

# FROM THE DATA CITY TO THE LIVING ARCHIPELAGO GUEST EDITORS' PREFACE

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## **ABSTRACT**

This note aims first to provide a general insight into the key theoretical questions on which are central to the Real Smart City project, and then to elaborate on the salient concepts or analysis of each paper of the collection “Guayaquil Archipelago: Epistemological steps towards a Real Smart City”. The most relevant issues, such as smartness, noesis, public space and control, compose the set of critical tools by which we attempt to deconstruct the technoideology of the very idea of “Smart Cities”. A second goal is to provide an alternative to the image of the network, through which one thinks social relations and the transmission of information and knowledge within digital societies. This is the image of the archipelago, mediated by archipelagic thinking. While the first part of the collection of papers focuses on the relation between the digital and the territory, the second part attempts to deepen the concept of archipelagic thinking and to raise some methodological points inspired by real archipelagos.

## **KEYWORDS**

Smart City, Noesis, Digital Studies, Archipelagic Thinking, Algorithmic Governmentality

The idea behind the collection of texts in this issue comes from an interdisciplinary research trajectory, whose focus is represented by the criticism of

the concept of “Smart Cities” and as a consequence this issue proposes a radical rethinking of its assumptions, its horizons and its general meanings while at the same time maintaining a political philosophical perspective. This research trajectory is officialised and financed by the European project “Real Smart Cities” (MSCA-RISE Horizon 2020, Grant agreement 777707), and is inserted in the general framework of Digital Studies and develops the strategic lines of research of the Digital Studies Network<sup>1</sup>.

In this vein, the first theoretical gesture of the Real Smart Cities project consists in questioning the relation between technology and human intelligence, and therefore the difference between smartness as artificial intelligence of machines and the meaning of intelligence as the result of a collective and heterogenic process – which is the meaning that we adopt within the Real Smart Cities project. In this sense, and following Bernard Stiegler’s analysis, we consider that it is never possible to refer to pure human intelligence, while we should rather think of a noetic intelligence, which is always artificial, to the extent that it is the result of a socio-technical process. Remaining within Stiegler’s framework, we argue that smartness as a characteristic of the new artificial intelligence seems no longer to have humanity as its own subject. This new form of intelligence seems to be that of machines, which make of humanity their object or resource to be extracted by algorithms: thus, it rather represents a form of *denoetization*, literally out of control of noesis or a loss of noetic processes. As the ‘smart’ city is reticulated techno-geographically at the speed of light, all forms of human life are reframed by algorithms, as well as all forms of critical movements, and more generally, the very possibility of developing social intelligence and critical thinking are short-circuited.

As highlighted by a large set of political and social analyses, the smartness of the new artificial intelligence can control, even anticipate, the whole human, social and institutional behaviours on several scales, as Benjamin Bratton’s *The Stack* describes<sup>2</sup>. The Stack is the scale of the user-consumer and their “profile”, the scale of the groups to which this user is “cross-linked”; the economic scale of design, production, logistics, and marketing; the scale of various kinds of governance (local, national, transnational); the scale of the biosphere which, at this time of global crosslinking has become precisely what Stiegler calls a technosphere:

<sup>1</sup> The transnational Digital Studies Network (DSN) brings together cutting-edge research in the expanded field of critical software studies to critically reflect and to build upon innovations of the digital humanities to bridge the disciplinary divides between the sciences, arts, philosophy and humanities. DSN recognises that all fields of knowledge and all aspects of social organization are reinvented with every change in the technical systems that constitute culture. In this vein, DSN innovatively rethinks the epistemology of all disciplines around the scientific instruments, and the social institutions we employ to extend, supplement and reinvent the biological bases of our experience. Cf. <https://digital-studies.org/wp/en/>.

<sup>2</sup> B. Bratton, *The Stack. On Software and Sovereignty*. Cambridge: The MIT Press, 2015.

The new artificial intelligence made possible by the massive crosslinking of the world population, creating the new type of associated environment technogeographic where humanity has become, in the same way as coal, a non-renewable resource (Bestand) [...] – at the service of a massive extraction of surplus value by calculation on the averages<sup>3</sup>.

In this sense the Smart City moves from being a site of production of the public space in which the urban dimension consisted to become a device for data capture and colonization of the very space and time of individual consciousness. At the same time, the citizen is reduced to a user of a space that is no longer public, but privatized and financialized, according to Antoinette Rouvroy and Thomas Berns who developed the concept of “algorithmic governmentality”<sup>4</sup>. With this term, the two Belgian philosophers describe a kind of government based on control by algorithms, oriented towards anticipating and selecting the future possibilities, the will and actions of individuals, through the monitoring of data and metadata contained in their ‘profiles’. Berns and Rouvroy highlight the novelty, in political terms, of this radical transformation of statistics caused by the analysis of correlations of massive data, a novelty that can be conceived as the algorithmic realization of the transition from “disciplinary societies” to “control societies”, as Deleuze foresaw as early as 1990 by forging the concept of individual, according to which the individuals become nothing but indexable entities or mere infra-personal data<sup>5</sup>. Through the evaluation, triage and ranking of infra-personal data, algorithmic governmentality thus preconfigures the future of individuals, tailoring their future according to their digital profiles. As they state «the aim is no longer to exclude anything that does not fit the average, but to avoid the unpredictable»<sup>6</sup>. Therefore, by extending such a technopolitical tendency to the urban context, we argue that a Smart City based on algorithmic governmentality is one that anticipates the individual and collective intelligence – on the basis of which cities have evolved throughout history, namely the intelligence that we call noetic, so artificial and psychosocial<sup>7</sup> – by directing, programming and calculating it.

The “Real” of the Real Smart Cities project then means that, in order to be able to talk of Smart Cities, intelligence must be developed by and for individuals and

<sup>3</sup> B. Stiegler, *Qu'appelle-t-on panser? I. L'immense regression*. Paris: Les liens qui libèrent, 2018, p. 197.

<sup>4</sup> See A. Rouvroy, T. Berns, “Algorithmic governmentality and prospects of emancipation. Disparateness as a precondition for individuation through relationships?”. *Réseaux* 1 [177], 2013, pp. 163-196.

<sup>5</sup> See G. Deleuze, “Postscript on societies of control”. In *Negotiations, 1972-1990*. New York: Columbia University Press, 1995, pp. 177-182.

<sup>6</sup> A. Rouvroy, T. Berns, “Algorithmic governmentality and prospects of emancipation”, p. 172.

<sup>7</sup> This is linked to what Simondon called “psychic and collective individuation”. See G. Simondon, *Individuation in Light of Notions of Form and Information*. Minneapolis: University of Minnesota Press, 2020.

groups, and not only for and by machines with their algorithms. At the same time, knowledge cannot remain trapped in machines, but must circulate, be shared, and above all returned to the user, in the name of a “contributory economy” of knowledge, which moves well beyond the producers/consumers dichotomy<sup>8</sup>.

Furthermore, in this issue we propose an analogy between algorithmic governmentality and the general idea or the dogmatic image of the Smart City, by also attempting to suggest an alternative. As Berns and Rouvroy affirm, algorithmic governmentality does not produce any kind of subject, in the sense that it does not consider subjects as concrete agents, but rather merely synchronizes, modulates and anticipates preferences and profiles: «the only “subject” algorithmic governmentality needs is a unique, supra-individual, constantly reconfigured “statistical body” [that] carries a kind of “memory of the future”»<sup>9</sup>.

In the same way, a Smart City doesn’t seem to produce public space anymore, rather, by reducing living places to the scale of geolocalized points, hubs, and relations between them it erases the very possibility of it. This is the function of the network, its form of colonization of space and time: to eliminate the specificity of a place, or a locality, in order to make it calculable. Faced with such a tendency in action, we propose the image of the archipelago to suggest the idea of a city in which intelligence can grow from the multifaceted relations between living spaces. Therefore, with this in mind we found in Glissant’s image of archipelagic thinking the “real” alternative, because it enables a general perspective on the relationship between crossbreeding (that is, colonialist hybridization and homogenization of peoples) and creolization, as a vector of emancipation and especially of unpredictability, and this is exactly what would be unsustainable for algorithmic governance.

## FROM THE NET TO THE ARCHIPELAGO

The archipelago, or rather, archipelagic thought, is a figure of the relationship built from the complexity of locality as a place of enunciation. As it is known, Edouard Glissant developed his concept of an archipelagic thought as an alternative to continental thought, which would have faltered as it did not consider the generalized non-system of world cultures. On the contrary, the thought of the archipelago is an unsystematic, inductive thought, which points to the ambiguous,

<sup>8</sup> About this, see the research results of the *Internation Project*, <https://internation.world>, and the collective volume B. Stiegler, Collectif Internation, *Bifurquer. “Il n’y a pas d’alternative”*. Paris: LLL, 2020, in particular chapter 3, on Contributory economy.

<sup>9</sup> A. Rouvroy, “The end(s) of critique: data-behaviourism vs. due-process”. In M. Hildebrandt and K. De Vries (eds.), *Privacy, Due Process and the Computational Turn. Philosophers of Law Meet Philosophers of Technology*. London: Routledge, 2013, pp. 143-167 (157).

the fragile, the derivative<sup>10</sup>. It consents to the practice of detour, which is not flight or renunciation, but the exploration of the unpredictability of the *tout-monde*<sup>11</sup>.

Glissant's perspective is, therefore, a disruptive reading which deconstructs the hegemonic discourses that for centuries installed a dissymmetrical relationship between the subject of power and knowledge of the colonizer and the colonized territories, that is, between a master and a slave under the totalitarian light of western reason. This disarticulation promotes opacity – of language, of the roots of tradition, of social relations – as a metaphor for resistance to that emancipatory and universalistic idea of thought promoted by the Enlightenment, which through its dialectic movement has become totalitarian with respect to all non-Western knowledge.

In this sense, archipelagic thinking is conceived of as an alternative to the network as the techno-dogmatic image of the Web, understood as a setting where the living, idiomatic thickness of locality is reduced to its digital double by the algorithmic knots of geolocation. The archipelago would then be the pre-text for reframing the digital actuality, and a tool to face and counter-act the drive for control, transparency and homogenization that seems to characterise these forms of governmentality that take advantage of algorithmic innovations.

The essays here presented have been stimulated in response to a particular event, the 'Guayaquil Archipelago' symposium and exhibition, which took place in Guayaquil (Ecuador) during July 2019, and the further advances of the "Real Smart Cities" project. This event acted as a mode of disclosure of archipelagic thinking, with the aim of showing a peculiar character of islands, which become relational rather than insular. This sheds new light on the notion of network, which thanks to the advent of digital technologies has become the dominant mode of thinking, articulated in and through the algorithmic process of the internet. In the wake of Glissant's gesture, then, the aim becomes that of criticising the mainstream image of the network through the metaphor of the Archipelago, or even to go beyond its metaphorical use, in order to test its strength for a new image of relational thought. Indeed, if from a methodological point of view it is necessary to understand the archipelago as a metaphorical device, that is to say, as an useful image to develop transdisciplinary discourses, capable of covering both the geographical and urban dimension as well as the cognitive, social and technological spheres, some of the authors in this issue rather have tried to *de-metaphorise* it, in order to operate it as a heuristic tool for *acting on* the several scales of the real. In this sense, the imperative of thinking otherwise, *thinking outside of the network*, enables a re-harnessing of thought, a form of therapeutic possibility that could happen. The challenge, therefore, becomes how to rethink the network through the archipelago,

<sup>10</sup> E. Glissant, *Poétique IV. Traité du Tout-Monde*. Paris: Gallimard, 1997, p. 31.

<sup>11</sup> *Ibid.*

an archipelago of relational possibilities, a condition of possibility of openness as forms of locality.

First, then, the research group responsible for the “Real Smart Cities” project has tried to think *through* the Archipelago as a metaphor for the citizen, that is, as a figure that synthesizes the urban, social and aesthetic fragmentation of the city. In this vein, the city of Guayaquil has been a strategical setting in order to situate thought and writing, as it is first and foremost an archipelago of connected or dislocated spaces, which function as islands both physically and metaphorically. For this reason, the metaphor of the archipelago became a powerful tool to address social and political exclusions, but also the possibility of establishing transversal relationships between isolated communities, in contrast to the new wave of problems that come from the mature phases of globalization. In the Archipelago, each “island” becomes irreplaceable and significant subject, capable of providing through its uniqueness an original point of view for the whole. As Glissant would say, «A city, which can be the place of so much suffering, injustice, stifled misfortunes, hopelessness without horizons, becomes in this way, by entering the imagination of the world and completing this exchange and committing Relation, the symbol and the vector of new hopes»<sup>12</sup>.

## THE ISSUE

The papers here collected are organised following the two trajectories described above: the question concerning algorithms and the image of the archipelago. In this vein, the first group of papers tendentially stresses issues that are more directly linked to the Smart City, while the second focuses more on archipelagic thinking.

Noel Fitzpatrick’s paper, “The Data City, the Idiom and Questions of Locality”, opens the collection by enucleating the key questions that the Real Smart Cities project wants to face as deconstruction of the technological ideology of the smart cities: datafication, algorithmization, colonization of time and space, reduction and deletion of the importance of physical places and localities. Fitzpatrick then finds in the philosophical (Ricoeur, Searle) and linguistic (Grice, Benveniste) concept of idiom a strategic tool that can show what a (real) smart city should never erase: the openness of meaning that both places and languages always offer and that the work of translation can intensify. The idiom becomes the focal point of the analysis, and in particular the idiom in translation. The translation from one language to another is taken by the author as the model of transition from one type of space to another. In this sense, the idiomatic is thought as the kernel of the smart city analysis, but also as a positive component for a new conceptualization of locality – and so, as a radical reframing of the (real) smart cities.

<sup>12</sup> *Ibid.*, p. 250.

John Kelleher and Aphra Kerr's paper, "Finding Common Ground for Citizen Empowerment in the Smart City", is perhaps the representative of the interdisciplinary framework of the project, either because the text crosses sociology and data science, and because it literally lands its analysis in a qualitative research setting in the Galapagos' archipelago. The authors first highlight smart cities and social media technologies paradox, thanks to which the empowerment associated to the digital for purposes of public information and relationships, as well as for any kind of service provision, results in an epistemic and social disempowerment of citizens. Such a paradox is analysed through the lens of a wide range of authors and following three guidelines to critically read the concept of smart cities: as a component of the system of surveillance; as a model for AI and data science; as a sociotechnical system of optimization and marginalization. The alternative to this concept of smart city is then found in a kind of sociotechnical process able to build what the authors call "a common ground" for the epistemic and social empowerment of citizens. The idea is to think to a city in which the asymmetry of control is replaced by a more symmetrical form of informational flows, access to the commons and governance.

With the paper "Living with machines", Ester Toribio Roura gives a wide spectrum of perspectives, concepts and issues concerning the relation between AI and collective intelligence, as the key issue that lays at the ground of the conception of smart cities. With a genealogical approach, the paper succeeds in drawing a complex prism composed by history of technics, literature and visual arts, that allows the author to come back to the contemporary context with a strong argument for reframing the ethical approach to AI. In particular, the notion of locality and local thinking acquire a strategic relevance as a way to re-humanize the dehumanised algorithmic intelligence. In this vein, and by focusing on the case of facial recognition software, Toribio explores the alternative possibility of imaginative agency (Brant, Vigotsky) as a form of local intelligence. The concept of local intelligence is thus the core of the paper, and the author define it, using a wide set of heterogeneous authors (Stiegler, Turkle, De Certeau, Lefebvre, Barrington, among others), as a necessary and critical component of social life within smart cities - a kind of smart cities no technocentric.

Pedro Cagigal's text, "Sintiendo a los datos. El dato como medio corporal", after proposing a diagnosis of the proletarianising effects on the individual life brought by the Big Data and the algorithmisation, all this developed by using a wide set of scholars, bets for new emancipatory and epistemic possibilities of a body assembled with data. The way Cagigal chooses to unpack the positive and affirmative side of digital data is to understand it as a new *medium*, that could also return a more complex experience of the body. As a medium, digital data is also a space for disputing meanings, where the arts can develop new sensorial and aesthetic-political ways to use the it. In this vein, the final part of the paper focuses on some recent

artistic examples that disclose a radical alternative – critical and political – to use and rework digital data with ecological, political and heuristic purposes, beyond the biometric and biopolitical strategies that run the contemporary technological system.

The second session of papers attempts to deepen into the image of the archipelago, in order to provide a new conceptual image for reframing both the existence in the city and the critical approach to smartness. In this vein, Sara Baranzoni's paper, "Archipiélago. El ritmo de la ciudad", convenes the Caribbean poet and thinker, Antonio Benítez Rojo, and his concepts of «repeating island», «meta-archipelago», «polyrhythm» and «performative supersincretism» as an alternative to the «mathematization of the World», whose smart cities, as well as the Anthropocene, seem to represent the most recent milestone. The paper thus articulates a radical critique of computational capitalism (Stiegler, Rouvroy) with a socioanthropological framework focusing on the notion of rhythm (Lefebvre, Glissant) and performance (Diana Taylor) with the aim of converting the image of the archipelago in the terms of a (trans)cultural performative tool. In this sense, the text takes a stake for a kind of urban polyrhythm, in its turn reflecting the image of archipelagic social relations within the city.

Glenn Loughran's paper, "Archipelagic Imaginaries: A world-centred art education at the end of the world", offers a deep insight into archipelagic and island studies, considering them as two key perspectives in order to provide both a political and ecological critique for the Anthropocene and a critical framework to promote a necessary shift in education. The environment is thus taken as an arbiter of educational subjectivity beyond the 'market' ontologies of the Human Capital Subject. By developing and concretizing what Loughran thinks as twin concepts, i.e. Glissant's archipelagic thinking and Biesta's 'world-centred' education, the paper links postcolonial analysis with a pedagogical framework able to face the most relevant anthropocenic issues, especially in the field of artistic education. By stressing Biesta's most strategic concepts, the final section describes pedagogical examples that show the concretization of this critical articulation of archipelagic and island studies within the field of arts. Such a description focuses on the curricular overview of the master on Archipelagic Art Education in the West Cork Archipelago (Ireland) as a concrete example of world-centred education.

Paolo Vignola's paper, "Archipiélago y archi-pliegue", attempts to describe a series of geophilosophical paths and issues – in the sense of Gilles Deleuze and Félix Guattari – that share the image of the fold and the archipelago as a key access to stress the question of the relations between humanity, environment and cultural processes. Starting from the contemporary Anthropocene issue but reframed as Capitalocene (Moore), and coming back towards colonialism and Amerindian cosmologies, an extended image of the archipelagic thinking, together with its main

authors (Glissant, Benítez Rojo, Brathwaite) is presented and re-structured as a critical tool for reading social and cultural effects of digital capitalism. Furthermore, this very image is articulated with Viveiros de Castro's Amerindian anthropology in order to highlight the relevance of a kind of theoretical archi-fold of human thinking of itself, at the same time near and different from the occidental post-humanism.

Bernard Stiegler's paper, "L'archipel des vivants", is to be conceived as both an academic text that fits perfectly into the present issue and a theoretical-programmatic footprint for the next step of the Real Smart Cities project. What is at stake in this paper is the socio-political possibility of locally differing entropy and anthropy (towards negentropy and neganthopy) as a response to the issue of the Anthropocene. In its first part, on the one hand it focuses on the relationship between territory, intelligence and technology as vector of exosomatization, and on the other hand already describes the academic and heuristic network that would concretize such a theoretical fundament. The second part provides an insight on the concrete relations between locality, knowledge and political economy in specific archipelagos disseminated around the planet, while the final section describe in detail roles and skills of the participant of the European project. Due to the strong theoretical attitude and its programmatic soul, we propose it as a kind of afterword to the present issue.

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