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To: "Dr. Baruch Fischhoff - Chair, National Academy Committee on Improving Intelligence" <baruch@cmu.edu>, "Dr. Richard Atkinson - Chair - NRC/DBASSE" <rcatkinson@ucsd.edu>, "Dr. Kenneth Prewitt - Chair, Committee on Social Science Evidence for Use" <kp2058@columbia.edu>

From: Lloyd Etheredge <lloyd.etheredge@policyscience.net>

Subject: 158. High Rates of Unexpected Events? Reinventing Statistics: World Politics + Acceleration. Can the DNI be as Successful as a Hedge Fund Manager?

Dear Dr. Fischhoff and Colleagues:

How frequently does Fate deal America a new hand? If the answer of the National Academy of Sciences/Fischhoff Commission is "annually," and the probability of a particular hand is 2% per deal, then the intuitive statistician will think that it is rare and unlikely. But suppose that Fate deals a new hand every quarter? Every month? Every day?

Acceleration in a Complex, Adaptive Global System

I suggested earlier this decade, in developing research ideas in the work of the late Ithiel de Sola Pool, that political acceleration will be a predictable system-level effect of new communications technology. This meta-diagnosis implies, for example, that both the threats and the opportunities identified in the NIC's Global 2025 forecasts will be arriving more quickly than anticipated. That unexpected events will occur at a higher rate. And that the capacities of US foreign policy institutions to respond, to both the upside and the downside, need to be rethought and upgraded.

One Implication: Sampling Rates

One recommendation, technically, is that the rates of sampling should be increased, in each area, to match the curve (the increased rate) at which Fate is dealing a new hand. For example, The National Income Accounts created by Kuznets and his generation were for a steel plant/manufacturing economy/country where quarterly or annual data seemed reasonable for government statistical systems. And even three-year revision cycles (to achieve final estimates) were okay because national policy moved at a slower rate. Today, the senior executives at Wal-Mart recognize that they can achieve better and faster institutional performance if their internal statistics, with global data on sales by store and product, update every 24 hours.

A Strategic Implication of Improved Statistical Thinking

One strategic implication - to the advantage of American power and effective leadership - is the possibility of institutional capacity to capitalize on a higher rate of small, fortuitous opportunities. You can operate a hedge fund and become a billionaire by recognizing that the rate of small and rare opportunities can increase (+ can be made to increase!) steeply in a new world of global electronic, 24x7 trading. Bet \$1 million on every event that has an expected value > 0 , and organize a world of electronic trading and super-fast computers/computer algorithms that can do this 100,000 times/day.

Could General Clapper Be as Successful as a Hedge Fund Manager?

Could the DNI, and the Obama Administration (and America's leadership) become as effective as a Hedge Fund manager?

We're already conducting a *de facto* experiment in the Middle East peace process where America has moved from the occasional shuttle diplomacy of Henry Kissinger to real-time monitoring and full-time engagements by George Mitchell, by Tony Blair as the Quartet representative, and high level attention by President Obama and Secretary Clinton to identify and use everything, along several dimensions, that could move a process.

Applying Lessons: From Fresh Statistical Thinking to the Basketball Court . . . to the World's Future?

This statistics-derived point is in keeping with President Obama's abilities and instincts for thinking of successful political leadership via his love of playing fast-moving, multi-dimensional games of basketball: When everything is in motion, and moving quickly, you get more breaks and opportunities to score.

Thus: The National Academy of Sciences, at your conceptual level, might want to explore (urgently) the implications for how we think about the design of systems, institutions, and data systems across the full range of responsibilities within General Clapper's purview.

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