Book review
Jerome C. Glenn, Theodore J. Gordon, and Elizabeth Florescu, 2013-14 State of the Future, Millennium Project, Washington DC, ISBN: 978-0-9882639-1-8.

Edited by the core team of the Millennium Project, the well-known transnational futures research think tank[1], the State of the Future (SOF) reports periodically on humanity's capacity to deal with the crucial global challenges that may affect its futures. First published in 1997, the SOF draws on extensive data collection and expert opinions. The report accompanies its general assessment of our global futures with a series of thematic chapters describing methods and results of the special studies implemented by the Millennium Project.

Overall the SOF has a thematic diversity and a geographical scope that are unusually vast, placing this work among a small set of future-oriented research projects of comparable reach (e.g. NIC 2012, EUISS 2012). However, the specific institutional context in which it is developed distinguishes the SOF from other studies of similar ambition. The Millennium Project's nature as an unaffiliated "global participatory think tank of futurists, scholars, scientists, business planners, and policymakers" differentiates the SOF from other research efforts. In general, these are promoted by (inter-)governmental bodies like the US National Intelligence Council and the European Union Institute of Security Studies.

To provide insights into the SOF's content and into the organizational context in which it is elaborated, I will divide my comments into three distinct parts.

First the SOF revives one of the best traditions in futures studies with its ambition to address the future of humanity as an interconnected set of diverse planetary issues. Echoes of the world "problematique" can be arguably found in the book and in the global approach underlying the publication[2]. As the foreword to the 2013-2014 edition reads, "[t]he challenges of our time are increasingly transnational in nature, requiring transdisciplinary approaches to be understood and transinstitutional implementation strategies to be dealt with." The farsightedness of this statement can be fully appreciated by considering that the SOF had the same understanding of our common futures when the first report was published in 1997.

Such an understanding has been operationally defined through the identification of 15 Global Challenges that "provide a framework to assess the global and local prospects for humanity" (p. 19). These challenges include: sustainable development and climate change, clean water, population and resources, democratization, global foresight and decision-making, global convergence of IT, global economic inequality, health, education, peace and conflict, status of women, transnational organized crime, energy, science and technology, global ethics. Each year, the report provides a concise description of each of these Challenges and also develops short regional assessments for Africa, Asia and Oceania, Europe, Latin America, North America. Indications about the strategies that have been implemented for coping and obstacles to subsequent action are briefly introduced. Targets for rating

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1 See http://www.millennium-project.org/

2 "The idea of the *Problematique* was introduced in the CoR [Club of Rome] proposal as a way to draw a linguistic, and hence conceptual, distinction between the well-bounded problems that we are accustomed to perceive and articulate and the meta-problem (or meta-system of problems) that emerges as a result of the interactivity and interdependency among these problems." (Christakis 2006, 97)

success in solving these challenges are specified (e.g. "Challenge 5[3] will be addressed seriously when foresight functions are a routine part of most organizations (as accounting is today)", p. 66), potential obstacles are assessed, and policies are suggested. This centrality of the Global Challenges in the elaboration of the contents of the SOF is reflected in the distinctive structure of the publication, as more than half of the current State of the Future is devoted to updating the Challenges.

The second part of the publication reports various studies realized by the Millennium Project. The 2013-2014 edition includes three special studies on hidden hunger, i.e. the intake of sufficient calories while the amount of vitamins and minerals is not adequate (Chapter 2), on the vulnerability of natural infrastructures in urban coastal zones (Chapter 3), on the threat of Lone Wolf Terrorists using Weapons of Mass Destruction (Chapter 4). This second part of the book is indicative of a second feature of the State of the Future: its openness. Each edition of the SOF is more than what the reader sees in print. A first meaning of "openness" is related to the fact that the printed book results from the distillation of the opinions and insights of an international knowledge pool of experts around the world, who are gathered as members of the Millennium Project's 50 Nodes or who are contacted and surveyed by the Project's members. A second meaning of "openness" refers to the fact the SOF report relies on the methodological innovations that have been developed by the Millennium Project. The first one is the Real-Time Delphi (RTD), which is the method chosen for implementing the studies presented in Chapters 2 to 4 of the 2013-2014 SOF edition. RTD is an evolution of the original Delphi technique. RTD updates results and makes them available to respondents as they fill an online questionnaire in "real time." Iteration, therefore, is not the outcome of the implementation of successive survey rounds, but of the continuous and "roundless" cycle of responses and feedback[4]. The second innovation regards the creation of a State of the Future Index, or SOFI. "The State of the Future Index is a measure of the 10-year outlook for the future based on historical data for the last 20 years. It is constructed with key variables and forecasts that, in the aggregate, depict whether the future promises to be better or worse." (p. 5) The (about thirty) variables used for building the SOFI have been selected (and updated) to provide a measure of the progress or regress with respect to the 15 Global Challenges[5].

The third and last part of the publication (Chapter 5) is dedicated to the (building of) the Millennium Project's Global Futures Intelligence System (GFIS), as "a collective intelligence system on the present state and future possibilities of the world" (p. 215). The Chapter describes the ongoing effort and ambition of the Millennium Project to create a participatory platform for continuous and real-time analysis, as well for strategy development (which includes the SOF). By placing the report in the context of this Global Futures Intelligence System, this Chapter introduces a third meaning to the "openness" I mentioned above. Through an online platform[6], the State of the Future report becomes only a part of the broader knowledge base created by the Millennium Project, including all the background research behind the print report, the Millennium Project's past research, current and past special studies, a database of methods based on the work of "Futures Research Methodologies 3.0" edited by Jerome C. Glenn and Theodore J. Gordon (2009), and continuous updates about the 15 Global Challenges, including news and other external resources. The creation of the GFIS and the link between the GFIS and the State of the Future is coherent with the ambition of the Millennium Project to create interactive dialogue platforms able to build a "collective intelligence" for the world. This "collective intelligence" is seen as the product of "synergies among data/information/knowledge, software/hardware, and experts and others with insight that continually learns from feedback to produce just–in–time knowledge for better decisions than any of these

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3 Challenge 5 concerns "global foresight and decision making" and reads as follows: "How can decision-making be enhanced by integrating improved global foresight during unprecedented accelerating change?".

4 http://millennium-project.org/millennium/RTD-general.html

5 http://millennium-project.org/millennium/SOFI.html

6 https://themp.org/

elements acting alone" (p. 14-15). This synergy is considered by the Editors of the SOF as the inescapable condition for humanity to deal with the current and future planetary problems and it is expected to bridge the gap between humanity's "ideas and resources to address its global challenges" and "the leadership, policies, and management on the scale necessary to guarantee a better future" (p. 2).

Overall the picture of the Global Challenges the SOF draws provides a broad and updated overview of a wide range of diverse and major issues. The vastness of the subjects covered and the wealth of data and insights presented generates a rather large amount of material, "a huge bundle of trends, forecasts, and ideas", as a review of a previous edition of SOF reads (Marien 2011, 125). This is particularly true for the part dealing with the 15 Global Challenges. Although the editors do offer their view of the interrelations, the reader sometimes struggles to establish meaningful links amongst so many events, forecasts and trends.

Indeed when looking at single passages and statements in the SOF the brevity of explanations leave the reader with the feeling that (inter-)dependences are sometimes assumed, rather than explained. Typical of this terseness are the statements concerning the societal uptake of information technologies, for instance: "*Because* the world is better educated and increasingly connected, people are becoming less tolerant of the abuse of elite power than in the past. *Because* youth unemployment is growing, more people have more time to do something about this abuse", (p. 2); "The continued acceleration of S&T is fundamentally changing what is possible, and access to this knowledge *is becoming* universally available", (p. 11); "Fortunately, the world is moving toward the Internet-of-Things, *with institutional and individual collective intelligence* (emergent properties from synergies among brains, software, and information) for 'just-in-time' knowledge to inform decisions", (pp. 62-63).

In a similar vein, the text of the SOF displays a frequent syntactic transition from the realm of conditional to that of constative, according to a rhetorical structure that has been discussed elsewhere[7] (Nordmann 2007). Here are a few instances of this slippage: "For example, uses of genetic data, software, and nanotechnology will help detect and treat disease at the genetic or molecular level. *As a result*, people will work longer and create many forms of tele–work, reducing the economic burden on younger generations and maintaining a better quality of life", (p. 11), see also (p. 43); "It is reasonable to assume that the majority of the world will experience ubiquitous computing and eventually spend much of its time in some form of technologically augmented reality. New forms of civilization *are beginning* to emerge from this convergence of minds, information, and technology worldwide", (p. 74); "Telemedicine and self-diagnosis via biochip sensors and online expert systems *will be increasingly necessary* because people are living longer, health care costs are rising, and the shortage of health workers is increasing", (p. 98; italics added).

This rhetorical construction of the report's narrative supports what often appears as a shift from hypotheses to facts, a sort of "naturalization" of the trends it examines, their mutual connections, and their implications for policy. Such a shift leaves the underlying assumptions of the emerging issues or their proposed solutions, largely unexplored and, as Inayatullah (2004) noticed, "the deeper processes of meaning-making, paradigm formation and the active influence of obscured worldview commitments" often remain unaddressed. The lack of this deeper level of reflexivity creates the risk to narrowing down the set of diagnoses and responses that are proposed in the SOF reports.

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7 "An if-and-then statement opens by suggesting a possible technological development and continues with a consequence that demands immediate attention. What looks like an improbable, merely possible future in the first half of the sentence, appears in the second half as something inevitable. And as the hypothetical gets displaced by a supposed actual, an imagined future overwhelms the present" (Nordmann 2007, 32).

Eventually, when the *attitude* to the future is considered, the SOF is motivated by a profound optimism. The report does not negate problems – quite the contrary, it is an excellent diagnosis of an important set of problems –, yet it clearly expresses the confidence that problems can be overcome with (collective) knowledge, (common) will and (collaborative) craft. I am not sure if I am courageous enough to fully agree (see Dupuy 2004, Krastev 2014), but I like the SOF, and I like it very much, also for this reason. As the closing paragraph of the book reads: "Ridiculing idealism is shortsighted, but idealism untested by the rigors of pessimism can be misleading. The world needs hardheaded idealists who can look into the worst and best of humanity to create and implement strategies of success" (p. 222).

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