Vol. 7, no. 2 (Fall 2008)

From the Desk of Tim Mack, President, World Future Society

Instead of doing my usual update of events within the Society (which is doing well, even in these troubled times), I would like to share one of the many projects in which the WFS is invited to participate around the world. This particular one was done in partnership with the government of Singapore, which had created one of the most sophisticated risk assessment and horizon scanning (RAHS) systems in operation. Initially focused on defense issues, they are moving to expand its purview to include economic and social elements, and they wanted advice on the problems they might encounter.

Accordingly, the following is a summary of a presentation made in early October 2008 concerning the obstacles that a more complex scanning system might face. Horizon scanning is the practice of monitoring the operating environment, and tracking the changes in the environment that could have an impact on understanding and managing risk. Understanding change is thus pursued through the systematic examination of potential threats, opportunities, and likely future developments, including (but not restricted to) those at the margins of current thinking and planning.

There are three major categories of challenges to horizon scanning. The first is assessment of what levels of data may be consistently available to inform this process, including the quality and comprehensiveness of information resources. The second is analysis of the data chosen, in terms of its relevance and meaning. Finally are methodological dynamics and the potential problems with specific approaches to foresight.

- Data shape is the basic form of data relationships (often mathematical), for example, direct or inverse.
- Data thresholds are discontinuities in data relationships (e.g. catastrophe) where the rules change.
- Data interaction involves the relations between multiple factors that change their effects (sometimes mathematical, sometimes empirical observation) – such as loops. Loops include reinforcing (positive feedback loops), balancing loops (change-dampers – e.g., a thermostat) and causal loops (mixes of the two). The last is only predictive with small closed systems on short time lines with clear inputs. One way to think about tipping points involves the initiation of feedback loops.
- Data lag is the delay in response, which can be minutes to years (e.g. birth defects like genetic disease) and which complicate change analysis.

- Stale Data means that data often has a quick shelf life (while research updates are too expensive and don't get done).

However, when there is no budget, resources or staff for primary research, secondary sources are the next choice – and there are many factors affecting reliability of secondary sources, affecting both quantitative and qualitative data. These include

- The aforementioned expense of primary research;
- The all too common homogenization of multiple sources, even when incompatible;
- The lack of stated confidence intervals and research contexts by the initial researchers;
- The distortion of data by media (as there is always the psychological attraction of surprising or disturbing statistics), in terms of both data selection and repetition (transmission accuracy studies, e.g. the child's game of telephone, where the message is repeated from one player to the next until it becomes unrecognizable);
- The representativeness and validity of survey samples (including randomness and response psychology).

Survey response can differ over class, race, income, nationality, locality, gender – within the same country.

- People discount the future [assign immediacy] at different rates.
- It is often difficult to separate wheat from chaff in our information-rich environment.
- People confuse desirability and familiarity with probability
- Groups of experts tend to be inbred and develop a uniformity of vision – often little benchmarking.
- Some analysts may be intimidated or unresponsive and give answers that please.
- Straight line projection, no matter how complex, does not involve an understanding of the underlying process, but only observation of past behavior. Just historical analysis or comparison, NO WHY!

In light of this range of possible problems with horizon scanning, the best approach (beyond minimizing sources of error) is to avoid treating any scanning and risk assessment system as a source of absolute certainty. Instead, it should be designed and utilized as a tool for better understanding the general nature of change and how governments can prepare for it. One basic idea here is developing an organization mindset for change….quick response, flexible analysis and innovative questioning of assumptions rather than getting the projections right all the time. This means one should:

- Challenge present assumptions;
- Ask questions no one had thought to ask; and
- Build an iterative process to pull new information into decision-making processes.