

## Beyond the Darkness of our Age For a Non-Mechanistic View of Complex Organization as Living Organisms

*Piero Dominici*  
University of Perugia

### Abstract

The urgent requirements of the “new” cognitive, subjective, organizational, social and ethical (hyper)complexity that contradistinguishes the age of globalization and its interconnected, interdependent world systems, regard the configuration of a *theoretical interpretive model* capable of recognizing and illustrating the uncertain *trajectories* and the numerous *discontinuities* of the ongoing process of global change, which is casting doubts on paradigms, methodologies, analytical tools, and (organizational and non-organizational) culture. In the midst of this phase of upheaval and emergency (it should be clear that emergency is a structural, connotative characteristic of complex systems and organizations), in which technology and the “digital revolution” seem to restore the illusion of total *control* and of decisional and systemic rationality - *open transnational communities*, focusing on the people, on the relational spaces, on education and on communication, must be realized through long-term, transnational policies, investing significant resources on complex instruments in order to contrast the new inequalities and asymmetries that are standing in the way of openness and dialogue.

*Keywords:* open transnational communities, hypercomplexity, systemic perspective, global change, emergency, organizational complexity

**Riassunto.** *Oltre l'oscurità della nostra era. Per una visione non meccanicistica delle organizzazioni complesse come organismi viventi*

La “nuova” (iper)complessità conoscitiva, soggettiva, organizzativa, sociale ed etica, che contraddistingue l'era della globalizzazione e il sistema-mondo, sempre più interconnesso e interdipendente, pone questioni importanti relative alla configurazione di un *modello teorico-interpretativo* capace di riconoscere e descrivere le *traiettorie* incerte e le molteplici *discontinuità* del processo di mutamento sistemico in atto. Un mutamento che chiama in causa paradigmi, metodologie, strumenti analitici e, più in generale, le culture (organizzative e non). Nel mezzo di questa fase di perturbazione ed *emergenza* (l'emergenza è caratteristica strutturale e connotativa delle organizzazioni e dei sistemi complessi), le nuove tecnologie e la “rivoluzione digitale” sembrano riaffermare l'illusione di un *controllo* totale e di una razionalità decisionale e sistemica. In questo contesto così dinamico e instabile, occorre costruire *comunità transnazionali aperte*, ponendo al centro le Persone, gli spazi relazionali, l'educazione e la comunicazione, e puntare su politiche transnazionali a lungo termine, investendo risorse significative su strumenti complessi in grado di contrastare le nuove disuguaglianze e asimmetrie che, non da oggi, ostacolano l'apertura e il dialogo.

*Parole chiave:* comunità transnazionali aperte, ipercomplessità, prospettiva sistemica, cambiamento globale, emergenza, complessità organizzativa

DOI: 10.32049/RTSA.2022.2.02

### 1. Introduction

*Open dialectics:* that is the definition – implicating an approach – which I proposed years ago. Because precisely in the age of globalization and of ever more interdependent, interconnected/hyperconnected systems, the world-system appears to be more and more marked by fragmentation and resistance(s) of a social and cultural kind, they themselves correlated to new forms of inequality and new asymmetries, typical of the so-called

knowledge society. A world-system characterized by local and global conflicts and badly coordinated emergency strategies, structurally destabilized by centrifugal and centripetal “forces” (Dominici, 2005) that render it dynamic, but at the same time chaotic. Right in the midst of this phase of global change and emergency (it should be clear that emergency is a structural and connotative characteristic of complex systems), in which technique, technology and the “digital revolution” seem to restore, on every plane, the illusion of total control and of decisional and systemic rationality – an illusion of great potency, including the potency of the imaginary – we must cope with a global system that, besides being chaotic and complex from every point of view, has also become irreversibly polycentric. In such an uncertain and ambiguous scenario, whose (hyper)complexity cannot be explained by tossing around a few terms or formulas, many geopolitical/transnational organisms have for some time been passing through a stage of crisis and transition, which, for example, in the case of the European Union, at times has even seemed to question the reasons for its very existence. And yet, in my opinion, never before as in this moment in history, so fragile and shaken by uncertainties and insecurities both local and global (on interdependent planes), has it been so important to reassert the original ideas and the founding values of Europe: an idea, a vision, a project which has been interpreted, through the years following its foundation, in an inadequate, reductive and even counterproductive manner, with a mistaken approach based on the hegemony of a purely economic paradigm, (which leads to a vision of society as a mere subset of the economy), a deviation that many other budding political/economic alliances would do well to keep in mind. But what is at stake is an idea, a vision, a “project” which needs powerful reconfirmation and rethinking, beginning with the system of values on which it stands. A far from simple operation, that of setting up the conditions for what is most of all a social, cultural and political transformation. We must hope that, beyond the official declarations and public discourse, genuine awareness of these needs will arise. As yet, the increasing global irrelevance of politics and the weakness of institutions, with fewer and fewer chances of fleeing from the clutches of technocracy and bureaucracy, have allowed little to be done in furthering this awareness. In any case, certain choices can no longer be deferred, choices putting the person at the heart of each decision,

at the heart of each policy: the person, the people, their rights, cultures, populations, (global) citizenships and inclusion must be the central core of every choice (2021). This is even more urgent in a period when a world-wide systemic phenomenon like the 2020-22 health emergency is bringing about a social transformation of exceptional potentiality, leading either towards greater unity or towards overwhelming alienation.

To do this, it is necessary to start over, beginning with culture as a common good, as cooperation, as sharing, (inclusion); precisely in a moment like this, when history is being made, when models and projects that have been developed, like the above-mentioned unity of Europe, are revealing worrisome signs of weakness and vulnerability, especially from the perspectives of identity and of constructing a community open to different nations. For too long, mistakenly, it was common belief that the creation of a single currency and a single market alone would have automatically determined the achievement of a model of integration and interdependency, founded on a cultural identity which, while respecting cultural differences and peculiarities, could and would have been shared by all. We all know today that things did not go like that and that in this moment it is crucial to rethink politics and strategies with a Habermasian outlook on “world domestic policy”. As I have often written before, Western society, which has for some time been in the throes of a profound crisis which is not only economic, (nor is it, despite recent narratives, primarily a sanitary crisis), may finally be awakening to the fact that the question is a cultural one and that it is necessary to start over again from the “cultural factors”, to attempt to recreate a sense of belonging to an open and inclusive community: a community which will understand not only how to adapt, but how to actually cope with the (hyper)complexity of these changes, with the more and more obvious asymmetries, with new conflicts, and with technological and cultural evolution. Multi-polar communities capable of taking on a key role in the mediation of international political conflicts and emergency situations, but above all of aiding, accommodating, waiting for those who are struggling, those who have been left behind. In other words, they must learn how to cope with and not merely “control” the extraordinary accelerations and discontinuities that the interconnected and hyperconnected

society has brought to light, opening to dialogue, to confrontation, to contamination between different cultures, orientations and cognitive value systems.

What is becoming more and more tangible is the urgency of rethinking/rebuilding a model of an open and inclusive society, in which identities and cultures, rather than representing anchors to sterile traditions that produce self-referential close-mindedness (walls vs. bridges), show themselves to be complex “instruments” for facing an unprecedented social and cultural evolution, heightened by the digital revolution (Toffler, 1987; Castells, 2009; Floridi, 2012; Boccia Artieri, 2012; Rainie and Wellman, 2012; Byung-Chul Han, 2014; 2015; Ippolita, 2014; Graeber, 2015; Dominici, 2013; 2014a; 2014b; 2019a; Fry, 2019) and the so-called sharing economy. In the long run, it may still be a good omen for global inclusion that a very ancient and complex history, lined with dramatic conflicts, like that of Europe, has not however prevented certain values and ideas from taking root and spreading, and from being shared by people belonging to different cultures and communities, apparently very distant from one another.

## **2. The Hypercomplex Society and its Organizations**

The urgent requirements of the “new” cognitive, subjective, organizational, social and ethical (hyper)complexity that contradistinguishes the Hypercomplex Society (Dominici, 2003) not only regard strategies and policies that should be carried out from a systemic and transnational perspective, but also – and above all – the definition and configuration of a theoretical interpretive model capable of at least recognizing and illustrating (if not fully comprehending) the uncertain and confusing trajectories, and the numerous discontinuities of the ongoing process of global change, which is itself casting doubts on paradigms, methodologies, analytical tools, and (organizational and non-organizational) culture. So belatedly has the technological-cognitive civilization begun to realize the importance of reformulating its thinking and policies, that time has run out, and it cannot afford the luxury of waiting any longer to free itself from a close-minded, particularistic vision. All the more

so in an era so heavily marked by precariousness, insecurity and vulnerabilities of every kind; an era so troubled by dramatic conflicts, fueling the illusions on the part of the political leaders – along with many others – of finding quick, simple solutions to very complex problems. All of this, moreover, fortifying the closed-off logics of perpetual emergency, without considering the new asymmetries and inequalities which, paradoxically, are becoming more and more evident right here and now in the era of maximum technological expansion and extraordinary scientific discoveries.

A hypertechnological era, increasingly intersected by entropic and chaotic “thrusts”, which, beyond the undeniable accelerations and advancements in every field of social and human praxis, should by now have defined and determined ideal conditions, in terms of the control and predictability of behaviors, processes and systems. A phase of radical global change that, as we have repeatedly said in the past, obliges us to rethink our categories, codes, languages, instruments, identities, subjectivities, cultural norms and models, (open) communities, relational spaces, areas of communication, surroundings and environments. In this moment, as never before, technological innovation, with all the risks and opportunities that it implies, has brought social actors and organizations face to face with the possibility of making an ultimate, irreversible *quantum leap*.

This gradual acquisition of (Archimedean) levers, with which humanity is moving its own evolution, casts radical doubts on traditional models and categories, forcing us (?) to revise/reformulate the very definition of the word “Person”. To rethink the concept of “human” and its somewhat ambiguous interactions with technique and technology: an interaction from which a *complex synthesis* (Dominici, 1996; 2005; 2010; 2013; 2014a; 2015; 2016; 2017a; 2017b; 2018a; 2018b; 2019b; Preston, 2019) must necessarily spring, whose prospects, developments and implications we are as yet unable to evaluate. Caught between “new” utopias and dystopias. Between the forces of interdependency and fragmentation. Between inclusiveness and exclusiveness, within asymmetries rushing along discontinuous trajectories (Dominici, 1996; 2003; 2014b; 2019a).

We find ourselves inside the interconnected/hyperconnected society, which is a

hypercomplex society, in which the treatment and processing of information and knowledge have become our main resources, a type of society whose exponential growth of opportunities for the connection and transmission of information, which make up the fundamental factors of economic and social development, do not correspond to an analogous increase in opportunities for communication, which we take to mean the social process of knowledge sharing, implicating balance and reciprocity (inclusion). Technology, social networks, and more in general the digital revolution, while having determined a paradigm shift (Kuhn, 1969; Morin, 1974; Dominici, 1996), creating the structural conditions for the interdependency (and the efficiency) of systems and organizations, meanwhile intensifying the intangible flows between social actors, are as yet unable to guarantee that the interactive networks create truly communicative relationships, that is, based on symmetrical rapports and actual sharing. In other words, the Web has created a new ecosystem of communication (1996), but despite redefining the areas of knowledge, it cannot guarantee, in and of itself, horizontality or more symmetrical relationships. The difference, once again, is in the people and the use they make of technology, beyond the many interests of the players. For this very reason, we prefer to use the term “connection technologies” rather than “communication technologies” (Dominici, 2014b, p. 9).

These connection technologies form the infrastructural basis of global organizations today, which must deal with an exponential increase in social and organizational complexity, which has by no means been simplified by digital technology, as is commonly claimed.

Social and organizational complexity has always been a problem of knowledge and of managing knowledge (sharing); it is necessary, however, to be aware that the complexity itself inherent to any organizational system is a “characteristic” that simply cannot be either controlled or managed. One of the fundamental errors made by most organizations is to confuse complex systems with complicated systems.

Complicated systems (mechanical, artificial, and so on) are characterized by linear interactions: A determines B, the input determines the output, and processes are predictable. Despite the slogans and good intentions of governments and organizations, we are living, in fact, in an age still rooted in the idea that rationality (Simon, 1958; 1959; 2000) and predictability govern our lives, an age that still idolizes control and strives for the elimination of error. These are the illusions of an obsolete organizational paradigm, which

continues to be taught in our educational institutions and in our training programs. Complex systems, instead, such as biological, social and relations systems, which include organizations, cannot be explained on the base of cause-effect as in traditional linear models. And yet we continue to think of social organizations as machines, thus as complicated systems, composed of parts which can be singly isolated and modified, generally through technological innovation. Behind this vision there is the false conviction that the technological and legal factors are not only indispensable – which is true – but also sufficient – which is not true – for creating innovation, efficiency and change. The social and relational human factor is completely ignored, as it is considered to be something that will follow automatically. We continue to teach control, predictability and (economic) rationality, with little awareness of our limits, of complexity and of the ambivalence of social and organizational processes, put under even greater pressure by technological innovation and the digital revolution.

The universally declared objective of technological innovation is to improve human performance, yet paradoxically, this performance is measured in exclusively quantitative terms, while instead it is indubitably qualitative. Measuring quality is a contradiction in terms, but it is something that must be addressed. Quantitative data (Hammersley, 2016) are fundamental for identifying trends and for defining working margins of predictability of phenomena. However, certain benefits, for example the effects of training, renewal and update courses for human resources cannot be evaluated in quantitative terms, and especially not in brief periods. This is one of the reasons why many organizations, faced with budget deficits, choose to cut training, despite its evident importance. Behind these decisions, once again, lurks the illusion of being able to “manage” complexity, generally by involving exclusively those fields of knowledge which appear to be able to provide certainties, whereas what needs to be taught and learned, especially in a globalized civilization, is how to “inhabit complexity” (Dominici, 1996), keeping in mind that uncertainties and unpredictability, emergency itself, are unalienable aspects of the complexity which makes up all complex systems and organizations. A complex system is open rather than linear, as said before, and can be coped with, but never managed or



controlled. The relevance of quantitative data is not being disputed, but when we need to evaluate, analyze, and attempt to transform social organizations, we should try to avoid repeating these errors, by considering them complex systems, living organisms.

The knowledge society pushes complex organizations to reshape/reinvent themselves as “open social systems”, which endeavor to govern uncertainty through the sharing of an organizational/redesigning culture (see systems theory), defined and elaborated within the existing intersubjective relational networks of the organizational systems. This is a (necessary and long-term) *cultural paradigm shift* (Dominici, 1996), which, apart from involving organizational models and action strategies, closely regards the quality of social relations (Granovetter, 1973; Coleman, 2005), specifically the people (and the issue of responsibility) with their knowledge, their skills, but also their social experiences. When we speak about people, the issue of responsibility (Jonas, 1979) is always implied. It is a “We” rather than an “I” who are always the producers of social and relational knowledge (*intersubjectivity*), which is then processed and shared during the encounter/ confrontation with the Other, no matter in what situation/context.

In producing knowledge, the social actors do not limit themselves to adapting to the social and/or organizational environment, but actively contribute to modifying and co-creating it, (which brings to mind the concept of “autopoiesis”, as in the studies of H.R. Maturana, F.J. Varela, and of N. Luhmann himself, essential points of reference we have mentioned in this study). In this sense, communication, which, I insist, must be understood as the social process of sharing knowledge (power), takes on a strategic centrality in all spheres of individual and collective praxis: if we accept the equation knowledge = power, it follows that all processes, dynamics and instruments intended for sharing knowledge must necessarily determine a sharing of power, or in any case, a reconfiguration of the power systems.

### **3. The *butterfly effect*: beyond the narrow logics of reclusion and the borders of knowledge**



We can, of course, pretend not to notice, but the traditional borders between studies in the sciences and the humanities (the so-called “two cultures”) have been done away with, albeit less recently than might appear, owing to the “butterfly effect” of the extraordinary scientific discoveries and the continual accelerations brought about through technological innovation, which makes the teaching of complexity, the scientific method – based on (multiple) hypotheses, conjectures, confutations, continuous attempts at falsification, etc. – critical thinking (logic), and the importance of observing phenomena from a *systemic perspective*, even more unavoidable and urgent (Wiener, 1966; 1968; Bertalanffy, 1976; Luhmann, 1996; 2002; Bateson, 1972; Holland, 1975; Maturana and Varela, 1985; Bocchi e Ceruti, 1985; Gleick, 1989; Ceruti, 1986; 1995; Eibl-Eibesfeldt, 1992; Gallino, 1992; Gell-Mann, 1996; Prigogine, 1997; Braidotti, 2014; De Toni and Comello, 2005; De Toni and De Zan, 2015; Morin, 1974; 1993; 2002; 2004, 2005, 2007, 2008, 2016; Capra, 1982, 2001; Emery, 2001; Barabási, 2004; Diamond, 1998; 2005; Taleb, 2013; Longo, 2014; Dominici, 1996; 2003; 2014a, 2014b; 2017a; 2019a; 2019b). However, the resistance to such a radical change of perspective (models, praxes and instruments) is intense: the strongest resistance, which is motivated by various factors: dominating logics, feudal social models, cultural questions, exasperated politicization of all dimensions, amoral familism, organizational cultures, prevailing opinions, trends, etc., comes precisely from the “halls” where knowledge is produced and developed. How complex complexity can be! In any case, (hyper)complexity is not an option: it is a “fact of life”; the real problem is that we have not been educated or trained to recognize it, or in any case, not by using our own heads. This has become even more evident on the heels of a global pandemic that has demonstrated, once again, the radical interdependency and interconnection of all phenomena. Moreover, for some time now, technology has begun to play a role in the synthesis of new values and new evaluation criteria (Dominici, 1996), further underlining the centrality and the strategic function of what is above all cultural evolution, which is unrolling alongside biological evolution, deeply conditioning it and determining dynamics and retroactive processes, as in the technological progress linked to AI (Sadin, 2019; Tegmark, 2018), robotics, IT, nanotechnologies, genomics, etc.

In other words, within a framework that has become essential, of rethinking and re-defining/overcoming the dichotomy nature/culture, we cannot fail to realize that the well-known Darwinian mechanisms of selection and mutation are becoming increasingly contaminated with the social and cultural mechanisms that characterize the statics and dynamics of social systems. It is more and more difficult, other than misleading, to try to keep the two evolutionary paths separate. At the same time, an interdisciplinary and multidisciplinary approach to complexity is becoming more and more urgent for the analysis and study of dynamics that are themselves more and more complex (non-linear and unpredictable), in which the patterns of discourse and the intervening variables strongly condition one another, sharply challenging traditional linear theoretical-interpretive models. All of which need to materialize into educational proposals and functional strategies for the social construction of change, which, we would do well to keep in mind, when imposed top-down is (and will always be) an exclusive change, for the few and for a brief period. It is imperative to become aware, definitively aware, that the only “real” strategic factor for change and innovative processes is the “cultural factor”, a complex variable with long-term capacities for setting off and accompanying economic, political and social processes.

From this line of reasoning it is easy to observe the inadequacy on which organizational culture is based. Admittedly, defining an organizational culture is both complicated and complex: it is the perfect “device” for controlling the performance of managers and of productivity, the framework of theoretical reference in which all actions and simulations can be defined. It is not merely a matter of adapting educational and training processes to technological progress. It is essential to uproot the bases, modifying the entire architecture of the fields of knowledge and skills. We are already living in a hyper-technological civilization, based on systems of automation and simulation, which are pushing aside human beings and their decisional territories and reducing the dimensions of responsibility, in the illusion of succeeding in eliminating error and unpredictability from the systems. We are facing a cultural paradigm which sees in the elimination of error and unpredictability the possibility of advancing towards perfection, of rivaling the perfection of the machines. But

it is precisely our errors that denote our being human and being free, which is first and foremost the freedom to make mistakes or even just to think about making them.

What is needed is nothing short of an educational revolution. At the moment we are training mere executors, executors of functions and rules who are incapable of seeing the whole picture, who are only capable of isolating and separating, without finding the connections between the parts. They need to be taught to see objects as systems rather than systems as objects. Treating complex systems as though they were complicated means that we are building our society on an illusion, thinking that we will always be able to control the phenomena. Our expectations and hopes in artificial intelligence, in the new automated systems, in the management of information, in the claims to invulnerability of the latest sophisticated technologies lead us to forget that the deciding element will always be the human factor.

In the past, I have underlined the need for educating what I have (perhaps erroneously) called “complexity managers”. In reality, when I speak of complexity managers, I am not thinking of figures capable of managing complex systems, which, as I have said above, are unmanageable by definition, but of people educated and trained to deal with unpredictability. In the passage from simple to complex, we are witnessing a growth, in both qualitative and quantitative terms, of the variables and parameters that must be evaluated in order to attempt to understand social and cultural phenomena. What is crucial is to teach people and not just individuals, to form elastic and creative minds, hybrid figures trained to inhabit the conflicts, the borders, the contradictions, the varieties, the emergent, who are capable of recognizing the added value of dialogue between fields of knowledge. The alternative is to persist in a nearsighted vision that looks exclusively to the market to determine the objectives of education and training: an error that will cost us dearly, especially if we consider the rapid obsolescence of knowledge and skills which is currently modifying the social and working context, and will continue to do so even more in the future.

#### **4. The interconnected society and the political economics of insecurity**

The hegemony of instrumental rationality and of the (self-regulating) market economy has ended up imposing a dominion-based line of reasoning that has spread through every aspect of social life. This process has also weakened the bonds that transform individual choices into projects and collective action. What has been generated, therefore, within the sphere of social cohabitation, is a strongly individualized global society, which places an enormous burden of responsibility on the shoulders of all single actors, who are called upon to manage their “individual freedom” responsibly. From this point of view, the development of forms of mediated communication (Thompson, 1998), apart from the advantages in terms of smart working, cooperation and knowledge sharing, could end up causing the mechanisms that are the protagonists of social capital to cool off to an even greater extent. Furthermore, the typical dynamics of the Web, as I have said over and over again, re-trace every single footstep of the traditional social networks, reproducing traditional and historical mechanisms of control and surveillance (Foucault, 1976; Beniger, 1995; Lyon, 1997; 2002; Bauman and Lyon, 2014).

The exponential growth of financial power has had extremely negative consequences for the world-economy and, above all, for the lives of people; what this process of forming a virtual space, where money and information can flow at an extremely high speed, has done is to empty politics and the power systems of the control of their own “bodies”, separating them even further from civil society and from the single social actors. And the belief that technology (in particular, the Web), can solve any problem, including the capacity to bring politics and citizens back together, could turn out to be yet another fatal error (confusing online popularity with trust). On the contrary, social and political praxis, even while finding new virtual areas for the construction and organization of consent and/or opinion(s), requires a crucial passage from theoretical design to solid practical action, which must influence those making political decisions. This calls for informed and critically educated social actors in flesh and blood, active and aware recipients within their networks of social cooperation. Not simply “connected” citizens, who have been rendered incapable of

translating initiatives and projects into working actions on the part of an active and concretely participated citizenry. In this sense, I am also referring to the concept of a public sphere which has by now become a «handmaiden to the power system», as proposed years ago (2003). Connected citizens will not suffice: we are running a concrete risk of having *citizenship without citizens* (Dominici, 1998; 2003).

The transformation of the methods of economic production and of the labor market, the radicalization of the social division of labor, the birth of new inequalities in terms of starting opportunities, of new forms of exploitation and thus of new conflicts; the weakening of the traditional forms of political participation, deceptively substituted (for the moment) by the utopias of online democracy, have together put the finishing touches to new forms of insecurity, where the uncertainties of individual existence have become extreme: individuals who are now obliged to proffer flexibility (precariousness) in every aspect of their lives, without receiving any guarantee whatsoever in return (Sennett, 2000; Gallino, 2001). The society of individuals, freed from the constraints of tradition, and in a certain sense, at the mercy of an expanding potential of purpose-rationality, must face the exponential growth of the productive forces that render the process of modernization reflective, that is, at the same time subject and object (theme and problem) of itself.

The advantage – with all the criticalities linked to the typical ambivalence of all social and cultural processes – is indubitably tied to the fact that these risks and dilemmas of the hypercomplex societies can no longer, as in the past, be ignored by the public sphere and by public opinion(s), considering that they have been turned into themes of public discussion, not only through media and social networks. This is precisely the perspective from which John Tomlinson (1999) analyzes globalization, which must be understood first of all as a cultural phenomenon, made up of a network of experiences that, through the mechanisms of space-time disaggregation, deeply modify the perception of the physical places in which we measure ourselves with “Others”, extending the local choices that have been made to a global scale. Culture appears as a transnational resource, a “common good”, at the disposition, at least for now, of elites, lobbies and dominating groups.

Globalization is the empirical condition of the modern world, a condition associated with the concept of complex connectivity, which is understood to be a process in which the networks of interdependency, making up what we define as the “interconnected/hyperconnected society”, are steadily increasing and expanding. Aside from the interpretation of this process as the triumph of subjective, instrumental Western rationality, another interpretation can be given, namely, the triumph of an all-encompassing and totalizing ideology which envelopes, embeds, forms and forges all spheres of praxis and of real life. Thus the criticism of globalization (Bauman, 1999; 2000; Gallino, 2000; Stiglitz, 2002; Touraine, 2008), producer of a disruptive individualism, is in reality a criticism of the global capitalist system (Magatti, 2009), guilty of having shattered the traditional alliance between capitalism and democracy, and to have staked everything on an exclusively technological and economic development, without considering the deep-cutting social implications on single individuals.

The world-economy has been progressively de-potentiating the mechanisms and the devices pertaining to democratic regimes, and all of this has profound repercussions, not only on the structures and hierarchies of the global production system, but also, and above all, on the entire architecture of rights and protection regarding people, and specifically, workers. In an overall framework of general weakening of the welfare systems, what results is the transition from a work-based society to a society based on risk (Beck, 1986; 2008; Douglas, 1991; Lupton, 2003; Ceri, 2003; Castel, 2004; Sunstein, 2010; Sofsky, 2005; McDaniels and Small, 2004; Battistelli, 2016; Cerase, 2017), heralding the final triumph of the political economics of insecurity, where uncertainty and vulnerability become, not only economic, but above all, existential conditions.

It follows that, the creation and realization of open transnational communities means, in the first place, focusing attention on the people, on the relational spaces, on education and on communication (signifying, as we said before, “the social process of knowledge sharing”). It means defining long-term, transnational policies – this is mandatory, because all of the systems are more and more interconnected and interdependent – investing significant resources on complex instruments that will be able to contrast the new

inequalities and asymmetries that are standing in the way of openness, dialogue, of coming face to face with the *other* from *ourselves*, of solidarity, of the very realization of such important, ambitious projects. In these last decades, the political dimension has been absent or marginal, substantially, as we said previously, acting as the handmaiden of economic powers and technocracy, and on the part of alliances and partners, such as the European Union, there has been a total lack of an identity (which weighs heavily also in terms of communication and perception of a common project). The fact that these projects, on the level of praxis, and of translating ideas into concrete actions, strategies and policies, defined and constructed around the people and on their rights – which does not only include the right to be consumers – has dramatically flung open the doors of the old nation-states to forms of populism and nationalism, even in their most extreme forms, which are casting doubts on the very structure of politics, political parties and their representatives, on democratic regimes. Rethinking and re-launching this kind of international project signifies, in other words, working toward long-term, systemic prospects for creating the structural and super-structural conditions (education and training have always been and must always be their supporting axes) that can trigger/facilitate cultural change, and with it, the advent of that “New Humanism” (Dominici, 1996) which we have been hearing so much about lately. Running the risk that this might turn out to be just another successful slogan or label, not so much for re-launching transnational communities and the populations and cultures that inhabit them and that form the neural networks of their social and political values, but rather just for publicizing images and reputations. Organizational and institutional cultures and rationales that have, in these years, demonstrated all of their weaknesses and inconsistencies, and not only in terms of “communication culture” (as I have always said: today, in every sphere and dimension of public life, communication is regularly confused with marketing). If there is to be any possibility for holding together such communities, it will be necessary to work on the cultural and contextual conditions capable of modifying even individual and collective perception with respect to the absolute value of culture, of the cultures that must act as adhesives, within the wealth of their diversity, to the value of cooperation among nation-states. But it is not and will not be sufficient to rethink the



models and design new policies: large-scale investments are necessary in order to develop and provide oxygen for these kinds of social policies, all the more so if they are conceived and developed in a transnational perspective. The ongoing crisis, only partially economic, has brought to light the urgency of re-starting from the social bonds, ever more fragile, and from the social mechanisms of trust and cooperation, which have been severely shaken by the “forces” of fragmentation and egoism, and by the triumph of individualistic values. The absolute value of culture, in this sense, must be reformulated in terms of its being a ‘common good’ and a fundamental device for social cohesion, in a historical phase that asks us urgently to rethink the structural conditions of the “social contract”, of our cohabitation (Dominici, 2003).

A project for transnational communities that, we hope, will carry with it the ambition of finally putting the People (and the life-worlds), and not technique, the market or consumerism, at the “heart” of a developmental model, which up to now has clearly shown us all of its criticalities and incongruences. Our heartfelt wishes are that this will become reality, beyond mere slogans and more or less successful communication campaigns, and that initiatives like this will become actual “levers” for actively bringing about the most urgent and necessary change: that is, social and cultural change. If this is to happen, what is needed are commonly shared policies, designed from a systemic perspective, within which schools and universities must have an absolutely strategic function and role: it is no longer possible, in this sense, to design and realize actions and strategies for innovation and change which do not explicitly recognize, as a fact, the core importance and strategic centrality of educational institutions, which are, in any case, responsible for the processes of social stratification and social mobility. This is because – it must be absolutely clear – what we are analyzing are issues of crucial importance for the endurance – for the very survival – of democratic regimes. It is not unreasonable to reiterate, as we often do, that citizenship (Dewey, 1992; Bobbio, 1984; Balibar, 2012; Marshall, 1950; Bellamy, 2008; Pitasi, 2012; Dominici, 2015; 2017a; 2018a), inclusion and innovation can never be for “the few”.

In this moment of difficult transition, which is above all materializing as a crisis of culture and civilization, it is necessary to reconfirm the richness, the variety and the

multiplicity of diverse cultures and of “social and cultural landscapes” in the (perhaps utopian) effort to realize/build up a truly public, social and communicative space (Habermas, 1986; 2014), capable of lucidly reaffirming the value of being People, of being Citizens, the value of being part of an important vision called Community: a project that, to begin with, must be political, but even before that, must be cultural. Existing projects, like the European Union, have lost clout and credibility, in terms of individual and collective perception and of media representation, under the thrusts of finance capitalism and of a “model” of globalization that has revealed even more clearly its evident inequalities and asymmetries, both on a local and global scale.

Speaking of which, the event held a few years ago to celebrate the 60th year from the founding of the European Economic Community should have gained even more significance in connection with the initiatives of the “European Spaces of Culture”, and to the then coming “European Year of Cultural Heritage” (2018). Yet those who had hoped that the 2017 celebration for the 60th anniversary of the Treaty of Rome would have been a meaningful occasion for re-launching the European Union merely witnessed yet another event designed mainly to give visibility to elites and the ruling classes. Instead, what is sorely needed – and will be needed even more in the future – are elevated levels of knowledge, new profiles and skills, shared fields of knowledge (Dominici, 2003), open organizations and social systems, new organizational cultures and communication cultures, inclusive communities that are open to dialogue. Accordingly, education and training become even more strategic and must be reformulated to deal with the challenges of hypercomplexity and of the hyperconnected global civilization. The necessary actions and strategies must be carried out on many planes, and once again, using a systemic perspective, so that the knowledge culture, and knowledge sharing, can be truly utilized as strategic levers for co-constructing these open and inclusive communities, communities that are capable of reacting to fear, and to the politics of fear and of perpetual emergency; that are capable of reacting to the dynamics let loose by a market prey to its own self-regulation, and to a global economy based on precariousness.

From this point of view, triggering change and coping with the complexity of the processes of innovation signifies, in the first place, rethinking our schools and universities, which are still prisoners of the “logics of separation”, which means logics of control and of the reclusion of fields of knowledge within the narrow borders of disciplines which remain isolated from one another. We are in vital need of serious investments in culture, in education and in training, accompanying policies for re-launching studies and training in the humanities, for too long considered unimportant owing to their inability to produce (or so it would seem) effects/results that are measurable in quantitative terms. This is one of the many effects of the illusions of the hypertechnological society: illusions of control, of predictability, of measurability and of the *elimination of error* (Dominici, 1996; 2005; 2010; 2017a; 2018a; 2019a; 2019b, 2022).

As I wrote years ago, we are standing on the brink of an overturn, (including a paradigm shift), which, as history teaches us, cannot be imposed top-down but that must, on the contrary, must be constructed and developed socially and (evidently) culturally. And, let us fervently hope, that the world, in the throes of emerging emergencies (2017b, 2022), will not miss this new and unprecedented opportunity to go beyond the darkness, to rethink and rebuild another kind of civilization, which will be able to demonstrate integrity and unity precisely in the moment when everything seems to be moving in the opposite direction!

## **References list**

- Balibar É. (2012). *Cittadinanza*. Torino: Bollati Boringhieri.
- Barabási A.L. (2004). *Link. La scienza delle reti*. Torino: Einaudi.
- Bateson G. (1976). *Verso un'ecologia della mente*. Milano: Adelphi.
- Battistelli F. (2016). *La sicurezza e la sua ombra. Terrorismo, panico, costruzione della minaccia*. Roma: Donzelli.
- Bauman Z. (1999). *Dentro la globalizzazione. Le conseguenze sulle persone*. Roma-Bari: Laterza.

- Bauman Z. (2000). *La solitudine del cittadino globale*. Milano: Feltrinelli.
- Bauman Z., Lyon D. (2014). *Sesto potere. La sorveglianza nella modernità liquida*. Roma-Bari: Laterza.
- Beck U. (1986). *La società del rischio. Verso una seconda modernità*. Roma: Carocci.
- Beck U. (2008). *Conditio Humana. Il rischio nell'età globale*. Roma-Bari: Laterza.
- Bellamy R. (2008). *Citizenship. A Very Short Introduction*. Oxford: Oxford University Press.
- Beniger J.R. (1995). *Le origini della società dell'informazione. La rivoluzione del controllo*. Torino: UTET.
- Bertalanffy von L. (1976). *Teoria generale dei sistemi*. Milano: Isedi.
- Bobbio N. (1984). *Il futuro della democrazia*. Torino: Einaudi.
- Bocchi G., Ceruti M., eds. (1985). *La sfida della complessità*. Milano: Bruno Mondadori.
- Boccia Artieri G. (2012). *Stati di connessione. Pubblici, cittadini e consumatori nella (Social) Network Society*. Milano: FrancoAngeli.
- Braidotti R. (2014). *Il postumano. La vita oltre l'individuo, oltre la specie, oltre la morte*. Roma: DeriveApprodi.
- Byung-Chul H. (2014). *La società della trasparenza*. Roma: Nottetempo.
- Byung Chul H. (2015). *Nello Sciame. Visioni del digitale*. Roma: Nottetempo.
- Capra F. (1982). *Il Tao della fisica*. Milano: Adelphi.
- Capra F. (2001). *La rete della vita. Una nuova visione della natura e della scienza*. Milano: Rizzoli.
- Castel R. (2004). *L'insicurezza sociale. Che significa essere protetti?*. Torino: Einaudi.
- Castells M. (2009). *Comunicazione e potere*. Milano: Università Bocconi Editore.
- Cerese A. (2017). *Rischio e comunicazione. Teorie, modelli, problemi*. Milano: Egea.
- Ceri P. (2003). *La società vulnerabile. Quale sicurezza, quale libertà*. Roma-Bari: Laterza.
- Ceruti M. (1986). *Il vincolo e la possibilità*. Milano: Feltrinelli.
- Ceruti M. (1995). *Evoluzione senza fondamenti*. Roma-Bari: Laterza.
- Coleman J.S. (2005). *Fondamenti di teoria sociale*. Bologna: il Mulino.

- De Toni A.F., Comello L. (2005). *Prede o ragni. Uomini e organizzazioni nella ragnatela della complessità*. Torino: UTET.
- De Toni A., De Zan G. (2015). *Il dilemma della complessità*. Roma: Marsilio.
- Dewey J. (1992). *Democrazia e educazione. Un'introduzione alla filosofia dell'educazione*. Firenze: La Nuova Italia.
- Diamond J. (1998). *Armi, acciaio e malattie. Breve storia del mondo negli ultimi tredicimila anni*. Torino: Einaudi.
- Diamond J. (2005). *Collasso. Come le società scelgono di morire o vivere*. Torino: Einaudi.
- Dominici P. (1996). *Per un'etica dei new-media. Elementi per una discussione critica*. Firenze: Firenze Libri Ed.
- Dominici P. (2003). *La comunicazione nella società ipercomplessa. Condividere la conoscenza per governare il mutamento*. Milano: FrancoAngeli.
- Dominici P. (2005). *La comunicazione nella società ipercomplessa. Istanze per l'agire comunicativo e la condivisione della conoscenza nella network society*. Roma: Aracne.
- Dominici P. (2010). *La società dell'irresponsabilità*. Milano: FrancoAngeli.
- Dominici P. (2013). Comunicazione, sfera pubblica e produzione sociale di conoscenza: nuovi scenari per le organizzazioni complesse. *Rivista Trimestrale di Scienza dell'Amministrazione*, 3: 97. DOI: 10.3280/SA2013-003007.
- Dominici P. (2014a). La modernità complessa tra istanze di emancipazione e derive dell'individualismo: la comunicazione per il "legame sociale". *Studi di Sociologia*, 3: 281. DOI: 10.1400/228593.
- Dominici P. (2014b). *Dentro la società interconnessa. Prospettive etiche per un nuovo ecosistema della comunicazione*. Milano: FrancoAngeli.
- Dominici P. (2015). Communication and Social Production of Knowledge. A 'new contract' for the 'society of individuals'. *Comunicazioni Sociali*, 1: 84. DOI: 10.1400/230855.
- Dominici P. (2016). L'utopia Post-Umanista e la ricerca di un Nuovo Umanesimo per la Società Ipercomplessa. *Comunicazioni Sociali*, 3: 481. DOI: 10.1400/248501.
- Dominici P. (2017a). Oltre la libertà... di "essere sudditi". L'educazione alla complessità e alla responsabilità per una cittadinanza inclusiva. *Via Borgogna 3. Il magazine della Casa*

*della Cultura*, 2, 4: 110. Retrieved from: <http://www.casadellacultura.it/viaborgogna3/viaborgogna3-n4-macchine-per-pensare.pdf>.

Dominici P. (2017b). The *Hypercomplex Society* and the Development of a New Global Public Sphere: Elements for a Critical Analysis. *Razón y palabra*, 21, 97: 380. Retrieved from: <https://www.redalyc.org/pdf/1995/199552192020.pdf> (31/05/2021).

Dominici P. (2018a). For an Inclusive Innovation. Healing the fracture between the human and the technological in the hypercomplex society. *European Journal of Future Research*, 6, 3: 2. DOI: 10.1007/s40309-017-0126-4.

Dominici P. (2018b). La complessità della complessità e... l'errore degli errori. *Treccani, sezione "Lingua Italiana"*. Retrieved from: [http://www.treccani.it/magazine/lingua\\_italiana/speciali/digitale/5\\_Dominici.html](http://www.treccani.it/magazine/lingua_italiana/speciali/digitale/5_Dominici.html) (31/05/2021).

Dominici P. (2019a). The Struggle for a society of responsibility and transparency: the core question of education and culture. In Carloni E., Paoletti D., eds., *Preventing corruption through administrative measures*, EU Hercule III Programme. Perugia: Morlacchi Editore.

Dominici P. (2019b). Controversies on hypercomplexity and on education in the hypertechnological era. In Fabris A., Scarafile G., eds., *Controversies in the Contemporary World*. Amsterdam: John Benjamins Publishing Company.

Dominici P. (2021). The weak link of democracy and the challenges of educating towards global citizenship. In Torres C.A., Gaudelli W., Bosio E., eds., *Values, Knowledge and Curriculum in Global Citizenship Education*. Paris: UNESCO Springer (forthcoming).

Dominici P. (2022). The Digital Mockingbird: *Anthropological Transformation and the "New Nature"*. *World Futures. The Journal of New Paradigm*, 0: 1. DOI: 10.1080/02604027.2022.2028539.

Douglas M. (1991). *Come percepiamo il pericolo. Antropologia del rischio*. Milano: Feltrinelli.

Eibl-Eibesfeldt I. (1992). *L'uomo a rischio*. Torino: Bollati Boringhieri.

Emery F.E., ed. (2001). *La teoria dei sistemi. Presupposti, caratteristiche e sviluppi del pensiero sistemico*. Milano: FrancoAngeli.

- Floridi L. (2012). *La rivoluzione dell'informazione*. Torino: Codice Edizioni.
- Foucault M. (1976). *Sorvegliare e punire. Nascita della prigione*. Torino: Einaudi.
- Fry H. (2019). *Hello World. Essere umani nell'era delle macchine*. Torino: Bollati Boringhieri.
- Gallino L. (1992). *L'incerta alleanza. Modelli di relazioni tra scienze umane e scienze naturali*. Torino: Einaudi.
- Gallino L. (2000). *Globalizzazione e disuguaglianze*. Roma-Bari: Laterza.
- Gallino L. (2001). *Il costo umano della flessibilità*. Roma-Bari: Laterza.
- Gell-Mann M. (1996). *Il quark e il giaguaro. Avventura nel semplice e nel complesso*. Torino: Bollati Boringhieri.
- Gleick J. (1989). *Caos*. Milano: Rizzoli.
- Graeber D. (2015). *The Utopia of Rules. On Technology, Stupidity, and the Secret Joys of Bureaucracy*. New York: Melville House.
- Granovetter M. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78, 6: 1360. Retrieved from: <https://www.cs.cmu.edu/~jure/pub/papers/granovetter73ties.pdf> (31/05/2021).
- Habermas J. (1986). *Teoria dell'agire comunicativo*, vol. I. *Razionalità nell'azione e razionalizzazione sociale*. vol. II. *Critica della ragione funzionalistica*. Bologna: il Mulino.
- Habermas J. (2014). *Nella spirale tecnocratica. Un'arringa per la solidarietà europea*, Roma-Bari: Laterza.
- Hammersley M. (2016). *Il mito dell'evidence-based. Per un uso critico della ricerca sociale applicata*. Milano: Raffaello Cortina Editore.
- Holland J.H. (1975). *Adaptation in Natural and Artificial Systems*. Michigan: University of Michigan Press, Ann Arbor.
- Ippolita (2014). *La Rete è libera e democratica (Falso!)*. Roma-Bari: Laterza.
- Jonas H. (1979). *Das Prinzip Verantwortung. Versuch einer Ethik für die technologische Zivilisation*. Frankfurt am Main: Insel Verlag.
- Kuhn T. (1969). *La struttura delle rivoluzioni scientifiche*. Torino: Einaudi.



- Longo G. (2014). *Il simbiote. Prove di umanità futura*. Milano: Mimesis.
- Luhmann N. (1996). *Sociologia del rischio*. Milano: Bruno Mondadori.
- Luhmann N. (2002). *La fiducia*. Bologna: il Mulino.
- Lupton D. (2003). *Il rischio. Percezione, simboli, culture*. Bologna: il Mulino.
- Lyon D. (1997). *L'occhio elettronico. Privacy e filosofia della sorveglianza*. Milano: Feltrinelli.
- Lyon D. (2002). *La società sorvegliata. Tecnologie di controllo della vita quotidiana*. Milano: Feltrinelli.
- Magatti M. (2009). *Libertà immaginaria. Le illusioni del capitalismo tecno-nichilista*. Milano: Feltrinelli.
- Marshall T.H. (1950). *Citizenship and Social Class and Other Essays*. Cambridge: Cambridge University Press.
- Maturana H., Varela F. (1985). *Autopoiesi e cognizione*. Venezia: Marsilio.
- McDaniels T., Small M.J. (2004). *Risk Analysis and Society: An Interdisciplinary Characterization of the Field*. Cambridge: Cambridge University Press.
- Morin E. (1974). *Il paradigma perduto. Che cos'è la natura umana?*. Milano: Feltrinelli.
- Morin E. (1993). *Introduzione al pensiero complesso*. Milano: Sperling & Kupfer.
- Morin E. (2001). *Il metodo*. Vol. 1. *La natura della natura*. Milano: Raffaello Cortina Editore.
- Morin E. (2002). *Il Metodo*. Vol.5. *L'identità umana*. Milano: Raffaello Cortina Editore.
- Morin E. (2004). *Il metodo*. Vol. 2. *La vita della vita*. Milano: Raffaello Cortina Editore.
- Morin E. (2005). *Il metodo*. Vol. 6. *Etica*. Milano: Raffaello Cortina Editore.
- Morin E. (2007). *Il metodo*. Vol. 3. *La conoscenza della conoscenza*. Milano: Raffaello Cortina Editore.
- Morin E. (2008). *Il metodo*. Vol. 4. *Le idee: habitat, vita, organizzazione, usi e costumi*. Milano: Raffaello Cortina Editore.
- Morin E. (2016). *7 lezioni sul pensiero globale*. Milano: Raffaello Cortina Editore.
- Pitasi A. (2012). *Ipercittadinanza. Strategie sistemiche e mutamento globale*. Milano: FrancoAngeli.

- Preston C.J. (2019). *L'era sintetica. Evoluzione artificiale, resurrezione di specie estinte. riprogettazione del mondo*. Torino: Einaudi.
- Prigogine I. (1997). *La fine delle certezze. Il tempo, il caos e le leggi della natura*. Torino: Bollati Boringhieri.
- Rainie L., Wellman B. (2012). *Networked. Il nuovo sistema operativo sociale*. Milano: Guerini.
- Sadin É. (2019). *Critica della ragione artificiale*. Roma: LUISS University Press.
- Sennett R. (2000). *L'uomo flessibile: le conseguenze del nuovo capitalismo sulla vita personale*. Milano: Feltrinelli.
- Simon H.A. (1958). *Il comportamento amministrativo*. Bologna: il Mulino.
- Simon H.A. (1959). Theories of Decision-making in Economics and Behavioral Science. *The American Economic Review*, 49, 3: 253.
- Simon H.A. (2000). *Scienza economica e comportamento umano*. Torino: Edizioni di Comunità.
- Sofsky W. (2005). *Rischio e sicurezza*. Torino: Einaudi.
- Stiglitz J.E. (2002). *La globalizzazione e i suoi oppositori*. Torino: Einaudi.
- Sunstein C.R. (2010). *Il diritto della paura. Oltre il principio di precauzione*. Bologna: il Mulino.
- Taleb N.N. (2013). *Antifragile. Prosperare nel disordine*. Milano: il Saggiatore.
- Tegmark M. (2018). *Vita 3.0. Essere umani nell'era dell'intelligenza artificiale*. Milano: Raffaello Cortina Editore.
- Thompson J. B. (1998). *Mezzi di comunicazione e modernità. Una teoria sociale dei media*. Bologna: il Mulino.
- Toffler A. (1987). *La Terza Ondata*. Milano: Sperling & Kupfer.
- Tomlinson J. (1999). *Globalization and Culture*. Cambridge: Polity Press.
- Touraine A. (2008). *La globalizzazione e la fine del sociale. Per comprendere il mondo contemporaneo*. Milano: il Saggiatore.
- Wiener N. (1966). *Introduzione alla cibernetica. L'uso umano degli esseri umani*. Torino: Bollati Boringhieri.

Wiener N. (1968). *La cibernetica*. Milano: il Saggiatore.