

## **Book Review: *The Rough Guide to the Future* by Jon Turney**

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### **Introduction**

Jon Turney's recently published *The Rough Guide to the Future* (Rough Guides/Penguin Books, London, 2010, 366 pages) is an interesting and informative read. The title of the book is somewhat misleading though. It is not a "rough guide to the future," but rather a rough guide to *thinking* about the future, since Turney does not pretend to be giving the reader an actual description of the future, rough or otherwise. In his mind, the future is "radically uncertain," and there are many possibilities—some known, many unknown—regarding the future. What Turney provides in his book is a wide-ranging sampling, along with his own thoughtful assessments, of approaches, methodologies, theories, and predictions (invariably probabilistic and frequently contradictory) of diverse areas of futurist thinking.

Turney is, in fact, decidedly ambivalent regarding the value of thinking about and making predictions about the future since, depending upon the topic being discussed, there is always some level of significant uncertainty and complexity. Repeatedly acknowledging this tenuous quality to all of our thoughts, speculations, and predictions about the future is to Turney's credit, but it does not prevent him from diving into one topic after another and considering the issues, angles, and varied perspectives.

After four introductory chapters on the history and nature of futurist thinking, the bulk of the book concerns itself with considerations regarding the short-term future of the next fifty to one hundred years. He addresses in these middle chapters (Chapters 5 through 16) a succession of specific topics, such as energy, climate, food, health, and war. He then goes on to close with two chapters on long-term futures, fully acknowledging the extreme uncertainty (for most things) when one moves out past one hundred years.

### **General Strengths of the Book**

*The Rough Guide to the Future* is engaging and well written. Turney invites the reader into thinking about the diverse topics he discusses. For each topic (such as energy or food), Turney pulls together and reviews a rich variety of sources, both print and online. Invariably, he cites and discusses different and often opposing points of view to get the reader to thoughtfully consider the topic from different angles. He includes in his sources not only individual writers and researchers but numerous organizations, often global, that monitor and collect data, and create policies and recommendations on the issues being discussed. The bulk of his resources, though, are not derived from professional futurists or futurist research, and this is both good and bad. Professional futurists may feel slighted and put off by his light treatment of futures studies, but the

future is everybody's business and, in fact, whether writers and organizations in varied disciplines and domains of inquiry see themselves as futurists, what they study and make recommendations on does have to do with the future. Turney offers a pluralistic and inter-disciplinary approach to thinking about the future, including demographers, climatologists, ecologists, technologists, scientists, and numerous government and business agencies in his resources.

Turney even includes a plethora of science fiction writers in his chapters—a definite strength of the book—and he very effectively integrates their speculative scenarios with scientific and non-fictional sources. In doing so, Turney distinguishes between the highly speculative and imaginative domain of science fiction and what he takes to be more rational, empirically grounded and conservative approaches to the future, a distinction that I do not see as clear cut as the author does. And although he discusses both domains with intelligence and breadth, when it comes to the far future, the author suggests that science fiction as narrative might be superior to non-fiction as a way to stimulate thought and discussion on the future.

As a general introduction to thinking about the future—one which treats the domain of inquiry as a series of specific dimensions of the future, such as energy, population, food supply, water, health, and ecology/biodiversity—Turney's book is the best I have ever encountered. With some necessary supplemental material included (see below), it could serve as an excellent introductory textbook. In this regard, chapters 6 through 14, in particular, are presented as a sequence of specific *challenges* facing us now and in the near future. He does not just review probabilistic predictions for each domain, but identifies key problems (rising earth temperatures, more people to feed, depleting oil supplies, mass extinction) and discusses how each problem is being addressed. He also includes debates and controversies on the nature and severity of each problem.

Though he does not include an extensive review of futurist methodologies (aside from the one chapter on this), he clearly attempts to draw the reader into thinking about the varied (and often contradictory) predictions, scenarios, assessments, and proposed policies on each specific domain. Moreover, in spite of his repeatedly stated reservations about making predictions, he includes plenty of them, but then he almost never takes the predictions on face value. He debates them. Whether one agrees with his logic and his conclusions or not, Turney lays out his own internal debates on each topic, thus drawing the reader into a considered and thoughtful examination as well. In this, one could argue that, in the broad sense, Turney clearly and repeatedly gets into and illustrates rational and empirical methods for thinking about the future.

At the end of each chapter, Turney includes suggestions for "Further Exploration," which includes both books and websites. This is another real plus to the book. Of special note, he also includes short essays from fifty futurists and experts on "highest hopes...worst fears... and best bets" for the future. Because the sampling of writers here includes both futurists and others from diverse areas, it adds to the pluralistic quality and value of the whole book.

## General Weaknesses of the Book

Turney's strength of pluralism leads to one of the two most notable weaknesses in his book. Turney's treatment of futurists and futures studies is light and incomplete at best. There is no mention in the book of either the *World Future Society* or the *World Futures Studies Federation*. There is no mention of *The Futurist* or any scholarly professional publication in futures studies. He does include several discussions concerning the *Millennium Project* and there are pieces on Hermann Kahn, Alvin Toffler, Jim Dator, and *The Limits of Growth* by the Club of Rome, but there is nothing on Wendell Bell, Richard Slaughter, or Ed Cornish and their significant work and leadership in futures studies. Sohail Inayatullah and Ziauddin Sardar do have short essays on "hopes, fears, and best bets," but as a further compounding deficiency, except for these two minimal items, there is nothing from Eastern or Middle Eastern futurists or futures studies. Though not intended as a criticism of Transhumanism—since I find their ideas, at the very least, highly provocative—there is significantly more on Transhumanism than on the *WFS*, *WFSF*, futurist publications, and the *Millennium Project* combined. Moreover—and perhaps more notably—there is negligible treatment of women futurists and feminist/women's issues regarding the future. Barbara Marx Hubbard and Riane Eisler, to identify two important women futurists, are totally omitted. Natasha Vita More does get a short "hopes, fears, and best bets," but this is from a Transhumanist perspective. This deficiency of women futurists is coupled with an almost total lack of any discussion on the future of marriage, gender roles, love and sex, and women and men in the future.

This brings us to the second major weakness in the book. The broad arena encompassing the future of human psychology, society, culture, morals, education, economics, politics, and spirituality is given minimal treatment in the book. There is one explicit chapter on "Life, Society, and Values" (Chapter 15) and Chapter 16 does discuss the human enhancement and the future evolution of humans, but it does so primarily from a technological perspective. All told, half of the future is significantly slighted in the book—to state it in a rather extreme form—the human half, both individually and collectively. To be fair, Turney does state early on (and later again) that it is difficult to make predictions about the complex affairs and dimensions of the human condition, and consequently he doesn't directly examine it as much. But, of course, this misses the point that there is an immense amount of literature on these topics. Why not at least discuss it more fully, even if the existential ground is shakier? Further, Turney does bring in, in a round-about-way, issues of culture, society, and ethics in the context of the more concrete and physical dimensions of the future discussed throughout Chapters 6 through 14. For one thing, he clearly recognizes and repeatedly notes that any discussion of the future, within any area or domain, gets into questions of value and ethics. That is, he sees that ethical and value systems influence how data is selected and interpreted and also determine what gets identified as preferable versus non-preferable futures. And he does acknowledge that psychological, social, ethical, and spiritual variables and beliefs interact with the more physical side of reality and will continue to do so in the future. Still, what would have made the book much better as a general introduction to thinking about the future would have been to include additional and distinctive chapters on the future of society and culture, economics and politics,

human psychology, education, gender and families, morals, and religion/spirituality. Such additions would, of course, have made the book much longer.

By giving futurists and futurist organizations more coverage and central significance, without diminishing the value of other professional writers and global organizations, and by including more on the human side of things as separate focused topics, the book would be much more balanced and comprehensive—an ideal introductory textbook.

Another noteworthy weakness is that there is no summary, no integrative review, and no set of general conclusions at the end of the book. The last chapter simply sets sail into the far, far distant future and the images of Dyson, Tipler, Kurzweil, and Adams/Laughlin (whom he doesn't even cite, though he clearly describes their ideas from their book on the far distant future of the universe). Which leads me to another weakness: He doesn't include complete or sufficiently precise references for many of the sources of data and views that he discusses. There is no bibliography at the end of the book.

Finally, Turney repeatedly uses the words “futurology,” “futurologists,” and “futurism,” expressions that professional futurists pretty much steer clear of in describing themselves or their discipline.

## **Review of the Chapters**

The first four chapters deal with the historical evolution of (what I would refer to as) future consciousness, which includes prophecy, futures studies, science fiction, and scientific investigations into time. Chapter one delves into the psychology of time—both memory and anticipation. It is rather sketchy, but still interesting to read. (I would refer the reader to my much more extensive discussion of the psychology of future consciousness in *The Evolution of Future Consciousness*.) Chapter two looks at the history of prophecy and prediction up to the beginnings of the twentieth century; Verne, Wells, Darwin, Butler, and Bellamy, but also Nostradamus and modern World Fairs are discussed. Futurist thinking is repeatedly connected with social events and social evolution—a real plus to the chapter. Turney does a good job of weaving together multiple and varied approaches to the future throughout history. Chapters three and four review more contemporary approaches to thinking about and predicting the future. It is here that Turney has the most to say about futures studies and its development in the twentieth century, including Delphi methods, scenario building, and the work of the *Millennium Project*. Turney also extensively debates and discusses the question of prediction of the future in this section, acknowledging that “futurists” don't pretend to make singular predictions about the future (a position that I do not think is as clean-cut or true as many futurists state). Instead, Turney states that futurists identify different possibilities and scenarios, along with preferable futures and probabilistic and plausible ones. Turney does believe that in some areas—such as science and technology and the overall future trajectory of the earth, the solar system, and the universe—predictions can be more solid and secure (but even here there are caveats). In essence, Turney attempts to walk a fine line, since he frequently does cite throughout the book various predictions as starting points for discussions and then in a flexible, rational, and

frequently dialectical fashion considers the pros and cons regarding various predictions. Hence, Turney does try to be thoughtful, critical, and nuanced on the issue of prediction and he even throws in a noteworthy comparison of approaches to predicting the future. At the end of Chapter four, Turney lays out a basic distinction between “Maltusians” and “Cornucopians”—that is, pessimists and optimists about the future, both groups frequently citing predictions to support their opposite attitudinal positions regarding what is to come. In the final analysis, this general temperamental or personality difference clearly affects the data collected, interpretations argued for, and predictions made about the future.

Chapter five deals with the future of science and technology and Turney presents a brief review of advances and possibilities in NBIC technologies (Nano-Bio-Information-Cognitive/Brain areas). The discussion is sketchy. Though he states that we are on more solid ground here in making at least general predictions, he repeatedly introduces variables and uncertainties that could alter the course of events. (What breaks up the continuity of the book is that he returns to a focus on science and technology in the last two chapters, after delving into a whole host of other topics. These other topics, such as energy, food, and health, invariably do connect with technological issues and possibilities. Hence, the future of technology, in particular, is spread throughout almost the entire book.)

Chapter six on population growth is one noteworthy place where Turney addresses regional differences pertaining to the future. And there is some limited discussion of families and cities—two areas that should be given more thorough treatments in a general introduction to the future.

Chapters seven and eight focus on energy and climate, two topics that are closely interconnected. By this point in the book a fundamental theme emerges in thinking about the future: Though we may divide the future into different areas or domains of inquiry, all of these different areas are, in reality, interactive. We live in an interactive world rather than a world of discrete categories, and clearly this holistic dimension of things applies to the future. Turney grasps this point and repeatedly emphasizes it throughout the book. Of particular note in this regard, Turney realizes that there is no simple technological fix for either energy needs or climate change; peoples’ attitudes, values, and behaviors—if and how they change—will be a significant factor in determining how we deal with energy needs and how we impact the climate. Again, the various proposals made by futurists or like-minded thinkers such as Slaughter, Laszlo, Elgin, Sahtouris, and the writers of *Affluenza*, concerning how we should change our lifestyles, mindsets, world views, and values to address our problems and challenges would be very relevant to the discussion at hand. But as I mentioned, discussions of the future of values, culture, and the human mind are minimal. At the very least though, Turney does include here, as well as in numerous other places, very different, often oppositional points of view—in this case, Lovelock and Lomborg—in thoughtfully examining the issues and possibilities.

Chapters nine and ten deal with water and food. Here, as he does throughout, Turney provides some history at the beginnings of the chapters (another strength of the book—repeatedly placing a topic or challenge within a historical context.) Food production and availability is another area where interaction effects abound—climate, water, population, poverty levels—all having an impact on the future of food. Turney does a good job discussing this. Also, he brings up a general point—that he repeatedly makes throughout the book—that solutions to our challenges will probably come from multiple strategies and efforts. Because poverty is so strongly connected with water and food availability, a chapter or more substantial section on economic futures and the rich/poor divide would have been valuable, if not essential to the discussion.

The next chapter addresses biodiversity and the issue of mass extinction in our contemporary world and explores where it may lead. It is here we see another challenge to making predictions: the data on the present is unclear; data are selected depending upon theoretical perspective and thus interpreted differently. How can we make solid predictions on the future when the present state of affairs is not clear? Again, there are numerous interaction effects at work, and the critical importance of the human variable in the future of life on the earth is once again made very apparent.

Chapter twelve on health addresses advances in physical medicine and technology. Turney brings back into the discussion advances in NBIC technologies, primarily the biotechnological ones, as they pertain to health. He also—I believe correctly—raises the important point that the difference between fixing a malady or deficiency and creating an enhancement on our present biological form is ambiguous at best. But also—in the context of drugs that fight against infectious bacteria, which adapt to our medical interventions—he highlights another fundamental dimension about the future. At any given time there are challenges and problems which we hope that we can constructively address in the future, but the very remedies and solutions we come up with invariably ignite new problems. There is no happy ending in the future; there is no heaven on earth. Even if we make progress, there is still one damn thing after another.

Thus we come to war and disasters, the topics of chapters thirteen and fourteen. Can we eliminate war in the future? (There is no discussion on global peace initiatives.) This is a psycho-social-political-ethical question. In his review of the pros and cons on this, Turney is rather skeptical and he spends the majority of time discussing the technological evolution of war. Can we prepare better for natural (or man-made) disasters? Are disasters becoming more frequent? Turney's discussion of Bostrom's theory of existential risks, and the fact that according to Bostrom they are increasing in number, is very good. The future—even just the possibilities—is an increasingly dangerous place.

The next chapter on “Life, Society, and Values” is too brief, too sketchy, and too incomplete. Primarily he discusses the opposing themes of individualism and communalism—of freedom and democracy versus collectivism and globalization. He does briefly address “problems with capitalism” and materialistic notions of progress, but what he really needed was a separate chapter on economic futures and theories of

progress. He includes a very short section on religion and spirituality—again, there should have been a whole chapter, since religion is one of the most significant social and moral dimensions of the human condition. There is nothing on leisure, entertainment, the media, and the arts. Perhaps, as Turney states, it is especially difficult to make predictions in these areas, but that shouldn't prevent one from engaging in thoughtful and informed discussion of the issues and possibilities, of which there are many very important ones.

Chapter sixteen focuses on “information,” which he closely connects with culture. Basically he discusses broad technological themes (virtual, mirror, and augmented realities, for example), and social-psychological issues, such as information overload, privacy, and the dumbing down of the Internet mind. There is a short little foray into the future of education—which deserves a separate chapter—but this deals largely with the technology of education

Chapter seventeen is basically about Transhumanism, Kurzweil's ideas on the accelerative evolution of information technology—including the Singularity—and technologically facilitated human enhancement, all of which touch on the possibility of functional immortality. The chapter is an interesting read, especially since he includes what I see as sound and thoughtful discussions of Andy Clark's concept of cyborgs and Vernor Vinge's ideas on the Singularity. There is plenty of science fiction cited here.

The last chapter sets sail into the far distant future and consequently into the great cosmic adventure of outer space. In some ways predictions get very tenuous here, though not entirely, since physics, cosmology, astronomy, and the earth sciences provide some fundamental principles and laws from which to extrapolate (for example, continental drift, the science of stars, thermodynamics, and cosmic expansion). Yet, (and perhaps this is unavoidable) there is still some fuzziness in all of this. (How could the evolution of intelligence affect the future of the universe?) This is not to say that this chapter is not entertaining, provocative, and well-informed. The grand finale pulls together the ideas of Dyson, Kardashev, Damien Broderick's *Year Million* (which I highly recommend), the cosmologists Adams and Laughlin (whom Turney doesn't explicitly cite), a host of science fiction writers, and the iconoclastic, mind-boggling, techno-cosmic-evolutionary-theist Frank Tipler. What a person to end the book with! Still, I am not sure whether it says something about Turney or the state of imagination among contemporary futurists, but the final chapter contains next to nothing derived from professional futurists or futurist organizations. (But then, one could ask what constitutes a futurist or futurist organization, anyway?) And couldn't one have at least a few cosmic, evolutionary visions derived from Eastern sources? Finally, as has been mentioned, there is no summary or conclusion on the whole book, but given the open-ended quality of the future, perhaps it is better to ascend into the infinite than to attempt to pull the whole thing together.