

„The Time Dimension as Challenge for Think Tanks“

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Due to different factors the time dimension in modern societies is becoming more important than ever before. The necessity for decision-makers and citizens to understand that challenge and to find ways to deal with it is also becoming more important and acute. Examples for this basic challenge are the climate change and the recent financial crash.

Usually Think Tanks are working about today's specific problems, their causes and some of their effects. But only few Think Tanks seem to have the capacity and experience to utilize the knowledge and wide experience of future research. This presentation will describe some of the new challenges and discuss selected approaches for dealing with these challenges.

1. Time as Challenge: Why Future Studies?

Today there are many phenomena and indicators for the argument, that time plays a crucial role in many developments and activities. Take for example what experts list as being the "Core Problems of Global Change":

Within the Sphere of Nature these are:

- Climate change
- Loss of biodiversity
- Soil degradation
- Shortage of drinking water
- Pollution of the oceans
- Man-made natural disasters

Within the Anthroposphere these are:

- Population development and migration
- Endangered health
- Risks for nutrition security
- Increasing global development disparities
- Expansion of non-sustainable life-styles

(Source: German Scientific Council Global Environment, WBGU)

All of these core problems and challenges are signs of a certain development, of a certain trend in time they signify changes on the continuum past – present – future.

Just to mention one indicator: there are increasing costs related to natural catastrophes.

The leading insurance company Munich-Re wrote in their Assessment-Report „*Natural Catastrophes in 2006*“, that the damage for national economies was 200 billion US\$, whereas in 2004 it was 145 billion US\$. The amount of insured damages was 75 billion US\$, whereas in 2004 it was around 40 billion US\$. And more than 100.000 persons died [see www.munichre.com].

These amazingly high numbers show – just for one indicator – that we have the time dimension seriously, that means, that the future dimension is of utmost relevance for decision-makers and citizens today, even if they are not aware of this.

More than 600 years ago the great Arab social historian Ibn Khaldun defined „politics“ in his famous „*Al-Muqaddima*“ in the following way:

„It encompasses the management of the home and the community according to morale and wisdom, in order to induce the people to a behavior which guarantees the protection and preservation of the species.“ That means that he already had an almost modern understanding of politics and policies, that the protection of humankind was a central concern for him – meaning, that the long-term conditions for life should not only be respected by politics but also deliberately protected!

The seriousness and urgency of such a claim has been underlined by the latest work of Meadows/ Randers/ Meadows. In their book „*Limits to Growth. The 30-Year Update*“ (2004) they offer the main result of their new analysis: we are in the middle of a trend of „overshoot“ – we are already living beyond the limits of our natural and social systems (see slide of the ppt-presentation).

According to an outstanding historical study by the anthropologist and historian Jared Diamond for humankind there are two fundamental options: either uncontrollable collapses (as it has happened to several civilizations before) *or* a deliberate reduction of energy- and resource consumption and emissions - that is a transformation to Sustainable Development.

Taking the long-term perspective serious will bring us to the conclusion, that there are growing needs for Future Studies, since this is concerned with the "time-space" we will live in for the rest of our lives. Factors for the increasing relevance for Future Research are:

- Increasing complexities and dynamics of modern globalized societies
- Expansion of the effects of human activities in time and space (i.e. climate change, nuclear waste, space travel)
- Influence of competing advertisement and mass media images (consumption, materialism etc.) – diffusing negative effects and consequences (information overdose, conflicts)
- Many traditional strategies and policies (economic growth, neoliberal policies, central planning etc.) do not work any longer, new ways have to be detected and constructed
- The survival of civilisations is at stake (we only have one planet, it's the base for our lives and future generations)

2. Concept: What is Future Studies?

So what is Future Research all about?

A very concise definition is this:

"Futures Research is the scientific work on possible, probable and desirable future developments (Futures), their realization options, as well as their preconditions in the past and the present." (Rolf Kreibich, IZT Berlin)

Bases on a tradition of more than half a century now future researcher can articulate the following characteristics of their "object":

- There is not only one future, but potentially many ("Futures")
- Futures can not be completely prognosed
- Futures can be influenced and managed
- Futures studies have an explicit focus on action and implementation
- Intuition and creativity for proposing alternative futures
- Based on criteria for scientific quality

In very much the same direction argues the future researcher Anita Rubin: "Future is not

predictable. The only thing we can do is to build images and ideas on the events ahead of us – here we speak of many alternative futures. Future is not predestined. We can only consider the probability of events and things, when we think about the possibilities. We can affect the future with our actions and choices. Therefore it is important to know what is possible, what is probable, and what is preferable. The meaning of values and value discussions is thus unavoidable, when the alternative futures are considered."

Therefore I am sure that Think Tanks could use Future Studies for several reasons: for detecting possible and probable changes, for understanding their effects and impacts (opportunities and risks), and last not least for preparing for early action and desirable changes (instead of increased costs by waiting too long – i.e. Stern-Report on Climate Change).

3. How to do Futures Studies?

Due to the high relevance of future studies the work of researchers should meet adequate quality standards. One example of Criteria for Scientific Quality are those defined by the German Science Association (DFG):

- Logical consistency
- Control / test (Überprüfbarkeit)
- Terminological clearness / precision
- Simplicity
- Declaration of the scope
- Explication of the premise and the context conditions
- Transparency
- Relevance
- Practicality (Handhabbarkeit)

How much even quantitative research relies on the construction of (imperfect) model can be seen at a "Climate Model on Radiation" (*climateprediction.net*). *All the factors which seem to respond to sunlight and especially their mutual interaction make it almost impossible to have a model for understanding all the relations and their effects. These models try to come as close to reality as possible.*

Future research for a huge part has to consider human action. Therefore there are several differences to „hard“ sciences. The most basic one are the following. Future Research has to struggle with the same scientific problems as other social sciences (quantitative – qualitative, human beings and collectives as „chaotic“ elements and systems, non-linear change). And Future Research has to struggle with not yet existing systems and objects (society, city, community, institution, product etc.).

During the existence of future research activities there are several interesting tendencies in the field of methodologies used. They are attempts to overcome shortcomings and to advance to more realistic results and useful output. A first tendency is that from a dominance of quantitative methods to more qualitative and creative-communicative methods. A second tendency is instead of using single methods to use combinations and a mix of methods. A third tendency is that instead of conducting a kind of passive or reactive research to become more pro-active, that is through anticipating and creating options.

Some experts have counted almost 200 methods used by future researchers, most of them are derived from other sciences. Among the most widely utilized methods, techniques and procedures of future studies are the following:

1. Trend extrapolation
2. Analogy technique

3. Multi-variant regression
4. Cross-Impact-Technique
5. Model building and Simulation procedures
6. Expert interviews
7. Delphi-Method
8. Foresight-Process
9. Road-mapping
10. Mediation procedures
11. Future Workshop
12. Focus group
13. Future Conference
14. Visions / perspective workshop
15. Scenario - Methods
16. Wild Cards

As a widely used method we briefly can explain the scenario development method. It can be figured like a Future Scenario Funnel (see ppt). Out of a big range of future possibilities the researcher selects through a tailored combination of steps and integrating stakeholders and other experts a certain spectrum or area of future situations.

The Scenario Methodology has several functions and applications, which makes it so useful:

- Description of future views (possible, probable and desirable)
- Elaborating alternative futures: knowledge for orientation (weighting parameters)
- Spectrum: Best Case (ideal scenario) – Worst Case („Horror scenario“)
- The Management of complex problems, challenges and tasks
- Reduction of complexity, enhancement of transparency
- Identification and description of alternative development paths
- Clarifying decision points, options for managing and activities
- Illustration, communication, motivation for future action
- Actors: decision-makers, experts, scientists, stakeholders, citizens
- Supporting a long-term strategic thinking and acting
- The evaluation via indicators, effect assessments
- Consideration of intervening events, breaks in trends and structures
- Projective (forward) scenarios, retrospective (backward) scenarios

A very helpful approach in future studies and very often used nowadays is the method of "Wild Cards". These are unexpected events with a high impact and strong effects on societies and people. In a German book a colleague couple listed and described more than 100 such events. In the discussion about this method there is a distinction made between the fields where those wild cards can occur.

There are Economic Wild Cards like the crash of the global financial system or the sudden explosion of prices for oil or other strategic resources (i.e. rare metals). There are Wild Cards in the social field, among them would be something like a subsistence revolution (sustainable life styles), or it could be mass migration in a certain area, or it could be a terror attack and war. Another type are technological Wild Cards, like cheap technology for energy storage (due to a specific invention) or breakthroughs in gene technology for longer life (slowing process of aging). In the ecological field there could be Wild Cards like climate catastrophe (i.e. tipping of the Gulf stream in the North Atlantic) or regional water pollution through an accident.

Such wild cards are a very good complementary tool for scenario development, to make sure that the scenario is consistent in itself and that additional precautionary measures are considered.

4. Perspectives

After this short ride through the world of future studies we can conclude the following:
"We can not define the future, but we can produce and use scientific future knowledge in order to comprehend (possible, probable and desirable) futures, in order to act by means of participatory-democratic processes on minimizing risks/catastrophes and to produce the best future." (Rolf Kreibich)

Based on these insights and based on the examples and arguments given above I conclude that Think Tanks increasingly have to...

- detect possible and probable changes in their research objects
- understand their effects and impacts (opportunities and risks)
- prepare for early action and desirable changes (instead of increased costs by waiting too long – i.e. Stern-Report on Climate Change)

Therefore it makes very much sense for Think Tanks to strengthen their capacities for Future Research and use Future Studies expertise.