Received: 27 November 2022 | Revised: 10 July 2023 | Accepted: 3 November 2023

DOI: 10.1111/jtsb.12402

ORIGINAL ARTICLE

WILEY

Imagine, predict or perform? Reclaiming the future in sociology beyond scientism and catastrophism

Andrea M. Maccarini

Department of Political Science, Law and International Studies, University of Padova, Padova, Italy

Correspondence
Andrea M. Maccarini.
Email: andrea.maccarini@unipd.it

Abstract

In this article I examine and criticize some mainstream views of the future within scholarly debates, mainly in social science. The goal is to review the strategies sociology is following to include the future as a theme of its own reflections. Such strategies also reveal relevant aspects of the society in which they are developed. The main argument revolves around some tensions concerning the relationship of contemporary societies to their future. The key points can be summarized as follows: in contemporary complex societies, where change is believed to be the only constant, social science seems to have abandoned the future as a theme of its reflections, while at the same time prediction and forecast are increasingly necessary. Future studies are, therefore, mainly an enterprise for managers and engineers, taking place in either government or corporate environments and far from the academy. Why is this happening? And is it necessarily so? What does sociology know about "the future(s)? Could prediction still be the form of the argument sociology can make about the future? And if this cannot be, then what exactly is its possible contribution – if any? Are these embarrassing questions a reflection of the way things really are, or of a wrong attitude sociology has taken to future studies? The main thesis is that insofar as sociology still occupies the field of future studies, it is undergoing a process of hybridization, which leads to

mix its representational and performative function in a new way, and that can possibly escape confusion with old and new forms of utopian thinking. Such a thesis is illustrated introducing one particular analytic tool deployed in social scientific oriented future studies, namely scenarios, and comparing its inherent logic with that of the morphogenetic approach to sociological research. I attempt to examine the rationale of such a tool, and how it can serve the purpose of sociological analysis, constituting some kind of reflexive morphogenesis of sociological theory of the future

KEYWORDS
contingency, future studies, morphogenetic approach, scenarios, sociological theory, utopian thinking

1 | SOCIETY, SOCIOLOGY AND THE FUTURE

In this article I will briefly examine some mainstream views of the future in scholarly debates, with a focus on social science. The goal is to review and criticize some of the strategies sociology is following to include the future as a theme of its own reflections. Besides their intrinsic scientific value, such strategies reveal relevant aspects of the society in which they are developed. What I can do here is just present some introductory remarks to frame the issue, in the form of a (future!) research agenda.

The problem and the main argument can be illustrated through a few questions, linked with fundamental tensions concerning the relationship of contemporary societies to (what they see as) their future. The key points can be summarized as follows.

First, the relation between current societies and the future is profoundly paradoxical. It has become commonplace to say that change is the only constant. This statement is usually spelled out as the idea that social change is no longer leading from one steady state to another, through a more or less smooth or turbulent phase that is limited in space and time, but drifts from one "liquid" formation to the next – which entails an overload of contingency and sheer indetermination. It would be hard even to draw a finite list of authors who have articulated such a notion in various ways.[1] However, this statement is often interwoven with the claim that in the present day we are witnessing an order of magnitude change – also called a "phase change" (Arbib & Seba, 2020) – which involves multiple dimensions, from technologies to forms of individual and social life. Since – rigorously speaking – historical "turning points" can only be identified *post hoc*, such a thesis is assuming that an impressively accurate predictive power is at work, which allows to see how far future society is going to be from its current shape, what it will look like, sometimes even to propose a date for such a leap forward. This apparent contradiction partly reflects a widening gap between "natural" and "social" science. In this vein, it is often argued that the former can actually make predictions, while the latter is prone to the intractable contingency of a volatile social and cultural world. This divergence results in an odd conclusion: the solidity that melts into air only affects the way social science can study the social world, *while* the other ("true"?) sciences can still figure how, and when, social structures, cultures, and human agency are going to change into something qualitatively different. Such a way to make sense of the paradox leads directly into another one, since (i) social and cultural facts are themselves part of the causal

chains leading to the predicted outcomes, even in natural systems, (ii) natural science is also busy including societal change into its models, regarding it as a direct consequence of change in the natural order, and finally (iii) scientific and technological developments are assumed to be a major engine of change, but although scientific research processes are clearly linked with societal structures, they are often treated as developing in self-sustaining spheres of activity, unpolluted by social unpredictability. Thus, it is clear that statements (i) to (iii) entail an oversimplified view of the connection between the social and the natural order. Are we left with the alternative between the imperialism of naïve naturalistic predictions and sociological helplessness?

Furthermore, precisely because of the volatile state of complex societies, that future which is now, by definition, unknown seems to have superseded the past as a necessary guide to individual and collective action (Urry, 2016, p. 1). If human societies want to avoid disaster, they need to take the pictures of the future, often set on doom and gloom, as an inspiration for their plans and strategies. *Tempus futurum* (not history) *magister vitae*? If this is the case, getting to know some features of the future is becoming increasingly necessary-and-impossible.

What does sociology know about all this? Is there anyone insisting that prediction is the form of the argument sociology can make about the future? And if this cannot be, then what exactly is its contribution – if any? Are these embarrassing questions a reflection of the way things really are, or of the attitude sociology has taken to future studies? If the latter is the case, is this one of the reasons why future studies have become a specialized field of research in their own right, mostly practiced by hybrid scholarly figures who mix scientific-technological with managerial competencies, and are often far distanced from academic social science?

These questions prompt a broader and deeper puzzle. To put it in John Urry's words (2016, p. 11), *who or what owns the future* – at least the future we can envisage on a humanly meaningful time scale? If what we have just said is true, there seems to be "nothing above society", that is, nothing beyond the Brownian motion of countless individual actions and interactions: not a Power, not a rationale, not even social science.[2] Those who thought otherwise in the XX century were left with "futures that failed" (Arnason, 1993), have lived to see futures never imagined, and are still experiencing the unpredictable consequences of both.

Finally, an intriguing question is whether all emphasis on change and the vanishing of anything predictable is an objective feature of contemporary social structures and cultures, or we should look at it as just the observer dependent perspective that is inherent in human condition. In other words, what is really new about this? Is it only a problem of perception – which would mean society has always been unpredictable, but only now do we realize it? But then, hasn't such a feeling always been typical of the human way to inhabit society and its temporal structures? Indeed, it is all too human to predicate solidity upon one's past and perceive the present and future as marked by bewildering change and insecurity.[3] In other words, is contemporary society really "more" unpredictable than past ones? When we claim that its evolutionary logic is changing (Prandini, 2016), is this an ontological or an epistemological statement? Is it all just discourse? Is it only about observers? And again, supposing this is the case, what does this very fact mean? Wouldn't it make an interesting issue in its own right?

The above questions define the perimeter of the present situation. An instructive starting point to approach the theme lies in the double bind that characterizes the human condition in global society as "locked and unchained".[4] This expression points to a particular feature of global society, which is producing a strange mix of openness and closure. On one hand, established values, institutions and forms of life are increasingly undermined by deep and rapid change. On the other hand, there is a sense of saturation of physical as well as symbolical space. More precisely, such a formula can be articulated in two specific insights: the former consists of the idea of a *morphogenic society*, that is a societal formation in which the structural and cultural processes producing social novelty tend

to get rid of morphostatic constraints, social transformation prevails over social reproduction, and the situational logic becomes one of opportunity.[5] The second is the notion of a *closed world*. It is a complex concept, which refers mainly to one particular outcome of the immense growth of the power of human agency, and its impact on the planet. This results in a predicament whereby « actions launched by human beings hit up against the limits of the earth and return to hit them hard and change them» (Mann, 2013, p. 3). Taken together, these points can be phrased as the idea that global society is currently in a condition of *unbound morphogenesis in a closed world*. This statement expresses a painful awareness: precisely the unchained social and cultural forces, coupled with the enormous power human agency has achieved, are making the world less predictable and controllable. At the same time, this makes our world increasingly fragile, a feeling conveyed by the notion of the *Anthropocene* as the quintessential symbol of the present condition of humanity.[6] Nothing can be taken for granted, not even the planet – now "spaceship earth" – that serves as our home-base, which used to be regarded as our ultimate ontological ground.

To sum up, it's for these reasons – not only on the ground of perceptions – that (nearly) everything depends on us.[7] What threats we will face, we will have brought on ourselves, while they remain unpredictable all the way. As Niklas Luhmann aptly noted, we no longer belong to the ancestry of tragic heroes who lived to discover, in retrospect, that they had themselves prepared their own fate. We already know it in advance (Luhmann, 1998, p. 92).

It is in this structural and cultural constellation that sociology is (re)defining its attitude towards the future. The following considerations argue that such a posture is swinging between the ambition to predict social trends, the will to nourish social imaginaries, and the practical engagement with social processes to actively foster certain outcomes. Clearly, these aspects are not mutually exclusive, and have all been part of various traditions in sociology, but I try to highlight the specific form they are taking in the current predicament, and the shifting balance between them. I conclude that what I call a "performative" stance is gaining momentum, trying to clarify what it is like and why it is worth noting, in the face of the theoretical-practical status sociological knowledge used to have.

To this end, in section 2 some views of the future articulated in sociology and the related social sciences are outlined, which I hold to epitomize the main polar types of future studies. Both dystopian images and big societal canvasses painted by the hard sciences are criticized. Section 3 illustrates what could be regarded as a performative turn of the sociological reflection on the future, discussing some of its meanings and consequences. In this context, I also introduce my own view of a productive way in which sociology could "reclaim" the future, i.e. reaffirm its modest, but solid and specific contribution to that study, without leaving it to calculations elaborated by engineers, managers, mathematicians, or AI.

2 | THE DOUBLE CATASTROPHE OF EXPECTATIONS AND ITS (DIS)CONTENTS: DYSTOPIA, RETROTOPIA, BLIND BETS AND NEW SOCIAL ENGINEERING

In the context described above, social actors as well as social science experience what may be called a double catastrophe of expectations.

On the one hand, *cognitive* expectations crumble, insofar as it becomes impossible to predict future social developments. For actors like policy makers – let alone regular folks – this also implies that strategic action and long-term planning are likely to prove ineffective. This is the condition Niall Ferguson ironically highlighted a few years ago, saying we are now living in "Disnaeland" – the land where "this disnae work, and that disnae work". His conclusion is that in such a predicament politics becomes an apocalyptic enterprise, and is reduced to sheer short-term tactics.[8] In a nutshell, we can

maintain that the only certainty is there is no certainty. The expectations which used to shape social structures and cultures are bound to change, without the possibility to get any reliable idea about the direction of change. As a consequence, the modern strategies to structure and control society, and the related semantics of designing, planning, managing, predicting, steering, etc., tend to fade out.

Furthermore, the fall of expectations has to do with the *normative* dimension, since there is now little hope left in a progressive, better future. In retrospect, the 1990s appear to many a scientific observer as a *fin-de-siècle* decade of "opulence and decadence" (Urry, 2016, p. 34). Even without dwelling in more detailed analysis, it is clear that the Western public manifests decreasing belief in the capacity of their countries to tame complexity and face the major challenges of our times. Decadence has become our *Zeitgeist*.[9] The situation clearly has a generational aspect. The idea of having "no perspectives" makes the future not only unpredictable, but generationally contested.

In this double meaning, we are thus witnessing a disappearing future.

What is to be done? How are social actors and social scientists reacting to this situation? It seems that social science is displaying a significant reluctance to make the future an object of its reflections. The self-disappointment engendered by the failure of predictions has taken its toll, depriving sociology of both cognitive and normative thrust, when it comes to (re)thinking the future.

In the theoretical field of macrosociology, the transition between modernization theory and globalization theory makes a good example.[10] The latter has been characterized as a picture of society – and indeed a social imaginary – that involves no intrinsic hope and has no mobilizing force for collective or individual agency (Knöbl, 2007, p. 55). Compared to modernization theory, which clearly translated into sociological theory the ideal drive inherent in the philosophical semantics of progress, globalization evokes the need to stay connected, to be part of multiple networks, and so on, but bears no resemblance to the former – although it shares in its analytical flaws, and has more recently produced new normative divides in the wake of re-emergent nationalism.

More generally speaking, dystopian visions are dominating,[11] although their reality test is as uncertain as any other. They usually revolve around some single big issue – typically energy, climate change or ecocide – which is allegedly characterized by intractable overdetermination, and is therefore bound to lead to catastrophe, unless societies make radical decisions and populations accept radical changes in their lifestyles and standard of living. In the same quarters, the fact that such changes are not happening, and are not likely to happen is then regarded as the only certainty left.

Therefore, it is not surprising that vast parts of society tend to stick with traditional ways and behavioural patterns. In a fragmented world and in a time of social acceleration, the perceived break with a familiar past is producing a longing for continuity, as a defence mechanism against emergent forms of alienation. This gives rise to what Bauman called *retrotopia*, and a "global epidemic of nostalgia" (Bauman, 2017, p. 3).

Nevertheless, sheer survival entails that individuals and groups need to function anyway. Thus, on a practical level, emergent semantics of helplessness are aiming to find an adaptive way to muddle through the situation. Reactions swing between the opposites. Some sort of "cautionary principle" emerges (see for example Prandini, 2016, p. 10), which suggests all relevant decisions should be postponed until the situation becomes clearer. Such a strategy faces a twofold problem. On the one hand, there is no "revelation point" where things finally become clearer, while agency is not an optional. Decisions cannot be pushed back forever, lest further challenges come up and finally become overwhelming. On the other hand, even if sufficient information seems to be available at some point, it will probably be too late, meaning that threats are by then unavoidable, or that rival actors are already ahead – e.g. competitors who took alternative paths in a profitable business. This is because social systems and organizations are not necessarily synchronized, and while someone is waiting, someone else will probably be speeding along the new track. For example, a certain technique of genetic engineering

will be tested in a lab, while Parliaments are still discussing its legitimacy. Some car firm may hesitate to invest in electric vehicles, while others are already advanced, and still others are working on hydrogen fuel cells. Thus, just waiting might be all but prudent, and is likely to be superseded by the idea of designing reversible processes, or making reversible choices – in both individual and collective life. In the dimension of governmentality, correspondent models arise to meet the challenge of a state of emergency that must now be regarded as normal (Pellizzoni, 2020).

A further, essentially rhetorical strategy is to pretend one "knows" how things are "really" going, and dismiss all disappointments not as the negative feedback of reality, but as the "logical" outcome of conspiracies. The twin semantics of mystery or of some "grand scheme" are the contingent companions of a society that is structurally *out of reach* for knowledge and agency (Fuchs, 1992).

There is always someone sitting on the other side of the fence, and even among those optimists who reject dystopic views of an unpredictable and declining society, opposite polarities emerge. With a consistent, if vertiginously radical, argument, Fuller and Lipińska (2014) have proposed the idea of a *proactionary* (vs. precautionary) *imperative*. Their thesis stands as an epitome of radical innovation, which heralds trans-humanism as the only possible future of humankind. The idea is that uncertainty should be fully embraced as the quintessential human condition. Risk should be positively met with an intentional leap into deep, unpredictable change. Since we know in advance that the outcomes of any technical experiment are possibly perverse, society should change accordingly, learning to survive on systematically repeated blind bets. For example, systems of social security and welfare should switch to providing insurance for the risks taken when technical innovations are accepted into one's life – with the related, unanticipated impact.

New social engineering represents the other pole. Technological innovations are believed to be disrupting entire civilizations, dragging everything social and cultural along with themselves. In these sophisticated forms of technological determinism, "disruption" is presented, which opens up certain possibilities, and in the end leads to a new societal formation the authors believe they can already describe in some detail. If the successful institutionalization of such a macro-change is still uncertain, contingency seems to be limited to its occurring or not. In other words, the alternative is between societies taking advantage of the opportunities provided by technology, and missing them, thereby sinking into decline and a dark age. The vectors of change are first outlined in technical terms, but then they lead to conclusions about lifestyles and forms of social life. The fascinating, and increasingly popular work of Tony Seba and colleagues makes a good example (Arbib & Seba, 2020; Seba, 2014; Tubb & Seba, 2020). In a nutshell, their claim is that convergent technologies in the domain of energy, transportation and food are undermining all foundations of the current economic and production system. Far from being bad news, the authors claim, this represents a tremendous opportunity for a leap forward that would lead humanity out of an age of survival and towards an age of freedom, plenitude and shared prosperity, when we could all «spend our time creatively, unburdened by financial precariousness and the need to provide for ourselves and our families» (Arbib & Seba, 2020, p. 5). The current production system, which is centralized, command-and-control oriented, secretive, and extractive would be swept away by a new energy architecture that will be distributed, mobile, intelligent, and participatory (Seba, 2014, p. 3). The crucial point here is the transition from (centralized) *extraction* to (local) *creation*, based on locally available, free and clean energy – particularly solar and wind. Nothing would be more desirable. But can anyone really believe such a prediction? I will leave the reading of the endless cost calculations and technical instructions about how good electric vehicles can get to the interested reader, who can thereby give a boost to her/his optimism. Instead, I would like to focus on a few critical points, in a sociological perspective.

My thesis is that Seba's dreamlike picture of the future can reach such a level of sharpness thanks to a hidden strategy of complexity reduction. First, he is still positing that change will lead from one

period of *equilibrium* to another, which assumes a certain degree of stability of the various trends having causal power on the situation – other things remaining equal. Second, and strictly related to the former, the transition *process* is left unexplained. The model of social change seems quite simplified. First come the opportunities provided by technology, but vested interests hold innovation back, so there must be goodwill politicians and cultural elites who push things into the opposite direction, making the right choices and convincing the public. The relevance of interaction, interests and agency, entailing some degree of free will, is a healthy assumption in any sociological explanatory model, but the problem is about what relationships emerge between structures and cultures, which will make certain coalitions more or less likely and desirable. Third, some of the conditioning factors are simply left out of the picture, which makes it all more predictable. For example, passing from extraction to creation assumes that solar and wind energy is just free and locally available. We can leave aside the lingering problems of efficiency – about which Seba sounds tremendously optimistic – because in this respect we could safely assume it is only a matter of time before technical shortcomings are made up for. The real issue lies in the claim that local production will put geopolitics to rest in the graveyard of history – uncoupling energy from geography. In fact, the whole situation global society is currently facing at this time is there to dismiss such an assumption. Batteries for electric vehicles and solar panels need materials, which are clearly not equally distributed around the globe. Extraction and creation really do not amount to an alternative, but can only work in tandem. As a result of this, no energy source is either easily available or fully "clean" yet. If we ever reach an (extremely desirable) era in which such a tight coupling can be disengaged, this is not to be seen from our present standpoint. Finally, technical availability and social desirability are not the same thing. For example, one thing is to pass from carbon fuelled engines to electric vehicles, quite another thing is to say that all vehicles will only be self-driven, *and* people will no longer want to own vehicles. Once again, the current accidents of self-driving cars are not the problem. Technology will get there. But to say people will no longer want their own cars (or whatever will replace cars) is simply a *non sequitur* – and by the way, it's never happened before in human history. It may happen or not, but it's a lifestyle some engineer would like to impose, not a spontaneous, inescapable consequence of the ongoing processes. It is also unclear what kind of connection would exist between self-driving cars and cars-as-a-service (vs. as a property and a private object of consumption), or between these events and the announced revolution, with the dawn of the age of freedom. One good thing about Seba's grand vision is he put a date on it. It will be over by 2030, maybe before (Seba, 2014, p. 3). This makes it verifiable, and should be praised as a hallmark of intellectual honesty. We shall see.

To sum up, except for a few champions of radical human evolution, both optimism and forecast are left to managers and engineers. If contemporary sociology is making any contribution, it is to the growing awareness that precisely the effort to make the world fully manageable, controllable and manipulable causes a backlash that increases complexity and escapes human control.

This idea has been aptly expressed by Hartmut Rosa.[12] In his view, a totally mastered world would be a dead world. Life turns into meaningful and fulfilling experience *at the boundary* between *disposable* and *indisposable*.[13] Life's appeal consists of a continuous game of reciprocity, of the ongoing *relational tension* between the need to encounter the indisposable and the effort to make it disposable (Rosa, 2018, pp. 8–9). Rosa goes on to claim that such is the drama of modern society. The effort to bring the world increasingly within reach, thereby expanding the power of human agency, has overemphasized disposability, throwing off the balance between those two attitudes, and shaping a particular kind of relation-to-the-world, which is increasingly problematic both for human identity and for the "world" itself. Rosa concludes that the derangement of that relational equilibrium ends up causing a catastrophe. The world becomes indisposable again, but in hostile or tragic forms – epidemics and climate change being good examples.

3 | MAINSTREAMING THE FUTURE: RIGHT WAYS OF BEING WRONG

In this predicament, when it does not simply give up the pursuit of knowledge to be deployed in action, sociology seems to be focussing on the modes of communication of scientific/technological decisions, and on the governmental ways to make decisions in a condition of incurable uncertainty.[14]

Important as this obviously is, it is striking that the *social* future, the direction in which social structures, cultures, and human agency are headed mostly remains an unexplored land. Does contingency and unpredictability entail that the sociological perspective on the future should be prone to dystopia, or should the future states of society be neglected as a theme of sociological reflection, since it cannot be reached by any conceptual frame or theoretically grounded forecasting?

My thesis is that, insofar as sociology is rising to the challenge of future studies, it is undergoing a process of *hybridization*, through which its *representational* and *performative* functions become increasingly interwoven. This newly emergent performative thrust comes in different shapes, with corresponding analytical strategies.

One major trend consists of the idea that what knowledge we can get about the future can only emerge from an ocean of "big data". If the frontier of social science is to feed huge sets of data into machines, expecting algorithms to work their magic, then sociological theory becomes irrelevant, as well as explanation and interpretation, at least for any practical purpose social science may have. Data simply reveal patterns, which in turn predict individual behaviour. And there is nothing more to say.

This big trend obviously calls for more accurate reflections than we could provide here, but at least two relevant points can be highlighted for our present purposes.[15] First, algorithms do not work on what happens to an average person with a certain degree of probability, but predict single events concerning single individuals. Therefore, it is also true that: «Society is calculated without categorizing individuals, but by considering the specificity of everyone. Calculations start from people's activities and do not try to infer features applicable to larger phenomena» (Esposito, 2022, p. 96). Second, algorithms are performative, in that they contribute to producing the future they predict (*Ivi*, pp. 97-99). Even within the limits of a cursory review, we can conclude that these features dovetail with the claims advanced above, that the cutting edge of prediction is merging with performative processes, and that social phenomena, strictly speaking, seem to be absorbed into individual behaviours as the only relevant facts.

A different path is opened where efforts are made to anticipate possible, alternative social trends, in order to question the present, thereby achieving a deeper understanding of the relevance and potentialities of its structural, cultural and agential trends. Such analyses could be meant to (try to) bring about the kind of future they envisage. In this perspective, conceiving of alternative futures may also serve to assess the import of some constellations of interests that are active in the present, in the light of future developments. For example, generational conflicts and possible alliances can be articulated through different future imaginaries. Thus, focussing on the future may highlight aspects of the present that would otherwise remain unpacked or undertheorized, and to sharpen policy guidelines.

Such an exercise must not be mistaken for a purely ideological discourse or an updated form of utopian thinking. Ideology and utopia are also theoretical strategies that mix representation and performance. In this sense, they can be described as methods for realizing the future they predict. Or are we just witnessing a revival of good-will positivism? All of these cases would really mean nothing new. Two features help to distinguish these forms of social thought from one that claims to remain within the circle of social science. First, it should be remembered that utopian thinking cannot be characterized as just making possible tomorrow what is impossible today. One of their essential traits is that, contrary to sociology, utopias *deny or downplay structural aspects of social reality* – often

conceiving of the latter as endlessly malleable. In other words, the very notion of a social reality – and of any limits set to the conditions of existence of human society – is seen as harmful for the hopes of a better future, or as a tool of conservative ideologies. Moreover, utopia – as well as all kinds of ideological discourse – points to some *ideal state of society*, while sociological futures should not move from any *a priori* notion of the good society, but should outline multiple possible futures, with the aim of exploring the potentials of different developmental paths being pursued or left untrodden. Plurality and potential must remain open, as well the assessment of possible effects.

Once that knot of different kinds of future imaginaries has been disentangled, it is now possible to outline the concept of *scenario*, which comes across as an instructive example of the functional hybridization I am talking about. Scenarios can be designed and enacted to escape both the charge of individualization and that of theoretical, explanatory and interpretive nihilism. They have been a widespread kind of social forecasting for decades, and are increasingly deployed for strategic thinking and action in governmental and corporate contexts alike. Therefore, it seems interesting to explore their possible use for a renewed sociological mainstreaming of the future, and the related risks or shortcomings. But first of all, what are scenarios? Can they be sociologically solid tools for analysis, or are they mere signposts that stand in the place where academic sociology should be? How could they relate to mainstream sociological theorizing, and to other forms of social thinking?

I will answer these questions through the illustration of a recent, important example, that is the OECD *Scenarios on the future of education* (OECD, 2020; for similar considerations see also OECD, 2022). I do not aim to provide an exhaustive reconstruction of its argument, but to identify the theoretically crucial points, which allow to position this kind of thought experiment amongst other forms of social scientific reflection on the future. Now, again, what are scenarios?

Broadly speaking, scenarios are fictional sets of alternative futures, which *do not contain predictions or recommendations* (OECD, 2020, p. 7, emphasis mine). So, first, the idea of scenarios arises from an acute awareness that the future is impervious to prediction or forecast in a world characterized by intractable uncertainty.

«What is highly valuable, however, is to identify a number of different plausible future scenarios, explore what impacts they could have and identify potential implications for policies. It is also important to look beyond the scope of traditional policy silos and consider how multiple developments can intersect and interact in unexpected ways» (*Ibid*., p. 14). And again: «Scenarios are designed to foster reflection on the possible ways in which the future may differ from *our current expectations*» (Ibid., p. 42).

These few lines contain the essential elements of interest, which we must now unpack. *Prediction* is out, but scenarios also do not involve *recommendations*, which means they do not focus on desired futures. As a method of futures thinking, scenarios allow for exploration, context reconstruction, and narrative. Anticipation, policy innovation, and future-proofing are what is expected of such exercise. Exploration requires to let go of any deeply held assumptions, since there is no point in "being right". In fact, it is not even clear how to determine what being right really means. By future-proofing (p. 14), the authors mean that scenarios can serve to stress-test existing plans, strategies, or policies, trying to imagine how they would fare in varying conditions, particularly those far from current expectations. Of course, expecting the unexpected, and moulding it into a coherent shape, is no easy task. Further, what exactly is the epistemological status of such expectation? In the statement cited above, it is anchored to the notion of plausibility. A plausible idea or theory is one that is logically acceptable, even if it cannot be demonstrated. A plausible fact is one that could possibly happen, based on available knowledge, though not technically predictable. However, it remains unclear what plausibility really means in this context. It would seem somewhere near the idea of probability, but the language becomes somewhat ambivalent, and itself hybrid. Scenarios are not predictions, but they take stock of the present (*Ivi*,

chapter 3). The presence of some signals in the present that would make the emergence of a given fact theoretically possible could then make it plausible. In the end, a plausible scenario would be one that can be reasonably expected if current trends continue to work, augmenting or decreasing in a relatively linear way. Besides plausibility, impact is the other factor that makes scenarios helpful. A scenario is interesting, the authors say, if it is plausible or if it would have a huge impact.

One last condition for scenarios to work their effects is particularly important. Scenarios have no intrinsic value; it is *the process of creating or using them in the context of strategic dialogue* that makes them worthwhile (*Ibid*., p. 11). This implies an idea of "the future" as something that cannot be passively observed, and should not be conceived as ontologically external to the dialogical, relational circle of stakeholders who are invited to reflect upon it. Therefore, the process of sharing and co-producing a scenario is even more important than its cognitive content.

To sum up, scenarios have something in common with utopias only insofar as they, too, invite action. However, such action is not meant to bring about an ideal state the doctrine indicates as desirable or historically ineluctable. Instead, it is conceived of as a necessary factor in the collective negotiation of future perspectives. Moreover, scenarios stand in closer relationships with trends and evidence from social science than utopias do. So, the paradox that futures must be constructed, not foreseen, is fully embraced. The notion of scenario places itself on the side of agency, rather than speak from some supposedly external vantage point. The *representational-evocative/performative hybrid* is supposed to help social action bring about a commonly imagined scenario, and avoid the scary ones.

We now might wonder if, and how the exercise of identifying *social trends* differs from envisioning scenarios. Trends are observed when certain social phenomena are identified as taking a given direction, and result from causal powers or mechanisms that operate consistently to produce that outcome. In this sense, trends have a different epistemological status from that of scenarios, being not fictional, but rooted in reality. They can concern structures, cultures, or regular forms of individual and collective action. Trends become relevant when referred to some given social domain. Now, statements about trends are important bricks in sociological analysis, and may turn out to have predictive value. So, scenarios regard them as important factors. But while the existence of a trend depends on the continuity of the way the relevant causal powers operate over time, scenarios can be designed to contemplate both such continuity and its opposite. A further difference is that trends are usually mentioned as single factors, while scenarios use them as evidence to be combined in a more comprehensive theoretical narrative.

Now let us briefly outline the OECD scenarios for the future of schooling. This should illustrate the characteristics discussed so far, and pave the way for the last part of our argument.

Looking at Table 1, it is clear that the four scenarios are designed to cover various dimensions, from the goals and functions of schooling, to the organizational arrangements, the governance of the system with the related challenges, and the changing role of the teaching profession(s). The resulting picture makes a fascinating, thought-provoking vision of the possible futures of education. It would be too long to comment on all the details, but three main distinctions emerge:

(a) The scenarios swing from a major *privatization* of schooling, with the end of education as a social institution, to the gradual transformation of the traditional institutional complex of education to cope with growing complesity;
(b) De-schooling and high *individualization* of education vs. newly organized personalization of schooling, still retaining a social dimension of educational processes;
(c) Centralization vs. *de-centralization* – a traditional theme of the institutionalization of educational systems[16] – shows up again in new forms, including that of networking education, an intense role of local communities and the emerge of unprecedented and diverse partnerships.

TABLE 1 Scenarios for the future of schooling.

OECD Scenarios for the Future of Schooling	**Goals and functions**	**Organisation and structures**	**The teaching workforce**	**Governance and geopolitics**	**Challenges for public authorities**
Scenario 1 Schooling extended	Schools are key actors in socialisation, care and credentialising	Educational monopolies retain all traditional functions of schooling systems	Teachers in monopolies, with potential new economies of scale and division of tasks	Strong role for traditional administration and emphasis on international collaboration	Accommodating diversity and ensuring quality across a common system. Potential trade-off between consensus and innovation
Scenario 2 Education outsourced	Fragmentation of demand with self-reliant "clients" looking for flexible services	Diversification of structures: multiple organisational forms available to individuals	Diversity of roles and status operating within and outside schools	Schooling systems as players in a wider (local, national, global) education market	Supporting access and quality, fixing "market failures". Competing with other providers and insuring information flows
Scenario 3 Schools as learning hubs	Flexible schooling arrangements permit greater personalisation and community involvement	Schools as hubs function to organise multiple configurations of local-global resources	Professional teachers as nodes of wider networks of flexible expertise	Strong focus on local decisions. Self-organising units in diverse partnerships	Diverse interests and power dynamics; potential conflict between local and systemic goals. Large variation in local capacity
Scenario 4 Learn-as-you-go	Traditional goals and functions of schooling are overwritten by technology	Dismantling of schooling as a social institution	Open market of "prosumers" with a central role for communities of practice (local, national, global)	(Global) governance of data and digital technologies becomes key	Potential for high interventionism (State, corporate) impact democratic control and individual rights. Risk of high social fragmentation

Source: OECD, 2020, p. 41.

The four scenarios are situated along a multidimensional continuum between these poles, with various possible combinations. Technologies appear as a crucial intervening variable in all scenarios, and a further reflection is prompted, but not developed, about the possible decline (vs. change) of curriculum structures, which would also contribute to cultural disruption (or transformation).

Fictional as they are, these images of the future are rooted in real trends, and point to very consequential connections between them. Overall, they end up conjuring a whole societal formation, anticipating some of its (possible) characteristic features, which can be seen in the form of questions or challenges. First, whatever scenario is going to materialize, and even if none of those will, there is a strong tendency to increase the *pressure on human subjects*. They will no longer be able to "hide" within a class-group, their knowledge and skills will be assessed with more precision and depth, their personal commitment must be deeper and more extended in all domains of activity and social life.[17] Second, the *boundaries* between work, education and leisure seem to disappear. Third, *individualization/personalization* will inevitably be a crucial dilemma, according to the prevailing organizational arrangements. Fourth, the multifarious role of *technologies* is another central issue. In the end, what seems to be at stake is the very idea of education system as a public institution, and the challenge that can be envisaged concerns the democratization of all public, private and communitarian spaces, times and processes of education. A new semantics of democracy may be involved in the operation, and come to interact with the concurrent evolution of other social systems.

The sort of *tableau* we have presented is not alien to an image of the future the morphogenetic (M/M) approach to social theory could possibly offer. Similarities and differences are present. For one thing, the variety evoked by the scenarios above invites to play combinatorial games to link the various variables involved, multiplying the imagined futures and drawing practical consequences. Here the dialogical-performative logic of scenarios engages. They now become a tool, which takes on different meanings and says different things, depending on the subject(s) who are using it. Table 2 provides a scheme of the process.

Many of the factors invoked and the questions asked are clearly part of the structural, cultural, and agential dimensions of an M/M frame of analysis. In addition, the questions comprising the scheme in Table 2 epitomize the key practical dilemmas actors would have to face in the relevant situations. We might venture to say they are part of the *reflexivity* those actors should display to navigate the situations in question. The idea is that these become part, not of the *internal conversation* of each individual actor, but of an organized *external conversation* between stakeholders. In one sense, such a way to conduct the exercise of imagining the future would invite them to reflect upon themselves in relation to the world, and on the world in relation to themselves.

There are, however, two points of divergence that need to be highlighted. First, answering the questions above – assessing the risks and opportunities, the convenient strategies to meet the challenges, etc. – would require further knowledge not only of the factors constituting each scenario, but of the *compatibilities/incompatibilities* between them. In other words, their mutual relationships are not unpacked and examined in sufficient detail. An aspect of this is that all the actors involved and the relevant constellations of interest are not analytically identified. As a consequence, institutional configurations, and the related situational logics, remain in the shadow, and the scenarios get somewhat close to ideal types, where the phenomena characterizing the different dimensions tend to be reduced to consistency by definition. Thus, they become expression of the same rationale or cascades contingent upon one pivotal factor. However, the social facts identified in the various dimensions – institutional arrangement, role of the teaching profession, etc. – are not necessarily so orderly, and their relationships are not just punctual intersections. They are the thick areas which are the playground of sociological analysis striving to explain and understand why things take a certain direction

TABLE 2 Scenarios features and rationale.

1. Purposing *Establishing why scenarios are useful*	2. Exploring *Understanding the logic and characteristics of the scenario*	3. Identifying implications *Considering how the user would fare in the scenarios*	4. Taking strategic action *Returning to the present-day actions of the user organisation*
• What is the organisation that is considering its future? • Why does the organisation exist? • Who are the actors with which the organisation interacts? • What strategy or programme or policy is the organisation considering that would benefit from discussion of scenarios?	• What signals are there in the present that they may already be coming true? • How would someone living in each of these worlds of the future describe it to someone from today?	• What new threats and opportunities emerge for us in each scenario? • What strengths and weaknesses would our organisation have in each scenario? • Which of the scenarios are we most and least prepared to survive and thrive in, and why? • What new strategic challenges and priorities are raised by these scenarios?	• What is our strategic inventory? • How do existing practices perform in each scenario? • What new changes or signs of change do we need to watch out for? • What new options are there to combine existing strengths with new opportunities? • What new options are there to avoid existing weaknesses combining with new threats? • What new questions do we need to address today? • What new options for action make sense in light of the discussion?

Source: OECD, 2020, p. 18.

or another. The kind of necessity of contingency, compatibility or incompatibility, that occurs between them remains invisible to scenarios, while it is one core interest of sociological theory.

In addition, a scenario is inherently a snapshot. Although there might be some room for statements describing dynamics of change, diachronic processes must remain out of the picture. But again, the way social mechanisms work is conditioned by the temporal dimension. This is not necessarily a critique. The point is to realize what can be expected of scenarios as such. Indeed, they could also work as tentative indications of the reference points that could orient researchers within the M/M tradition in their choice of the relevant organizations, collective actors, and other factors to be considered for sociological explanations and interpretations – and modest predictions. The dialogical situations arranged to deploy scenarios could perhaps be designed with this goal in mind. That is, they could constitute the morphogenesis of a reflexive sociological theory of the future.

We can now answer the question asked at the beginning, saying that nobody and nothing *owns* the *future*. It can only be constructed and shared, through knowledge-and-action. This conclusion may sound banal, except for what follows:

(a) The future cannot be owned, but it can be destroyed. Both knowledge and agential powers have these paradoxical endowments. In this context, an essential aspect of the mission of social science will be to help keep the future public, which means shared and open for all to look into and to act upon. Indeed, it is important to prevent any single actor, or power, from owning the future;

(b) Social science can give its contribution, studying the relationships between past, present and future, and keeping both its scientific orientation and critical capacity. The issue of critique is clearly a problem in its own right, that we cannot tackle here at full length. But on the ground of our analyses we can at least advance one statement, which can serve as a bridgehead for future studies: once it has been established that sociology must sail far from utopia, as well as avoid to "critically" delegitimate the present in the name of some nonexistent future, it could still be able to indicate an *elsewhere*. This does not necessarily mean to give in to nostalgia. Beyond all these delusions, it can consist of generating cultural variety, available for creative elites to invent other futures beyond determinism and catastrophism. Sociological hypothetical futures will not indicate the way for societies to find a sense of purpose, while they go bravely about their blind flight. They can shed some light on the genealogy of our current predicament, on the rationale of our collective choices, and on their possible consequences. They can also point to alternatives human agency can explore.

To sum up, the idea that social science is increasingly being produced and deployed in a performative way is highly consequential. This can still take different directions. What is already clear is that the very way in which sociologists operate, design and disseminate their work increasingly reflects a performative pressure, which enters the very core of scientific work in its making, and even the professional identity of social scientists. Indeed, to trigger and participate in processes of dissemination-and-change, raising awareness, policy impact, the growing emphasis on communication within scientific projects, etc., are increasingly regarded as an inherent part of what is expected of social scientists. This is also clear in several aspects of the present landscape of the social scientific institutional arena. For example:

(i) the way EU research funds are attributed – suffice it to read how the calls of its major programs are written;
(ii) the fact that younger generations of scholars are less and less interested in sociological, and even less in social theory;
(iii) the common experience in most Ph. D programs, Departments of Sociology and related social sciences, research committees in national and international sociological associations, and more.

The deep double challenge that lies ahead is (i) to combine individual, algorithmic prediction with the openness of the future, which takes the paradoxical form of the attempt to combine prediction with unpredictability; and (ii) to keep together the effort to say something "objectively true" about social phenomena and the paradoxes revealed by uncertainty, including the fact that social science is part of the reality it tries to examine.

What seems crucial in the way sociology will reflect upon the emergent performative turn, is its enduring capacity to draw a distinction between surrendering its form of knowledge to technology and sheer "data" and reclaiming the role of theory-guided research. But this requires that some actors, in the academy as well as in the society at large, still believe it is important that social facts – and the social dimension in all human facts – be understood and explained. This could be a desperately normative claim, but one that can only be supported by non-normative arguments, namely with the theoretical and practical interest of sociological analysis.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

ORCID

Andrea M. Maccarini https://orcid.org/0000-0002-2259-7800

ENDNOTES

[1] To take just one example, a clear and instructive illustration and review of this narrative is provided by Prandini (2016).

[2] This statement is reminiscent of one by Daniel Bertaux, whose epistemological rationale for the ethnomethodological approach to life narratives involved the idea that "lived experience" was all sociology could really tap into, as the complex cross-roads of multiple, intractable (in)determinations. For an illustration of the basic tenets of his well-known work see Bertaux, 2016.

[3] A quote from an old text by Bertrand Russell is instructive here: «For those who are too young to remember the world before 1914, it must be difficult to imagine the contrast for a man of my age between childhood memories and the world of the present day. I try (…) to accustom myself to a world of crumbling empires, Communism, atom bombs, Asian self-assertion, and aristocratic downfall. In this strange insecure world where no one knows whether he will be alive tomorrow, and where ancient states vanish like morning mists, it is not easy for those who, in youth, were accustomed to ancient solidities to believe that what they are now experiencing is a reality and not a transient nightmare. Very little remains of institutions and ways of life that when I was a child appeared as indestructible as granite» (Russell, 1956, p. 1). These words could have been written today – but for the references to aristocracy and Communism. In fact, the latter might now itself be included within those "institutions and ways of life" Russell saw crumble (at least as a global hope with any traction force), while they had once appeared to be indestructible. However, Russell was writing this precisely at a moment that is now remembered as the golden age of European democracy and welfare. The economic boom, growing material well-being, increasing life chances and life expectancy, a long period of peace ahead, in what is now remembered as the dawn of one of the most stable periods of European history.

[4] The phrase is taken from my previous work (Maccarini, 2019, pp. 1-10), upon which I draw in the following illustration.

[5] This idea was spelled out and explored in its multiple dimensions in a series of volumes. Here I will only mention In Archer, 2013, 2017; Maccarini, 2019. Its understanding presupposes some knowledge of the morphogenetic approach to social explanation (Archer, 1995), which must be taken for granted here.

[6] Within the hugely extended literature on this concept, let me just quote the thought-provoking reflections by Peter Sloterdijk (2017).

[7] The current covid-19 pandemic makes a good example, since many scientists were quick to remind that the increased, haunting threat of ever new viruses results from the expansion of indiscriminate anthropization in previously intact natural environments.

[8] I am referring here to Ferguson's popular article that appeared in *The Times*, 9th December, 2018. There he maintains that in the recent history of Western democracies nobody got what s/he wanted, and no decision proved right. The various examples he makes concern big events and leaders' decisions in Western political life, from Brexit to Trump to Macron, and are not important, in and of themselves, for present purposes. The relevant point here is the "disnae" logic, which makes every private or public decision end up with unpredicted, most often perverse effects. It is also interesting to note that (i) the cause of such a conundrum is to be found in cumulative structural and cultural constraints, and (ii) he left an open window for possible disruptions coming from external threats – which after 2018 really happened – that would shuffle the cards and reset the game. More on this in section 3 below.

[9] I covered this point in some more detail in a previous work (Maccarini, 2019, ch. 9).

[10] By "transition" I do not mean to suggest that modernization theory is gone for good. All I am saying is that globalization theory has gained momentum and has become the leading representation of society, at least in a certain phase of development of social theory and macrosociology.

[11] For a review see again Urry, 2016, especially pp. 33-53. See also Urry, 2007; Willke, 2002; Young, 2007.

[12] See Rosa, 2018. The following, brief illustration draws upon parts of a previous work (Maccarini, 2021, ch. 9).

[13] In this context, the word "disposable" means something different from its common language usage in English. It does not refer to the possibility of destroying or getting rid of something. In accordance with similar words in German,

Italian, and other languages, something is regarded as "disposable" when it can be managed, controlled, accessed, manipulated, etc. Its opposite – "in-disposable" – refers either to things too complex to be understood, or to entities that invite respect for their dignity, and should then be left untouched. For example, in the latter sense the concept is used within the philosophical discourse on human rights.

[14] The types Pellizzoni calls precaution, pre-emption and preparedness (Pellizzoni, 2020) are different ways to institutionalize this awareness, translating it into a strategy for collective action.

[15] Both are covered at length in Elena Esposito's interesting volume (2022, chapter 7), from which I draw some formulations.

[16] See the classical work by Margaret Archer (1979). Of course, a whole literature exists on this topic.

[17] This is consistent with the idea of an imperative of self-optimization, critically illustrated by Rosa and colleagues (King et al., 2019).

REFERENCES

Arbib, J., & Seba, T. (2020). *Rethinking humanity. Five foundational sector disruptions, the lifecycle of civilizations, and the coming age of freedom*. RethinkX.

Archer, M. S. (1979). *Social origins of educational systems*. Sage.

Archer, M. S. (1995). *Realist social theory: The morphogenetic approach*. Cambridge University Press.

Archer, M. S. (Ed.), (2013). *Social morphogenesis*. Springer.

Archer, M. S. (2017). Introduction: Has a morphogenic society arrived? In *Morphogenesis and human flourishing* (pp. 1–28). Springer.

Arnason, J. P. (1993). *The future that failed. Origins and destinies of the Soviet model*. Routledge.

Bauman, Z. (2017). *Retrotopia*. Polity Press.

Bertaux, D. (2016). Les récits de vie.

Esposito, E. (2022). *Artificial communication. How algorithms produce social intelligence*. The MIT Press.

Fuchs, P. (1992). *Die Erreichbarkeit der Gesellschaft. Zur Konstruktion und Imagination der gesellschaftlicher Einheit*. Suhrkamp.

Fuller, S., & Lipińska, V. (2014). *The proactionary imperative*. A foundation for transhumanism. Palgrave Macmillan.

King, V., Gerisch, B., & Rosa, H. (2019). *Lost in perfection. Impacts of optimisation on culture and psyche*. Routledge.

Knöbl, W. (2007). *Die Kontingenz der Moderne. Wege in Europa, Asien und Amerika*. Campus Verlag.

Luhmann, N. (1998). *Observations on modernity*. Standford University Press. Beobachtungen der Moderne, Westdeutscher Verlag GmbH.

Maccarini, A. M. (2019). *Deep change and emergent structures in global society. Explorations in social morphogenesis*. Springer.

Maccarini, A. M. (2021). The social meanings of perfection. Human self-understanding in a post-human society. In M. S. Archer, & A. M. Maccarini (Eds.), *What is essential to being human? Can AI and robots not share it?* (pp. 197–213). Routledge.

Mann, M. (2013). *The sources of social power* (Vol. 4, pp. 1945–2011). Cambridge University Press.

OECD. (2020). *Back to the future of Education: Four OECD scenarios for schooling*. OECD Publishing. https://doi.org/10.1787/178ef527-en

OECD. (2022). *Trends shaping education 2022*. OECD Publishing. https://doi.org/10.1787/6ae8771a-en

Pellizzoni, L. (2020). The time of emergency. On the governmental logic of preparedness. *AIS Journal of Sociology*, *16*, 39–54.

Prandini, R. (2016). L'osservazione sociologica come diagnosi del presente e come pratica per potenzializzare l'attualità. In N. A. Andersen, & J. G. Pors (Eds.), *Il welfare delle potenzialità. Il management pubblico in transizione* (pp. 7–72). Mimesis.

Rosa, H. (2018). *Unverfügbarkeit*. Residenz Verlag.

Russell, B. (1956). *Portraits from memory*. Simon & Schuster.

Seba, T. (2014). *Clean disruption of energy and transportation. How Silicon Valley will make oil, nuclear, natural gas, coal, electric utilities ad conventional cars obsolete by 2030*. Clean Planet Ventures.

Sloterdijk, P. (2017). *Was geschah im 20 Jahrhundert?* Suhrkamp.

Tubb, C., & Seba, T. (2020). *Rethinking food and agriculture*. RethinkX.

Urry, J. (2007). *Mobilities*. Polity Press.
Urry, J. (2016). *What is the future?* Polity Press.
Willke, H. (2002). *Dystopia. Studien zur Krisis des Wissens in der modernen Gesellschaft*. Suhrkamp.
Young, J. (2007). *The vertigo of late modernity*. Sage.

How to cite this article: Maccarini, A. M. (2023). Imagine, predict or perform? Reclaiming the future in sociology beyond scientism and catastrophism. *Journal for the Theory of Social Behaviour*, 1–17. https://doi.org/10.1111/jtsb.12402