a **way to preserve brains** called *aldehyde-stabilised cryopreservation*. The minor setback is that the company has not yet found an actual method for reviving or uploading the brains it stores, but hopes to generate the first biological neural network around 2024 (Hern, 2018). Indeed, we find that our development is still far from the speculative outcome of uploading minds into machines. Due to this, yet, quite unattainable advancement, **if such revolution will come true, it will challenge the basic institutions of today's society**, such as healthcare, social services, pensions, insurances, and the labour market. How are we going to make room for the next generations? Will the eternal or prolonged life be reserved just for a few privileged? (Hernæs, 2016) In addition, are we going to see the birth of new spaces

that replace old ones, in order to make space for these new activities and developments, such as in the series *Altered Carbon*, where the *Alcatraz prison* is turned into a facility to upload dead people's minds to new bodies?

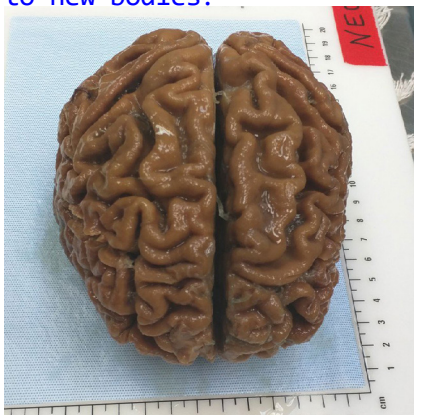


Fig. 16: Preserved brain.

As already anticipated by Packard in the 50s as an important side of marketing called neuro-marketing (Packard, 1957), by 2030 we can expect that behavioural scientists will be of interest for corporate HR, strategy, and consulting departments. The adoption of **virtual reality can play an influential role in our ability to understand perspectives other than our own** at the current moment or to build brand new and digital spaces. **BMIs may also advance our ability to empathize with others** if we are able to understand someone else's full perspective straight from their own brain, rather than impaired by the limitations of oral language. We will see the rise of AI in our career settings. Some authors argue that most employees will have an AI colleague with which they collaborate or through which their work will be amplified, and **they will become members of their board of directors** (Singh, 2017).

We are going towards a world where not only humans live and work, but where also machines occupy a space among us and collaborate with us.

2.4 PRIMO 3M+

The American designer and artist Natasha Vita-More, developed her speculative project *Primo 3M+* in 2002: “**it is a prototype future body**, a conceptual design with super longevity in mind. Primo by design is multi-functional. **It is reliable, changeable, upgradable, and complete with enhanced senses**” (Vita-More, 2002). According to Vita-More, the human body will reach a new status becoming **more powerful and flexible**. In comparison to the 20th century body, the 21st century body will be ageless, with an intelligence capacity of 100 quadrillion synapses, instead of 100 trillion, impervious to environmental damage, and with the ability to recycle and purify waste.

If this is what is going to happen, **are we going to experience a transformation of humans into a sort of machine**, perfect from every point of view? Moreover, will we still be able to live in today’s world, where interiors are made to protect us from natural and weather conditions, and where **society is developed for people that are born, age and finally die?**

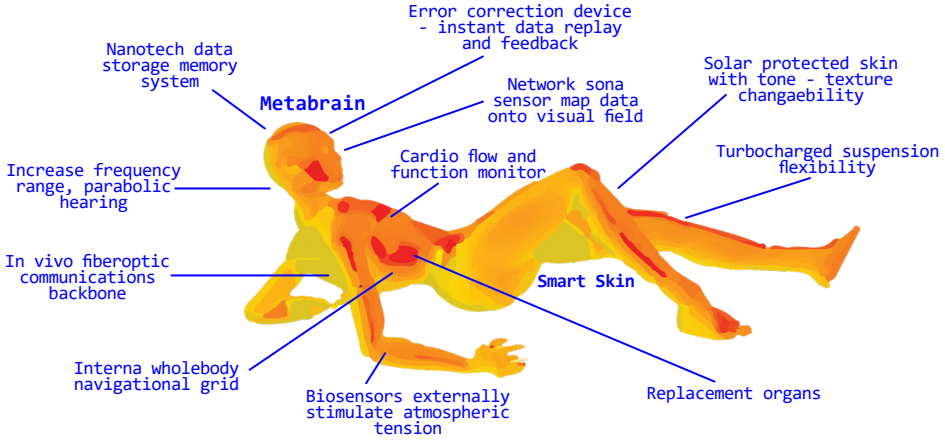


Fig. 17: Primo 3M+ designed by Natasha Vita-More.

3

3. THE RISE OF SOCIAL MEDIA

"Thanks to the ever-expanding capabilities of smartphones, digital devices seem to have become extensions of the body, a phenomenon that's led to an unprecedented and somewhat contentious dependency" (AS, 2018).

Applications can perform a myriad of tasks: if you are going somewhere, Google Maps will find your way, you can check your bank balance, learn a new language and communicate with your friends and colleagues via social media. Apart from body and mind augmentation, another of the strengths of technology is its application for social purposes.

Nowadays, **the growth of social media is exponential**. While ordinary people use social media in order to be connected to the world, be updated with the last trends, or share their personal lives, there is a **category of other people that plays an important role** online and mostly use it for advertising, "to appear more popular or exert influence" (Confessore et al., 2018).

The advent of new technologies and applications gave birth to a new version of an age-old social phenomenon: **the influencer**. The influencer is someone that **has the ability to influence the behaviour or opinions of others**. Online influencers come in many forms; from the celebrity to the fashion blogger or the activist, the influencers can deal with different topics and base their lives or next moves on the

TOTAL REACH OF THE BEST 10 FASHION INFLUENCERS

(O'Connor, 2017)

23.227.025
INSTAGRAM FOLLOWERS

1.971.954
TWITTER FOLLOWERS

4.013.710
FACEBOOK LIKES

2.305.111
YOUTUBE SUBSCRIBERS

TOTAL REACH: 31.750.000

response of **followers**, an important component for them, comparable to the supporters of a politician in a democratic system. The everyday life of the influencer is showcased through a picture and a text, both of which try to represent a perfect depiction rather than reality. **Social media has become the filter between us and the others**, a new "space" where we are free to show whatever we want in the way we want.

Fig. 20 - 22: #Instafame by Jella Lena van Eck.

The designer Jella Lena van Eck produced an interesting short video explaining which are the ten commandments to become a proper **#Instafamous**. Perfect life, healthy lifestyle, six pack, and the outfit on point are among the most recognizable moods that influencers usually express in their accounts. To these ten commandments, I would like to add an eleventh one: **the aspect related to the interior space**, and more generally to the environment. Indeed, the "scenography" of every image posted by an influencer plays an important role in the psychology of the follower. An image located in a place that does not meet the requirements of a modern and trendy location is not as strong as an image that, besides the influencer, shows a beautiful, expensive, or fancy environment. As previously stated, **VR could play an important role** in this case: "The idea is simple: completely immersing the user in 360 degrees of visual content to create the impression that the user is in a completely different environment" (Bobeshko, 2017). In other words, faking a location could be the future of posting and generating new posts every day from our own desk or, more generally, it could be the beginning of a **generation of ever-changing, daily new living spaces** that follow trends or moods.

Fig. 18: the influencer Chiara Ferragni.

Fig. 19: the influencer Chiara Ferragni in a different interior.

3.1 INFLUENCING

Social influencing is the procedure by which "individuals adapt their opinion, revise their beliefs, or change their behaviour as a result of social interactions with other people" (Moussaïd et al., 2013). **History teaches that influencers were always present in society**. If we look back in time, kings and queens were the influencers of their kingdoms, and so were their direct advisors. Queen Victoria and Prince Albert were well known for their love for the Scottish highlands where they bought, expanded, and refurbished a castle called Balmoral (Stern, 2013). "While decorating, Albert designed several different tartan setts, and Balmoral was tartan from floor to curtain" (Stern, 2013). This pattern was used in both Victoria's dresses and her friends', becoming a trend that spread to the other side of the ocean (Stern, 2013). And not only high classes, for instance, the monk Girolamo Savonarola's (1452-1498) influence during the 16th century, had a significant effect on Renaissance art in Florence, much of which he condemned as profane (Visual-Arts, 2018), his influence was big enough to turn the people against their elites – for which he was subsequently excommunicated, hanged, and burned at the stake.

In our interconnected society of today, social influence has ever deeper effects, and "plays a prominent role in many … phenomena" (Moussaïd et al., 2013) such as the encouragement of new design trends and ideas, political opinions or fears, etc. There are many examples that show the **power of today's social media**, in particular when used by well-known personalities; this was such as of the Barbadian singer Rihanna, who posted an 'Instagram Story' to denounce the famous app Snapchat for using an offensive advertisement featuring the artist (Liao, 2018). The ad was meant for a smartphone game called *Would You Rather*, and was asking the users if they would rather 'slap Rihanna or punch Chris Brown'. The reference to the incident in 2009, where Chris Brown – at the time partner of the singer – beat and punched Rihanna and led to her hospitalisation, was clear. **"Her remark sent Snap's stock down almost 4%, erasing nearly $800 million** from its market value" (Valinsky, 2018).

A further example of how the use of social media has reached a new unprecedent status is its use for **political purposes**. The 2016 U.S. presidential elections were widely influenced by four million tweets generated by 400,000 computer software programmes called *social bots* (Ferrara, 2016). Bots are **pieces of software that work automatically, on behalf of someone else**. During the U.S. campaign in 2016, some bots were used to constantly retweet contents created by human supporters, while other more sophisticated bots produced fresh tweets, jumping in the discussion by using existing popular hashtags such as #NeverHillary or #NeverTrump. The effect is that real users who were following these Twitter hashtags were "exposed to bot-generated contents seamlessly blended with the tweets produced by other actual people" (Ferrara, 2016). In other words, **bots represent the reflection of the human's thinking**, but multiplied and produced in a very fast way in order to reach as many people as possible. Are we able to recognize when a content is human-produced or just an artificial reproduction of the original thought? Is A.I. able to confuse our natural intelligence?

Influencing also means data collection: in fact, trough the gathering of data coming from the followers, influencers are able to know what their supporters want or usually 'like'. **Data mining is indeed a new power** source from many points of view.

"Celebrities, athletes, pundits and politicians have millions of fake followers."

— Nicholas Confessore, Gabriel J.X. Dance, Richard Harris and Mark Hansen

3.2 DATA MINING AND PERSONALIZATION

Some argue that the rhetoric of building a global community that works **for** all of "us" is instead an intent to create a "global data vacuum cleaner that sucks **from** all of us" (Morozov, 2018). This is the case of the *Cambridge Analytica* scandal. Through apps with special permissions to harvest data not just from the persons who use it, but also their entire friends network, Cambridge Analytica pulled out around **60 million of data profiles** using them as the basis of the algorithms that became the foundation of the company. Through this enormous data mining, they were **able to generate customized messaging, including its framing, the topic, the contents, the tone, and how many times the target person needed to be touched by them**.

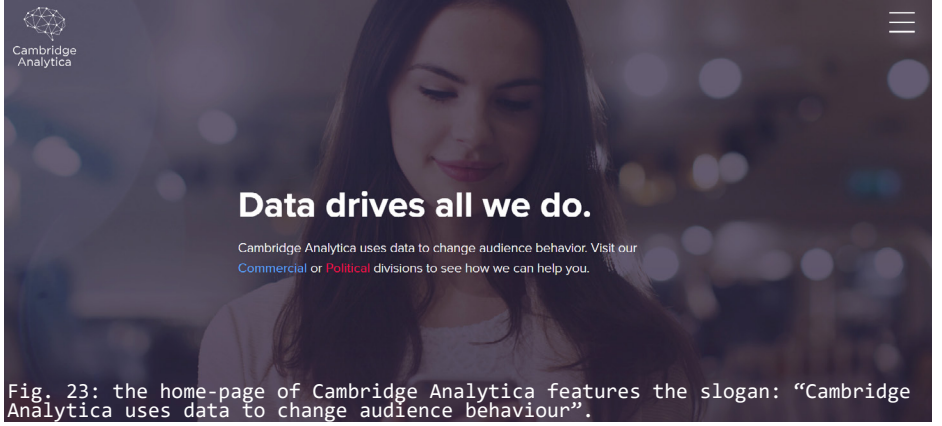


Fig. 23: the home-page of Cambridge Analytica features the slogan: "Cambridge Analytica uses data to change audience behaviour".

This was made in order to change the way they thought about the U.S. presidential election, without subjects being consciously aware of such an influence (The Guardian, 2018).

In contrast, we could look at this issue from another point of view. As a matter of fact, we already experience that an **advanced degree of customization** is actually taking over, and in the future will probably touch virtually all aspects of our lives. Nowadays, personalization is used to tailor marketing campaigns based on individual users' past purchase history data or location. In the future, it is no unconceivable for social apps to recognize our current mood through the use of emotional filters. Furthermore, **these features can also extend to our homes**, as we are already witnessing "with smart homes devices that can set the "moods" with lighting and music" (Singh, 2017). This could be a revolution from the point of view of the living space. Going back to the use of VR in order to create new interiors based on our taste or mood, digital production could become a new power that will take over and establish a brand-new market.

4

4. INFLUENCING THE INTERIOR

With the advent of new technologies and the rise of a new digital dimension, humankind is dealing with a **more and more artificial world** that requires the power of artificial devices. **The project reflects on the changes that the rise of technology and the body and mind enhancement will have on the society and the interiors of 2030**, the year in which all these evolutions are expected to be part of our reality.

To conceptualize the final design, I realized a scenario that shows and encompasses the crucial elements that were analysed in the research part. **The outcome is a space designed both for humans and the technology surrounding them**. This "greater, global, massively interconnected system of technology vibrating around us" (Kelly, 2014) has already reached a point of **intrusion in our interiors** and is starting to need its own space. While usually an interior is made to meet the needs of humans, this new interior presents features to assist, too, the technology that also occupies the space.

As previously anticipated, **the design project is told and experienced by two characters** both living in 2030. ***@Zarathustra*** is a **transhuman social media influencer** in the social media platform *"Next Evolution"*, and its assistant, ***RazziBot***, is a **bot**, a software that has reached a new status and has a physical appearance, which serves as its avatar in the virtual reality. I focused on the design

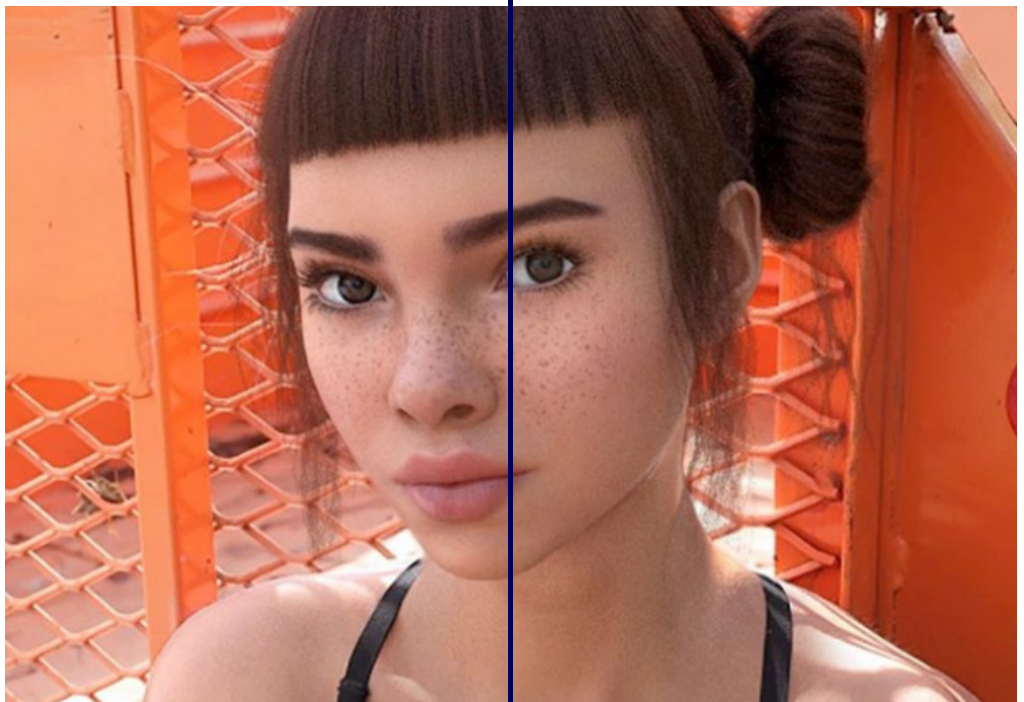


Fig. 24:
Lil Miquela is the first A.I. digital influencer.

of **their physical and digital space**. The introduction of new dimensions, the virtual and the augmented, allows to imagine a new environment where **there are no rules, no boundaries**, where it is possible to change settings and features every day, which can be experienced by the human and the machine, and that merges physical with digital.

Bernardo Schorr's project *Mixed Reality Living Space*, proposed an **interior that keeps changing** and adapts to the function performed: "Through digital augmentation, each person will live in a space that is presented in several different forms throughout a normal day" (Schorr, 2014). The merging between physical and digital allows the

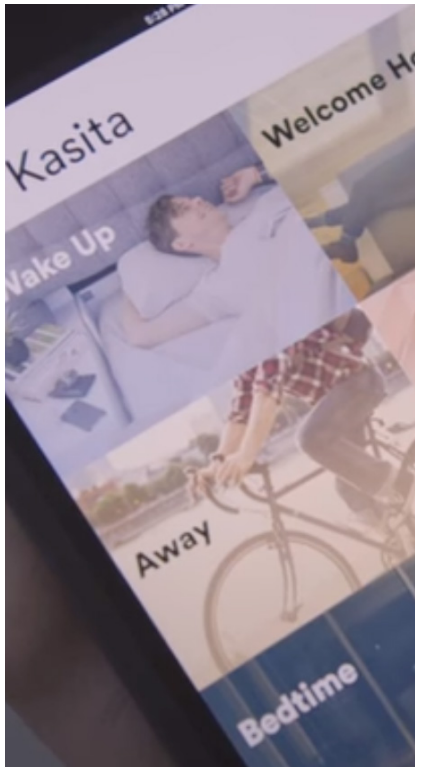
Fig. 25 - 26: Bernardo Schorr's Mixed Reality Living Space features also a working space and a chilling space.

user to stay in the same place while performing different tasks, digitally changing the space instead of changing location. This is, conceptually, what the interior of @Zarathustra does.

This social media influencer of the future occupies an **influenced interior**. Being an influencer requires a knowledge and a

continuous update of trends and fashions. The concept of *interior under influence* describes an **interior in a continuous digital and physical evolution**: a space where all the elements keep changing lets the influencer create **different sets** in accordance with the ever-changing tendencies.

Fig. 27: Moods in Kasita.



The introduction of the digital market in this speculative scenario opens up to new forms of fast and cheap shopping while, at the same time, it starts a trend of **immaterial ownership**. In this case, the temporary nature of the ownership perfectly fits the use that @Zarathustra makes of it.

Kasita represents an interesting example of how an interior can change. Described as the "iPhone of housing" (The Verge, 2017), *Kasita* is a smart home designed by Jeff Wilson programmed for the different moods the user might be feeling, such as waking up, chilling, movie time, or bed time. "Looking at housing now, technology is an after-thought. **We want to create … houses [that] are made a lot more like cars or iPhones"**.

They created something called these moods to customize experiences for daily routines. Through vocal instructions or a tablet, it is possible to set the house according to the user's desires.

In the case of @Zarathustra's interior, **the trends take over the space** in a similar fashion to the moods of *Kasita*, and based on them the interior reshapes **according to the data collected**. The interior space of the influencer contains three different realities: **real, augmented, and virtual**, and smart lenses and BMI "enhance" @Zarathustra, enabling it to interact with them.

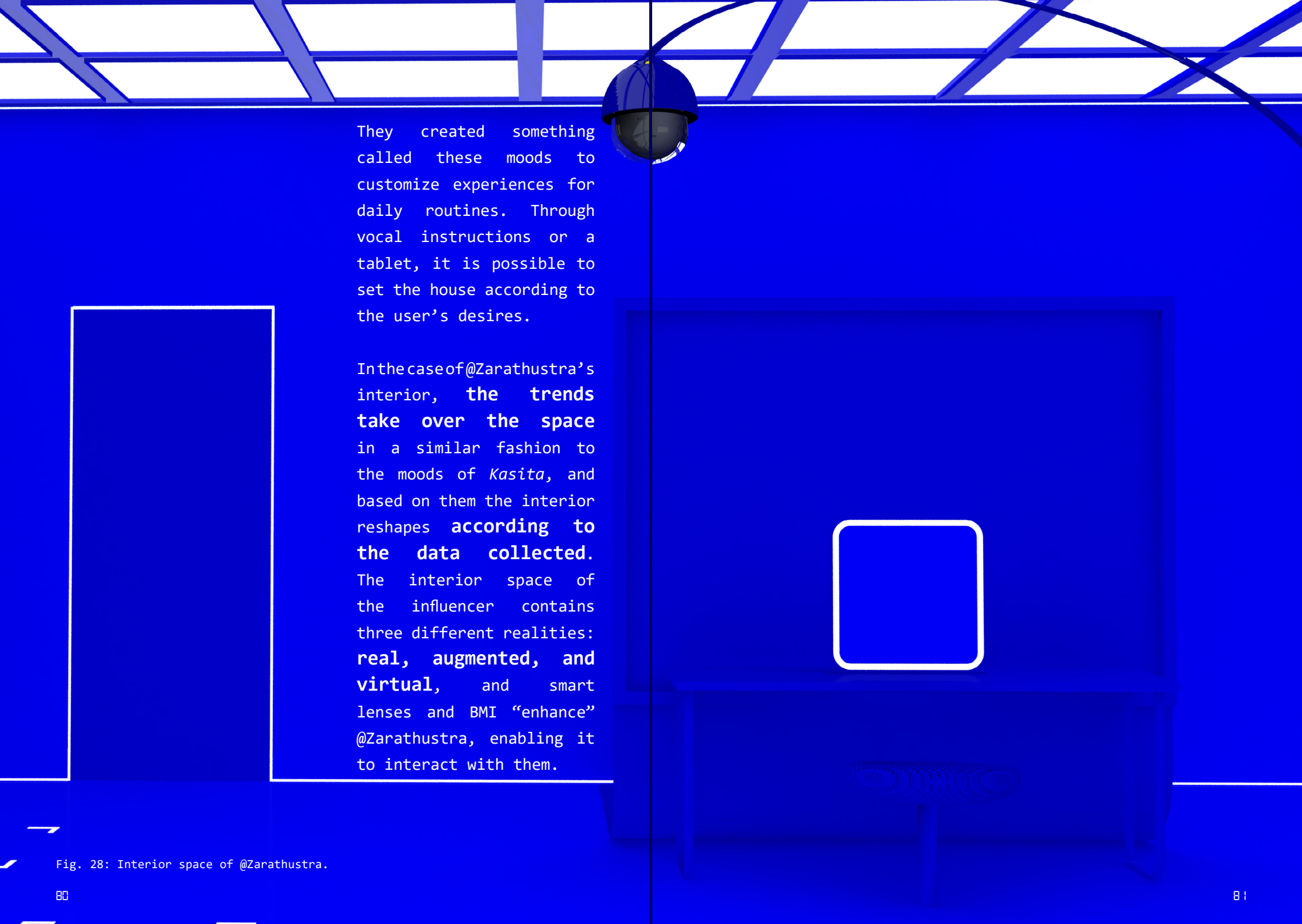


Fig. 28: Interior space of @Zarathustra.

4.1 REALITY

The interior space of @Zarathustra allows him to generate different posts and contents with the help of the digital. **Walls, floors, and furniture are blue while the silhouette of the main elements are highlighted with white lines or frames in order to ease the image and space recognition by the AR smart lenses**. The space features components that @Zarathustra uses to perform his tasks such as the filters desk, a smart mirror, pop-up table and chairs, a robotic arm 3D printer, and a 360 ° camera which allows the VR experience of this interior by the enhanced human. Through chroma key effect and the use of smart lenses – one of the devices that allows him to be called transhuman –, @Zarathustra can see the house through a filter that projects an ad-hoc designed environment. With these tools, the influencer is able to generate new interiors which function as a **scenography for his everyday posts**. It (@Zarathustra) can actually choose the colours and "materials" of each element that will serve as background or main feature of its next posts.

"The advancement in 3D printing is shaping the interior world to such an extent that some believe **we are on the cusp of another industrial revolution**" (Chatt, 2016). Via the use of 3D printers, both clothes and objects can be printed, and subsequently recycled and reused for the next post of the influencer.

Fig. 29 - 30: Change of the background through the use of chroma key effect.

4.2 AUGMENTED REALITY

"Augmented reality (AR) basically allows a person to use [a device] **to overlay the physical world with virtual elements**" (Bobeshko, 2017). As previously anticipated, the augmented reality in @ Zarathustra's world is made possible through the use of smart lenses that add a new layer of information to the physical reality. **Via image recognition, the lens augments the sight** "enabl[ing] to blend the physical world with digital content" (Windows, 2018) and **detecting each object**, it assigns the colour or texture previously designated. This body augmentation **changes the perception** of the space making it usable just via smart lenses.

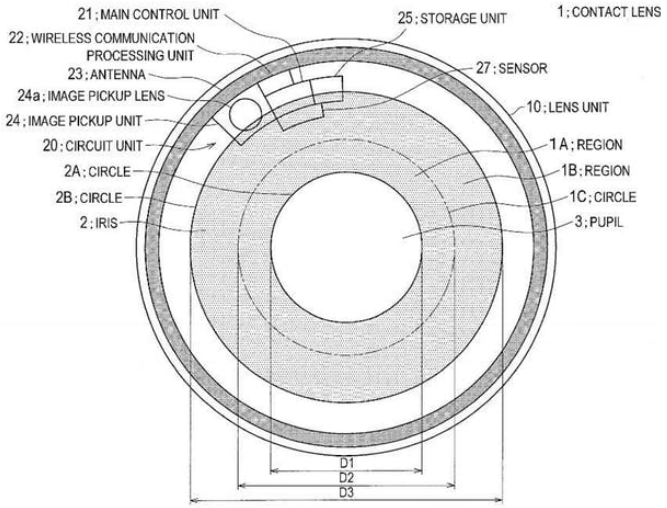


Fig. 31: Sony patented a contact lens with an embedded "image pickup lens" and the ability to take user input through deliberate blinks.

Fig. 32 - 33: Change of the textures through the use of chroma key effect in the living space of @Zarathustra, due to the use of smart lenses.

4.3 VIRTUAL REALITY

Fig. 34: RazziBot

BMI is one of the elements that allow @Zarathustra to **communicate** with RazziBot as well as with the house. No interface between human and machine is displayed in the scenario where the main character performs its job. The virtual reality represents the space where @Zarathustra and RazziBot meet and generate unique environments. The use of digital items changes the settings of the interior.

The short movie *Sight* (2012) by Eran May-raz and Daniel Lazo features the use of smart lenses in order to experience the everyday life. While the aim of the short movie is to criticise technology that has embedded our lives and personal relationships (Kosner, 2012), **it is interesting to see the evolution that interiors could experience**. Indeed, the living space of the main character Patrick, presents an "almost **entirely bare [interior]** because the contact lens-like implants in his eyes project a data environment on the bare walls" (Kosner, 2012), looking almost like a developed version of minimalist style.

The speculative location of @Zarathustra is designed to download different scenarios and to use the RazziBot's "virtual-body" as an avatar in order to perform those tasks that require a digital body. In fact, due to the **increase of digital activities**, attending meetings, traveling, partying, shopping and many other activities have become a digital experience in their world. In this way, **virtual reality enables a physical immersion in a virtual world**.

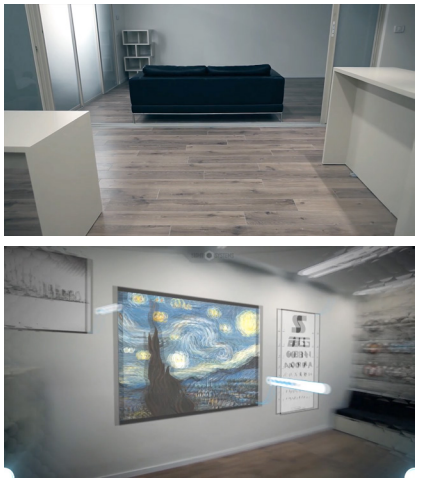


Fig. 35 - 36: Interior space with and without smart lenses in the short movie *Sight*.

Via this technology, the transhuman influencer is able to experience a **place in constant evolution**. It can alter the space at any point based on its own desires, and it plays the role of a teleporter to other interiors and worlds.

In addition to the above, through the use of storytelling as the method to present the design project, several other elements will appear along the story such as **data mining and hacking**. At the same time, the explanation of the different tools used by the two characters and their interaction with the space itself will display their intended effect while watching the short movie.

Fig. 37 - 39: Windows Mixed Reality allows to go from one environment to another one and meet with other avatars existing in other places.

4.4 THE NEXT EVOLUTION - THE STORY

CONCLUSION

In the next 10 to 15 years, the development of technology and its application to the human body and mind will see the rise of a **vast amount of changes** in how we perceive and experience the space and in the interiors themselves. At the same time, these transformations will also see the increase of questions never raised before, about the future of human society such as new social classes.

The Next Evolution **aims to reflect on the future of interiors, as influenced by such developments. As a result, we must expect a new and enhanced interior, ready to host these new entities, outcome of this merger of human and machine.**

The development of technologies in the field of augmented and virtual reality will push interior design and architecture towards a new dimension that will need to be **re-thought, re-conceived, and *re-designed***. The project shows how, with the use of such technologies, the interiors will finally be changeable and customizable in a much faster manner, and tailored to every single user, opening up to a **brand-new digital market**. Through the eyes of @Zarathustra, we can experience how the relation between human and machine will change and reach an advanced level. In fact, RazziBot, a piece of software, is finally capable of occupying a **"physical space" with its "physical body"**, and to communicate as well as to connect, with the human like never before.

The Next Evolution hints at positive and negative aspects of the advent of these new technologies, as evolution also implies moments of darkness and insecurity, but I would describe them as "the experience of being human itself" (Brown, 2018). It is our chance, and our responsibility, to harness it, tailor it to our time and minds and, like we do with interior spaces, **create something new for a new (old) human**. After all, "we don't believe in moving to a new place and replicating the one we left behind, where is the fun in that?" (attributed to A. Fisher)

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