Smart Society

A Sociological Perspective on Smart Living

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A sociology of living in the age of reflective materialism

Melissa Sessa

Reflexive modernity: a critical analysis of the domotic drift

In these times of "worrying increase of urban population, scarcity of energy resources, high social conflict, ethical drift and disciplinary loss" (Fistola 2011: 74) the theme of the *smart home* with its corollaries polarizes the interest in multiple disciplinary and research fields. What does the house represent? Why did we feel the need to turn it into a conglomeration of technology? What are the effects on people and society?

The changes that have taken place with the new modernity have brought to the fore new needs that have acted as a matrix of the change of the house both to the material structure and to the relational one. A house that has turned from simple into *smart*, a house that has moved from tradition and materiality to the liveliness and interconnection with the technological world. Why did this change take place? Has smartness undermined the previous cultural bases to become the dominant paradigm?

The time frame taken as a reference, for the birth and development of the smart home, is reflexive modernity (Beck, Giddens and Lash 1999) which brought to the fore the environmental crisis with which we realized we could no longer understand the new challenges posed by the scarcity of resources in all its forms, through the traditional sociological categories. We found ourselves faced with the rising of the levels of individualization, with the crisis of alliances in social relations that are now being established "more by the conflict for the distribution of evils (pollution, danger) than for the division of goods" (Tacchi and Cucca 2003: 2). The house, in this climate, represents a social micro-cosmos in which all the problems that from the new modernity are reflected on the individual are represented. It is in the house that the individual shelters, it is on the house that the individual points his expectations, it is within the house that the individual builds his own life and then repeats it in the social macro-cosmos. The criticism of reflexive modernity is based precisely on how the old concept of modernity

is understood as an opposite social form, by virtue of its characteristics, to traditional society (Mongili 2007), where technique and science on the one hand, and the company on the other are present. In the middle of this dichotomy we find the social actor and understanding the human being in his form of actor in space, in this modernity, means understanding how his needs and values have changed and how much these have affected his creation of home. In order to understand how this surrounding space has been shaped by man, we need to consider two closely related orders of ideas. The first is that man is not transversal to every epoch in history, and the second, consequently, is that it is historically determined, that is having a specific character and not given in kind once and for all, but every single time. In our case the one who will shape what is most structurally intimate, that is the house, will be the ideal type of smart people, which will create and modify the surrounding space with values and needs differentiated by degree.

The action of living in a house does not only mean being there at certain times of the day, but also means routinely traveling through its places, using its space and objects that come to life in that space, to satisfy one's needs. Specific needs that follow an ascending logic (Maslow 1987), from the simplest to the most complex, which characterize different motivations, and which differ according to the different types of objects to which they are linked. A staircase, a pyramid of needs that will reflect the needs, the experience of a home, which must not necessarily be considered a smart home, in its sense of a smart home, but rather a place that represents the result of the individual remaining in his indoor.

Security, declined in protection, belonging, dependence and stability is the most immediate of needs that recalls the need to guarantee both the elements that protect physical integrity and a stable and secure social dimension, whose solvency is preparatory to all others, or without which other needs find no way of manifesting themselves. As with all social phenomena, security can marry multiple definitions depending on the perspective from which it is observed, and in the sociological and psychological perspective it can be studied as a need connected to housing. Building a house, sheltering in something that is defined as a home by the inhabitant, that is solid, indoors, outdoors or that is not home for external subjects, is a necessity present in every man, in all the different historical periods.

It is no coincidence that security needs are defined as primary having a close link with biological needs and are met uniformly by people, regardless of the culture they belong to. The other needs are called secondary, characterized by a greater psychological connection and therefore by a higher degree of subjectivity. The first need of secondary order is marked by the appearance of the needs of affection, also declined as love, friendship,

approval. Once the house is defined, the relationships within it will also be defined. The house is made up of places that are lived by the people who live there, who meet and collide. Intimate places where to consume relationships, as well as more open places where to experience collegiality. The need to forge relationships and to seek through them the acceptance by third parties, favoring an exchange, are the objectives of these needs. It is not by chance that the needs that follow those of affection come to be constituted by the different needs of esteem, relating to the need to build a positive self-image, which includes success, adequacy, mastery, respect, social position and appreciation. In terms of complexity and precisely for this reason the most difficult to reach are the needs of self-fulfillment, which correspond to the maximum development of individual abilities, and which shape the individual as it should be. This type of need can be traced in the construction of the ideal home, which does not necessarily mean the construction of a home that has always been desired, but that of a house that is suitable for one's life needs, aesthetically satisfying, which perfectly reflects the subject who lives there. Once one of the needs is satisfied, it will not generate more satisfaction until the gratification it generates will weaken, and it will reactivate it. The broad microsocial articulation of needs generated by Abraham Maslow will be reduced to a macrosocial dichotomy that separates materialistic needs on the one hand and post-materialist needs on the other (Inglehart 2015). The physiological and safety needs are brought within the first group, while the secondary needs can be traced within the second. With the expansion of mass communications, with increasing levels of education with the growing economic and technological development, it has been hypothesized as secondary objectives having been linked to objectives linked to primary needs. It is not by chance that the phenomenon of smartness linked to the political world is emerging on the social scene, with increasing arrogance, which allows a wide-ranging reasoning ranging from the economic-financial matrix (Geddes 2005) to the democratic matrix (Marciano 2018). This shift in values into needs has meant that the political and governance dimensions have also been linked to technology in a tight set of relationships that characterize the new society (de Ganthuz Cubbe 2019).

In fact, it is only thanks to horizontal subsidiarity and incentives on the part of the institutions that the creation of a smart home will be able to better contain the listed needs and will be able to better integrate into the smart society.

From home to smart home

The modern idea of home is "a scheme of articulation of the social space, so hidden, as sure of being shared" (Beck 2009: 42). An idea, therefore, of a

global, and not globalized, home, where the description of enclosed spaces becomes fictitious because isolation is not possible. Analyzed in the context of space-time transformations, the idea of home is an integral part of what is called "modernist rationalization of space" (Bauman 2000), or of that overall control of social activities through delimitation, delineation and the division, in one word, across the border, either internal or external. At this point we can say that the house contains in itself a complex meaning and is therefore changeable over time, so that its borders cannot be given a priori, but are modified according to the relationship between the physical space and the meaning of from time to time society attributes to the relationships established there and which are determined by the prevailing culture (Mandich and Rampazi 2009: 10). There has always been a dual nature of the house: a physical, tangible and concrete reality defined as 'house', and an intangible reality, a structure of relationships, a way of being and feeling, defined 'home' (Coregliano 1991: 26). "House is therefore the basis for the development of a home experience" (Coregliano 1991: 23). The house belongs to the facts of life, it is a project of intimacy, a reflection on what will come and become from it. Home is a safe place, which protects from the anguish that is caused by the feeling of precariousness emanating from society. It is through the construction and the action in the house that the personality of the inhabitant with himself is revealed, and with what is external to the house. It is above all within the walls of the house that the intimate and affective life of people takes place (Mandich and Rampazi 2009: 2). We cannot define the house and understand where its boundaries are placed in the experience of the subjects, if we do not place ourselves in the interweaving of experiences, relationships and practices, which develops within it (Mandich and Rampazi 2009: 11). The lives of individuals are increasingly divided between an intimate sphere and a public sphere (Ariès and Duby 1988; Elias 1982), between secret behaviors and public action. In this direction, the division that is created between the sphere of personal life and the sphere of public life becomes a predominant feature of the new modernity and contains both the slow transformation of private relations and the confinement of emotions in this area of social life. Living in the house therefore becomes the expression of 'feeling at home', that is, recognizing oneself in the place where one is, in the objects that are handled, in the people one meets, in the activities one does. The house becomes a mental place, where the qualification of the house is expressed in the possibility of the subject to create his own centering in the world in which he lives. It is the result of what is defined by Agnes Heller as 'home world', and that rediscovers the meaning of the house as a dwelling (Heller 1999). Thus, the idea that the house is by definition "the theater of private life and more personal training" (Mandich and Rampazi 2009: 2) has become

widespread in the imagination of Western societies, while what is and becomes external to it concerns the area of the public 'away from home'. A public sphere in which the subject finds a place in the measure in which he exercises a double role: the first as a member of a community, the second as a worker within that community (Mandich and Rampazi 2009: 4).

Simultaneously with the birth of the modern idea of domesticity, understood as the peculiarity of being within a space governed by logics completely separate from those imposed by the rationalization of public life, the concept of intimacy has developed, which, in common feeling, "has more and more linked to the ambit of affectivity, feelings, ablativity" (Mandich and Rampazi 2009: 4), in a single word, to the sphere of 'home'. The smart individual realizes that within the society of modern consumption, one interacts not only by dressing, but also by using furniture and the home itself. Building your own home, furnishing and living it, is an engaging experience because it means "making visible and communicating to others, but also to yourself, your own existential project" (Coregliano 1991: 113). It is a practical example of how building a house actually means living and communicating, we can find it within this book. The Smart Solar House ReStart4Smart is a green, smart, socially inclusive and integrated home with the surrounding environment, built and designed by young students, as will be seen, and which materially represents what has been said so far, which expresses as through simple planning and putting ideas into practice the subject communicates with the surrounding world (Gurashi, Iannuzzi and Sessa 2019).

So, from the simple home, we moved on to *smart home* technology. The advent of the new 4.0 society, of extreme contemporaneity, went on to develop a new housing phenomenology that laid its foundations on the *smart* concept. A magmatic concept that has always represented the desire to indicate an evolutionary state, attributable to the most recent developments in technological innovation (Fistola 2013). An unprecedented attention to *smartness* as a concept that represents something more than technological must be paid to sociology and its observation of facts and social actors. It is from the study of the organizational phenomenon that it has been possible to give a first precise definition of smartness (Fistola 2013) linking it to operations and materiality. However, it should be recorded that the existing literature on the smart home topic is very technical and tends to explain in detail how the presence of the grid (distribution calculation infrastructure) intersects the structure of the house, and not what this smart home is. Here we will try here to give a definition in the light of the concept of smartness. So, a home is smart (like any other device) when it is not only able to solve the problems that arise through the structuring of technological processes, but also when it

is able to provide practical solutions for the solvency of those problems. It is no coincidence that the definition of smart home is almost like the definition of a smart community (Iannuzzi 2019), which presents the same etiological problems. If smart community focuses on the mediation between the needs of citizens, institutions and companies taking ICT (Information and Communication Technologies) as a basis for the quality of life of the inhabitants, in the same way a smart home makes its paradigm its own technology to improve the everyday life of its inhabitants.

And this is where the matrix of the change of the house is located, which undoubtedly can be traced to an intelligent use of technology. The house is configured in this way as a privileged observatory of the transformations that pass through everyday life and which increasingly see it intertwined with infrastructures and technological devices (Pellegrino 2011). Differently from electric houses, smart homes are able to help and facilitate the domestic routines of the subject who lives through a universe of sensors and actuators capable of monitoring and optimizing any activity and able to relate to the outside what happens to the 'indoor'. In this sense, with the development of modern culture the progressive confinement of the concept of 'home' within the physical walls of the dwelling, and the parallel polarization between places of privacy and places of public life that has established itself in the collective imagination, are nowadays challenged by a multiplicity of phenomena. The house in fact is structured as a progressively mediated space, which from an initial opening towards the outside, is articulated in an increasingly interconnected way to the techno and media branches (Appadurai 1996) that surround it and incorporate it into "pervasive communications networks" (Pellegrino 2011: 1). The mass media and the new information technologies have created large areas of permeability within the private space of the house that comes to be engraved and modified, and in the most extreme situations also inhabited by events and influences from the outside world, "altering the traditional physical-cultural criteria of closeness / distance, familiarity / strangeness" (Mandich and Rampazi 2009: 10). "The world is getting smaller and smaller and the bonds with what is far away are increasing, but at the same time it is getting bigger, since we are not able to dominate the new horizons that open up to our gaze" (Paino 2012: 2). Without a doubt, therefore, the transition from home to smart home is characterized by three elements. The first is represented, as we have seen, by the presence of technology, which has permeated the very essence of the house. The second element is found in the resolution of problems, which in the new smart home no longer represent an obstacle, but which are resolved by the house itself. And finally, the third element that makes the home a distributor of information from the inside out, making the boundary between the inside of the house and the outside,

between the public and the private, ever thinner. But then, in light of what has been said, how do the structural characteristics of the new house change?

A look inside: the features of the smart home

We have seen that house and home are two different sides of the same coin, and how people taking over the house make it become home. We have also seen how there is not a univocal definition of the concept of smart home, but how much this, to be understood, must incorporate digital technologies and communication services (Gram-Hanssen and Darby 2016). Precisely for this reason, the STS theory (science, technology and society) that embraces the interrelations between the technical and social aspects of an organization is easily applicable to the *smart home* context. The focus is not only on the close connection between the term smart and the term intelligent, in the material meaning of it, but on the plots drawn from the connection that the term smart has with science and knowledge. It teaches us how technology, the progress of technology, if they are divorced from society, can generate dystonia. One cannot help noticing that what is created by technology, modified and at worst made obsolete, is inevitably "socially shape" (Williams and Edge 1996). "What could be said trivially is how much there is a need to understand the diffusion and use of technology, rather than its creation" (Gells 2004: 898). Technology has become a crucial element in modern societies, which are based on its innumerable functions, and of our house, which has become its main stage, which is why "it makes sense to distinguish between production, distribution and use made of technology with its functions and subfunctions" (Gells 2004: 900). In other words, it makes sense to make a precise analysis of the features that represent the smart home and give them a social matrix. These characteristics (comfort, solidity, flexibility, security, interconnection, sustainability, low cost and inclusion) in fact start from well-known social categories.

Comfort lends itself to the diverse needs of socializing of public private space. Which incorporates the new requests for accessibility that globalization brings with it, with the technological overcoming of fatigue caused by social impediments.

Solidity, understood as the durability of the house, is meant to be inserted in the context of generational sustainability. We tend to construct something that persists over time, not only structurally, but that preserves the surrounding environment for those who will live in that environment in a time t.1.

Flexibility, that is the ability to adapt the domotic envelope to the smart society, is here understood as social resilience, or rather as the ability to adapt despite the adversities, as the attitude of a community to establish a network of adaptive capacities as a result of a collective event that disturbs normality.

Security becomes confidence in the new generation systems, divided into safety and security. The plants conforming to the new industry 4.0 standards in the future will be able to guarantee safety, in the sense that they will have the possibility to reconfigure themselves and optimize themselves autonomously to guarantee a perfect yield.

Services offered by the smart home, also connected to the need to keep the cost of materials low, become inclusion, of the individual, and of the home, in the broader context of the smart society.

Internal and external *interconnection* is the engine of sociability. A smart home can be defined as fully functional only if all the innovations within it are able to interact and coexist in a systemic and dynamic way. By external interconnection, on the other hand, we mean the ability of a home automation system and its users inside, to interact with the outside, implementing the concepts of social life and community with the help of smart technologies, towards the primary purpose of quality of life. The home automation system is used to improve life inside the home, but it must not be limited to the home itself. We must look at a general dimension that also includes the other neighborhood houses, possibly smart ones too, in an interconnection perspective that allows the communication of all the systems. Thus the house shell is usually completed through one or more communication systems to the outside to allow the control and display of the status of the area monitored remotely, in order to possibly condition the sociality of the same smart homes between them.

Sustainability is understood both as environmental and social, as "smart home and smart grids will be part of an increasingly sustainable future" (Gram-Hanssen and Darby 2016: 2). In the current environmental emergency, the spread of a culture of sustainability takes the form of promotion, both at a personal and a social level, of styles of thinking and behavior based on savings such as optimal management of natural resources, but also as enhancement qualitative of human living, for a present, towards a near future. "The educational processes aimed at sustainability, promoted to guide the emerging participatory need, have as their main purpose the increase of the capacity of the community to be resilient" (Beretta 2015: 91).

The *low cost* traces the footprint of social availability. An essential feature of the home automation system must be that of low cost, understood as the installation of technologies that have affordable

prices for all. It is about including the generality of users by giving them a wide choice of smart solutions. Today, the cost of a building must also be measured by taking into consideration its entire life cycle. In addition to the incidence of the purchase value of the home, it is necessary to consider the management costs of the same, which sometimes exceed the cost. So, the concept of smart home can be summarized in four large macro categories: such as security and control; place of actions and practices; indicator of a social status (Gram-Hanssen and Darby 2016); and finally, as inclusion and interconnection. As for the first category, this identifies the house as the center of control. Inside the housing envelope the subject feels protected, not only thanks to the personalization of this according to his own needs, but also from the external society, sometimes perceived as hostile (Gram-Hanssen and Darby 2016). The concept of safety, defined as safety and security, plays a prominent role. The smart home is identified as "conflict free" (Gram-Hanssen and Darby 2016: 5). New technologies make it possible to reduce risks to a minimum, are designed and structured in order to have minimal impact on the environment, and to optimize the activities of the actor. The possibility of continuously monitoring, recording and tracking all the events that occur within a domestic environment has the advantage of favoring an objectivity of evaluation that can be considered as a rating, the complete exclusion of a value judgment. In many cases, behavioral changes are so slow and gradual that they are imperceptible to the human eye, so there is a need for technologies that help capture these differences. It is also an economic question of trade-offs where factors such as cost, invasiveness and privacy come into play and must be weighed in the most appropriate manner according to the need and the objective to be pursued. What was once a simple manual switch, is replaced inside the smart home with an electronic switch that acts as a sensor or a local multi-function actuator, which not only regulates the quantity of the emission, but also the quality of the same.

The house is also a place of actions that are recorded in everyday life, from cooking, to eating, to sleeping. It is no coincidence that the social actor shapes the *home* in such a way that it can be defined as the center of everyday life. The same domotic systems already described as multi-function actuators have the possibility to learn independently the everyday life of the inhabitant.

The third point attributes to the house a role of indicator of social status. The house is a property and as such reflects the ideas and values of those who live there, temporarily or permanently. The decorations of the house not only show others who the subject that inhabits the place is but

are also the reflection of who the subject is for himself, of how 'aesthetic' self-realization can pass through the aesthetics of the home. What people do with their homes, in the form of supplies or decorations, allows us to understand the different cultures of consumers.

The fourth and final point is the definition of the smart home as inclusion and interconnection. A smart home can be defined as fully functional only if all the innovations within it are able to interact and coexist in a systemic and dynamic way, to the extent that the term smart is emphasized in its sense of human intelligence. This intelligence must be stimulated within a process that aims at inclusion, undoubtedly a key element of this new way of living at home. At the heart of the smart home challenge is, yes, the construction of a new kind of common good, a large technological and immaterial infrastructure, albeit in materiality, which allows people and objects to communicate, integrating information. In the smart home context, there is above all the generation of intelligence and the production of inclusion in order to improve the domestic routine, to optimize everyday life. The objective therefore is to make the environment in which we live interactive and cooperative. Effective and efficient in supporting the independent life, able to provide greater security, simplicity and satisfaction in carrying out the activities of daily life. "Inclusion means avoiding all forms of discrimination and valuing differences" (Beretta 2015: 62).

Reflection points: the ethical responsibility of smart home

After reviewing the characteristics that make the smart home an agglomeration, an intelligent and social technology, we'll move on to analyze the problem of time. The houses are built to last, but as these homes are technological, and with technology being subject to obsolescence, I think we should dwell in this section on the importance of the time factor, and on how this transforms our smart home. Certainly, as said, "if we study the problem of time, we can learn things about men and, therefore, also about ourselves that we previously ignored. Problems become accessible to sociology and the human sciences in general, given the stage so far reached by their theory, still remain incomprehensible" (Elias 1986: 7). The house has traditionally been studied as a center of spatial orientation, that is where man was, and of the social order, or that man's place occupied. More rarely, on the other hand, it has been related to the integrative dimension of identities and to the temporal orientation, understood as the subject's ability to construct his own personal history and place himself in it.

What does building mean? And what do you live in? To be able to understand the relationship between these two actions it is necessary to understand that the action of living is precisely an action performed by the social actor, which identifies the 'I live' with the 'I am'. Only if you have the capacity to live, will you be able to build a house both materially and subjectively. Making a place a place is a process that requires planning and investment (Pozzi 2015) and only if you have the capacity (not least materials) to invest and plan will you also be able to place yourself in a place to define it home. By focusing on the relationship between *home*, past, present and future, or the three components of biographical temporality, one can see how the house is traditionally configured as a basic element for the affirmation of "permanence, continuity and coherence biographer of its inhabitants" (Coregliano 1991: 14). Starting from the house as "memory of past experience, way of being in the present and projection towards the future" (Coregliano 1991: 14), it will be possible to arrive at the study of how these realities modify the dimensions constituting a new binomial, that between individual and living space. How does the individual fit into the space of the house? The following reasoning will try to trace a red thread that invests and makes three factors that apparently might not seem to be connected: the smart home, temporality and efficiency.

It is possible to notice how the dimension of the present is perceived as flattened and restricted by considering that today the temporal perspective loses some of its characteristics based on coherence and continuity. The speed with which information, people and objects move, inevitably limits the perception that the social actor has of his time, and of the time that surrounds him. The action of the present untying itself from a precise project, which would imply the future, allows us to experiment ways of acting unencumbered, acquiring new values, and giving the possibility to the subject to concentrate most of his energies on it. "The concentration of modernity on the perspective of the present has hidden the perspective towards the future" (Nocenzi 2011: 1). "The future cannot be" read the title of one of the essays by Niklas Luhmann (1976), which emphasized how modernity tended to simplify, to streamline the difficulties of present reality, depriving it of future implications, just starting from the effects of the actions taking place in the present. On the other hand, the social sciences speak of the future by overcoming the temporal scan between the present and its past. By changing the connection between what happened in the past, what happens in the present, and what will happen in the future, the organization of the everyday inevitably changes, free from the chains of the past, and from the idea of the future, acquires new meanings linked to contingency and contemporaneity. A newspaper closely linked to

the concepts of effectiveness and efficiency that allow it to be a cutting-edge present, because when speaking of smart home, we have seen how this is closely linked to three factors: technology, interconnection and problem solving. Precisely for this reason, aimed at fully analyzing the essence of the smart home over time it is necessary not to forget how efficient and effective this should be. If we intend to make a temporal analysis of the smart home, it is also necessary to point out how this mantra makes perfection. A house built to last, designed to give a future perspective, which is not effective and efficient cannot be conceived. Consequently, the concept of efficiency is of primary importance when it comes to the smart home, since the home automation project must be able to increasingly guarantee any service that is equipped. Efficiency must be distinguished from effectiveness, while the former is based on a cost-benefit ratio, the latter looks at the set objectives. People will always find themselves in front of something efficient, which is not equally effective. Thus, the smart home marries both principles when the objectives set, whether they are construction standards or rather capabilities that the inhabitant should acquire, go hand in hand with leveling the costs of the product on benefits for the person, and in a vision more general than society. It is a new form of consumption with more blurred boundaries, which becomes communication and language. One cannot help but notice how, even through the home, the concept of capitalism and the capital invested have changed. Importance is given to immaterial capital, qualified today as human capital, knowledge capital or intelligence capital. "Knowledge is made up of experiences and practices that have become intuitive evidences and habits, and intelligence covers the whole range of capacities ranging from judgment and discernment to openness, to the aptitude to assimilate new knowledge and combine with knowledge" (Gorz 2003: 11).

A different economic rationality stands out in front of the society that is no longer based on the criteria of performance subordinated to human development. The overcoming of this type of capitalism, marked by a purely material connotation, must pass behind the overcoming of productivism. We reason in terms of a hypothesis in which the new economy would undress the clothes of its domination over human capacities and qualities cease to be a means to wealth but were wealth itself. Production should be put at the service of man, and not the other way around, underlining in an even more marked way the clear difference that exists between producing and producing, where the acting subject emancipates itself to become capital itself. That is, one should note the sad connection, already pointed out and described by Marx, between the world of men and the world of objects, where "the devaluation of the human world grows in direct relationship with the enhancement of the world of things"

(Marx 1844: 71). The technological fetishism that accompanies the growth of the smart home is obscure as the basis of technology is man, bringing to light the need to build houses that are not always more technological simply for the sake of being, but that are as much technological as well as human. By this I mean that if the use of ICTs in the home is not linked to the needs of the individual rather than to the needs of the market, we will often find ourselves in front of houses that in the abstract could satisfy almost all users, but that on test with reality the connection with the individual fails.

Conclusion: is it time for new values?

At the end of this sociological-descriptive path on the smart home, defined in its entity and its characteristics, numerous questions have emerged. Has the advent of such a modern, intelligent home changed the values of the people who live there? In a world where everything is foreign to everything, has the need for security come to be increased? Is building a solid home really the answer to the attacks on society?

We have seen how the home is not a place alienated from the society in which it has fallen but is an integral part of a context that increasingly pushes towards a synergy between the technological components and the social components. How the word *home*, with its strong intimate and emotional meaning, can tame the word *smart* and the two terms can flow together in a combination of intelligence and intimacy to create a satisfying hybrid that represents the inhabitant. We then noticed how the culture of living shapes the subject's vision of the world so much that one could say that every person makes a place. In light of the above, not only is the world perceived starting from the phenomenological experience of one's living space, but this space is given meaning and structured according to one's own perspective. A living perspective that expresses its characteristics in the connection with the cultural organization of society that is reflected within and outside the home. Therefore, a radical change in the perception of the house and its values becomes inevitable for people, who no longer recognize the smart home as an exception to normality. The essence of the term normally used is re-established, meaning that the technological house is more present than expected, and how, perhaps, the reader at the beginning of this essay could have thought. Just as during the Second World War the house was no longer defined as an electric one, but simply as a home, due to the normality of electrical systems inside homes, so "the house that we now call intelligent in a few decades will be the average standard of installation " (Capolla 2011: 57), that is, the production of home automation systems begins to take on a configuration

suited to a possible and non-futuristic domotics. To something that really is and could not be. In the routine of creating the smart home, innovative standards are beginning to be set up, and are no longer new, which make the perception of the home shift as little as possible, but as actually realized. Values such as those of domesticity, multi-functionality and housing flexibility are rediscovered. The same domestic everyday life characterized by growing uncertainty in the temporal, spatial and relational definition analyzed in the previous paragraph, reflects "the complex intertwining between individuality and collectivity, between personal intimacy and family intimacy" (Mandich and Rampazi 2009: 14) that take life within the shared space of the home. Secondly, the increasing multi-functionality that is, with the advent of new technologies, increasingly characterizing the space of the house-dwelling, has made increasing levels of flexibility that have developed within the inhabited space possible. A flexibility that by its nature is a source of negotiations and sometimes even of continuous tensions between those who frequent the same spaces of the house. Thus, in the modern imagination, the smart home is characterized by its technological resilience, which allows it to adapt to the needs of the subjects passing through its spaces, and which, as we have seen, can be a meeting place and a place of tension.

Despite the scientific dictates showing the technological power as characterization of the smart home, it should be noted that the idea of home, in the traced descriptions, supports also and above all the first need analyzed: safety. Hence the idea of a home that is *safety*, that is, that foresees that the residual risks related to a machine or plant do not exceed acceptable values, and of a house that is *security* or that protects from unauthorized access from outside, of whatever nature they are. With the advent of the new 4.0 society we noticed how the fluidity of accesses, of knowledge, the interconnection between technologies and social actors, made security prevail over safety, over the guarantee of good functionality. There is more concern than guaranteeing standard results, protecting ourselves from attacks that may arise from external users. It is no coincidence that in recent years hacker attacks, from the infringement of Pentagon servers, up to the most trivial violations, have been increasing. We try, in every way, to enter the life of the stranger, to sneak into the different from himself, to bring to light the need for a synergy between the matrix technology and the social matrix. A smart home can be fully inclusive and integrated only if it is in a social context that is smart itself and that allows it to be secure. In fact, we can see how the growing transformation of the society into *smart society* has allowed the spread of the smart housing model more easily. It is within the new society, through

integration, inclusion, governance and people that any smart initiative can be made possible (Iannone 2019).

It is difficult to find even a single place, where objects exist without being 'full of people', in the same way no society that claims to be human can function insubstantially, without relying on both material and technology, and likewise no society can be called smart if it does not contain, within it, as many types of technologies that are smart. Those same technologies that allow the mediation between men and things and that include within them a set of heterogeneous actors. Those same technologies that are driving a change that brings the eye to the future and to the new generations that will have to deal with the new smart needs. It is never possible to consider the house, as well as the domestic spaces that are contained within it as a place in itself, in isolation, which can be detached from urban spaces and larger social spaces. Instead, it is necessary to look at the forms of social integration of this house, in the spatial organization that encompasses it, and within society.

The originality of the smart home is therefore to be sought more than in technologies, in the people who live there, in the smart people (Gurashi 2019) who are not only consumers but also producers of their consumption, those who are called 'prosumers' (Degli Esposti 2015). Undoubtedly, we must consider the attractiveness of the 'new' as the main push towards the perception of the subject not only as a spectator, but also as an actor. A subject that has evolved from a simple consumer to a producer, up to even questioning this dichotomy to become a 'prosumer'. And it is here that we have noticed how the tendency is established to seek a relationship between the social structure that inhabits the smart home and the city that hosts it, since the *smartness* of a city is given by people more than by the technologies that make it up.

In conclusion, with a development of the house that defines itself as smart, we do not only think of the present generations, of safeguarding the present, but also and above all of protecting a future, not even so near. The smart home represents a small step towards a future that is certainly easier, if we can perceive the house as a bigger system and that smartness is a daily life for improving the quality of life.

References

Appadurai, A. (1996) *Modernità in polvere*. Milano: Raffaello Cortina Editore.
Ariès, P. and Duby, G. (1988) *a cura di, La vita privata. L'ottocento e il Novecento*. Bari: Laterza.
Bauman, Z. (2000) *Modernità liquida*. Bari: Laterza.

Beck, U. (2009) *Che cos'è la globalizzazione. Rischi e prospettive della società planetaria*. Roma: Carocci Editore.

Beck, U., Giddens, A. and Lash, T. (1999) *Modernizzazione Riflessiva. Politica, tradizione ed estetica nell'ordine sociale della modernità*. Trieste: Asterios.

Beretta, I. (2015) (eds.) *L'umanesimo della smart city, Inclusione, innovazione, formazione*. Lecce: Pensa MultiMedia Editore.

Capolla, M. (2011) *Progettare la domotica. Criteri e tecniche per la progettazione della casa intelligente*. Santarcangelo di Romagna: Maggioli Editore.

Coregliano, M. (1991) *No place like home*. Milano: FrancoAngeli.

Degli Esposti, P. (2015). *Essere prosumer nella società digitale: produzione e consumo tra atomi e bit*. Milano: FrancoAngeli.

de Ghantuz Cubbe, G. (2019) "Smart Politics. The Political Dimension of the 'smartness'." In Iannone, R., Gurashi, R., with Iannuzzi, I., de Ghantuz Cubbe, G. and Sessa, M., *Smart Society. A Sociological Perspective on Smart Living*. Abingdon: Routledge.

Elias, N. (1982) *La civiltà delle buone maniere*. Bologna: Il Mulino.

Elias, N. (1986) *Saggio sul tempo*. Bologna: Il Mulino.

Fistola, R. (2011) "Urbanistica e Pianificazione fra crisi ed Innovazione." *Urbanistica Informazioni* 235.

Fistola, R. (2013) "Smart city. Riflessioni sull'intelligenza urbana." *TeMa Journal of Land Use, Mobility and Environment* 6(1) 47–71. doi:10.6092/1970–9870/1460.

Geddes, M. (2005) "Neoliberalism and Local Governance – Cross-National Perspectives and Speculations." *Policy Studies* 26(34), 359–377. doi:10.1080/01442870500198429.

Gells, W. F. (2004) "From Sectoral Systems of Innovation to Socio-Technical Systems. Insight about Dynamics and Change from Sociology and Institutional Theory." *Research Policy* 33, 897–920.

Gorz, A. (2003) *L'immateriale, conoscenza valore e capitale*. Torino: Bollati Boringhieri.

Gram-Hanssen, K. and Darby, S. J. (2016) "Are 'Home' and 'Smart' Contradictory Concept or Fluid Position that will Converge?" Paper prepared for DEMAND Centre Conference, Lancaster, April 13–15, 2016.

Gurashi, R., Iannuzzi, I. and Sessa, M. (2019) "From theory to empiricism: the challenge to the future of the Sapienza University at Solar Decathlon Middle East." In Iannone, R., Gurashi, R., with Iannuzzi, I., de Ghantuz Cubbe, G. and Sessa, M., *Smart Society. A Sociological Perspective on Smart Living*. Abingdon: Routledge.

Gurashi, R. (2019) "Smart people: the individual challenge of the fourth industrial revolution." In Iannone, R., Gurashi, R., with Iannuzzi, I., de Ghantuz Cubbe, G. and Sessa, M., *Smart Society. A Sociological Perspective on Smart Living*. Abingdon: Routledge.

Heller, A. (1999) *Dove siamo a casa? Pisan Lectures 1993–1998*. Milano: FrancoAngeli.

Iannone, R. (2019) "Smart Society. The critical sense of a world strategy." In Iannone, R., Gurashi, R., with Iannuzzi, I., de Ghantuz Cubbe, G. and Sessa, M., *Smart Society. A Sociological Perspective on Smart Living*. Abingdon: Routledge.

Iannuzzi, I. (2019) "Smart community: a new way of being together?" In Iannone, R., Gurashi, R., with Iannuzzi, I., de Ghantuz Cubbe, G. and Sessa, M., *Smart Society. A Sociological Perspective on Smart Living*. Abingdon: Routledge.

Inglehart, R. (2015) *The Silent Revolution. Changing Values and Political Styles Among Western Publics*. Priceton: Priceton University Press.

Latour, B. (2015) *Non siamo mai stati moderni*. Milano: Eleuthèra.

Luhmann, N. (1976) "The Future Cannot Being: The Temporal Structure in Modern Society." *Social Research* 43(1) 130–153.

Mandich, G. and Rampazi, M. (2009) "Domesticità e addomesticamento. La costruzione della sfera domestica nella vita quotidiana." *Sociologia@Dres Quaderni di Ricerca* 9(1) 1–30.

Marciano, C. (2018) "Democrazia locale e media digitali. Verso una critica della Smart City." In Vitale, E. and Cattaneo, F. (eds.) *Web e società democratica: un matrimonio difficile*. Torino: Accademia University Press.

Marx, K. (1968) *Manoscritti economico-filosofici del 1844*. Torino: Einaudi.

Maslow, A. (1987) *Motivation and Personality (Third Ed.)*. New York: Addison-Wesley.

Mongili, A. (2007) *Tecnologia e società*. Roma: Carocci Editore.

Nocenzi, M. (2011) "Sostenibilità e dimensione generazionale." *Rivista di studi sulla sostenibilità* 1, 75–91. doi:10.3280/RISS2011–00101.

Paino, R. (2012) "La globalizzazione, lessico e significati. Brevi note sul dibattito nelle scienze sociali." *Quaderni di Intercultura* anno IV, 1–11. doi:10.3271/N40.

Pellegrino, G. (2011) "Nuove domesticità: la casa connessa e le tecnologie pervasive per la mobilità." *M@gm@* 9(3).

Pozzi, G. (2015) "Heidegger ai margini. Antropologia e trasgression." *Phylosophy Kitchen*, 2(2) 95–109.

Rampazi, M. (2007) "I mutevoli confini della domesticità nello spazio-tempo contemporaneo." Seminar on "The daily construction of domesticity. Transformations and continuity," Padova.

Rifkin, J. (2014) *La società a costo marginale zero. L'internet delle cose, l'ascesa del commons collaborativo e l'eclissi del capitalismo*. Milano: Mondadori.

Tacchi, E. M. and Cucca, R. (2003) "Modernizzazione riflessiva, ambiente, partecipazione sociale." Proceedings of the IV National Conference of Environmental Sociologists, Torino.

Williams, R. and Edge, D. (1996) "The Social Shaping of Technology." *Research Policy* 25(6) 865–899. doi:10.1016/0048–7333(96)00885–00882.