

Zukunft und Forschung

RESEARCH

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# Standards of Futures Research

Guidelines for Practice and Evaluation



Springer VS

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# **Zukunft und Forschung**

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See next page

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# Introduction

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## About this Volume

Given the rapid rate of change across all domains of human activity, actors in business, government, and civil society have become ever-more reliant on research into the nature of things to come—that is, on how the *future* may emerge from the complex interaction of current and anticipated trends and relationships. Driven in part by rapid advancements in communications technology, decision-making cycles for executives and policy-makers have become increasingly compressed. At the same time, the range of questions with relevance for strategic decision-making is growing ever larger. What breakthrough technologies are anticipated to emerge? What will be the hallmarks of the workplace of tomorrow? How should one respond to a warming world? These are but a few of the questions currently occupying the attention of thought leaders in various fields.

Thanks to growing recognition for the advantages of using rigorous methods to consider potential future developments and associated opportunities for action, futures studies has made considerable strides in recent years as a discipline. Yet all too often, research findings of questionable quality and provenance compete for the attention of decision-makers and the broader public.

This raises the question: how can one recognize good futures research? That is, what are the hallmarks of a rigorous investigation of the future—one that fulfills scientific standards, does justice to its subject matter, and effectively supports decision-making?

There are no succinct or generally applicable answers to this question. This is attributable to the broad range of activities subsumed under the banner of futures

research—including approaches whose theoretical and methodological foundations are less than fully transparent. Among the lay public, for example, it is often assumed that futures researchers are modern-day soothsayers who *predict* the future. This misconception has not augmented the standing of the discipline. Futures research is ill-defined because a great number of academic disciplines and domains of professional practice are necessarily compelled to consider what the future may bring—yet they construct their postulations in the absence of reflection on the standards and guidelines that should inform such activity. The hard sciences, for example, are concerned with developing time-invariant descriptions of deterministic relationships. The focus on causal necessity may occlude the *modality* of the future developments being considered—that is, whether *possible*, *probable*, or *desired* circumstances are at issue. Within narrow disciplinary perspectives, prognostication can quickly succumb to various pitfalls, including the reflexive postulation of continuity (disregarding the potential for change), blind faith in mechanistic models (overlooking important mediating factors), and the refusal to acknowledge uncertainty (ignoring the contingent nature of the future). Alternatively, for ardent empiricists the inherently *contingent* nature of future developments may spawn a refusal to accept the validity of any speculative endeavor.

The need to place futures studies on firmer scientific footing emerges precisely from these points of difficulty. By *scientific* we mean research that is based on transparent, accepted, and rigorous methods, methods that are properly geared to the “future” as a topic of inquiry. Facilitating such research is the aim of this volume, which presents uniform and recognized standards for best practice in futures studies. The standards set forth in this volume have been formulated as guidelines for futures researchers, but they may also serve as criteria for third parties wishing to evaluate particular projects.

Although some degree of consensus on methods has been reached among futures researchers operating in specific institutional settings, this volume represents the first effort to establish a comprehensive set of uniform guidelines for the discipline.

The contributing authors are convinced that for any human undertaking to mature from context-bound considerations to a full-fledged professional discipline, the codification of commonly accepted standards is essential. Indeed, a structured framework for understanding our engagement with the world is essential for experience to be distilled, organized, and transmitted as knowledge.

In line with this insight, one overarching aim of this volume is to gather, consolidate, and extend existing methodological discussions so as to furnish a robust foundation for the expansion and further professionalization of the discipline. The

standards presented here do not make a claim to universal applicability, nor are they complete. Rather, they aim to furnish orientation for assessing quality in futures research. In this way, we hope to augment the professional abilities and confidence of future researchers while also bolstering awareness for the important contribution that can be made by futures research to the advancement of knowledge. Indeed, the adoption of these standards by futures researchers promises to considerably enhance the standing and reputation of the discipline.

This guide has been conceptualized for all who are involved in some capacity with research concerning the future, including academics, consultancies, and corporate strategy departments—in short, anyone who hopes to engage with the future as a subject of inquiry in a more rigorous and effective manner. In addition, the volume stands to benefit the organizations that commission futures research, by improving their ability to evaluate project findings.

### ***Preliminary considerations***

What exactly is a *standard*? Following Sanders (2006), we view standards as applied principles and methods that are agreed on by experts in a discipline and that contribute to improving that discipline's quality. In accordance with this definition, the standards presented here provide a guide to high-quality work in futures research; they establish the “rules of the game” for conscientious and rigorous research activities. By extension, we also view standards as “statements of intent” addressed to researchers, participants, and stakeholders (DeGEval, 2008, p. 14). Specifically, standards should:

- serve as an instrument of dialog and a professional point of reference for the exchange of ideas on the quality of professional research,
- provide guidance for the planning and implementation of scientific futures studies,
- be a starting point for training and education, and
- furnish transparency for the public assessment of research findings.

At the same time, the standards represent *criteria* for evaluating futures research. When a given project fulfills relevant guidelines, this is a verification of research quality. In this way, the guidelines can serve as assessment criteria for third-party evaluators or for researchers wishing to appraise their own work.

In terms of structure and function, the standards presented here are in line with the recommendations of the Joint Committee on Standards for Educational Evaluation (Sanders, 2006). With regard to content, many of the standards are

novel, though we have drawn extensively on pertinent source material from other disciplines, especially in the social sciences.

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## Guiding Principles and Organization

### *Guiding principles*

A core conviction that informed the writing of this book is that three guiding principles must be pursued in equal measure when conducting futures research: (1) the subject matter under consideration must be suited to the discipline of futures research; (2) the research should be carried out in a scientific manner; and (3) the study design should be effective for achieving its purposes. Each guiding principle poses a particular question: (1) What specific standards result from the fact that futures research explicitly deals with the future as a subject of inquiry? (2) What standards result from the fact that futures research aims to address this subject matter scientifically? (3) What standards result from the special purposes of futures research?

In line with these questions, the standards presented here fall into three groups:

1. The first group of standards all hinge on the defining characteristic of futures studies—namely, the *future* as a subject of inquiry. This group of standards ensures that adequate attention is devoted to the specific output of futures research—that is, the formulation of statements about hypothesized future circumstances. The standards presented under this group pertain to research methods, validation techniques, and approaches for substantiating arguments. They also discuss various needs: to account for the fundamental indeterminacy of the future; to explicitly account for underlying assumptions; and to properly characterize descriptions of the future as possible, probable, or desirable.
2. The second group of standards results from the differences between futures *research* and other approaches for considering the future. This group includes standards that help ensure that assertions about the future are generated in a scientific manner (i.e. according to scientific principles and accepted procedures and techniques). The process, results, and documentation of scientific work are one area of concern. These aspects require, among other things, a clear definition of the research question and careful consideration of the research context. Additional topics addressed under this group include transparency, data quality, theoretical foundations, and method selection.
3. The third group of standards results from the *purposes* of futures research. Accordingly, these standards are designed to ensure that futures research

fulfills its objectives as effectively as possible. Futures research is often characterized by a strong practical focus and by definition is not aimed at the acquisition of temporally invariant knowledge (i.e. laws of physics or biology). The standards presented here ensure a suitable orientation to real-world concerns and contexts. The group includes a large number of application-oriented quality criteria, including in particular criteria with relevance for the management of successful future-oriented research and consulting projects.

Each group of standards is presented with a short introduction that illuminates key considerations. Before drawing on a given standard to undertake a research project or conduct an evaluation, we would encourage the reader to consult the introductions first.

### ***Organization***

The chapters are organized as follows:

- *Summary and essentials*: Each chapter opens with a thumbnail description followed by a short discussion to enable quick familiarization.
- *Guidelines*: The guidelines section clarifies how the standards are to be applied while also discussing specific procedural steps.
- *Common shortcomings and pitfalls*: This section describes how the standards may be violated or misapplied, including associated consequences.
- *Illustrative example*: Each chapter presents a real or fictitious case study from futures studies to illustrate the application of the standards and problems that may arise.
- *References*: Space constraints have prevented a full discussion of the relevant literature. The reader is encouraged to consult the sources cited should questions arise.

Following Sanders (2006), the following criteria govern the application of scientific standards:

- The standards aim to guide research activities or their subsequent evaluation, but are not designed as a tool for persistent monitoring.
- Not every standard is applicable to every research project.
- Not all standards can always be fulfilled to the same extent.
- The standards may require modification to suit project-specific requirements.

However, when conducting a project, all of the applicable standards should be taken into account and met to the greatest extent possible.

### List of standards

- I Standards of Group 1: The Future as a Subject of Inquiry
  - 1 Images of the Future
  - 2 Modality
  - 3 Validation by Argumentation
  - 4 Aligning Research with Ambitions for Action
  - 5 Interdisciplinarity
  - 6 Transdisciplinarity
- II Standards of Group 2: Good Research Practice
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  - 15 Consideration of Type, Role, and Specificity of the Research Audience
  - 16 Transferability and Communication of Results
  - 17 Identifying Decision-Making Spaces and Options
  - 18 Project and Process Management

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