



Aligning the Research with Ambitions for Action

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Summary

Good futures researchers use various methods for factoring in the possible actions and policy ambitions that are likely to follow on from their work. First, they gather information about the actual practical interests underlying the research question and, importantly, document this information for later reference. Second, they choose an appropriate research design and then construct images of the future whose scope, time horizon, and decision-making parameters are in keeping with the principles of good scientific practice. Third, they carry out a research impact assessment to gauge the potential consequences of the work.

Essentials

Portrayals of the future contribute to the social construction of reality – precisely that aspect of reality most amenable to shaping. As representations of possible future realities, the findings of futures research help to guide present-day decisions about the future. In this way, futures research has the potential to shape the future present.

Futures studies is often linked to an interest on the part of funders or research initiators to mold the future in some way. These ambitions impose various

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requirements on futures research, especially when designing the study or constructing images of the future. Early on in a project and with reference to the ambition for action, researchers must define the subject of interest, determine the time horizon, identify essential actors, and consider possible options for action.

Explicitly considering possible follow-on actions

Interest in shaping the future (whether on the part of researchers, funders, or third-party addressees) influences a research project's chosen design and methods – and ultimately its results. Good futures researchers make such decisions in a deliberate manner, and align their work with the ambition for action underlying the project. Specific questions help in making decisions about methods, design, and other research questions: (i) What are the specific goals of the research? (ii) Which actors will take action? (iii) How should they take action? For example, whether scenarios can be developed with stakeholders and, if so, which stakeholders should be involved, largely depends on the nature of the action ambitions held by funders or other addressees. In this way, molding specific decisions or action measures may have precedence over an interest in acquiring new knowledge. In such cases, futures studies represents a form of applied science.

Defining the subject area, its determining factors, and its actors

A frequent task of futures researchers is to define the subject area under study in terms of its scope and the factors and actors that shape it. A careful definition of scope is of great importance both for the quality of the research and for the success of the options identified. A scope that is too narrow can neglect important actors or interactions and hence impair the quality of the results and the range of options available. Likewise, a scope that is too large can be too general, making it difficult to identify specific measures. Devoting explicit attention to the underlying ambition to act helps to determine the factors and actors that should be considered when constructing an image of the future.

Determining the time horizon

The determination of the time horizon for research primarily depends on the circumstances and relationships under examination and their specific temporal characteristics. Whether for the short term ($t + 5\text{--}10$ years), medium term ($t + 10\text{--}15$ years), or long term ($t +$ more than 15 years), the time horizon hinges to large extent on: the speed of expected change (e.g. the pace of innovation); the problems being confronted; and on the available resources for action. Other factors that require consideration include the speed with which actors desire change, and the time window for necessary actions. This also includes the question of

whether it is *too early* or *too late* to initiate a futures studies project. Once again, the project design and ambition for action are the main indicators for the choice of time horizon.

Determining options for action

The greater the ambition for action, the greater the need to identify options and estimate their future effects (see the group 3 standards). Indeed, servicing these ambitions is where futures research set itself apart from other disciplines. The inherent openness of the future and the significant degree of uncertainty it brings requires a special type of approach. Of course, it is impossible to determine in advance the best measure or policy with absolute conviction. Futures studies has the unique task of presenting a spectrum of options for action and highlighting the differences between the possible consequences in each case. This can be done both within the same envisioned future situation or in the form of future situations that have changed as a result of the respective options for action (impact scenarios). In this regard, the consideration of specific desires to affect change and the exploration of possible action alternatives are not only *not* mutually exclusive; they are perfectly complementary.

Thinking about intended consequences and possible knock-on effects

The direct relevance of futures studies projects for decisions and action often means contending with potentially far-reaching consequences. Scenarios and other images of the future are designed to guide perceptions, decisions, and actions *vis-à-vis* the future; as such, they bring with them consequences for reality both intended and not. In light of both types of effects, researchers would be well advised to assess the potential impacts of their work. To be sure, *ex ante* estimation of the potential consequences of a project requires a considerable amount of reflection and effort. However, an appreciation on the part of researchers for how they contribute to the social construction of reality and to the measures taken by real-world actors can increase the value of their contribution. Such critical and self-reflective practices could perhaps be labelled “second-order futures studies.”

Guidelines

1. *Clarify and document the ambition for action:* When defining project objectives and tasks, researchers should clarify and document the underlying ambition for action and desire to affect change so this can serve as a point of reference during their work. Researchers should play an active role in the process and

voice any criticisms they might have (e.g. that the range of considered effects of action is too narrow).

2. *Define the project scope in accordance with the objectives for action:* Researchers should clearly define the scope of the project in accordance with the identified ambition for action and desire to affect change, and possibly delineate it from related research fields. They should define the scope so that that decisions and formative interventions covering the intended effects can be made on the basis of the research results.
3. *Identify the central factors and actors:* Researchers should identify the determining factors and actors that could significantly affect the development of the domain in question within the chosen time horizon. A careful mapping of these elements and their interdependencies in the form of a network analysis is indispensable. The analysis of past and present forces in the domain in question should be supplemented by the identification of new actors that could play a significant role within the set time horizon.
4. *Define the time horizon in accordance with the ambition for action:* The time horizon for forecasts and future scenarios should be chosen based on the ambition for action and desire to affect change, and this horizon should be kept in mind during the research project. Researchers must weigh the dynamic properties of the research problem in relation to action-related resource and time constraints, given the specific capabilities of futures research to generate insight.
5. *Reappraise research decisions:* The subject area, mediating factors, relevant actors, and the time horizon are guideposts for the research work, and hence must be determined early on. Nevertheless, researchers need to reflect continually on these aspects and adjust them if the results do not accord with the identified ambition to affect change. This might be necessary if, for example, researchers develop a better understanding of the subject area during their work, or if ambitions change due to interim findings of the research project.
6. *Present alternative courses of action:* Researchers should explore alternative courses of action in terms of their possible future (positive and negative) effects in the subject area and action domain. In doing so, they should make direct reference to the ambition for action identified at the project's outset. If possible, researchers should present a spectrum of options, whose effects will vary within and between scenarios, and which will be associated with different levels of uncertainty.
7. *Reflect on the consequences of the research:* Good futures researchers should consider the potential consequences of their work *ex ante* as thoroughly as possible. On the one hand, they must consider the ambition for action of the

funder and other addressees along with the intended and unintended consequences that may directly arise from later action measures. On the other hand, they must think about the indirect consequences of their research, i.e. the ways in which the images of the future they create can, once in circulation, shape the social construction of reality and reality itself. Then, they must decide whether to endorse the possible effects of their work, to try and improve those effects, or to scrap the study.

Common Shortcomings and Pitfalls

- a) *Failing to clarify the research objectives:* Researchers may fail to discuss in detail the ambition for change held by the funder or client. As a result, the impetus for the research question, and possibly the question itself, may remain unclear. In this way, the project may proceed in an arbitrary fashion, characterized more by chance than by reason.
- b) *Failing to contain bias:* This pitfall occurs when the researchers are led by their own interests that do not coincide with those of the client. The research is thus tailored to convince the funder of the researchers' agenda.
- c) *Selecting an inappropriate scope and/or time horizon:* (i) Researchers may choose a project scope that is too broad or too narrow and/or (ii) a time horizon that is too long or too short. Neither the research funder nor the researchers provide a clear definition of the domain of interest and/or agree on a time frame that is appropriate to the research question. For example, they may underestimate or overestimate the speed of change within a given field.
- d) *Providing a restricted selection of options for action:* Researchers may fail to sufficiently explore the range of possible decisions and options. This is often the case when the funder is interested only in external, retroactive justifications of previous decisions. Alternative options are not explored or considered.
- e) *Failing to think about the possible consequences of the research:* Researchers may fail to consider the possible indirect and knock-on effects of a futures study, including in particular the intended and unintended consequences of the future actions. This may be due to a lack of due diligence or to a deliberate decision because of time or funding constraints. Alternatively, it may be motivated by a desire to insulate the funder from uncomfortable facts, or other normative or political considerations.

Illustrative Example

In 2021, a leading global manufacturer in the industrial engineering sector hires a consulting firm to develop a series of future scenarios. The manufacturer wants to consider “disruptive” scenarios as well as a scenario of the most likely developments in the industry and its related sectors (the “base case”). The general objective is to help the company over the medium and long term (i) to become more aware of the larger economic environment and (ii) to prepare for the possibility of radical changes within it. The scenarios are also meant to provide a basis for a strategic yearly discussion between the company’s executive board and its clients.

In the short term, the project is intended to create a critical review of the company’s research and development priorities and the projected future customer behavior and requirements. Moreover, the scenarios will be used to identify gaps in the company’s service and technology portfolio. The overall goal of the project is to examine the company’s strategic orientation in view of possible changes in its larger economic environment and to identify implications for future decisions (regarding, say, new products and business models).

The consulting firm discusses the project objectives directly with the company’s CEO. It emerges that the project is to be attended by a reshaping of the corporate culture, with a special emphasis on risk awareness. Researchers conduct individual interviews with the senior management teams to assess the company’s current situation, its central challenges, and the most important players and other relevant factors in the sector. Due to the long investment and innovation cycles in the industry, the time horizon is set to 2045. The researchers clarify and document the complex project goals and the measures the company intends to carry out at an early stage.

After the desk research and expert interviews, researchers describe the key trends and drivers for the scenarios, discuss them with senior management, and then perform subsequent fine-tuning. They organize a workshop with the management to analyze the interrelationships between various trends and drivers. The consulting firm identifies the mutually exclusive possible future states of factors relevant to the scenarios, discusses them with the management, and consolidates them. The development of the scenarios is software-supported and results in four with a disruptive character and one as a base case. All scenarios are discussed with the senior management in terms of their short- and medium-term consequences and implications for action, especially regarding possible extensions of the value chain (products, services, forward and backward integration). The

review of the portfolio and, if necessary, its expansion are the main measures under consideration.

Neither the number nor the radical nature of the scenarios pose a problem for the company, as the focus was chosen at the instigation of its CEO. The scenarios and the key indicators for the early identification of changes in the larger economic environment lead to an intensified examination of the company's business environment and to investment decisions in new products and services. The careful definition of the research field and the thorough identification of important factors and actors make it easier to define options for action. The scenarios serve as a central instrument in strategic discussions with customers. Such discussions allow anticipated future developments to be considered in relation to potential action measures by the company and its customers.