

# The rise and promise of participatory foresight

Blagovesta Nikolova

Received: 20 August 2013 / Accepted: 26 November 2013 / Published online: 14 December 2013  
© The Author(s) 2013. This article is published with open access at Springerlink.com

**Abstract** Historically, the capability of predicting the future has always been perceived as a matter of certain inequalities, reflecting the initiation in or access to significant knowledge with regard to the future. The prophet, the philosopher, the statesman and the scientist are emblematic figures of such cognitive hierarchies. The text addresses a problem which has not been at the forefront of futures research attention, but nevertheless it reflects some major changes in the domain of foresight. A great deal of effort has been put in search for adequate ways to handle the complexities of contemporary life as well as to come to terms with the increasing unpredictability of the future. The unstable societal dynamics challenges the traditional notions and practice of foresight. The broader inclusion of diverse participants (experts, citizens, stakeholders or nongovernmental activists) and their perspectives has been seriously considered as a means to expand the visibility of the future and promote firmer engagement with it. The promise of a participatory approach in futures research and its practical manifestations (with sometimes controversial effects) are in the focus of the paper.

**Keywords** Participatory foresight · Planning · Decision-making · Futures research

## Introduction

The text addresses a problem which has not been at the forefront of futures research's attention, but nevertheless it reflects some major changes in the domain of foresight. A

great deal of effort has been put in search for adequate ways to handle the complexities of contemporary life as well as to come to terms with the increasing unpredictability of the future. What are the plausible means to achieve foresightfulness as an individual's capacity or as an organizational skill [31]? And why strengthening the participation-side of foresight practice is having been recognized as part of the solution.

It is clear that there is no single omnipotent foresight method within the myriad of ways to anticipate the future—neither statistically-based, nor intuition-driven. Futurists and foresight practitioners continue, however, to try to elaborate the most adequate tools to acquire knowledge and construct meaningful images of the future. One possible way, it is believed, is by providing a greater variety of perspectives and ensure certain 'knowledge encounters' within the foresight process. Broader participation may be ensured through promoting a 'participatory environment'; implementing 'participatory planning' [13]; using 'participatory methods' [26]; stimulating 'participative foresight' [11]; organizing foresight activities as a 'participatory process' [24, 29], etc.

Wider inclusion of agents, which are external for the foresight realm, has constantly been pointed out as crucial for the overall success of any foresight initiative. This reflects a significant shift from the notion that far-(short)-sightedness of individuals/organizations is the product of inevitable cognitive or power hierarchies. The prophet, the philosopher, the statesman, the scientist and the expert are all figures which imply initiation into knowledge domains, which are one way or the other significant for the process of fore-seeing the future. It has recently being argued that this previously exclusive process should open up to allow another type of agents (with unprivileged perspectives). Currently, deficits faced by expert knowledge (as privileged view) in explaining the complexities of social reality become more obvious. Understanding the nature of interactions between various realms of

---

B. Nikolova (✉)  
Department of Social Theories, Strategies and Prognoses, Institute for the Study of Societies and Knowledge, Bulgarian Academy of Sciences, 6 Patriarch Evtimii Blvd., 1000 Sofia, Bulgaria  
e-mail: blag\_ilieva@yahoo.com

human activity, the environment and the science-and-technology field turns into an enormous challenge not only for holistic but also for small-scale analyses of social reality. This imposes great difficulties for foresight practitioners. Strengthening the participation element in futures research is professed to, hopefully, complement expertise with flashes of insight beyond the confines of codified knowledge.

The promise of the participatory approach in the futures field and its practical manifestations (with sometimes controversial effects) will be in the focus of the paragraphs that follow.

### Participatory approach in foresight: some preliminary remarks

Why in the domain of futures research the idea to approach the future in a more inclusive manner is gradually gaining ground? What developments during the recent decades may explain the need to secure the participatory side of foresight and recognize the significance of non-expert viewpoints and considerations?

To begin with, the neoliberal ‘engines’ of economic activity heavily rely on speedy organization of the innovation process. The latter, along with flexibility, are at the heart of contemporary mechanisms of value creation, in the pursuit of profit to secure the immediate survival of market agents. In such context quantitative foresight methods, such as trend-extrapolation, often prove to be unreliable. Objects and processes, which are of futures research’s concern, are known to be dynamic and very unstable. It is hard to foresee innovation. It is harder to anticipate its applications, how exactly consumers will adapt those applications to their specific needs, and what would be the profound societal consequences of its integration in our daily lives. Expert knowledge often fails to provide answers to those questions. To enrich the foresight process with the perspective of the non-specialist or the stakeholder is therefore perceived to be a necessary step towards rationalization of the deep social and cultural consequences of what Peter Druckur calls ‘organizing innovation as a systemic process’ [9].

In addition to that, the remarkable development of information and communication technologies provides plenty of opportunity for speedy access to information, research and knowledge, and secures the infrastructure for exchange (of opinion and advice) and cooperation between diverse agents in solving particular problems. The trans-disciplinary<sup>1</sup> character of knowledge, generated this way, is believed to be a valuable source of prognostic perspectives, while overcoming

the disciplinary narrow-mindedness of the specialist. This could be regarded as an element of a continuing process of democratization. The raised awareness among the members of civil society results in claims for deeper participation in the political process—to consult decision making, to raise their objections and to perform functions which have usually been the responsibility of official authorities. It does not mean that the flourishing of the ICT sector inevitably ensures fully-fledged participatory democracy in which every citizen could have the say on future-related matters. It only provides channels for the emergence of agents which might potentially impact the dynamics of the social realm. The combined effect of strategies, actions, cross-impact, counter-reactions, public initiatives, etc. of those agents could compromise the accuracy of experts’ judgments on the future. Nowadays, it is difficult to grasp causality in increasingly non-equilibrium social systems. Foresight efforts have become deeply troubled, considering that cause, consequence and effect could hardly be discriminated and traced.

This understandably disturbs the exercise of power since power-holders seem troubled to acquire reliable knowledge about the future, which diminishes their far-sightedness and ruling capacities. As a result, accounts about political decentralization, the inadequacy of rigid hierarchical structures and the compromised competence of the elite, appear regularly in the public discourse. They point at the eroded governmental expertise and at the inability of official institutions to keep pace with the expanding ‘decision load’. The perception that the social reality is rapidly increasing its complexity further exacerbates the problem of how to react adequately and in a timely manner for administering the various aspects of social change. It is not surprising, then, that very specific narratives emerge in an attempt to reestablish elite-citizenry relationships. In all their variants they argue for more active participation of citizens in the political process by making contribution to the formulation of policies which directly affect them. This is commonly interpreted as an opportunity for more open (non-elitist) approach in contemplating and deciding about the future. In effect, the burden of political responsibility would be shared between the ruled majority and the ruling minority.

The abovementioned developments outline the context in which ensuring a broader participation in foresight activities has been justified. A participatory approach requires the *inclusion of agents, which have traditionally been considered ‘external’ for the foresight endeavor*. On the one hand, these could be individuals who do not have specific expertise in a given area (laymen) but are interested in or affected by its dynamics with regard to the future. On the other hand, those could be specialists, who are not educated in the discipline which is usually referred to as one providing expertise on the question at issue. As a consequence, they have often been denied access to public discussion, deliberation and subsequent policy making.

<sup>1</sup> *Trans-disciplinary* is used in the sense of one beyond disciplines (in a dialogue with the public). It is not the same as *inter-disciplinary* (an encounter of legitimate disciplines’ positions).

'Participatory foresight' will be used hereafter to signify one *aiming at wider inclusion of experts, citizens, stakeholders or nongovernmental activists, in the process of anticipating and planning the future*. It has to be noted that such a definition reveals the normative nature of the concept. Lessons derived in practice, however, show that, at least for the time being, deep engagement with 'external' participation is rare and very difficult to achieve.

### Participatory foresight: idea and practice

Arguing a 'participatory' element in the domain of foresight is not a recent stance on the matter. Actually, the mere linguistic and conceptual turn from 'forecasting' to 'foresight', which has happened few decades ago, assumes the existence of such an element, as long as the future ceased to be exclusively a matter of expert judgments with strong claims of prognostic accuracy. 'Foresight' is currently the common word for 'futures research'; additionally, 'it has become a vogue word for some successful participatory, future-oriented activities' (Alaács [1], p.109). However, there is a line of argumentation which insists that such general reference is inadequate, and that foresight, forecasting, and even planning [7] are coexisting but quite different ways to approach the future. Nevertheless, Foresight has been gaining prominence as a regularly organized endeavor by institutions in Germany, Japan, The United Kingdom, New Zealand, Australia, etc. Its goal is to bring together viewpoints of key agents for some better understanding of drivers and forces that shape the middle- and the long term future, in order to elaborate informed strategic visions or action plans. Furthermore, Foresight, it is claimed, should not only result in agenda-setting but also in creating durable communication channels for subsequent interaction between the participants. New technologies allows for it to function as a form of networking [25], which is supposed to ensure engagement with the discussed problems and further involvement in pursuing the practical goals which have been agreed during the exercise (Foresight Methodologies Textbook [13], p.76; The Potential of Regional Foresight: Final Report [29], p.11; Becker [3], p.7). Foresight has been defined as a 'policy response' to the emergence of knowledge-based societies (Miles et al. [20], p.22). We will not explore the empirical adequacy of the phrase 'knowledge-based society'. We will just assume that it describes a situation in which prognostics in all its forms suffers serious deficits in view of identification and interpretation of the relevant information. Therefore, the Foresight process is being proposed as a helping tool to acquire valuable knowledge in order to inform decision-makers when they formulate future policies. It is exactly the participatory component, which is being appreciated.

And this appreciation of opening up the futures field is not new. It can be traced back to the years after World War II,

when Ossip Flechtheim [12], who introduced the term 'futurology', suggested that serious occupation with the future should go beyond the grasp of both ideology and utopia. He insisted that this then new research be incorporated in the educational system and futurology be taught as any other scientific discipline. At this point we may interpret his gesture as an appeal for temporal (with regard to the future) opening up of the scientific realm, for radicalization of the modern rationalization process in an attempt to lift the science-based foresight up to new limits. Given the experiences between and during the two wars, and the shameful consequences of an ideology-based approach to the future, it is not surprising that Flechtheim's idea is for the future to find more impartial wharf (the scientific field) and take on the task to raise awareness on looming threats. It is well known how unthinkable World War I seemed to be until it actually happened; or, how detrimental the shortsightedness of Neville Chamberlain and the European powers was with regard to Hitlerism. Flechtheim's original appeal was for promoting the exploration of the future through academia—beyond the religious prophetic revelations, the failed political rationality, the artistic image of the future or the scientist's 'speculating about the future' [5].

The 'teaching moment' in foresight practice (with the aim to ensure its participatory profile) will have other manifestations over time. Alvin Toffler, for example, suggested very interesting one in a book from 1970 [30]. Within the narrative of *Futureshock* he raised his concerns about the pace of change in contemporary developed societies and pointed to the difficulties which this situation produces with regard to adaptation. He argued that human beings are not capable of facing such acceleration without suffering harm. Toffler recommended not only opening up the field of foresight but, unlike Flechtheim, he advocated its popularization among the general public. He insisted that the development of a habit to anticipate the future, across all levels of the social realm, is crucial. Kindergartens, schools, governments and international organizations should cultivate a passion for the future, in order to challenge short-termism, narrow-sightedness, the pursuit of immediate results and disregard for the social and cultural features of the context. In other words, nurturing what he calls 'anticipatory democracy' would overcome the detrimental consequences of technocratic elitism in forecasting. Thus, the future needs *to return into experience*. Toffler insisted that this is the only way to adapt to the vertigo of contemporary social change. His considerations were not that theoretical but practical, even therapeutic (as long as they provide remedy for a very specific illness of our time).

A very similar participatory argument, in favor of the inclusion of foresight in the educational process, has also been supported by the World Futures Studies Federation (WFSF, est. 1967). Currently, the federation works in collaboration with the United Nations Educational, Scientific and Cultural Organization (UNESCO) in developing school and teaching

books for different educational levels [33]. One of the doyens in WFSF, Eleonora Masini has her own understanding for implementing participatory foresight. She is well-known in the futures research community to have argued the foundations of *visioning* as a specific form of anticipating the future. Visioning is about building constructive images of the future and about detecting the ‘seeds of change’—those weak signals in the present which may help us contemplate or create alternative, preferable futures [19]. Masini had been advocating for women and children’s participation in foresight practices. She insisted that the process of visioning be open for groups, whose thinking is ‘outside the box’. Within her intellectual strategy, asociality is explored as a generator of valuable images of the future. Thus, participatory foresight is one that welcomes the figure of the *outsider*, the individual who challenges the boundaries of sociality, to detect the seeds of change for some ‘other tomorrow’. Children, for example, could be very helpful since they are an embodiment of the sociality-to-be and its specific imagination. Some women/housewives would also be valuable participants since they could contribute from the perspective of their denied public inclusion. This version of participatory foresight aims to overcome dominant discourses on the future, which are part of the reproduction mechanisms of the social system itself, and to compensate the shortcomings of commonsensical future-related narratives.

In the last 20 years we witnessed the emergence of some interesting techniques in the foresight realm, ones which combine the achievements of post-structuralism in social theory with enhanced participation. One such form of exercising critical thinking on the future, through involvement of stakeholders in the process, is the Casual layered analysis, pioneered by Sohail Inayatullah. It attempts to engage the participants in a given foresight initiative with thorough deconstruction and genealogy of a problem, not with the intent to infer *a particular* image of the future but to open up some conceptual room *to construct desirable alternatives*. The Casual layered analysis has been implemented in seminars dedicated to pressing public problems or to visioning the future development of a client organization [15]. During such exercises, participants are asked to discuss the question at issue and reflect on: 1/ public perceptions and biases (usually covered by the media); 2/ economic, cultural and historical factors, and their explanation (publicly circulating interpretations of empirical data); 3/ the discourse which legitimized the established structures; 4/ the level of the metaphor/myth which represents archetypes—the unconscious dimensions of the problem [16]. Each of these layers unfolds some room for many possible futures. Historicizing certain notions helps participants to overcome fatalistic attitudes towards history, the idea of predetermination and current interpretations of reality which employ dubious categories. Casual layered analysis is a way to approach the future having in mind the

existing ‘knowledge-power’ structures. Some zealous theoreticians would argue that the method actually vulgarizes critical social theory. That would probably be correct. Nevertheless, it does not deny the fact that it produces significant educational effect on the foresight participants. It provides a means to pluralize the agency of those employing critique to ‘disturb the foundations of social reality’ in order to construct a plurality of possible futures. It seems that putting pressure on some notions undermines the mere idea of a future. However, it charges it with alternate meanings. The conceptual space of the future is believed to perform the function of *tabula rasa* for the human mind’s creativity in transcending current trends mentally and imagine states of the world, which are, so to speak, ‘constitutive outside’ for the actual social life. The experience with the Casual Layered analysis is instructive: foresight could be practiced in the form of *politico-philosophical reflection* by a wide range of participants.

When we discuss the participatory aspects of foresight, along with the changing profile of participants, their overall number changes too. The advancement of communication technologies and the deep expansion of Internet, provide opportunities to include more and more individuals in the foresight process, irrespectively of their current geographical location. This gives rise to various futures applications—from on-line instruments to harness the so-called “wisdom of crowds”, to extended endeavors in aggregating expert judgments on highly uncertain matters. Prediction markets [27] and Real-Time Delphi [28] are cases in point. However, they both have unresolved problems with regard to motivation and perseverance of the participants.

All the examples above do not exhaust the myriad of ‘inclusive’ cases in the field. Since participatory foresight implies a specific way of approaching the problem of our adequate relation to the future, it will continue to employ a variety of methods and tools [26]. It does not denounce well-known methods for collective foresight such as Delphi or brainstorming, which were elaborated after World War II. It just extends them to participants with viewpoints, which do not comply with the traditional approaches (scientists’ and industrialists’) to a given problem. It also provides alternative means for futures-oriented interaction, such as online platforms or, in the case of spatial planning in Europe—geo-visualization [32].

Usually foresight practitioners experience difficulties when they try to come up with adequate ways to identify and analyze the relevant information about the future development of an object or a process. Notwithstanding the chosen foresight method—trend-extrapolations, expert panels, modeling, ‘the wisdom of crowds’ or any other, every prognostic endeavor suffers a fundamental weakness. The image of the future, which each foresight method produces, relies on *the available* information. It is usually incomplete, distorted or misleading, or to put it briefly, imperfect. Thus, every statement regarding the future, as a prognosis, is valid only to *an*

*extent* of certainty. This is not the case with narratives, which claim to be predictions as long as they emanate from a supposedly perfect source of information, such as God for the prophetic revelation.

In general, foresight practice deals with the unknown in its attempts to anticipate what might come. It could be limited to mere contemplations with regard to the future and have only exploratory claims. Or, it could be further unfolded into a planning act, which would transform it into a normative endeavor. Exploratory methods do not necessarily require explicit engagement with creating the future. This is not the case with the act of planning as ‘ahead’-oriented strategy, which aims to materialize an image of the future into reality, in order to alleviate the hardships of anticipating it.

These are the main lines of the conceptual framework of the futures research field, within which we observe the recent re-thinking of the adequate profile of agents, who take part in foresight activities. In spite of the great variety of intellectual strategies in explaining the role and essence of foresight, practically we may boil them down to exploratory and normative. They employ different techniques, which reflect specific interrelation between the foresight practitioner and the object of futures inquiry.

In the case of exploratory foresight there is a clearly established research distance. The future is perceived as a forthcoming state of an object or a process, and we could articulate our suggestions relying on the merits of our observational distancing. The products of exploratory foresight are probabilistic analyses. All exploratory methods have advantages as well as shortcomings with view of selection of relevant information and value of the achieved results. Both qualitative and quantitative methods are being employed (trend extrapolation, expert methods, scenarios, grand social theories, etc.) for that end.

When claims for more significant public’s presence in exploratory foresight are raised, they are founded on assumption that the interrelation between the foresight practitioner and the object of futures inquiry could be enriched. Expanding the range of participation by promoting a variety of perspectives would produce valuable and useful results. That, for example, explains why The US National Intelligence Council within 15 years (1997–2012) published five reports on the global future [21], in which gradually expanded the range of the included in the process subjects. *Global Trends 2010 (1997)* was a report made by the intelligence community and was publicly discussed in meetings with business and academia; *Global Trends 2015 (2000)* was a product of collaboration with nongovernmental experts; *Global Trends 2020 (2004)* included the perspectives of foreign specialists; *Global Trends 2025 (2008)* expanded the external participation and promoted discussions mediated by Internet. Currently, *Global Trends 2030 (2012)* is a subject to continuous international dialogue through a specially designed blog for the purpose.

Exploratory foresight approaches the future as a context, whose characteristics should be anticipated in order to maintain a state of *preparedness* for what might happen. Normative foresight, on the other hand, implies deeper engagement with the future. Its aim is to find ways for agents to interfere with current developments in order to re-direct them in accordance with some idea, goal or norm. The foundations of normative foresight lay in the desire to re-create the very context. It is no surprise then that planning is believed to be irreplaceable element of normative foresight practice. However, the claim to create the future cannot escape limitations with regard to power. Shaping reality requires resources and management. This raises the question about who could possibly provide them. It is well known that endeavors such as the Manhattan project or Apollo program would not have been successful without the enormous planning and implementation effort made by a powerful agent, namely, the federal government of the USA. Despite that, with the triumph of neoliberal economic ideology since the 70’s, not only the practice but even the language on state planning has been discredited. ‘Normative foresight’ is turning into a euphemism which allows for exploring the phenomenon of central planning without the sanction of the commonly accepted ideological discourse<sup>2</sup>.

Sometimes normative foresight is used to designate the elaboration of speculative<sup>3</sup> images of the future which are the result of attempts to restore the importance of utopian thinking. They are inevitably ideologically charged, since they place a norm/value as a long-term goal and consider pathways to connect this ideal point in the future with the current state of affairs. Actually, these backcasting exercises are mental experiments, which employ quite different approach in comparison with traditional research methods. Of course, it has to be noted that essential normative foresight, as ‘in advance’ engagement with the future, is incomplete without the help of exploratory foresight methods. They provide initial information about the context in which the planning effort is to take place. They are also indispensable in the process of goal-setting.

In the case of normative foresight, to strengthen the participatory side of the process means to ensure a deeper engagement with the future. Usually this is being done by allowing citizens, be they stakeholders, non-specialists, and concerned individuals, to impact the process. The idea to include the laymen’s perspective and to engage them in the subsequent implementation of plans, interestingly, coincides with the rise and increasing popularity of politico-philosophical theories of

<sup>2</sup> The commonly accepted neoliberal ideological discourse omits the fact that the success of certain private sector initiatives could also be regarded as a byproduct of central planning projects: space programs—for innovations in aviation and medicine, the military sector—for Internet, the road infrastructure in the United States, etc.

<sup>3</sup> Under ‘speculative’ it is meant ‘contemplative’.

deliberative, participative and collaborative democracy. Those three versions of democracy are conceptualized as necessary in order to reinvent the relations between elites and citizens in response to the failures of contemporary representative democracy. Intentionally or not, the idea of foresight as a participatory process has been recently appearing in various official documents and reports to be pointed out as one of the means to ensure deeper citizen participation, thus strengthening democracy. There are actual attempts to involve the citizen in initiatives with regard to the future: municipal budget planning in Brazil [23], mass meetings to direct local investment in Salvador, urban management in the Philippines [6], etc.

### Participatory foresight and knowledge deficits

Identifying and processing relevant information with regard to the future is crucial for the foresight process. We inhabit a world in which massive amounts of data are produced every day, especially in the so-called developed countries. Those same data are believed to represent pieces of accurate self-description of contemporaneity, which reveal some underlying logic in the complex social processes or grasp the gist of what has often been referred to as ‘the historical process’.

‘Knowledge’ is ardently debated notion. Sometimes it is regarded as helpful in organizing the efficient performance of different social realms. In other cases it is a source of hope for successful handling of global problems, including the desperate state of affairs in some less developed countries. Or, it has been regarded as a source of destruction—one that threatens the survival of humanity because it carries risks and poses dangers which the human beings will not manage to neutralize. These turbulent times challenge the observer’s ability to follow the dynamics of events to a point when the possibility to build a proper capacity for orientation, in order to acquire valuable knowledge about the future, has been compromised. Moreover, we are all finite cognitive agents, i.e. something will always be missing in our assumptions about every object of research inquiry. Recently, this problem has been exacerbated, due to the effects of economic deregulation and the speedy innovation process. It seems that *surprise* is the new driving force within the various realms of human experience.

And this is a peculiar situation as contemporary knowledge societies seem to be operated by non-knowledge (surprises). Uncertainty causes profound gap between the theoretical concept of ‘knowledge society’ and reality. One of the founders of the notion of knowledge society, Daniel Bell, believed that integrating codified theoretical knowledge in the management of different social realms would have led to efficient solution of pressing problems in the post-industrial society [4]. Knowledge, however, turned out to be not that benevolent, socially engaged and predictable. Interestingly enough, political rhetoric and official documents of national, international and

supranational level, insist that the term ‘knowledge society’ not only describe current realities in economically developed societies but also represent a program, a normative goal with regard to the evolution of all countries. Despite this deep political engagement with the term, it is not quite clear what exactly the word ‘knowledge’ denotes within the famous phrase. Thus, it has been approached rather intuitively.

To begin with, knowledge could cover a wide range of achievements—from what is being regarded as scientific knowledge to certain forms of local, tradition-inspired, culture-bound knowledge for handling specific problems. At the same time, there are appeals for knowledge to be introduced as organizing principle in all public activities. It can function not only as an independent endeavor in search for abstract truth, but also as intentional pursuit of practical truths, which to be applied in everyday life. Furthermore, knowledge ought not to be perceived exclusively as positive science. In general, it provides orientation and meaning with regard to our existence. Given that, the realm of the magical for priests, the divine transcendent authority of God for prophets, the human reason for the Enlightenment philosophers are all sources of knowledge. Never should be ignored the relation between knowledge and power. All those figures, which were initiated in specific knowledge, were agencies of power. Today, such a figure appears to be the scientist with his deep reliance on experiment and empirically based hypotheses. But then again, what happened to that knowledge-power relation so that it became important to engage the ‘*outside*’ perspective, stemming from the layman, the citizen, the non-specialist.

Currently, the realm of human experience is multilayered and complex. The process of solving its riddles requires a broader range of viewpoints. The inclusion of ‘outside’ perspectives (as alternative to some constructed ‘right to analyze’) is regarded as a means to compensate the shortcomings of expertise and any other disciplinary knowledge with strong claims for reliability. The role of the laymen is to bring the specialists’ knowledge down to earth and foresee its possible side-effects in everyday life. Thus they would illustrate the whole complexity of the social and cultural consequences, caused by the triumph of advanced techno-knowledge. The outsider is supposed to give voice to anxieties generated by the expansion of the so-called instrumental reason<sup>4</sup>, which is interested primarily in the efficacy of a decision rather than the long-term social costs. Therefore, ‘knowledge deficits’ started to be attributed to the expert or the scientist. *Ignorance is not the preserve of the general public any more*. Such an understanding is part of recent debates about the form of

<sup>4</sup> It is interesting that some notable representatives of the instrumental reason feel uneasiness in the face of their own achievements. Bill Joy, cofounder of Sun Microsystems, in an article entitled ‘*Why the Future does not need us?*’ articulates deep concern about the long-term consequences of technological progress. He warns that the logic of the latter would eventually lead to its own emancipation from humans [17].

relationship between science and society, and the appeal of scientists such as Helga Nowotny and Michael Gibbons for what they call *socially robust knowledge* [22]. They argue the need for ‘new deal’ [14] between knowledge and society, one, which would renegotiate their previous responsibilities, in order to respond to the increasing complexity of contemporary societies, the vague demarcation boundaries between universal and industrial science, and between fundamental and applied knowledge. That is why citizens should be allowed to participate in the formulation of problems and contribute to the achievement of satisfactory solutions. Knowledge needs to *become engaged with the social realm* [10]. It is necessary to strive to socially-oriented truths.

In this context, foresight knowledge has its own specific problems. First of all, many foresight methods rely on statistical data to elicit relevant information about the future. The problem is that traditional frequency statistics has attracted severe criticism recently. Meanwhile, the so-called Bayesian statistics is gaining popularity as alternative foresight tool (for example, to predict the outcome of presidential elections). Additionally, the common indicators, which traditional frequency statistics applies, are regarded as inadequate for grasping important global phenomena. Conceptually, in the realm of social sciences, theoreticians such as Ulrich Beck, David Held or Martin Albrow react by criticizing the evident methodological inertia in the social sciences and the futility of some well-established notions. They suggest cosmopolitanism to become the new analytical framework for the global age. For that end, it would be advisable to attempt at constructing new indicators or to operationalize the current ones in a different manner. For instance, the Gross Domestic Product (GDP) is believed to be the utmost economic indicator but it should take into account non-monetary services, ecological damage and social inequalities [8]. This is important since a reliable foresight is founded on reliable knowledge about the present.

Arguing the inclusion of diverse participants in various foresight practices is part of a more fundamental process of transformation in contemporary societies. Reflection, which was previously ensured by the researcher’s distance, stumbles on the threshold of complex social reality. The perspective of ‘those who know’ needs to be complemented by that of the ‘unenlightened’ in some specialized knowledge. This explains why foresight has renounced its scientific claims (as forecasting) and became ‘*an art that may draw on methods that stem from the traditions of science*’ (Miles et al. [20], p. 41).

We can outline two main ways to promote the participatory side of foresight activities:

- by ‘expertise dialogue’, which aims at inter-disciplinary cooperation. It is a proper way to avoid some problems stemming from the compartmentalization of science, which was long ago identified by Jean-Francois Lyotard

in his famous report on knowledge [18]. The need to push for formation of inter-disciplinary discourse is generated by a very peculiar anxiety about the lost language of science and the fact that its different spheres have specialized so deeply that can hardly communicate. The ‘expertise dialogue’ is valuable as long as it provides opportunity for various research perspectives to focus around one theme (the future of an object or a process) and attempt to re-arrange their tongues and meaning codes for a better understanding of the issue at question.

- by ‘social dialogue’, which aims at inclusion of stakeholders (they might be directly or indirectly concerned) in a public discussion within the framework of a deliberative process. The overall goal is to induce cooperation and also to inform citizens on key issues which are to be decided. This would allow *contemplating* on dimensions, unlikely to be discussed in the regular decision-making process. The ambition is not to predict the future, but to reach a better understanding around possible and preferable futures. This has its power misuses, as long as every image of the future potentially serves some ideological construction. But it also could be an alternative room away from the discredited political realm. Although traditional ideologies rely on the image of the future as a space to materialize their respective politico-philosophical ideals (which is part of the legacy of the Enlightenment), the futures studies realm could be used to overcome the non-credibility of the so-called ‘grand narratives’. Thus ‘social dialogue’ in foresight is imagined as one that promotes deliberation between various representatives individuals of a society about the future which could be created, not that which should be reached.

We face a curious development. Due to knowledge deficits in government, expertise and business, regular citizens are expected to inform the elites. Knowledge is perceived as one dispersed among the different levels of social hierarchy and not concentrated on its top. Therefore, it has been argued, the very consumers of policies should be incorporated in the process of discussion and planning. That is why various forms of networking are encouraged in order to grasp signals from diverse levels/spheres/sides of social reality and *organize dialogues* to compensate existing communicational gaps. Additional factors contributed to this shift. One of them is that policy measures very rarely comply with those expected by the public. Neither do their outcomes. For power-holders the possibility for long-term planning seems denied, but the long-term perspective still has to be hold because it is needed for efforts to maintain the very power mechanism. In view of the alienation between elites and all the rest, engaging the general public (laymen, NGOs, specialists, stakeholders) with deeper participation in the political process, is believed to strengthen the legitimacy of the decision-making process. There are some

doubts about the benevolence of such gestures of letting the laymen, at least procedurally, to give their contribution in resolving the problem about the future and deliberate on its possible directions. Apropos, the mere idea about deliberation presupposes a communicational situation, which should aim at overcoming all communicational distortions. It requires a discussion among rational agents, which would allow for the evolution of their initial positions, in order to reach a shared resolving of a particular problem. This, of course, is an ideal situation, a theoretical construct, which may serve as reference point and direction for actual activities. But the actual possibility to misuse the desire of the general public to take part in foresight activities still stands.

This might be observed in cases in which the official institutions manage the deliberation process between experts and citizens. Sometimes they adeptly retreat from the limelight but still provide rules and requirements which shape the specialists' perspective. As a result, experts turn into advocates of policies which they have not designed, and power elites use them to buffer possible public resentment. The experience with the reconstruction planning of New Orleans, in the aftermath of the Katrina disaster, is a case in point. It had been made an attempt for organizing a form of normative foresight and use input from the inhabitants of different neighborhoods to envision the future architectural environment of the city. Eventually, the planning process had transformed into one in which experts tried to persuade and 'educate' the public in what is right and highly desirable for the future of the city. The visions of the population and the architects clashed. Citizens were concerned about housing problems and restoration of local cultural places. Architects were preoccupied with infrastructural and communicational facilities, which comply with the logic of contemporary capitalism. They believed that space had to be open up for free movement of goods, people, and services through building of areas with investment potential. The architects themselves shared that they wouldn't have won the reconstruction contracts if their plans had not offered such investment potential [2].

## Conclusion

The text showed that recent foresight activities seek inclusion of a broader profile of participants. They aim at aggregating heterogeneous information in order to obtain an enriched picture of the social reality and its possible futures. It is difficult to understand the complexity of interaction between the many realms of human activity and the perplexing causal chains on which they operate. Therefore, the 'encounter' of various perspectives, and even incompatible stances, is crucial for the overall value of the process. Participatory foresight has also been recognized as a means to alleviate the widely discussed crisis of representative democracy and strengthen

the contended legitimacy of established power mechanisms and structures.

Participatory foresight has its specific practical consequences. Sometimes those drastically deviate from the initial intentions, and create an illusion of empowering the public; while at the same time devolves power holders' responsibility about the future downwards.

A question persists: is futures research *actually* making a step forward to expanding its horizon beyond the *enlightened* (the expert, the specialist) and beyond the *initiated* (in power), or that transition into a fully-fledged foresight is still to come?

**Open Access** This article is distributed under the terms of the Creative Commons Attribution License which permits any use, distribution, and reproduction in any medium, provided the original author(s) and the source are credited.

## References

- Alaás P (2013) Micro-meso-macro: from the heritage of the oracle to foresight. In: Giaoutzi M, Sapio B (eds) Recent developments in foresight methodologies. Springer, New York, pp 109–123
- Barrios RE (2011) If you did not grow up here, you cannot appreciate living here: neoliberalism, space-time, and affect in post-katrina recovery planning. *Hum Organ* 70(2):118–127
- Becker P (2003) Corporate foresight in Europe: a first overview. European Communities, Luxembourg. [ftp://ftp.cordis.europa.eu/pub/foresight/docs/st\\_corporate\\_foresight\\_040109.pdf](ftp://ftp.cordis.europa.eu/pub/foresight/docs/st_corporate_foresight_040109.pdf). Accessed 19 August 2013
- Bell D (1978) The cultural contradictions of capitalism. Basic Books, New York, p 198
- Bestuzhev-Lada I (ed) (2000) Vperedi XXI vek: Perspektivy, prognozy, futurology [In Russian]. Academia, Moscow, pp 9–25
- Blair H (2008) Innovations in participatory local governance. In: Participatory governance and the millennium development goals. United Nations, New York, pp 95–148
- Cuhls K (2003) From forecasting to foresight processes—new participative foresight activities in Germany. *J Forecast* 22:93–111
- Desrosières A (2010) From representative statistics to indicators of performance. World social science report: knowledge divides 2010. UNESCO Publishing, Paris. <http://unesdoc.unesco.org/images/0018/001883/188333e.pdf>, pp 333–334. Accessed 19 August 2013
- Drucker P (1993) Post-capitalist society. Routledge, New York, p 54
- Eames M, Egmore J (2011) Community foresight for urban sustainability: Insights from the Citizens Science for Sustainability (SuScit) project. *Technol Forecast Soc* 78:769–784
- Fauchoux S, Hue C (2001) From irreversibility to participation: towards a participatory foresight for the governance of collective environmental risks. *J Hazard Mater* 86:223–243
- Flechtheim O (1945) Teaching the future. *J High Educ* 16(9):460–465
- Foresight Methodologies Textbook (2004) UNIDO, Vienna
- Gibbons M (1999) Science's new social contract with society. *Nature* 402(6761 Suppl):81–84
- Inayatullah S (ed) (2004) The Causal Layered Analysis (CLA) reader: theory and case studies of an integrative and transformative methodology. Tamkang University Press, Taipei
- Inayatullah S (1998) Causal layered analysis : poststructuralism as method. *Futures* 30:815–829
- Joy B (2000) Why the future doesn't need us. *Wired*. <http://www.wired.com/wired/archive/8.04/joy.html>. Accessed 17 August 2013

18. Lyotard J (1984) *The postmodern condition: a report on knowledge*. Manchester University Press, Manchester
19. Masini EB (2002) A vision of futures studies. *Futures* 34:249–259
20. Miles I, Keenan M, Kaivo-oja J (2003) *Handbook of knowledge society foresight*. European Foundation for the Improvement of Living and Working Conditions, Dublin. <http://www.eurofound.europa.eu/pubdocs/2003/50/en/1/ef0350en.pdf>, p 41. Accessed 08 June 2013
21. National Intelligence Council (2013) *Global trends*. <http://www.dni.gov/index.php/about/organization/national-intelligence-council-global-trends>. Accessed 18 August 2013
22. Nowotny H, Scott P, Gibbons M (2001) *Re-thinking science: knowledge and the public in an age of uncertainty*. Polity, Cambridge
23. Nylen W (2003) *Participatory democracy versus elitist democracy: lessons from Brazil*. Palgrave Macmillan, New York
24. Popper R (2009) *Mapping foresight*. European Union, Luxembourg. [http://ec.europa.eu/research/social-sciences/pdf/efmn-mapping-foresight\\_en.pdf](http://ec.europa.eu/research/social-sciences/pdf/efmn-mapping-foresight_en.pdf). Accessed 06 August 2013
25. Ramos J, Mansfield T, Priday G (2012) Foresight in a network era: peer-producing alternative futures. *J Futur Stud* 17:71–90
26. Slocum N (2003) *Participatory methods toolkit: a practitioner's manual*. United Nations University. [http://archive.unu.edu/hq/library/Collection/PDF\\_files/CRIS/PMT.pdf](http://archive.unu.edu/hq/library/Collection/PDF_files/CRIS/PMT.pdf). Accessed 21 April 2013
27. Snowberg E, Wolfers J, Zitzewitz E (2012) *Prediction markets for economic forecasting*. NBER Working Paper No. 18222. <http://www.nber.org/papers/w18222.pdf>. Accessed 08 January 2013
28. The Millennium Project (2013) *Real-time Delphi*. <http://www.millennium-project.org/millennium/RTD-general.html>. Accessed 17 August 2013
29. *The Potential of Regional Foresight: Final Report 2002*. European Communities, Luxembourg. [ftp://ftp.cordis.europa.eu/pub/foresight/docs/regional\\_foresight\\_en.pdf](ftp://ftp.cordis.europa.eu/pub/foresight/docs/regional_foresight_en.pdf). Accessed 04 August 2013
30. Toffler A (1970) *Future shock*. Random House, New York
31. Tsoukas H, Shepherd J (2004) Introduction: organizations and the future, from forecasting to foresight. In: Tsoukas H, Shepherd J (eds) *Managing the future: strategic foresight in the knowledge economy*. Blackwell Publishing, Oxford, pp 1–19
32. van den Brink A et al (2007) *Geo-visualization for participatory spatial planning in Europe*. Wageningen Academic Publishers, the Netherlands
33. World Federation for Futures Studies (2013) *Online centre for pedagogical resources in futures studies*. [http://www.wfsf.org/index.php?view=article&catid=60%3Afs-education&id=69%3Aonline-centre-for-pedagogical-resources-in-futures-studies&option=com\\_content&Itemid=83#](http://www.wfsf.org/index.php?view=article&catid=60%3Afs-education&id=69%3Aonline-centre-for-pedagogical-resources-in-futures-studies&option=com_content&Itemid=83#). Accessed 16 August 2013