Dear Dr. Fischhoff and Colleagues:

There are serious problems of institutional memory in American national security policy. The problems are even more serious abroad. They hold back system-level learning. They need to be solved as part of the Director of National Intelligence $75 billion/year investments if we are to build a better future rapidly. A National Academy of Sciences chapter in your Report discussing this institutional memory problem from a social science perspective would be useful.

Institutional memory issues arose as part of my earlier scientific reviews of literature re government learning rates in foreign policy/national security. I do not know the work of all of the members of your current Study Group and what aspects of these data systems/analysis methods for institutional memory are under discussion. In this brief paper I want to bring to your attention four aspects of this unsolved problem: 1.) The system-level challenge of institutional memory; 2.) The creation of usable narrative and quantitative databases and analysis tools; 3.) A behavioral theory of repeated beginner-to-expert cycles in US return engagements; 4.) The challenge of providing a social science-based upgrade for all of the actors in the international system.

I. Institutional Memory: A System-level [National + International] Challenge

In principle, it is the job of universities [especially, for international relations, the www.apsia.org schools] to codify the lessons of society and transmit them to the next generation. However there are serious barriers to the capacity of American colleges and universities to play this role. And more serious barriers in other countries that limit upgrades to their own policy-making/decision-making processes.
For example: In the biomedical fields, faculty and research positions have expanded to keep pace with new research needs and opportunities. But the capacity of the US social sciences is tied to undergraduate enrollments. And capacity also is limited by NSF and other budgets and the NSF Political Science annual budget is $19 million/year - pathetic, and unlikely to change unless the DNI can help.

You might want to ask the DNI to consider all of the topics and challenges that face the US and what research/institutional memory projects he currently imagines are well-funded and underway to US universities? And/or at universities around the world, who are training their own next-generation of leaders and decision makers? He might be surprised by the weak long-term support that our own national capacity has via universities.

Here are two specific examples of how faulty institutional memory has gotten the US government into trouble:

A. Counter-Insurgency 1961 and 2001: "Reinventing the Wheel"
   The "surge" strategy eventually formulated by General/Dr. Petraeus in Iraq is, in several senses, an alarming example of failed institutional memory. Counter-insurgency strategy and training actually were a high priority in the US national security/defense world beginning in the first year of the Kennedy Administration. Kennedy thought that it was the new kind of warfare - usually, to be instigated by Communist revolutionaries - that the United States would face. He appointed General Maxwell Taylor to lead the redesign effort, ordered top-level attention to develop new US capabilities, and created the Green Berets (designing their uniform personally) as an elite cadre to build this capability. CIA and military personnel were deployed in Central and South America - e.g., against Castro and to stop incipient movements being organized by Che Guevara, to effect the death of Patrice Lumumba in the Congo, to stop a guerrilla insurgency in South Vietnam, etc. And as the Vietnam War grew larger, an extensive social science literature developed (via RAND and other consultants) to learn about tactics, draw upon earlier experience of the French in Algeria, of guerrilla Communism in Malaya and the Philippines, from Mao's successful tactics and handbooks, etc. <1>

B. Nation-Building in Africa and Elsewhere
   My memorandum on learning/Nation-Building (12/24/2009) [# 78 - a ref-
erence copy is online at www.policyscience.net] included an observation of failed US institutional memory by a Council on Foreign Relations study group (2005), In the Wake of War: Improving U.S. Post-Conflict Capabilities co-chaired by Samuel Berger and Brent Scowcroft. Their focus was the lack of learning/ institutional memory from the Vietnam period and - then - within six major nation-building projects, from Mogadishu to Mosul, from 1993 to 2005. They also were concerned with related problems in institutional memory and effectiveness in sixteen ongoing UN peacekeeping operations, with 67,000 peacekeepers, at the time of their Report:

"Early nation building efforts in Haiti, Somalia, and the Balkans began as though they were the first of their kind. By the mid-1990s, the U. S. government began to codify lessons learned and improve planning for subsequent operations. Unfortunately, the lessons of the 1990s were disregarded in the planning for Afghanistan and Iraq. The result has been inefficient operations, billions of dollars of wasted resources, and stymied ambitions."

I do not see any evidence that the US government/DNI system has solved this institutional problem. There is no mechanism to remember what the current generation learns.

II. Designing Usable Institutional Memories via Databases and Analysis Tools

A second aspect of the institutional memory problem is whether it is possible for the social sciences to design solutions via large databases and analysis tools and make the data/lessons of history available online? Here are two not-yet-successful examples of a.) single-narrative datasets and b.) single-narrative datasets merged with systematic quantitative coding.

A. The Pew Initiative. About two decades ago the Pew Charitable Trust was persuaded to underwrite a large, cumulative database with hundreds of case studies of international problems and negotiations. (There also is a database of case studies on ethics, developed via the Carnegie Council on Ethics and International Affairs.) Both databases for institutional memory and learning are currently administered through Georgetown University's Institute for the Study of Diplomacy and can be consulted online at: http://www.guisd.org/. The Center says that the cases are used
by thousands of students, 700+ faculty members, and over 175 schools.

At the time, the vision/model for knowledge cumulation and data analysis was Harvard Business School, which has a justly famous curriculum of cases developed with rigorous faculty attention to the selection and analysis of each case, and to the concepts, lessons, and generic management problems that the cases introduce into the cumulative graduate curriculum. The theory is that - like learning to play chess - US foreign policy can be considered as management skill and the professional practice of international relations can be divided into different types of game-board situations and databases showing different types of strategies and how different chess masters have played. By thus distilling history, undergraduate and graduate education for professional management/diplomacy in the US and abroad can - by this model - finally gain traction, learn more efficiently from history, and become more effective, here and abroad.

Even the more mundane cases might cumulate. For example (in the summary for one 17-page case, # 129, from 1988): "In April 1977 the United States asked South Korea and Taiwan to restrain their export of shoes to the U.S. market. This was the first time the United States used the formal Orderly Marketing Agreement to restrict the import of goods—other than textiles—from developing countries. This case demonstrates how weak states can successfully negotiate with strong states through the effective use of various tactics and bargaining strategies."

Here is a summary of another 14-page case (# 296) published in 2008: "After the 2001 international intervention to oust the radical Islamist Taliban regime and establish a new government in Afghanistan, Dr. Sima Samar and other female members were elected as members of a National Convention or Loya Jirga to discuss many issues, including the status of women in the newly, more democratic Afghanistan. Because women in Afghanistan have been traditionally denied political and civil rights, women members of the Loya Jirga pressed for the adoption of gender quotas in Afghanistan’s National Assembly to secure the participation of women in the country’s legislative branch. However, while some political analysts suggest that gender quotas can be expected to strengthen the consolidation of open and responsive democracies, given the traditional nature of its society, quotas in Afghanistan are also likely to provoke a violent backlash."

What is exciting - and painful - about this effort at comprehensive learning and institutional memory is that it became, in some sense, the best that we have.
I was invited to comment upon the design, in the early days (when I was Director of Graduate Studies for International Relations at Yale and Pew was giving money to Harvard for implementation by a coalition of APSIA schools.) I was enthusiastic about what the project could become - and also warned that it was likely to be deeply flawed in execution. It needed sustained, high-level scientific brainpower and rigorous and cumulative faculty commitment. The deepest flaw is that it creates only "one perspective/one take-away lesson" summary accounts - similar to reading a collection of newspaper articles - so that neither students nor social scientists can evaluate different theories - and it is mostly based only on the US participants' views that were more readily available to the US graduate students who were to be hired to do most of the research. And the cases were not studied with leading edge/theoretical questions in mind - Were there Jervis-style misperceptions?, or cultural misunderstandings in evolving US-Taiwan relations, or was the US outsmarted? And what are deeper historical lessons about how traditional societies give political rights to women? - or is it the sudden quota strategy that risked a violent backlash? etc. It would be impossible - as state-of-the-art social science - to know that students were reading the story correctly or were able to ask good questions about alternative diagnoses.

The cases that I saw were mostly standard newspaper journalism - factual but with a limited narrative power to bring the people, the cultures, and the circumstances to life - so the deeper possibilities of learning by identification, empathy, and imaginative rehearsal were thwarted. And there was not a strategy/plan for analytic coding - so you could not see the evolution of US-Russia or US-China or US-PLO bilateral relationships or the effectiveness of different negotiation strategies across cases. It was a big investment for a vision that probably was beyond the de facto capacity of the organizers. I'm not sure that it's the best teaching material, or the best history, or how many of the hundreds of cases actually are being used today.

As we look ahead, I think it might be helpful for the National Academy of Sciences to specify what a new generation of US government or Pew databases for professional institutional memory will look like. Even the Pentagon Papers, as an ideal, remain one-sided and only have the written record. At some point, for example, it might be useful actually to have video records of what it is like to sit in
negotiations with North Korean negotiators to discuss nuclear issues.

A second approach is via quantitative datasets and analysis tools that can be online for both academic researchers worldwide and the DNI directly:

**B. Designing Usable Institutional Memories: Quantitative Datasets**

You might want to review current quantitative datasets and how quickly and easily they can be accessed and used for institutional memory. What could be available online for analysis and rapid learning? One early example is the 85 post-WWII conflict cases with specialist-vetted narratives and coded for up to 571 factors in the CASCON system: [http://web.mit.edu/cascon/](http://web.mit.edu/cascon/) - however Lincoln Bloomfield, the co-creator, has retired and it is unclear what is fully current and available online for policymakers. The US Institute of Peace was supposed to provide institutional memory and knowledge cumulation for policy makers and they produce many books; however, I do not know if they have online databases and analysis systems. The President of USIP is a political scientist with an MIT doctorate (Richard Solomon) who was formerly head of social sciences at RAND, and a student of Bloomfield’s; he also served in policy positions in government: it might be worth asking his scientific advice.

A third aspect of the institutional memory problem is a theory of American policy error and relearning cycles - perpetually repeating cycles that are reset with each Administration/generation - due to the lack of institutional memory:

**III. Predicting Memory Failure: A Theory of Repeated Concept-Attainment Cycles**

It would be interesting to look at US government performance across several fields/return engagements to determine if there is a "beginner to expert arc" in each Administration’s/ generation’s encounter with a similar problems. And, also, whether there is an extraordinary, deeper, and slow, process of overcoming a baseline of cultural and ethnocentric bias, and in which America’s location on a larger curve still remains problematic for some areas of the world?

- As an exception to a broader pattern, I think a study would find that America has done much better in institutional memory, relationship building, and problem-solving in the Trilateral world of Western Europe and the moderniz-
ing/partly Westernized elites in Japan than elsewhere in the world, due to cultural similarities and the effective role of US universities that give prominence to Western European languages and culture in higher education. [Although the success with Japan may be due more to the Japanese abilities to understand, learn, remember, and work with American culture than the reverse.]

I think you also will find that there has been impressive, multi-decade, learning during the Cold War and in US-China relations. On the US side, much of the institutional memory and knowledge cumulation also resided as personal knowledge in the Council on Foreign Relations and other networks supported by key private foundations.

Parallel to the political realm, a very interesting test case would be economic development where academic (especially US) social science models have shaped international policies and (allegedly) have not yet made a good connection with reality: There are claims that $1 trillion + of World Bank and other development money has been wasted, or primarily diverted to the bank accounts of local UDC elites. And there have been many misleading sequences of "once we believed, now we know . . . now we see light at the end of the tunnel" claims for new generations of models and their "surges." It might be interesting to see if the concept-attainment sequences are similar; and, also, if the US ethnocentric/learning challenges similarly plague Japanese and Chinese economic development investments in UDCs.<2>

IV. A Social Science Upgrade for the International System?

"One of the lessons of the diplomatic and political history of Europe," a diplomatic historian once wrote, "is how little of it one would care to repeat." Whatever solutions you recommend for the US case, I hope you also will boldly recommend for the N-nation case. In the Obama Administration, in a multilateral spirit, the DNI may be able to help. The greatest benefits from institutional memory and cumulative learning would occur if all members of the international system have such resources, for governments and universities, about their own experiences and the experiences/perspectives of other nations.<3>

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The issue is not simply whether, forty years after the Kennedy Administration, there were books and papers in libraries that Dr. Petraeus and his teams could consult when "fear and awe" and early Iraq plans did not work. The issue is that institutional memory must *live* in institutions. People, in key positions, need to remember what was written so that the original plans for post-invasion occupation become well-informed. In recent years the US service academies have played a more important role than most academic universities. The Foreign Service Institute and in-house learning Centers in various intelligence agencies also might play a rapid-learning and institutional memory role - although we know almost nothing about the self-learning capacities of most intelligence agencies, here or abroad.

The Vietnam period used RAND and other classified research that was difficult for the academic social science world to evaluate. The classic 10:1 ratio for winning guerrilla wars has not been as searchingly and rigorously vetted in the public literature as (one hopes) it has been analyzed by the DNI and the Pentagon for the Afghanistan surge. The numbers also can be misleading without correction for different "tooth-to-tail" ratios in US and historical cases and more explicit discussions of the different dimensions of training native troops. The British Empire, for example, was planning to stay and built loyalty among its native troops.

*William Easterly, The Elusive Quest for Growth; The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good; Paul Collier's The Bottom Billion.* The comparative effectiveness of Chinese and some foreign investors may be a willingness to pay bribes to get things done, a practice also seen historically in the robber-barons/change agents in US history.

One interesting option might be to create an Office of Institutional Learning in the DNI's office, to include historians and social scientists who would be involved in both institutional research of the intelligence community and decision making. To the extent that we have influence in other countries, we might encourage them to develop similar organizations.

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