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ORGANOLOGY AND LOCALITY
Toward a Theory of Real Smart Home in Technological and Ecological Transition

Abstract
The article critically analyses the twin transition – ecological and technological – promoted by the EU, exposing tensions between technocratic solutions and genuine socio-ecological change. Drawing on Bernard Stiegler's philosophy, it identifies territory as a key entry point for rethinking the transition. Central is the concept of organology, which clarifies the co-evolution of physiological, technical, and social organs. After discussing Stiegler's projects: Real Smart Cities and *NEST*, which promote noodiversity and technodiversity against neoliberal standardization, the article proposes the concept of a Real Smart Home to explore, on a micro level, the smartization dynamics that the French philosopher examined macroscopically in the Smart City. The Real Smart Home thus appears not as a device of control and datafication but a laboratory of care, memory, and plurality, rooting the dual transition in local practices and opening a post-Anthropocene horizon.

Keywords: Locality, Organology, Smart City, Smart Home, Twin Transition

1. *Introduction. Rethinking the double transition starting from the territory*

The European Union (EU), particularly within the framework of the European Green Deal, has adopted the concept of the "dual transition" – ecological and technological – as a strategic pillar to address the challenges of the twenty-first century, including climate change, energy dependency, and global economic competition. This integrated approach reflects an ambition not merely to respond to environmental and social crises, but to redefine the relationship between humanity, nature, and technology through the lens of sustainability. However, beneath the apparent coherence of this program, theoretical, political, and ethical tensions demand critical investigation: the twin transition profoundly impacts territories, social relations, and modes of production, raising significant questions concerning its nature, components, and implications for a sustainable future. The double transition rests on the notion that digital technology may serve as a catalyst for environmental sustainability, emphasizing the role of technologies – such as artificial intelligence, cloud computing, and IoT systems – in monitoring emissions, optimizing energy efficiency, and promoting circular economy models.

Yet, this narrative conceals a fundamental tension: on the one hand, the EU"s approach reflects a techno-solutionist perspective, in which environmental and social issues are presumed solvable through technological innovation without fundamentally

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altering dominant economic and cultural paradigms. On the other hand, the ecological transition requires a profound rethinking of production and consumption models, often in conflict with neoliberal logics of infinite growth and privatization. Indeed, the neoliberal narrative of the transition privileges the interests of large corporations while marginalizing local communities and territories. This reveals an internal conflict at the very heart of the eco-technological twin transition.

To reconcile such a friction – which is bound to reach a point of no return – it becomes necessary to interrogate the ways in which this dual transition may be developed and carried out, with the intellectual and political honesty of recognizing the incongruities and incompatibilities of current economic systems with an ecological turn that is genuinely transformative and not mere ideology or greenwashing. Supported by neoliberal ideology and the techno-solutionist tendency described by sociologist Evgeny Morozov[1], today"s economic and social systems cannot but undermine those shared yet illusory objectives proposed by the EU. An important step could and should instead begin by questioning the very conditions of possibility for such a dual transition: rather than starting from the question of how to implement the transition, it may be more sensible to ask, preliminarily, "who" ought to carry it out, or rather, "who and what", together, can make it possible. In this article, we will attempt to demonstrate that one of the most fruitful ways of concretely envisioning this epochal change – which should ultimately aspire to the definitive exit from the geological era of the Anthropocene – is to focus on the local, concrete, and non-abstract relations that have always emerged between humans, techniques, and institutions within a given historical moment and a specific spatial context. The key notion we wish to foreground is that of territory, which appears, from our perspective, as a privileged point of access to the problem of the double transition. As has been noted, in fact, it is

> necessary to draw the path for practically cultivate and implement the ecological and the technological transitions through the creation of new local relationships between "humans" and more-than-human […] as it stems out from specific posthumanist theoretical frameworks.[2]

From here, we will move toward the elaboration of a theoretical proposal culminating in the idea of a "Real Smart Home", which may follow the trajectory already outlined by Bernard Stiegler in his projects: Real Smart Cities and NEST Project.

Acknowledging the importance of the notion of territory, it is now necessary to clarify what we mean precisely by this concept and what relationship it bears to that of locality. Although the concept may at first glance appear relatively straightforward, in accord to its common usage, it is far from be transparent once we begin to question it. Indeed, multiple definitions of territory[3] exist, and they may radically alter its meaning. Territory

1 E. Morozov, *To Save Everything, Click Here: The Folly of Technological Solutionism*, Public Affairs, New York 2013.

2 G. Gilmozzi, *Overcoming (Hyper)Modernity*, in «B@belonline», 11, 2024, p. 95.

3 For instance, consider the definition provided by the Territorialist School, of which Alberto Magnaghi was one of the most prominent exponents. For Magnaghi, the territory is a living system of ecological, econom-

is undoubtedly a complex concept and cannot be reduced to an univocal definition. For the purposes of this discussion, we shall briefly frame it through the definition articulated by Bernard Stiegler, which emerges directly from his philosophy.

Thus, in order to understand why territory and its "local" relations represent a fundamental starting point for thinking the dual transition, one must first clarify what Stiegler means by "territory" and, above all, by "locality". To begin with, by these two terms, the philosopher does not mean a physical location, nor a concrete space; at the very least, it would be misguided to assume a pre-given space, finite and closed upon itself with fixed boundaries and consolidated identities. As Sara Baranzoni and Paolo Vignola remind us:

> for Stiegler we cannot postulate a place or a territory already given on which the term locality would install itself as a kind of characteristic expression: the place is instead the result of a system of co-constitutive consistencies among organic and inorganic, psychic and technical elements that literally "give place", that is, constitute such a place in time, "always and even necessarily on the basis of a non-place".[4]

In this sense, then, territory is a set of relations between "organic" and "inorganic" elements which, when combined, generate a place that, prior to being a physical space, is above all a "sense". In Stiegler's words:

> locality is the having-place from which an orientation emerges, that is to say a sense, namely a purpose, which arises, for example, from a perspective shared by a community, and which thereby constitutes a knowledge, or rather a bundle of knowledges, always already themselves in process, refracting toward a differently open future.[5]

Bruno Latour, a contemporary philosopher closely aligned with Stiegler, would likely have agreed with this conception of locality, insofar as it does not presuppose the idea of a local group closed in upon its identity, but rather gestures toward openness and the ever-dynamic formation of its relations. As Latour recalls in *Reassembling the Social*: there is «no group, only group formation»[6].

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ic, and social relations that requires participatory governance in order to preserve biodiversity and local identity. Although this system of relations certainly presents affinities with the organological approach, the Territorialists conceive locality-territory as something given in its specificity, tradition, culture, and knowledge. Stiegler, by contrast, regards locality as something that is always "to come", never given once and for all, but rather constantly in transformation and in an ongoing process of individuation. Locality, in this sense, is an idea of the future that remains permanently open as a horizon of possibilities; it is that utopia which propels the world toward the yet-to-come. For a deep analysis: A. Magnaghi, *Il principio territoriale*, Boringhieri, Torino 2020, and Id., *Il progetto locale. Verso la coscienza di luogo*, Boringhieri, Torino 2010.

4 S. Baranzoni, P. Vignola, *La località o l'aver luogo del senso*, in S. Baranzoni, G. Gilmozzi, E. Marra, P. Vignola, *I mondi del Professor Challenger. Politiche, tecno-logiche, ambienti*, Orthotes, Napoli 2025, p. 224.

5 B. Stiegler, *L'assoluta necessità. In risposta ad António Guterres e Greta Thunberg*, Meltemi, Milano 2020, p. 54.

6 B. Latour, *Reassembling the Social. An Introduction to Actor-Network-Theory*, Oxford University Press, Oxford 2005, p. 27.

The term locality, therefore, designates that particular ensemble of relations, knowledges, and modes of life that emerge from the reciprocal interaction among subjects, techniques, institutions, and territories. This is crucial for the transition under discussion because the "localities" to which Stiegler refers stand far beyond both the neoliberal ideology and the techno-solutionist paradigm mentioned earlier. To think the transition from the perspective of territory, as understood by the French philosopher, means foregrounding the key role of technology in processes of human individuation without falling into technophobic or technophilic excesses[7]; it means recognizing that technology can be interpreted beyond a techno-totalitarian paradigm, showing – as Stiegler did masterfully in the first volume of *Technics and Time* – that anthropogenesis itself is the outcome of a constitutive, and not accidental, relation with technics.

It also means acknowledging that if today's technics appear to be the primary cause of what Stiegler termed "proletarianization" – that is, a process triggered by hyper-industrial technologies and media, resulting in a constant loss of knowledges and ways of life, as well as social automation and alienation – it is equally true that it is through technics, understood in their "pharmacological" sense (a term Stiegler borrows from Derrida's *pharmakon*[8]) – namely, in their dual valence as both poison and remedy – that it becomes possible to inaugurate a new "epoch of the Spirit". In this way, one may imagine a new form of economy – which Stiegler defines as "contributive" – and a renewed union among States, redesigning ways of life and envisaging, therefore, a transition that places the human, and its interpretative capacity (i.e. *hermeneia*), back at the center. Such capacity is rooted in those dynamic and processual relations that characterize the various localities as symbolic and cultural horizons capable of deferring the entropic tendency of contemporary hyper-industrialization and automation.

2. *Organology as a process*

Having clarified these aspects, it now becomes crucial to introduce the concept of "organology" in order to better grasp Stiegler's philosophy, which we are drawing upon here, and above all to understand the way in which relations between human and non-human agents are structured within a locality and, more generally, within contemporary society characterized by the aggressive pervasiveness of user profiling systems, algorithms, and IoT systems. General organology, as we shall now see, is literally the keystone of Stiegler's philosophy, the hinge that makes possible the study of the relations established between the physiological organs of the animal *sapiens*, the technical organs (tools and techniques), and the social organs (institutions).

In the words of Victor Petit, who edited a vocabulary dedicated to Stiegler's neologisms and semantic interpretations, organology is: «a method for the joint analysis of

7 G. Pezzano, *Oltre la tecno-fobia/mania: prospettive di "tecno-realismo" a partire dall'antropologia filosofica*, in «Etica & Politica / Ethics & Politics», XIV, 1, 2012, pp. 125-173.

8 J. Derrida, *La Pharmacie de Platon*, Paris, Seuil 1972.

the history and becoming of physiological, technical, and social organs. The relation is translational inasmuch as variation in one type always entails variation in the other two types». This means that «a physiological organ – including the brain – does not evolve independently of technical and social organs»[9]. This notion is indispensable because it allows us to apprehend and study the relations that, together, come to constitute a given locality or a broader organological equilibrium in a specific historical phase. General organology is, in fact, a process, because it is itself composed of processes. Here the French philosopher builds upon the theoretical contribution of another great thinker of technics: Gilbert Simondon.

From Simondon's legacy, Stiegler especially adopts the theory of individuation, which, with significant additions, forms the basis of general organology. In brief, Simondon shows us that the human being is not a given but a process in constant becoming[10]. Human processuality consists in continuous individuations which, starting from one's cultural and experiential background, allow one to reach a metastable form of identity – never definitive and always subject to further individuations. The background to which Simondon refers is defined as a «preindividual *milieu*» charge of potential. Federica Buongiorno, in a recent work, reflecting on this never-completed character of Simondonian individuation, has provocatively adopted the term «hyperindividuation» to suggest that: «in a certain sense, there is never an individual»[11], for as long as there is life, there will always be individuation. The end of the process, indeed, coincides with death.

Stiegler takes up this Simondonian theory but adds, however, a third individuation which, in his view, Simondon did not see: technical individuation[12]. For Stiegler, technics plays a central and constitutive role, and without it, the theory would not only be incomplete but would rest on erroneous premises from the outset: if it is true that the human being is never given in advance but only emerges through individuation, it is equally true that without technogenesis – that shard of flint employed by early hominins, not yet sapiens – humanity would never have come to be.

Asking why this should be the case is certainly legitimate and necessary, but since this is not the proper place to examine the issue in depth, we will confine ourselves here to underscoring briefly that the humanity of homo sapiens, and of the species preceding it, lies in the capacity to archive memory onto a material support and to transmit it to future generations, thereby handing down knowledge, thought, and culture. New generations, if they have the patience and perseverance to read, decipher, and reactivate that memory, then inherit an archive of discretized knowledge and psychic processes that provides their point of departure for creating new ones and transmitting them in turn.

9 B. Stiegler, *Pharmacologie du Front National* suivi du *Vocabulaire d'Ars Industrialis* par V. Petit, Paris, Flammarion 2013, p. 419.
10 G. Simondon, *L'Individuation à la lumière des notions de forme et d'information*, Jérôme Millon, Grenoble 2005.
11 F. Buongiorno, *Iperindividualità. L'individuazione nel presente tecnologico*, Meltemi, Milano 2025, p. 10.
12 B. Stiegler, *Poteri, saperi e hypomnemata*, in Id., *Platone digitale. Per una filosofia della rete*, Mimesis, Milano 2015, p. 65.

Humanity, for Stiegler, resides in this simple yet obscure gesture of transmitting memory, which can only occur technically. This is precisely the sense of his elaboration of a new type of memory that emerges between phylogenetic memory (of the species) and epigenetic memory (of the individual, born of interaction with its environment). Stiegler calls it epiphylogenetic memory, which constitutes, in every respect, «the continuation of life by other means than life»[13].

As Prunotto underscores, epiphylogenesis, as accumulation, stratification, sedimentation, and archiving of individual epigeneses, constitutes «the possibility of articulating and preserving both genetic memory and individual neural memory, which within life in general would otherwise be lost»[14]. This type of memory is exteriorized and inscribed onto technical supports that make cultural transmission possible in the first place. Epiphylogenesis is, therefore, what allows the human being to be what it is, offering access to its historical horizon, constituted by all the accumulated and sedimented epigeneses preserved within technical memory supports (from books to modern hard drives) transmitted down to us. This also represents a crucial point of contention with the philosophy of Martin Heidegger: the German philosopher, while remaining an indispensable reference, would, according to Stiegler, have precisely misconstrued the specifically "technical" nature of historicity – namely, its grounding in physical memories exteriorized onto supports: «the specificities of technics as means of recording the past condition, in every epoch, the ways in which *Dasein* accesses its past»[15]. This can only lead to the necessity of rethinking existential analytics itself in critical confrontation with technics, no longer interpreted solely as *Gestell*. As Prunotto observes: «Heidegger forgets that this very worldliness is technical, through and through the spatiality and temporality that enable the human being to exist – that is, to inhabit a world – derive from the relation it weaves with the technical being, namely the exteriorization and spatialization of memory»[16].

3. *Real Smart Cities and NEST Project*

Having clarified much of the key conceptual framework of Stiegler's philosophy, it is now appropriate to pause briefly on the concrete actions undertaken by the French philosopher to counter the current automatising and hyper-technological tendency, and to envision, following his path, the possibility of a new transition which, as we will soon see, culminates in the proposal of a Real Smart Home as a direct continuation of these two projects.

Real Smart Cities is a project proposed by Bernard Stiegler and the international network Digital Studies within the framework of the European HORIZON2020 programme,

13 Id., *Technics and Time, 1: The Fault of Epimetheus*, Stanford University Press, Redwood City 1998, p. 50.
14 P. Prunotto, *Maschere della decostruzione. Su epifilogenesi e plasticità*, in «Etica & Politica / Ethics & Politics», XXVII, 1, 2025, p. 139.
15 B. Stiegler, *La Technique et le Temps, 2. La désorientatio*n, Galilée, Paris 1996, p. 13.
16 P. Prunotto, *Ermes dopo Prometeo. La "quasi analitica esistenziale" di Bernard Stiegler*, in «Trópos», 16, n. 1, 2024, p. 151.

from which it received funding. The project, launched in December 2017 and completed on May 31st 2022, had as its main objective: «to develop and implement a perspective on the Smart City through critical humanities research and innovation in the context of the Digital Studies», all converging towards the possibility:

> to share knowledge across disciplines in order to develop a transdisciplinary model for 'real smart city', which is defined as a Smart City that is based on a critical humanities perspective, where citizens are the proper data brokers, engaging through public fora for debate and new technologies that enable citizen participation.[17]

From these quotations, one can immediately see the significance this project held for Stiegler in attempting to understand and respond to today's major problems. As has been observed, the project can be read in light of three theoretical axes that unequivocally display the themes most central to the French philosopher's engagement with contemporaneity:

> Specifically, these are, first, the forms of economy and politics linked to the use of data and technological control; second, the production of new knowledges and epistemologies on the one hand, and the disorienting effects of disruption in the fields of education and the social on the other; finally, climate change and the Anthropocene.[18]

But what exactly does "Real" Smart Cities mean in this context? For Stiegler, reflecting on the very sense of *smartness* is a crucial step toward the transition and toward a future worthy of that name. Today everything appears to be smart: from artificial intelligences to the smartphones, the smartwatches, the smart car, and so forth. Even the city has, in recent years, not escaped this "smartization": hence the concept of the Smart City. With it comes the promise of a rational management of urban space to guarantee greater efficiency in processes, increased energy savings, and more refined profiling of the data flows produced by inhabitants, which in turn enables better organization. From this perspective, the smart city appears to be the keystone of the eco-technological transition: «An intelligent city has the capacity to innovate in security, entrepreneurship, democratic participation, the education and training of citizens»[19], not to mention the continuous updating of urban design and the ecological reconversion of production toward forms of sustainable economy. One might thus ask: what, precisely, is wrong with this model? Looking more closely, however, one begins to discern the "totalitarian" traits of this system, echoing those described decades earlier by Deleuze in his *Post-scriptum sur les sociétés de contrôle*:

17 Official Web Site of Real Smart Cities Project, "Objective" section: https://cordis.europa.eu/project/id/777707 (last access 30-9-2025).

18 P. Vignola, *Real Smart Cities. Per un'intelligenza oltre il calcolo*, in G.F. Ferrari (ed.), *Innovazione e sostenibilità per il futuro delle smart cities*, Mimesis, Milano 2023, p. 341.

19 Ivi, p. 346.

> In control societies, on the other hand, the key thing is no longer a signature or number but a code: codes are passwords, whereas disciplinary societies are ruled […] by precepts. The digital language of control is made up of codes indicating whether access to some information should be allowed or denied […] Individuals become "dividuals".[20]

First of all, as Stiegler notes, the key problem is that:

> The underlying idea is that all the problems of the city are purely technical in nature and can be solved more effectively by the arithmetic of "big data" or "artificial intelligence", rather than by the inhabitants and public administrations. Debates, democratic deliberations, collective learning processes, and administrative decision-making procedures are thus silently removed.[21]

A further critical issue that must be taken into account in the case of smart cities is what Antoinette Rouvroy and Thomas Berns have defined as «algorithmic governmentality». By this expression, the two scholars – whose theoretical contribution is indispensable for the project – refer to a form of «colonization of public space by a hypertrophic private sphere»[22]. This necessarily leads to the disappearance of a shared experience and instead fosters «a form of government realized through the extraction, analysis, profiling, and correlation of vast quantities of data, whose aim is to anticipate, modulate, and select individual and collective actions and desires»[23]. Following their argument, what emerges is a «standardization of urban ways of life […] which thereby eliminates the diversity and singularities of urban civilizations, as well as the political sovereignty of territories through the "functional sovereignty" exercised by global platforms»[24].

From these considerations one can see the theoretical and political importance of a project such as Real Smart Cities and the opportunity it provides to rethink the very notion of "intelligence". For Stiegler, intelligence is indeed a matter of "taking care" – of relations, of locality, of technics, of new generations, of knowledges, of the society in which one lives – so as to perpetually defer, with a difference, the homogenizing and alienating tendencies of those "smart" processes typical of cognitive capitalism. This "intelligence of care", long at the centre of Stiegler's reflection[25], is often also defined as urban intelligence. As Paolo Vignola stresses: «The urban intelligence referred to by the Real Smart Cities project is defined by its local and social dimension, which expresses itself through relational openness and intergenerational sharing understood as historical depth»[26].

20 G. Deleuze, *Postscript on control societies*, in Id., *Negotiations (1972-90)*, transl. by M. Joughin, Columbia University Press, New York 1995, p. 180.
21 B. Stiegler, *L'assoluta necessità. In risposta ad António Guterres e Greta* Thunberg, cit., p. 210.
22 T. Berns, A. Rouvroy, *Gouvernementalité algorithmique et perspectives d'émancipation. Le disparate comme condition d'individuation par la relation?*, in «Réseaux», 177, n. 1, 2013, pp. 163-196, p. 172.
23 P. Vignola, *Real Smart Cities. Per un'intelligenza oltre il calcolo*, cit., p. 347.
24 B. Stiegler, *L'assoluta necessità. In risposta ad António Guterres e Greta Thunberg*, cit., p. 102.
25 B. Stiegler, *Prendre soin, 1. De la jeunesse et des générations*, Flammarion, Paris 2008.
26 P. Vignola, *Real Smart Cities. Per un'intelligenza oltre il calcolo*, cit., p. 349.

We thus return once again to locality and territory, and to the possibility of inhabiting them. The question is therefore closely tied to urban planning and to the home, as a locus of habitability and as the neural centre of a possible new transition. This is evident in the thought of Stiegler and of the authors working closely with him, as attested by *Le nouveau génie urbain*[27]. This is because the transformation triggered by the smart city is: «as much semiotic as architectural [inasmuch as] it modifies the entire territorial and urban morphogenesis, dividing it between the hardware of building and urbanism and the software of urban flows – of inhabitants, money, information, goods, etc. – translated into data to be extracted and correlated»[28].

Stiegler tragically passed away in 2020. Yet his death did not signify the end of his philosophical-political struggle nor the oblivion of his theories. On the contrary, the NEST Project, officially launched on September 1st 2021 as part of the Maria Skłodowska-Curie RISE Action Programme, testifies to the commitment and dedication of Stiegler's students in carrying forward the French philosopher's ideals. This project, as the continuation of the previous one, acquires even greater importance in relation to the theme of the dual transition. *NEST* in fact stands for "Networking Ecologically, Smart Territories". Here the theme of intelligence reappears, but above all that of territory. Among its various objectives, the project:

> Rehearses the potential of territorialized knowledge based on a hypothesis that digital diversification conditions the resilience of human societies and holds the key for redesigning the self-destructive model of economic development. Digital diversification – understood as noodiversity (the diversity of the forms of knowledge) and technodiversity (the diversity of technologies as the supports of knowledge) – is believed to support the revaluation of knowledge and to offer a sustainable alternative to the knowledge-unfriendly model of computing platforms.[29]

Here we encounter two further important terms whose theoretical status must now be clarified before we move toward our conclusions and the presentation of our proposal for another possible continuation, namely a "Real Smart Home". The two terms that appear in the objectives, and to which we are now referring, are "noodiversity" and "technodiversity". First of all, it should be noted that both terms refer to a form of diversity, a rupture with standardization. The philosopher began to introduce these concepts in his later writings: the term noodiversity refers to the Greek *nous* and thus designates a differentiation of knowledges, cultures, intelligences, ways of living and reasoning. Reflecting on noodiversity, Stiegler writes: «a variability of a noodiversity […] is obviously also a technodiversity»[30].

27 B. Stiegler (ed.), *Le nouveau génie urbain*, FYP, Limoges 2020.
28 P. Vignola, *Real Smart Cities. Per un'intelligenza oltre il calcolo*, cit., p. 357.
29 Official Web Site of NEST Project, "Aims" section: https://www.nestproject.eu/ (last access 30-9-2025).
30 B. Stiegler, *Noodiversity, Technodiversity. Elements of a new economic foundation based on a new foundation for theoretical computer science*, in «ANGELAKI journal of the theoretical humanities», 25, n. 4, p. 76.

We thus encounter the theme of technodiversity: it indicates the possible and actual variety of different technologies and tools and their diverse modes of use from person to person, from culture to culture. The theme of technodiversity has, in recent years, been taken up by Yuk Hui, one of Stiegler's pupils, to whom we refer for a deep focus on this topic[31]. These two terms, then, join the form of diversity most familiar and most discussed in the scientific domain: biodiversity. Together they constitute a triad that becomes the starting point for radically rethinking our practices of inhabiting territories and, consequently, the very eco-technological transition. It should be noted that the idea of these three forms of diversity was probably borrowed by Stiegler from Félix Guattari's *Les trois écologies*, in which he speaks of a triad of ecologies requiring care: environmental, social, and mental – because, as Guattari reminds us, it is not only species that disappear: «but also the words, the phrases, the gestures of human solidarity»[32].

4. *Conclusions. Towards a Real Smart Home*

The proposal for a continuation of Stiegler's projects that could converge in the idea of a Real Smart Home is driven by a dual need: to think productively about the possibility of a dual transition and to attempt to rethink locality on the basis of the triad of diversities outlined earlier. An useful starting point, I believe, lies in the already-mentioned parallel with the theme of the Smart City. Just as the city is subject to this ever-increasing process of "digital envelopment"[33] and smartization, the home likewise undergoes this transformation, becoming a node within global networks. The transformation of domestic space into digitalized space turns, on a smaller scale, the home into an infernal machine of data production, discretizing every lived experience and translating it into numbers, flows, data – thereby erasing that imaginative potential of *rêverie* that Gaston Bachelard had so vividly described in his work[34]. As has already been noted, devices: «are not just commodities, they are a means of producing data. They become Prosumer Capitalism's ultimate "dispositif", enabling access to an incredible wealth of detailed real-time information given by the user»[35].

31 Y. Hui, The *Question Concerning Technology in China: An Essay in Cosmotechnics*, Urbanomic, Falmouth 2016.

32 F. Guattari, *Les trois écologies*, Galilée, Paris 1989, p. 35.

33 In his *Ethics of Artificial Intelligence* (Oxford University Press, Oxford 2023), Luciano Floridi identifies what Paolo Vignola has concisely emphasized as «the operation of a progressive transformation of the human environment aimed at making artificial intelligence tools more efficient, particularly through the design of environments increasingly tailored to algorithmic operations» (p. 357). Although Floridi underscores the need for a compromise between an ever-growing technological envelopment and the way we inhabit our spaces, he does not seem to directly address the consequences of such envelopment, such as subjection to calculation, the decentralization of the human in relation to the environment, and the political challenges connected to these outcomes.

34 G. Bachelard, *La poétique de l'espace*, PUF, Paris 2009.

35 C. Andreotti, *Designing Domestic Spaces of Command/Control: Cybernetics, "Prosumerism" and the Techno-Utopianism of the Smart Home* in «LSE Journal of Geography and Environment», 1, 2022, p. 62. https://jge.lse.ac.uk/articles/31 (last access 30-9-2025).

This occurs constantly, exposing inhabitants to unexpected risks, as they increasingly find themselves turned into "prosumer users", engaged not only in consumption but also in the continuous production of vast amounts of real-time data[36]. Another aspect to consider is what Rottinghaus calls a «new white futurism» by which he refers to: «a discourse from companies that promotes emerging smart home technologies as tools for data-driven management of work/life balance in contemporary heteronormative, white, middle-class culture»[37]. In this way, beyond offering unrealistic utopias of allegedly intelligent ways of living, these "smart" products – and the market logic sustaining them – continue to exacerbate and normalize forms of racism and segregation.

The Smart Home, in this sense, is never neutral: it embodies a politico-economic project that, on the one hand, promises energy optimization, waste reduction, and increased security, but on the other hand paves the way for new forms of technological dependency, data extraction, and loss of autonomy in inhabiting. As Chiara Andreotti remarks: «More than a command center for the individual to modulate her environment and enhance her daily life and performance, today's Smart Homes transform the user into a "dividual" from which data sequences are extracted, automatically determining our agency within set futures»[38].

It is true that in some cases such technologies applied to the domestic sphere can effectively improve quality of life, such as in the ability to care for infants or pets through monitoring[39] or offering new opportunities to disabled persons or the elderly[40].Yet it is equally true that: «such devices can also be used for the purposes of limiting people's agency or for "smart abuse". The use of smart home technologies such as security systems for the surveillance of the activities of household members such as teenagers, or facilitating stalking and violence against women and children, has been raised as an important privacy and security problem»[41].

A critical analysis must therefore address at least three fundamental points. First, the question of freedom: to what extent is inhabiting transformed into the consumption of digital services? Second, the question of memory and temporality: the home as a living archive of experiences risks being reduced to an algorithmic database, where lived real-

36 G. Ritzer, P. Degli Esposti., *The increasing centrality of prosumption in the digital capitalist economy*, in «Österreichische Zeitschrift für Soziologie», 45, 2020, pp. 351-369. *https://dx.doi.org/10.1007/s11614-020-00422-z* (last access 30-9-2025).

37 A.C. Rottinghaus, *Smart Homes and the New White Futurism*, in «Journal of Futures Studies», 25, n. 4, 2021, p. 45.

38 C. Andreotti, *Designing Domestic Spaces of Command/Control*, cit., p. 63.

39 I. Richardson, *et alii*, *Careful surveillance at play: Human-animal relations and mobile media in the home*, in E.G. Cruz, S. Sumartojo, S. Pink (eds.), *Refiguring Techniques in Digital Visual Research*, Palgrave Macmillan, London 2017, pp.105-116. https://doi.org/10.1007/978-3-319-61222-5_9 (last access 30-9-2025).

40 L. Hjorth, D. Lupton, *Digitised caring intimacies: More-than-human intergenerational care in Japan*, in «International Journal of Cultural Studies», 24, n. 4, 2021, pp. 584-602. https://doi.org/10.1177/1367877920927427 (last access 30-9-2025).

41 D. Lupton, *et alii*, *Living in, with and beyond the "smart home": Introduction to the special issue*, in «Convergence», 27, n. 5, 2021, pp. 1147-1154. https://doi.org/10.1177/13548565211052736 (last access 30-9-2025).

ity is translated into logics of efficiency and prediction. Third, the question of otherness: a Smart Home designed solely according to criteria of technological standardization reduces the plurality of uses and dwelling cultures, flattening cultural biodiversity into a single mode of habitation.

In this scenario, the concept of a Real Smart Home should be rethought not as a "more connected house", but as a space where technical intelligence becomes a support for noodiversity and collective care. This implies a reconfiguration of digital architectures based on principles of openness, interoperability, data sovereignty, and above all attention to the forms of life and the techniques that, in their organological interplay, constitute the fabric of dynamic relations in which dwelling takes root. The Smart Home would thus cease to be a mere extension of extractive models and platforms, and instead become a site of resistance against standardization, a laboratory of new practices of dwelling, and the center of that dual transition which the EU pursues without critically asking for whom or for what it is being promoted. To begin again from the care of the relations that structure dwelling practices can trigger a virtuous cycle which, if nurtured, can – we firmly believe – reverse the current trend and inaugurate, as Stiegler wished, a new epoch of Spirit and, above all, a new geological era no longer bearing the name of the Anthropocene.