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Frontiers of futures research: What's next?

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Abstract

This paper describes some important frontiers of futures research with the aim of identifying new opportunities for improving the value and utility of the field. These frontiers include the exploration and/or the reexamination of

- (a) Potential for integrating new technology with futures research methods,
- (b) Ways to reduce the domain of the unknowable,
- (c) Ways to account for uncertainty in decision making,
- (d) Strategies for planning and management of nonlinear systems operating in the chaotic regime,
- (e) Ways to improve understanding of psychological factors that lead to irrational decisions
- (f) Appropriate levels of aggregation in investigation of forecasting problems.
- (g) The potential offered by new sources of social data.

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1. Introduction

There are many methods and approaches to the study of the future. While futures research methods are internally coherent and used systematically, there is no assurance that the evolution of such methods

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will lead to a more organized “science-like” field with a theoretical basis. Not only are there many diverse techniques for theorizing, observing, and interpreting the future directions and consequences of societal, economic, and technological change, but also the methodological approaches used in their analysis vary greatly. There are few attempts to aggregate futures data and build current work on proven prior work. The result, for better or worse, is that the field lacks the consistency and coherence that mark more scientific fields. Yet there are some methodological frontiers which, if addressed, may improve the quality of the enterprise [1].

2. Integrating new technology with futures research methods

New technologies carry great potential for improving and refining the conceptualization and application of futures research methods. For example, the Internet has made participatory approaches among geographically dispersed people practical. Just forty years ago, computers were not much of a factor in futures research. The Delphi method was accomplished with pencil and paper in 1963, and sent through mail. However, if the current trends continue, forty years from now nearly all futures methods will be conducted in software, through networks, with diverse and changing sets of people, continually cross-referencing data, and monitoring decisions. Hence, the image of a few bright people, using a few interesting methods to forecast the future, may be replaced by the image of many people interacting with many combinations of methods to shape the future by blurring the distinctions between research and decision making. Furthermore, new technologies such as wireless Internet, knowledge visualization software, and improved computer translation will allow more international foresight activities to build collective intelligence through participatory feedback systems far more complex than the current futures research methods.

The examples mentioned above represent only a small part of the immense potential of new technology in futures research. Imagine the potential of brain research in understanding decision making, the possible use of behavioral data from which values may be inferred, the use of large numbers of computer generated scenarios to optimize policy choices [2], and the creation of credible indices of progress across countries, companies and groups with common assumptions to measure progress.

3. Reducing the domain of the unknowable

It is hard to imagine the consequences of a new breakthrough before it occurs. Our answers to questions such as “what do you think might happen?” and “what do you want to happen” are limited sharply by what we believe is feasible, by what is taken to be “good or normal science”, and by what has already been demonstrated or postulated. Some future developments of importance are currently unknown but discoverable. Others however are intrinsically unknowable. No matter the size of the model or the computer that runs it, some developments are beyond current discovery because the breakthrough that makes them feasible has not been demonstrated or even postulated yet. Some of these undiscoverable events may turn out to be the most important aspects of the future.

By definition, the geography of the unknowable is unknown. We could certainly speculate about such discontinuities (science fiction specializes in this domain) but, taking Kuhn’s perspective, an idea before its time is apt to result in derision and dismissal [3].

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