Social and Spatial Experiences in the Cities of Tomorrow

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Abstract: As described by the strong academic literature, (Vattimo, Bauman, Mumford, Simon, Haraway, Meschiari, Florida) the contemporary society is going through new challenges, such as the friction between youth, technology, and productivity. These challenges affect the way people live and experience the cities, but also the way cities need to evolve. An anthological analysis and a study of secondary sources is used to analyze the new spatial and social experiences, while the analysis of Milan (Italy) as a case study of a creative city is used to understand the rapid shift towards the virtualization of cities, in which consumption is progressively induced by a projected image of the city rather than its actual physical fabric. This manuscript opens a research front, with the goal to understand how architecture and urban design should leave the traditional typologies to propose a new way of creating and living architecture, caught in the middle between the real and the virtual.

Keywords: creative centers; virtual reality; spatial experience; social experience

1. Introduction

Nowadays, in our contemporary society, creativity and technology play a central role not just in the development of economic phenomena, but also in the way people manage their inter-personal relationships and image their being in the environment. Since the importance is given to creativity and technology, these two terms are increasingly the subject of researches in the fields of society and built environment. Thinkers and urban planners like Richard Florida, Martin Kenney, Edward Glaeser, or Mark Satin have made the relationship between spaces, creativity, community, and technology the center of their social and urban theories. According to the current online sources related to the UN and ONU organizations, there are two trends that characterize today’s society: (1) Young people, who mainly live in urban areas (but not in central areas) are becoming a more and more powerful segment of society, due to their numbers and their new abilities, (2) technology is characterizing more and more the physical and digital world the youth will increasingly be immersed in. In this respect, the authors consider, in particular, the work of Richard Florida, who argues the “creative centers provide the integrated ecosystem or habitat where all forms of creativity, artistic and cultural, technological and economic, can take root and flourish” [1] (p. 186).

The article starts from the premises of a worldwide reality dominated by friction between productivity and youth: “Working with and for young people” highlights as today the world hosts “the largest generation of young people in history, 1.8 billion. Close to 90 percent of them live in developing countries, where they constitute a large proportion of the population” [2]. Another point to highlight, in order to better describe the situation of this vast slice of the population, is the fact that “the majority of the world’s youths have many obstacles to engage in productive activities” [3].
Lack of resources to educate or to start a business and the distance from economic centers are barriers to the possibilities of personal and professional growth of a large part of the global youth. However, on the other side of the possibilities, it is necessary to dispel the myth that young people, where they have educational and investment opportunities, are the leaders of small and medium-sized technology companies.

One way to understand this phenomenon is through a post-colonial historical perspective such as the one of the Italian philosopher Gianni Vattimo. Through a Marxist interpretation of the thought of Heidegger on the relationship between being and the use of technology for being, Vattimo argues it is on one hand, the super technical power of finance and on the other hand, the destruction of a political system in the Western world which puts people in a state of emergency, creating an opposition and thus enabling a creative productivity [4]. Looking at certain experiments of socialist democracy happening in the South American continent, Vattimo argues: “to the undeniable demand of a deep democracy we can thus try to answer with a better attention toward other social and cultural realities, which up until now, also through the bloody ‘humanitarian’ wars conducted by the USA, have been forced by our Western world to conform to its lifestyle, consumption standards, moral codes, and economic practices” [4] (p. 156). Within the state of political apathy of the Western cultures, the only state of emergency which seems to be present in the current Western world is the one generated by consumption, as discussed by Bauman in Homo Consumens [5]: “for a consumeristic culture, those who are content with what they believe they need, and those who try to achieve that and nothing else, are rotten consumers: They are almost social rejects within a consumeristic society. The menace of exclusion, or the fear of being excluded is present even in those who are satisfied with the identity they have, and thus they tend to recognize themselves in the image that the others have of them. The consumeristic culture instead embeds an ineradicable pressure on being someone else” [5] (p. 28).

The second element that is considered in the present paper is the current state of technology and its influence within society and the social environment. Since the advent of the Internet, the virtual space has been changing in its conception from being a parallel universe used solely for secretive messages to a parallel universe that can be accessed by anyone, anywhere, anytime, for whatever reason. In *The Sciences of the Artificial*, Simon discusses the semantic and philosophical meaning of the notions of natural and artificial. In spatial terms, he argues “it should be clear that the space inside the head of the designer or the memory of the computer may have been different properties from a picture on paper or a three-dimensional model” [6]. By distinguishing computers as artifacts at the service of humans, contrary to futuristic and dystopian visions associating human characters with computers, Simons describes computers as abstract and empirical objects. While abstraction is acted through mathematics and resolved in the velocity of calculus, empiricism is acted through memory. These claims give the first set of tools in order to understand the increase speed of our society and the increasingly short memory of communities. The way humans conceive and interact with digital and virtual technology shapes the way they conceive, construct, and protect their physical environment and the interaction with it. This claim has enormous consequences in the way societies and communities interact within the economic sphere, with the rise of digital payment and cryptocurrencies, within the social sphere, with the progressive use of short messages, virtual chats, and dating apps, and within the built environment, with the use of virtual technologies to facilitate the fruition of museums, institutions, or shopping centers.

Understanding the implication of progressive creativity in the way scholars, such as Florida, argue and technology as a medium increasingly blurring the boundaries between the virtual and the real means today to face issues not only of environmental and spatial nature but also of gender and postcolonial type. One way to see the concrete interpretation of such challenges involves the interrelation between digital technology and art. Immersive and virtual spaces represent a common medium to convey a message, from the work of contemporary artists like Olafur Eliasson or Erik Jaenike to the more mainstream use of virtual reality in video games. Another way to observe the intertwining of issues regarding life and participation in the city with technological advancements is through
discourses of socio-political nature within the field of the gender studies emerged in the 1990s, such as the ones of Donna Haraway on the cyborg. Haraway’s feminist theorization of the notion of cyborg as to be about “lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoint” [7] is crucial in this sense within a contemporary reality in which on one side the progressive, and rightful, destruction of the colonial illusionary Western imagery brings social and philosophical uncertainty, and on the other side, the shapeshifting liberal capitalism brings economic instability and social unbalance. Within the fabric of the city, the traditional thought arguing “on one side there are the collective and unconscious practices of ethno-architecture, inserted and modeled within a material world, on the other side, there are the concretizations of the Aristotelian-renaissance architects, immersed within a landscape-scene-spectacle which is co-existential to the actual construction” [8] seems to shatter within the contemporary increasing virtualization of relationship, communication, transport, all of those incredibly dependent on social media and the consensus of their users, so that the city becomes pure image with no material property. How can creativity emerge from this contentless ground?

1.1. Technologies

The incredible widespread diffusion of the Internet and the level of technological capabilities achieved is, without doubt, amazing (the percentage of households with Internet use in the USA went from 18% in 1997 to 85.3% in 2018 [9]) and this represents certainly a technological-economic phenomenon that impacts everyone’s life. Let us consider, for example, the number of app downloads (updates excluded): Their number has globally increased from 143 billion in 2016 to 194 billion in 2018, which means one billion downloads of new applications every two days or about 25 downloads per person (with and without internet access) every year [10]. This turns into a radical change in the relationship with technology that from an element of support to life becomes an almost essential element, if not even an addiction, so that the frequency of Facebook use in the USA, for example, as of third quarter 2019, is even “several times a day” for 52% of respondents, or “daily” for 21% [11].

Besides the social-media phenomena, there is also the world of online apps that convey the relation with the physical environment. Therefore, there are also many startups that base their business on the interaction that users have with the city through applications that allow them to experience the territories in a more dynamic way. There are also innumerable digital platforms and mobile applications that allow urban phenomena to be studied in greater depth, with a consequent ability on the part of legislators and planners to make faster and more effective decisions. Some examples are start-ups that belong to the Urban-X network (www.urban-x.com) or Urban Us (www.urban.us).

Surely, the quality and the quantity of all these phenomena contribute enormously to changing the way in which social relations take place and the way in which cities or territories are experienced.

However, there is another technological element that will revolutionize the way people experience space in cities and territories: The phenomenon of “immersive multimedia”, “virtual reality”, or “virtual environment”. Although these terms refer to different technological applications, which is why they cannot be used as synonyms, they well represent the phenomenon that is going through these years, or the possibility of immersing oneself in spaces different from the real ones. Thanks to the use of specific hardware and software, realities imagined by a computer developer or spatial realities typical of other places can be experienced by users: “The aim of VR is to create a sensory experience for the user, sometimes including sight, touch, hearing, smell, or even taste” [12].

In 2017, the market of augmented and virtual reality had a dimension of 11.35 billion dollars and the forecasts say that this market will reach the size of 571.42 billion by 2025, with an incredible 63.3% of compounded average growth rate (CARG) during 2018–2025 [13].

Moreover, according to a study published by Statista 2019, TrendForce, the shipments of virtual reality (VR) devices worldwide in 2017 were around 3.7 million (Sony 1.7, Oculus 0.7, HTC 0.5, Microsoft 0.3, etc.), while just two years later, in 2019, the shipments were around six million (Sony 2.2, Oculus 1.7, HTC 0.8, others 1.3). Even more astonishing is the surge in sales of virtual reality
head-mounted displays, or optical head-mounted displays (OHMDs) that are forecast to pass from five million units in 2016 to 68 million in 2020 [14].

1.2. Gaps in the Current Academic Literature and Expected Contributions

According to all these facts, some initial considerations to address the further steps of the research were possible:

1. Youth is the most relevant segment of the society, as never before, and will have a lot of responsibilities and abilities to face the challenges of tomorrow;
2. Technology will be the most important issue that society (and in particular the youth) has to deal with, considering it both as a challenge and a tool;
3. New forms of creativity and imagination, given by technological potentialities, will change the ways in which people are experiencing the space and relating to each other;
4. Dealing with technology will be also a matter of changing the perception of spaces, of conditioning the creativity and the design of the physical environment.

Although current academic literature highlights very clear data about the social phenomena affecting young people, society and the spread of technology, there are still many issues to which contemporary literature has not yet responded, in particular, as regards forecasts about the impact that new technologies can have on the form in which society (in particular young people) live, and will live, spatial and social experiences. Clearly, a consequence of these new experiential forms is a new way of living the territories and, even more important, is a new way of creating the territories, whose design is still based on the typologies of historical cities, without thinking about creativity and virtuality. Therefore, with this manuscript, the authors aim to contribute to the existing debate on society and technology with a discussion on the spatial experience based on the awareness of the innovations given by the dichotomy between digitality and reality, whose impact on practice has never been fully analyzed.

2. Materials and Methods

Upon these premises, the article aims to explore the way the architecture of the city interacts with its users through the medium of technology. Within this broader topic, the authors aim to investigate whether technology is able to serve, within the context of the Western global city, as a medium for productive and creative purposes rather than just for capitalistic consumption. The article does so through two main sections (Figure 1).

1. The first section investigates the spatial notion of technology in history and mythology, arguing the contemporary claim of a virtual world paralleling a sensorial real one is actually a historical continuum rooting since the Greek antiquity, and thus focusing on the ways of the contemporary fruitions of virtual reality rather than the actual technological virtual advancements. It thus aims to question which are the truly innovative features of the current technological phenomena and what are its revolutionary implications in social terms, due to the fact that the fascination with living parallel and different realities has always existed in history, though with important distinctions.

2. The second section takes the stances from this argument by focusing on a specific urban reality characterized by a rapid shift towards virtualization of the city, in which consumption is progressively induced by a projected image of the city rather than its actual physical fabric. Through this study, the authors aim to investigate whether a new way of creating and living architecture, caught in the middle between the real and the virtual, can serve as a medium between consumption and production within possible creative and collective processes flourishing in the city. By considering the current scenario of Milan, it focuses on the new meanings that cities and territories take in social life: From the new ways of design services to the new uses of the spaces, from the participation in thinking about the new spatial solutions for aggregation to the participation in managing innovative activities and imagining new functional programs.
To ensure the widest and richest possible treatment of the topic, the research started with the selection of a series of bibliographic contributions that are as rich and deep as possible. In both sections of the research, a structured bibliographic base allowed the generation of conclusions and the formulation of final discussions.

The first part of the research took place through an analysis of the most relevant texts concerning the concept of utopia, language, and creativity, in which the philosophical conception expressed by a more or less large part of society was reflected in the spatial and social experience of people. This process involved the analysis of more or less classic texts that cover a particularly large period of time, precisely to observe how different societies and different philosophical conceptions of society, even at very distant times, can provide guiding indications for the understanding of the dynamic contemporary phenomena.

The second part of the research refers more to contemporary cities, in particular Milan, and based its bibliographic structure on the existing literature concerning infrastructures as a place of creative generation and the city of Milan itself. The analysis of these sources has made it possible to highlight which urban phenomena are taking place in cities like Milan, where creative phenomena are among the main protagonists of urban life. In this case, the resources analyzed refer to a very more limited period of time (the last X years).

**Figure 1.** Scheme of the methodology used to develop the research.

### 3. Results of Phase 1, Contemporary Experiences: Utopias, Language, and Creativity

Assuming virtuality to be a space practiced today by young people in their everyday lives, the authors retrace in history, even in antiquity, potential precursors of such habit of considering the virtual space as a valid alternative to its physical counterpart. In Aristophanes’ City of Birds (414 a.c.) two Athenian citizens, disgusted by the conduct of their fellow citizens, decide to found a city in the sky, together with the birds that soon would become gods among people. The imaginary of the text, combined with the elegance of the style, makes of Aristophanes’ piece a work of escapism, distancing itself from real events and thus falling into utopian realms that exalt freedom and joy.

This comedy represents, extraordinarily, an ancient version of today’s virtual reality, with the sole difference of the former being shared within the community, and the latter being often experienced alone. “The categories of sensation, perception, and imagination have been upset by technological innovations and the power of the industrial apparatus, which spreads them […]. It is an ecological and social change” [15].
The revolution of this change has no precedents, nor can the utopian cities of the past, linked to a precise philosophical-political project, be compared to the new dimension of today’s virtual reality. Within the contemporary context, the ideas of Plato (Republic) or Campanella (Città del Sole) appear inconceivable in their rejection of a link between individuality and creativity, and the spaces imagined by Cabot in the city of Icaria do not correspond to today’s imaginary, even though some urban visions of Renaissance proved to reflect the contemporary construction of the space of the city.

3.1. Spatial Experience

The ideal modern city, from the Fifteenth Century onward, has been the subject of numerous theories and practical experimentations. Ledoux’s city of Chaux appears, in its architectural elements, as a successful synthesis between fantasy and reality. One could even think of its plan being the stage of a play in which the activity of salt extraction is performed both by spectators and actors. This allusion to the theatre is also present in Ledoux’s following work “Architecture”, in which the French architect is inspired by Montesquieu and alludes to Rousseau’s Contract social, ultimately assuming architecture being the mirror of the social order. In this context, the city appears to have constituted in time the perfect space for the conception of utopia. “This exemplary character could be of a political-state, socio-utopian, religious or of other types. Anyway, the city had to be the reflection of a conception that transcends reality with the purpose to modify it. In this framework, the extreme possibility is represented by the attempt to translate a social utopia into an urban plan” [16].

The virtual space of the past can be therefore identified with utopia, which is often described in form of a journey which is represented rather than performed by the individual, and which today is characterized for being traveled by everyone rather than just by the elites. On this matter Baricco, in his book The Game, stresses this difference, in Greek poems: “In Achilles, there was a force, a violence, an invulnerability that could not be explained, that could not be found in the destiny of humans, and in which one could perceive the disturbing mystery of a possible and invincible inhumanity [...] the Homeric poems were the media, the Iliad was an encyclopedia that integrated all the knowledge of the Greeks. It was their way of passing down the truth [...]” [17]. This idea of truth finds in Baricco an ideal ground for the emergence of an environment in which a single, free, endless virtual game, characterized by a genetic code of pleasant design, is able to generate sensory satisfactions, a progressive increase in the game difficulty, and immediate usability with no learning curve. “The Game is, in fact, the ideal habitat for such an idea of truth and therefore the idea took off in it after millennia of sleepiness. It always existed, but it was forced to move in high-density systems, where the news circulated slowly, handled by few experts. It ran, but in slow motion. In the Game, it suddenly found its perfect field for competition. Low density, infinite number of players, minimum friction, fast reaction, endless number of routes. It had a design suitable for capturing and producing large sections of the world” [17].

It is thus the authors’ argument the fact that some sort of virtual world, shifting between utopias and imaginary journeys, has always existed in history. Today however, its use has radically changed, and it is precisely from this change that it is possible today to imagine new spaces that correspond to social reality. The sensitivity towards another world, supported not only by the literature and by the printed press, but today also by the gaming industry and by social media, has always allowed a connection between human aspirations and their dreams, and perhaps materialized in the idea of being in spaces different from the ordinary ones. In this sense, the pervasiveness of this dream and its materialization through communication media is argued to allow the condition for the design of new cities.

3.2. Social Experience

A digital revolution was supposed to lead to deep changes in people’s lives. This is why we cannot talk about evolution. Some changes have already happened, and, although we probably do not realize, they are already modifying social and individual behaviors and the way they will affect the
future. Consider, for instance, Andreoli’s prediction: “In the West, before civilization, life was guided by instincts and impulses and everything was taking place in real time, in the empiricism of survival. At that time, we were in the era of barbarism, at least in this way, civilization has defined the primitive man compared to the civilized man. The hypothesis is that a digital brain would bring us back to barbarism. If the culture of Humanism will not be transmitted from one generation to the other, we will be, in few years, perfect, as termites, we will live guided by digital machines and we will learn not to recognize this new-found condition as the era of barbarism and stupidity. Our thoughts will never ever know the meaning of these words. We will not have the perception of future, we will not even notice what it means. Curiosity, doubt, and the perception of the Ego will be extinguished, and everything will be controlled by a precise, fast, and stupid digital device. But we will not be aware of that. Man will not smile again, maybe he will not even produce tears” [18].

Critical is, however, the fact that the loss of words, caused by different factors, such as the demand for immediacy, the clear need of short writings, and the ease to replace written language with images, is, in fact, a loss of thoughts. “A human language should be rich enough to convey all the meanings that come to our mind” [19]. An antidote to such a loss could involve a sharpening of thoughts which include words whose reduction is limiting creativity. The exact knowledge of words leads to a reflection upon their meaning and to new energy through the invention of other associated words. This particular activity seems to have no match in the animal realm and allows humans to engage in artistic or scientific activities [20].

Due to these extraordinary changes, which prove to break the social rules of traditional communication, the impulse towards imagination and association of different ideas breaking common schemes and allowing the emergence of important phenomena through their application, it necessarily leads towards creativity. Of course, not everything that is new implies a creative action, as for its emergence, not only the breakup but the imposition of a different social result is necessary. “Creativity is adaptation to the environment. This adaptation goes hand in hand with the differentiated application of cultural policies, obviously changing, and innate intellectual categories, which instead are an unchangeable component of our genetic heritage” [21]. Therefore, the rules are violated and different ones are established, as from the imagination different pieces are put together. Only through this process, it is possible to assert the following utopian thought: “it almost has the same meaning of possibility; the fact that a possibility is not reality simply means that the circumstances to which it is currently linked do not allow it, otherwise it would be an impossibility” [22].

3.3. The Characteristics of Contemporary Experiences

What differentiates the virtual journey of today from the utopian projects is determined by many factors that must be emphasized, including:

- The first ones are based on individuality (mass individuality) or on the game and have a speed of communication, which limits the slow reflection but that can induce the aesthetic imagination, completely impossible to find in utopias.
- Furthermore, the virtual journey is based on pleasure, generated by the almost compulsory fantasy, also the margins of the virtual world are not as well defined as those of the real world and allow a broad imaginative aptitude.

Then, such an upheaval entails clear consequences: “The sacred house, with roof, wall, window and door is today equally perforated by material and immaterial cables. It disintegrates into a ruin, through whose chink the wind of communication blows. The digital wind of communication and information permeates everything and makes everything transparent” [23]. It is really impossible to imagine the spaces of life and work according to traditional patterns, as it is difficult to think of the spaces of the city only according to the logic of the urban project, unless one first becomes aware of the social revolution (after writing) that crosses the Earth.
There is no doubt that this revolution must be shaped for the benefit and the well-being of people, having caution for it not to become a dystopia in which humans become slaves of Artificial Intelligence. There are many ways to avoid this danger, (1) first of all, through the spread of culture and the safeguarding of an appropriate verbal and written communication. (2) In regard to the vision of urban spaces, we need to take note of other needs, to reject the construction of new twentieth-century style squares, and to start from those who are resident today in the cities that are undoubtedly turning into their social structure. While the poor are expelled from urban settlements, where moreover they arrive daily to find some opportunities with the belief of climbing the social staircase, young people reject places imposed by the old urban planning: They must find ways to transform amassment into collectivity, the individual creativity, which may come into being expressed in isolated places far from the city, into general opportunity. “Rarely creations dissipate in themselves: Most of the time a creation fertilizes others, in a chain. The invention of oil painting in the Renaissance determined all the subsequent pictorial art. Addiction to Renaissance painting, with all its variety of endless shades, allowed Galileo to explore the secrets of sunspots better than the northern European astronomers succeeded to, because less sharped in their view. Press, electricity, scientific organization, the computer were extremely fertile for further inventions” [24].

4. Results of Phase 2, Contemporary Territories and Design

A question remains open today on how the current digital technology, by allowing constant connectivity to virtual networks and annulling communication distances in time and space, is influencing and transforming not only the fabric of our cities but also the modalities of interaction between its users. Historically, if it is true that the city has evolved from the fabric of the village due to the rise of commerce and trade, it is also true that its growth in size and power is attributed to the emergence of politics [25]. Since antiquity, the city, and in specific, the city square, has been synonymous with political debate. French sociologists, such as Pierre Bourdieu and Bruno Latour have long insisted, respectively, on the Marxist notion of cultural capital being shaped by a class-based personal taste, and in technology being only the mutable element within socio-political dynamics repeating over and over through the course of time. About this issue, the research referred to “La distinction. Critique sociale du jugement” di Pierre Bourdieu [26] o a “Nous n’avons jamais été modernes: Essai d’anthropologies symétrique” di Bruno Latour [27]. For a spatial notion of cultural capital, the authors considered the work by Edward Soja, “Seeking Spatial Justice” [28]. From a spatial perspective, this argument finds a connection with the thoughts of architects such as Manfredo Tafuri and Ernesto Nathan Rogers, who have argued about technological events and discoveries in the life of a city as being consequent to political decisions [29–31]. In this sense, politics and cultural movements have been playing a crucial role in influencing the development and the use of technologies [32].

4.1. Emotional Experience

Today, one might be tempted to see this relationship in negative terms: Consider, for instance, the effects of social media on worldwide politics, or perhaps the emergence of smartphone zombies, or “smombies” [33], walking on the street while staring at their smartphone screens. While the relationship between politics and technology has become more complex, the relationship between people has become less and less political, and progressively more technological. Consequently, the (political and social) art of flirting has disappeared. People have stopped bargaining the flirtatious gaze of fellow travelers or companions, preferring to look on online dating apps for the subject of their temporary romantic or sexual desire [34]. At the same time, flirting with the city itself becomes impossible when the wandering slow art of flanerie has been substituted by meticulously planned trips through Google Maps [35]. Hence, both the real and contextual event and the physical ground needed for that event to happen, appear to become superfluous if not unnecessary in the contemporary hyper-connected city, in which, quoting Zizek in Event (2014), “a lunatic dwells in the imaginary dimension, confusing reality and imagination” [36]. In the possibility of the square becoming virtual, the physical place of
gathering is now represented by the street, which has been adapted in functioning as both physical medium of transit and ground for virtual socialization through visual signs located on the ground, representing the new horizon of the smartphone-addicted city user [37].

4.2. Need for Infrastructures

The connection lines not only allow territorial accessibility, but they design urban spaces whether they are underground or above ground. In fact, those bridges that cross the streets become the contemporary urban gates, shelter, refuge and gathering elements and, as such, can express the free voices of the society. Even the underground metro exits, with their flag signs, but, most of all, with their roofs for the stairs, become the cornerstones of a territory to be discovered, sometimes immense spaces, sometimes artistic spaces, always involved in the habits of people. In the city of the future, rich in privatizations, the collective places will start from the railway lines, historically determining also the housing density and the landscape, even if underground. It is for this reason that reviewing a brief reference to underground infrastructures can bring to mind the well-known images of the city to which they refer. In fact, the development of communities, meeting places and even commercial symbols have always been identifiable with them, which will remain decisive meanings for the city in the future. People and infrastructures shape agglomerations and relationships.

In the big city and where the poor are often relegated to neighborhoods far from the centers of work and interest, the metropolitan railways, mostly underground, seem to be the only solution so far experienced for urban accessibility. Stations emerge as signs of indispensable fruition and constituted from the ‘900 an exercise, often glad, of architecture, as the recent case of Naples. The elevated railways, also built for the rapid transportation of passengers among the different areas of the city, have certainly had a greater impact on the landscape as in the pragmatic New York (340.8 km) in the first phase of implementation of the network or in the rich and positivist Berlin (315.9 km to 1930). In fact, between 1915 and 1939, the most efficient cities in the constantly growing metropolitan lines were: London with 284.8 km (1920) and 20.6% of passengers on the total public transport, Chicago with 152 km, Paris with 95.6 km and 33% of passengers on total public transport. These infrastructures were joined by Monaco with 411.9 km (1970) Liverpool 146.4 km (1980), and Melbourne 310 km (1980) [38].

To date, the masses transported have been very large and intercepted different categories of the population without social distinction. The metropolitan network represented the major commitment of the public city and a complete response to the needs of communications, today even more important to avoid pollution phenomena and vehicle congestion. Subways and the public transport armor become the areas of the society of the future and are part of the so-called “kinetic energy”: Utilization rate of public transport, number of passengers transported by airplanes over the urban population, percentage of dwelling with internet access, traffic index. Kinetic energy is a section of the overall energy (economic, social, attractive, kinetic, and environmental) with which contemporary cities are judged by the Italian Institute for the international politics studies (ISPI).

The importance of metro lines was well understood in Moscow in the 1930s, when Stalin declared the stations the socialist living-rooms of the working class. Hence, an aesthetic and stylistic debate, very lively for specifically Soviet architectural expressions, arose. It was a technical infrastructure that in itself had an immediate and unmistakable significance of modernity (at that time there were only 20 in the world) and of explicit usefulness for everybody, with station protagonists of different urban landscapes and forms of creative communication.

After 82 years from the opening of that metropolitan, this transport solution remains the most appropriate for young people in the world, because it respects the need for fast connection, because it opens up creative attitudes in the relationship with underground life, because it helps encounters and social affinities, because it facilitates social exchange in the global cities.

In the United Arab Emirates, where the heat forces the use of the car, new forms of transport are also being studied: In Dubai, since 2005, 27 billion dollars have been invested in metro and bus. Unmanned vehicles will be built in the shape of a cube for 10 people each by the California company
Next Future Transportation: Users are picked-up and the modules, similar to rooms (6.5 square meters) on wheels that can be attached together, travel at a speed of 56 miles/h. Taxis with 18-propeller drones that surmount a cab for two unmanned seats are being studied. In the world of mass individualism, however, also the storage spaces of these devices will represent an interesting social environment [39].

4.3. Analysis of Contemporary Interventions in the Case of Milan

In this sense, the architectural interventions on both the built and the un-built space have changed significantly in the contemporary global city. Gone are the masterplans characterizing cities like the post-wall Berlin, in which the primary aim of architects was to fill the urban void through an architecture structured by scholarly theorizations. Gone is the idea of the un-built being a negative of the historical city to be filled up. In their place, thanks also to the progressive inclusion of landscaping within the practice of architecture and the consequent conflation of vegetation with constructions, a new notion of the un-built is emerging, characterized by a transient and undefined identity which can be personally shaped through virtual media. Recognized once as of the main industrially productive Italian city during the Twentieth Century, Milan is considered by the authors as a significant example of such a shift. Cacciari in 2004 was speaking of an endless city made of incoherent fragments, characterized by “the insurmountable ‘inertia’ of its spatial dimension comparing to transformation and socio-cultural ‘mobilizing’ factors” [40] (Figure 2). John Foot, in 2015, portrays a city more projected into global ideas linked to sustainable living, global finance, multicultural experiences, and worldwide connectivity, in which architecture appears as their tool of concretization and technology their medium of communication [41].

**Figure 2.** Detail of the painting Officine a Porta Romana, by Umberto Boccioni (1908) representing the raising of industrial compound of Milan.

4.3.1. Void

In this scenario, the notion of the void is taking in Milan a new shape in the form of urban parks, with future visions of the city flipping almost over the ratio between architectures and vegetation, as emerging for instance by the proposal for the reconversion of the old railway hubs surrounding the city center [42,43]. The intervention of Porta Nuova offers an interesting perspective in being involved in complex dynamics entrenching the physical and the digital image, the real and the perceived. The masterplan of the area represents an important urban development to complete a historical architectural void left un-built and un-resolved for decades, located at the fringe of a problematic neighborhood connected to both the industrial and the criminal history of Milan. The words of Manfredi Catella and Luca Doninelli are particularly relevant about this issue: “Someone with whom I was talking a while ago, when the Stecca was still in its place, told me: ‘You know, people go out at night looking for strong emotions. You can imagine when they’d go after midnight. In a city like Milan, my pal was arguing that those usually going out at night do so for drugs, while those working day hours go to sleep early. I instead believe people need mostly places where to meet and gather. This is
a vital need which needs to be peacefully and safely fulfilled, for which we are all responsible” [44].

Including a mix of functions from commercial to tertiary and residential, it appears to resolve the incompleteness of the area through the execution of the spatial typological triad historically present within the European city, represented by the square, the street, and the park. Through the use of platforms and roof terraces, the new architectures allow for the opening of new squares, vistas, and paths tricking the eyes with green walls, perspective angles, and curved structures, and ultimately building a new elevated ground zero which modifies the traditional flat landscape of Milan.

4.3.2. Layers

In terms of imagery, the interventions appear more innovative in working on multiple layers: A first layer is constituted by the image provided by the masterplan itself through the symbiosis between the iconic buildings designed by celebrity firms of architecture, and the naming of the open spaces to past key figures of Italian and European architecture, including Gae Aulenti or Alvar Aalto. A second imagery is suggested by the spatial conformation of the various areas, which enables the users, with their vague spatial resemblance to iconic worldwide places or their connection to images of pop culture, to feel like being in Rockefeller Plaza in New York, or perhaps inside an impressionist painting while having a dejuner sur l’herbe, or again in some sci-fi movie like Inception as the trees climb up the walls of Boeri’s Vertical forest (Figure 3). Under a Bourdieuan perspective, it can be argued that these visual and cultural artifices contribute to blurring the perception of economic and class distinction between those living the high-rise luxury experience and those watching it from below. This phenomenon allows a voyeuristic experience which enables, also through digital sharing, self-regulating behaviors much like those argued by Jane Jacobs in the 1970s. Thoughts here go to the urban strategy of having eyes on the street, theorized by Jane Jacobs in “The Death and Life of Great American Cities” [45].

![Figure 3. The new buildings of the regenerated area of “Porta Garibaldi” in Milan, Italy.](image)

4.3.3. Green Smartness

Lastly, the intervention works with the idea of the green smart city through a digital platform enabling its members to participate to events relating to sustainability, urban farming, art and culture, music, activities for kids, and sport. This aspect is the one that appears to be the least successful, or perhaps the least visible within the daily life of the area: As the spectator is physically induced to take action by participating in the constant flux of events in Piazza Gae Aulenti or even in “subversive” behaviors like bathing in the public fountain at the center of the square, the digital platform works behind the scene in organizing, controlling and advertising such “real” events. Perhaps this is the
real concretization of the foretold “smart city.” The traditional notion of the square as gathering space becomes meaningful and lived only when connected to specific events that can be shared online through social networks. Only then, possibly, even simple gestures such as a dip in the fountain become allowed and pleasurable.

The disappearance of the square intended as a proper architectural space is something unprecedented in the history of the city. The new Agora is a virtual space which can be potentially located anywhere. However, the creation and representation of an eventful and creative place through the use of tools such as Facebook and Instagram, that by nature promote and portray only selected eventful images, actually inhibits a spontaneous and thus authentic civic life. As argued by Zizek, “In the last couple of years, we thus have dwelt in a continuous pre-event situation in which an invisible barrier seems to prevent again and again the genesis of a proper event, the rise of something new. One of the reason for this invisible barrier is the latest ideological triumph of capitalism: Each worker becomes his or her own capitalist, the entrepreneur-of-the-self who decides how much to invest in his or her own future” [46], participating in a crude social Darwinism in which public institutions are also involved.

4.3.4. Tactical Urbanism

This phenomenon, besides the immediate loss of significance of the traditional architecture of the square, can give space to the emergence of a new urban consciousness on the quality and the use of common public spaces so far either neglected or solely used for transit purposes. One of the results of such a new activism takes shape in the phenomenon of tactical urbanism. As for its definition, tactical urbanism consists in the temporary change of the physical or living condition of a small part of the urban environment by local residents with the aim to facilitate participation or to induce the municipality to change or ameliorate specific conditions considered harmful or limiting [47]. This pacific practice of urban subversion has been acknowledged worldwide and used even in Italy, with examples in Turin, Rome, and also Milan.

In this respect, the practice of tactical urbanism conducted by the City Council of Milan is considered as an interesting case for its controversial use within the urban strategies of the municipality through the medium of digital sharing. This case should be understood in light of the Milanese political history of management of open spaces: After the successful experience of the association Esterni, which promoted a playful and inclusive form of tactical urbanism, the Council led by Letizia Moratti started in the mid-2000s to systematically fence all the public open spaces in which people used to gather at night, due to noise complaints [48]. Consequently, Milan, already poor of open gathering spaces, became even poorer, with people forced to occupy streets or spaces of “third landscape” nature outside of popular bars and clubs, creating more traffic and noise-related issues [49]. The current strategy started in 2018 as an attempt to intervene in this unpredicted and unprecedented phenomenon [50]. It then has become a more structured project aiming to ameliorate socializing conditions in poorly designed areas, especially in areas either connected to major urban events or thought to be populated by artists and creative people.

Far from being either spontaneous or subversive, this practice appears to be problematic for its short-term goal and the reliance on unexperienced, if not even volunteering, figures rather than professional designers. The most notable example of this attitude is represented by the intervention within the neighborhood of Nolo [51]. Nolo (acronym of NOrth-of-LOretO) is located in the north sector of Milan within a historic part of the city which up until the 1920s used to be constituted by small autonomous municipalities each having their own character, and only recently acquired the nickname of Nolo from foreign students and designers relocating there due to cheap rents. Nolo represents a parallel reality existing through Facebook, with restricted groups organizing street fests and communal dinners, and through online self-promotions of local professionals and businesses.

The problematic application of tactical urbanism in Milan extends also to forms of urban gathering which are considered either marginal or non-conforming to the norm. In striking contrast with the thesis
of Florida on the so-called bohemian-gay (or diversity) index which conﬂates non-heteronormative sexuality, creativity and urban gentriﬁcation [52,53], it is crucial here to consider the controversy around the continual refusal of the municipality to include the LGTB area of Milan, which is ironically located not far from Nolo, within the current strategies of urban renewal and pedestrianization, in spite of the gay-friendly attitude of the Major Sala and the recent promotion of the area as “Porta Venezia Rainbow District” [54,55]. In this sense, this space remains characterized by a ﬂow of people traveling from outside with the main purpose of consumption rather than becoming a diverse and creative hub, as suggested by Florida for gay districts. Technology, in forms of dating apps and social networks, might be considered here one of the few remaining free tools to tear down the barrier created by high rents and high costs of living, and thus construct some sort of sense of place and belonging.

In conclusion, creativity and technology appear in the experiences like the intervention of Porta Nuova to be working only when the technological instruments and services function invisibly under the skin of architecture and urban design. Through this process, a double goal is achieved: Economic proﬁt is reached by those proﬁting from the digital, and real estate, capital, and the users of the space are allowed a certain freedom not only to navigate through the space, but also to construct their own spatial narratives, dignifying an idea of city as “a product or projection of the body (in all its variations)” [56]. When instead technology is utilized in opportunistic ways like in the case of the use of Tactical Urbanism in Milan, public institutions, for their inability to understand how current technological tools are shaping personal relationships, fail to construct a notion of public good aiming to facilitate inclusivity and authenticity. To this scenario, the author ultimately opposes the more liberating and subversive notion of “queer space.”

The idea of “queer” is explained by Jean Ulrick Desert in “Queer Space,”: “My general deﬁnition would begin as follows: Queer space is virtual space [. . .]. Queer culture would not be queer if there were no other culture from which to establish its diﬀerence [. . .]. Queer culture exists because of the dominant normative culture [. . .]. Queer can be deﬁned elastically to include sensibilities other than the normative with a propensity toward, but not exclusive of, homoerotic. Queer is, therefore, liberating rubric encompassing multiple sensibilities exclusively or in tandem” [57]. Although not necessarily linked to creativity, queer spaces are argued to eventually have the ability to induce the emergence of creative processes, for their promotion of an inclusive attitude of life within the urban space which crosses the elitist and rather normative notion of tolerance argued by Florida.

5. Discussion of Phase 1 and Phase 2 Results

As discussed in the ﬁrst section, the present research observes signiﬁcant changes, within the last decades and especially since the advent of the Internet, over the spatial and the social experiences of people living in contemporary cities. Diﬀerent social behaviors of interaction with the urban environment bring thus to question the traditional forms of production and consumption, making creative innovation a strategically vital need for the integration of traditionally physical processes with new virtually-born and based activities. In a technological society, which allows virtually anyone, rather than a small elite, to connect anytime long distance with other people, or perhaps even with imaginary realities, the role of space, and its physical being, appears to have less, or at least a diﬀerent, importance.

In this matter, the observation of the urban reality of Milan conducted in the second section, characterized by a rapid shift towards a virtualization of the city, highlighted the importance to rethink about the physical spaces of the city, giving them a new role within the current technological society, promoting the emergence of a common creativity. In reference to Florida’s stances on creativity and its physical ground of emergence, the authors stress that in order for these centers to become “integrated ecosystems” as Florida argues, the whole city in its social and physical fabric would need to be reconsidered: Rather than a closed system in which people interact unilaterally with technological services and punctually access physical eventful places, the city could be considered as an open and porous system in which, while infrastructures would provide a network of connections, digital technology would facilitate and foster the personal and collective redefinition of those places which
have been connected within a physical network, thus producing a form of collective creativity. Such a model of city consequently does not conceive the notion of “non-place,” due to the fact that the physical architecture of squares and streets, which are often conceived as mere anonymous and ubiquitous space of connections as argued by Augé’s seminal book “Non-places,” would be repopulated by relationships made online and having their own virtual dynamics, or even remodeled by virtual software altering their physical reality. In this perspective, however, we stress Florida arguing that geography is not dead, but, on the contrary, the place where we live is fundamental for the development of people and their success. Quoting Florida again, “Labor, capital and technical knowledge are all well and good, he allowed, but none of those would amount to anything significant if people could not combine their talents, ideas and energy in real places” [1] (p. 192).

Within this context, digital technology is rapidly making the traditional conception of space to appear obsolete, as it facilitates the emergence, through a new way of thinking that does not necessarily connects production to either a physical ground or a material product, of new centralities in the urban and social fabric of the city. In fact, as emerged in the research, the technological apparatus intervenes in producing new challenges and, at the same time, in providing new tools to face the very same challenges. In fact, technology:

1. Provides tools, such as virtual reality, which foster creativity and imagination, especially among the youngest;
2. Pushes society to develop increasingly creative solutions, answering to the new features proper of technological societies, and the research highlighted how new creative solutions tend to be generated around the physical shared spaces of creative hubs, which are questioning the traditional spaces;
3. Thanks to new solution, is facilitating the transformation of cities and territories from closed boxes to networks for sharing and creative innovations. Technology allows to think and live new spaces in which to experiment new social possibilities. The diffusion of social media and new technological infrastructures allow to re-join contemporary spatial fragments, aggregating territories, and societies around creative spaces.

Ultimately, technological apparatus, combined with the current economic and demographic trends, is contributing to the important phenomenon of re-flourishing the collective creative capacities. This is why the current digital technology can be fundamental in developing new spatial and social experiences based on creativity. Thoughts here go to Portoghesi’s idea that the role that collective creativity assumes in defining the relationship architecture-memory-environment to be typical in people of any age [58], and this is why the importance of collective creativity is more than ever crucial in the current scholarly discussion: Collective creativity is able to respond to the fragmentation that characterizes contemporary territories and today’s everyday life, and it contributes to re-consolidating social relations threatened by the contemporary societal trends of disaggregation and isolation by channeling ideas and energies in innovative territorial poles.

If then new uses of digital technologies help to re-consolidate these spatial polarities, infrastructures encourage the emergence of new polarities and their mutual connection. A connected and active territory gives space also to collective memory, to which creativity and innovation give new shape, thus contributing to creating welcoming territories that are at the same time imbued with a sense of belonging. The social capital, which, as Putnam observed [59], has entered a strong crisis in recent decades and, having had very strong implications on social prosperity (from neighborhood bonds to health, to the education system, sense of belonging and participation), must be rebuilt and these new optimistic leaps of the creative class seem to demonstrate that the reconstruction of social capital is possible.

6. Conclusions

Given the new spatial and social experiences that people live in contemporary cities, and in the prospect to address as designers the new future aspirations and expectations of people generated
by those manifestations, the authors express the urgency of rethinking the notion of city, its spaces, its forms, and the way in which city-users can express their needs in form of collective creativity. The creative and collective processes flourishing nowadays in the cities need new ways of creating and living architecture which, caught in-between the real and the virtual, could serve as a medium between consumption and production dynamics historically embedded in the life of a city. Research needs to develop along this direction and the design practice must be able to rethink new typologies, leaving the traditional ones, that from thousands of years do not evolve, and having the courage to propose new solutions. The new relation between cities and the wellness of their inhabitants, and its implications on society and the environment, which in western historical cities have proved to remain long unchanged up until recently, now requires to be thoroughly researched, and the questions it poses to be effectively answered by architecture in its practice.

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**References**

1. Florida, R. *The Rise of the Creative Class*; Basic Books: New York, NY, USA, 2014.
2. United Nations Youth Strategy Youth. 2030—Working with and for Young People. Available online: https://www.un.org/youthenvoy/wp-content/uploads/2018/09/18-00080_UN-Youth-Strategy_Web.pdf (accessed on 10 October 2019).
3. Office of the Secretary-General’s Envoy on Youth. #YouthStats: Entrepreneurship and Financial Inclusion. Available online: https://www.un.org/youthenvoy/entrepreneurship-financial-inclusion/ (accessed on 10 October 2019).
4. Vattimo, G. *Essere e Dintorni*; Giuseppe, I., Alberto, M., Santiago, Z., Eds.; La Nave di Teseo: Milan, Italy, 2018.
5. Bauman, Z. *Homo Consumens: Lo Sciame Incierto dei Consumatori e la Miseria Degli Esclusi*, Italian ed.; de Carneri, M., Boccagni, P., Trans.; Erickson: Trento, Italy, 2007; originally published in 2006.
6. Simon, H.A. *The Sciences of the Artificial*; The MIT Press: Cambridge, MA, USA, 1996; p. 113.
7. Haraway, D. *Simians, Cyborgs, and Women: The Reinvention of Nature*; Free Association Books: London, UK, 1991; p. 155.
8. Meschiari, M. *Disabitare: Antropologie Dello Spazio Domestico*; Meltemi editore: Palermo, Italy, 2019; p. 63.
9. Statista. Percentage of Households with Internet Use in the United States from 1997 to 2018. Available online: https://www.statista.com/statistics/189349/us-households-home-internet-connection-subscription/ (accessed on 10 October 2019).
10. Statista. Number of Mobile App Downloads Worldwide from 2016 to 2018 (in Billions). Available online: https://www.statista.com/statistics/271644/worldwide-free-and-paid-mobile-app-store-downloads/ (accessed on 10 October 2019).
11. Statista. Frequency of Facebook Use in the United States as of 3rd Quarter 2019. Available online: https://www.statista.com/statistics/267745/frequency-of-checking-of-facebook-accounts-by-us-users/ (accessed on 10 October 2019).
12. Liu, S. Virtual Reality (VR)—Statistics & Facts. *Statista*, 14 May 2018. Available online: https://www.statista.com/topics/2532/virtual-reality-vr/ (accessed on 10 October 2019).
13. Allied Market Research. Available online: https://www.alliedmarketresearch.com/augmented-and-virtual-reality-market (accessed on 10 October 2019).
14. Statista. Sales of Virtual Reality Head-Mounted Displays Worldwide in 2016 and 2020. Available online: https://www.statista.com/statistics/697159/head-mounted-display-unit-sales-worldwide/ (accessed on 10 October 2019).
50. Comune di Milano, Piano Quartieri, Piazze Aperite in Ogni Quartiere: Avviso Pubblico per la Presentazione di Proposte di Collaborazione. Available online: https://web.comune.milano.it/deserver/webcity/garecontratti.nsf/51607b595b240841c1256c4500569c90/2d3df2c2382a8b95c125847a002479f7/$FILE/Piazze%20Aperte%20in%20ogni%20quartiere_avviso.pdf (accessed on 24 September 2019).

51. Piazze Aperte. L’urbanistica Tattica Sbarca a Nolo e Crea una Nuova Piazza. Comune di Milano. Available online: https://www.comune.milano.it/-/piazze-aperte.-l-urbanistica-tattica-sbarca-a-nolo-e-crea-una-nuova-piazza (accessed on 24 September 2019).

52. Florida, R. Bohemian and economic geography. J. Econ. Geogr. 2002, 2, 55–71. [CrossRef]

53. Florida, R. In Defence of the ‘Creative Class’. Montana Associated Technology Roundtables. Available online: https://matr.net/news/in-defense-of-the-creative-class---author-richard-florida-responds-to-criticisms-of-the-rise-of-the-creative-class/ (accessed on 24 September 2019).

54. Montanari, A. A Porta Venezia Nasce il Rainbow District Eventi e Promozioni con i locali gay. Repubblica. Available online: https://ricerca.repubblica.it/repubblica/archivio/repubblica/2017/10/28/a-porta-venezia-nasce-il-rainbow-district-eventi-e-promozioni-gayMilano03.html (accessed on 24 September 2019).

55. Montanari, A. Torna L’arcobaleno alla Fermata Porta Venezia del Metrò di Milano: Accordo Raggiunto tra Atm e Nike, Repubblica. Available online: https://milano.repubblica.it/cronaca/2019/02/12/news/arcobaleno_porta_venezia_milano_fermata_rainbow_lgbt_atm_nike-218907485/ (accessed on 24 September 2019).

56. Grosz, E. Bodies-Cities. In Sexuality and Space; Colomina, B., Ed.; Princeton Papers on Architecture: New York, NY, USA, 1992; p. 245.

57. Desert, J.U. Queer Space. In Queers in Space, Site of Resistance; Ingram, B., Bouthilette, A.M., Retter, Y., Eds.; Bay Press: Seattle, WA, USA, 1997; pp. 18–19.

58. Portoghesi, P. Geoarchitettura; Skira: Milan, Italy, 2005; p. 22.

59. Putnam, R.D. Bowling Alone: The Collapse and Revival of American Community; Simon & Schuster: New York, NY, USA, 2000.

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