The Project on Foresight and Democracy:
A Systems Approach

Report to the Rockefeller Brothers Fund

Leon S. Fuerth

Sheila R. Ronis

February 2020

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Co-researchers' Statement

The comments that follow represent the views of the Co-researchers, Leon Fuerth and Sheila Ronis. Their views do not necessarily reflect substantive positions of the Rockefeller Brothers Fund, which funded this project or of Walsh College, which provided the auspices for this work. With respect to those who took part in the project as participants in its various panels and discussions, Chatham House rules applied. The co-researchers are responsible for characterizations in this report of the outcomes of meetings. These characterizations should not be imputed to the personal views of specific participants in those meetings.

Walsh College served as the record-keeper and overall administrative home of the Project. Walsh is a private, not-for-profit 501 (c)(3) institution of higher education offering courses and services at locations in Troy, Novi, Clinton Township, and Port Huron, Michigan and online. Walsh College is accredited by The Higher Learning Commission. Specific degree programs are accredited by the Accreditation Council for Business Schools and Programs (ACBSP). Dr. Ronis is a member of the faculty and has been teaching at the institution for more than a decade. In June 2018, Mr. Fuerth served as the Commencement Speaker receiving an Honorary Doctor of Laws Degree.

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Origins of this Effort

The seeds of this project were cast in the spring of 2015, when we began a series of informal conversations about the increasingly fractious state of political discourse in America, and its consequences.

Democratic practice was under-performing: it no longer seemed to have the ability to see and plan for the Big Picture; it suffered from chronic short-term-ism; it was unresponsive to the linkages between social progress, economic equity, and the requirements of national security – including the protection of the global commons upon which all else depends. Confidence in the efficacy and even the legitimacy of democratic practice – pragmatism about what works, and openness to compromise as a necessary and honorable part of the political process – was eroding. Public discourse had become an arena for competing, dogmatic systems of belief, and dismissive of facts and immune to reason.

The trajectory, in our opinion, pointed towards systems-failure: an inability to keep pace with emergent forms of societal disruptions: the unintended consequences of technology; the legacy societal divisions of the nation's "commons;" and chronic political deadlock caused by rigid ideological frameworks. Against this background, the growing diversity of American society, which had hitherto been a source of resilience and strength, now appeared to be a source of division and weakness. It was our impression, moreover, that the world – not just our own country – had entered a period of such rapid and profound change as to raise doubts that democracy, even in societies where it was deeply established, still possessed the vitality needed for 21st century conditions.

For many years, each of us had advocated — following our own particular approaches — changes in government systems to help America keep up with an accelerating rate of societal change. We had each written, taught, and advised about the need to bridge the disconnect between systems for long-range foresight and systems for planning and executing policy. We each enjoyed access to persons of influence in business and in government. Nevertheless, we had each seen our best efforts, and those of many other colleagues, run up against the tremendous inertia of "things-as-they-are." And so, we began to discuss collaborating in yet another effort to propound our ideas about the essential need for foresight as an intimate part of the policy process. The presidential election of 2016 added urgency, because its outcome seemed to us to represent an historical discontinuity: a major challenge to accepted assumptions about the future.

From previous work, we knew the Rockefeller Brother's Fund might be interested in the study of foresight, so we decided to develop a proposal for ways to apply foresight analysis as a means to help democracies withstand (and respond to) the forces released by massively disruptive forms of change. The Fund's response was encouraging, and by the summer of 2017, we were in discussions about a project we called: Foresight and Democracy. In the course of these discussions, we were encouraged to broaden our approach. In the course of these discussions, we were encouraged to think deeply about how this project would accomplish two of its stated goals: (1) to find a way to reach out to citizens in general with an emphasis on paths to concrete actions; and (2) to make sure that our approach reflects the reality that America is now a nation of minorities, held together by common values — albeit with differing perspectives as to how

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those values have been realized in the present, and as to how they may be affected by major changes coming our way from the future.

The Fund gave us a go-ahead in the summer of 2018, and since then we have focused on standing up a project consistent with these expanded goals. That effort is now complete, and this is our report.

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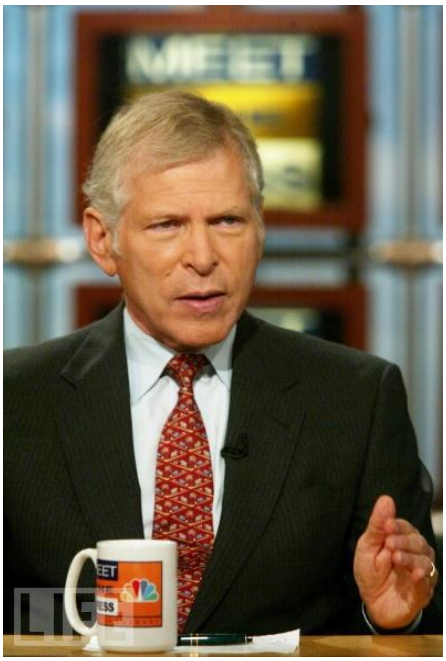
Co-researchers:
Leon S. Fuerth



Professor Leon Fuerth's career in government spanned thirty years, including positions in the State Department, House and Senate staff, and the White House. His most recent government service was as Vice President Gore's National Security Adviser for the eight years of the Clinton administration, where he served on the Principals' Committee of the National Security Council and the National Economic Council, alongside the Secretary of State, the Secretary of Defense, and the President's own National Security Advisor.

During his twelve years as a Foreign Service Officer with the State Department, Professor Fuerth served in the U.S. Consulate General in Zagreb, Yugoslavia; the office of the Counselor of the Department; the Bureau of Intelligence and Research; and in both the Bureau of Political Military Affairs and the Bureau of European Affairs in several capacities. He became a resource for strategic intelligence (chemical, biological, radiological and nuclear weapons); arms control; Soviet and Warsaw Pact affairs; and NATO.

On the Hill, Professor Fuerth worked for the late Congressman Les Aspin as staff director of the sub-committee on covert action, in the House Permanent Select Committee on Intelligence; for Al Gore during the last two years of his term as a member of the House; and for Gore during both his terms as a Senator. In the course of this twelve-year period, Professor Fuerth was the Select Committee's expert on arms control verification, in addition to operating as its primary staff resource for monitoring covert action; he was deeply involved in the development of arms control positions by Congressman Gore; and in the Senate, he served as Gore's staff link to both the Senate Armed Services Committee and the Senate Committee on Science and Technology (Space sub-committee). He was responsible to Senator Gore for all aspects of national security, including international trade.

In the White House, Professor Fuerth served as Vice President Gore's National Security Adviser for both of his terms in office. During this time, he operated – by Presidential order – as a full member of the Principals and Deputies Committees in both the National Security Council and the National Economic Council, where he participated in the formation of national policy as an advisor to both the Vice President and the President. He was the senior administration staff member responsible for the operation of bi-national commissions with Russia, Ukraine, Kazakhstan, Egypt, and South Africa, as well as the U.S.-China Environmental Forum, which he personally negotiated. For three years, he coordinated sanctions against Serbia on behalf of the U.S. government, at the request of the Principals Committee. Throughout the Clinton-Gore administration, Professor Fuerth also led efforts to develop the International Space Station with the Russians and other partners; to raise awareness and take action to prevent the spread of

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HIV/AIDS in Africa; to denuclearize former Soviet states by providing alternative energy sources for the replacement of certain nuclear reactors and by providing alternative employment opportunities for nuclear scientists in Russia; to win China's cooperation in protecting the environment and reducing pollution; and to spur foreign investment in Egypt, offering a positive example for other Arab nations involved in the Middle East peace process.

After retiring from government service at the conclusion of the Clinton Administration, Professor Fuerth came to The George Washington University to serve as the J.B. and Maurice C. Shapiro Professor of International Affairs from January 2001 to January 2003. He also then served simultaneously as a research professor at the Elliott School of International Affairs. In addition, from 2011-2013 he served as a Distinguished Research Fellow at the National Defense University. Lastly, he served as a Practitioner in Residence at the George Washington University's Institute for Global and International Studies from 2013 - 2016.

During this period, Professor Fuerth served as a member of the National Academy of Science Committee on Climate, Energy and National Security, and to The Alliance on Climate Change, and as a consultant to former Vice President Al Gore.

Leon Fuerth is the founder and director of the project on Forward Engagement®. The Project on Forward Engagement promotes the use of Anticipatory Governance to improve the federal policy process by incorporating: foresight as an actionable component of the policy process; networked systems to support whole-of-government responsiveness; and feedback systems to monitor performance and speed-up learning from results. The Project was funded by the MacArthur foundation, the National Defense University and the George Washington University. More information is available at www.forwardengagement.org.

Currently, Professor Fuerth serves as a co-researcher on a project on foresight and democracy funded by Rockefeller Brothers Fund.

Fuerth holds a bachelor's degree in English and a master's degree in history from New York University, as well as a master's degree in public administration from Harvard University.

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Sheila R. Ronis, Ph.D.

Dr. Sheila R. Ronis is President of The University Group, Inc., a management consulting firm and think tank specializing in strategic management, visioning, leadership, national security and public policy. She is also an Adjunct Professor of Management at Walsh College where she retired as Distinguished Professor of Management and Director of the Center for Complex and Strategic Decisions (CCSD). In addition, Dr. Ronis is an Associate with Argonne National Laboratory University of Chicago. She serves on the National Defense University Foundation Board of Directors as Chairman Emeritus and serves on the John Glenn College for Public Affairs Advisory Board at The Ohio State University.

Dr. Ronis is an active member of the Federal Foresight Community of Interest in Washington, D.C. Along with Professor Fuerth, she is Co-Director of the Project on Foresight and Democracy funded by the Rockefeller Brothers Fund. Her B.S. is in Physics, Mathematics and Education. Her M.A. and Ph.D. are from The Ohio State University in Large Complex Social System Behavior.

Dr. Ronis participates in the OECD Foresight Community in Paris and has published two United States Government foresight case studies for the OECD. Visionarios[1] have been developed and published with her colleague, Dr. Richard J. Chasdi for the U.S. Army. She has also developed visionarios for the National GeoSpatial Intelligence Agency, several academic conferences, *The International Journal of Intelligence, Security, and Public Affairs*, in Europe, the Government of Finland, The U.S. Government Accountability Office, Nanyang Technological University, Singapore, The International Management Institute, Nahalal, Israel, the Royal United Services Institute of Defense and Security Studies (RUSI) in London, UK.

Dr. Ronis served as guest speaker on the use of foresight methodologies to improve public policy on September 12, 2014 at The Royal Society in London, U.K. She traced the Center's work on the Project for National Security Reform. It included details on how the CCSD experimented with judgment and decision sciences for a conceptual set of capabilities for the Executive Office of the President of the United States. On 12 June 2013, Dr. Ronis was awarded the Chairman of the Joint Chiefs of Staff's Outstanding Public Service Award in a formal ceremony in Washington, D.C.

Dr. Ronis is the former chair of the Vision Working Group of the Project on National Security Reform (PNSR) in Washington, D.C., which was tasked by Congress to rewrite the National Security Act of 1947. As a Distinguished Fellow at PNSR, Dr. Ronis was responsible for the plan and processes to develop The Center for Strategic Analysis and Assessment; the place where the President of the United States will conduct "grand strategy" on behalf of the nation working with LTG Brent Scowcroft and Professor Leon Fuerth as Advisors. On 30 July, 2010,

[1] "A ***visionario*** is a scenario developed using a disciplined foresight process that marries the art of story telling and the science of complexity and systems." From Ronis, Sheila R., *Center for Complex and Strategic Decisions*, Walsh College, Troy, Michigan.

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she chaired a conference at the Center for Strategic and International Studies, CSIS, where she presented the findings of the PNSR Vision Working Group Report and Scenarios which she edited, that outlines why foresight capabilities are essential to the workings of the Executive Office of the President of the United States. She was awarded a Fulbright Specialist Scholarship and studied these issues in Singapore in August and October 2011.

On 24-25 August 2010, Dr. Ronis chaired the conference: "Economic Security: Neglected Dimension of National Security" at the National Defense University that explored a "grand strategy" for a healthy U.S. economy. A publication based on that conference, edited by Dr. Ronis was published December 2011. Dr. Ronis facilitated a workshop entitled Energy as Grand Strategy on 7-8 May 2012 at the National Defense University co-sponsored by the Department of Energy's Argonne National Laboratory and the Center for Technology and National Security Policy. On 8-9 November 2011, Dr. Ronis chaired a symposium at the National Defense University, Institute for National Strategic Studies, "Forging an American Grand Strategy: Securing a Path Through a Complex Future," in Washington, D.C. A publication based on that conference, edited by Dr. Ronis was published in 2013.

In her career of more than four decades, Dr. Ronis has worked with many organizations in the public and private sectors. Known as a complex systems security strategist, Dr. Ronis has authored hundreds of papers.

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Executive Summary

The Project on Foresight and Democracy was proposed to the Rockefeller Brothers Fund on 28 May 2018. On 13 July 2018, the Fund decided to support it with a grant, which it awarded to Leon Fuerth and Sheila Ronis, designated as Co-researchers. Their final report was submitted to the Fund on 12 February 2020. This is an executive summary of the main features of that report.

Premise

Hyper-partisanship is gravely undermining the norms and procedures that are essential for effective democratic governance. It will not be possible to counter these effects in the absence of a demand from the "grass roots" for a return to common sense and practicality. The desire for such a return exists, but the means to express it need to be developed. This can be done by encouraging the development of networked communications between self-initiated groups at the grass-roots level, comprised of citizens who are interested in fact-based approaches to present and on-coming issues, but who presently lack a common analytic framework for considering them.

Objectives

To demonstrate on a test-basis how such a group would function, using methods suitable for use on a larger scale.

Organization

The test model had four components: (1) the "Round Table," comprised of persons selected to represent the polity; (2) the "Standing Advisory Group", comprised of experts on systems analysis and foresight methodologies; (3) a briefers' panel, comprised of experts on an array of issues relating to technological and demographic trends; and (4) a communications team, consisting of rapporteurs and the Co-researchers, to record discussions and to distill them into themes for circulation to the Round Table participants.

Methodology:

- Series of three meetings of the Standing Advisory Group to decide upon an agenda for presentation of foresight concepts to the Round Table.
- Series of briefings to the Round Table on foresight concepts.
- Series of briefings to the Round Table on major drivers of change relating to technology and demography.
- Series of Round Table discussions to explore the views of members.

Preliminary Inputs for Round Table meetings

- Complexity (systems, non-linear behavior of systems, implications for policy, and multiple possible future consequences).
- Foresight methodologies (overview of basic types and exercise).
- Trends arising from technology (advanced artificial intelligence, synthetic biology, climate disruption, mass social surveillance).
- Trends arising from demographic change (transition of the United States from dominant white majority to majority of minorities).

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Key themes discussed by participants in Round Table

- The continuing impacts of white supremacy and male dominance.
- The gaps between the universal values expressed in the Declaration of Independence and the Bill of Rights, and the experiences of minorities within the population.
- Prospects and means for eliminating these gaps and reforms of the system needed for this purpose.
- The implications of technologically and demographically driven change for fundamental values from the perspective of the nation as a whole and from the perspective of minorities within that whole.
- Prospects for sustaining core values in the presence of very rapid, discontinuous forms of change.

Co-researchers Findings

- Round Table discussions evolved over time in the direction of expanded awareness of the difference between issues presented in isolation and issues understood as interactive within complex systems.
- Shifting balance of views from traditional faith in common values to growing skepticism as to the possibility of sustaining these values in the presence of forces from both the past and the future.
- Consensus that if democratic values are to be preserved and advanced, impediments to effective political representation (e.g., gerrymandering, obstacles to voting) must be eliminated as the only way to promote adaptation within a democratic system. "Democracy is not a location; it is a process."
- A view that the alternative to that kind of reform will be a continuation of the drift towards authoritarian forms of government.

Next steps

The Co-researchers believe that the next logical step is to expand the scope of their approach by encouraging the development of Round Table processes that are networked. This would constitute a second phase of activity, not within the scope of the test program agreed with the Rockefeller Brothers Fund, but consistent with its purposes and outcomes. A final meeting of the Round Table discussed possible ways forward, in cooperation with other sources of support. Co-researchers are developing a proposal for such a phase, and a plan for its implementation.

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The Narrative Report

Chapter 1: Progress Made: Organizing the Process

Setting Up the Working Parts of the Project

The Project on Foresight and Democracy was approved by the RBF on 13 July 2018. Once authorized to proceed, Co-researchers proceeded to stand up the project by establishing three functioning bodies:

1. The Round Table (RT) was comprised of six persons, selected because of their involvement with a broad range of societal issues. The RT was an effort to create, in miniature, a dynamic model of the Commons: a group which at one moment might reflect divisions corresponding to the concerns and goals of specific sectors of society, and, at another moment, on the needs of society as a whole.

2. The Standing Advisory Group (SAG) was comprised of seventeen foresight specialists. This group helped us develop a set of five major drivers of change, which we defined as having transformative, and very possibly, disruptive consequences for the social system — for which we used the term "Commons."[2]

3. A core team, comprised of the Co-researchers, our rapporteur, Brandon Schwartz, and a SAG volunteer, Margaret Cope, who took charge of operations. This unit produced verbatim records of SAG and RT meetings, and then processed these into thematic minutes (organized according to subjects discussed as opposed to chronological order). The thematic minutes were used as connecting links between meetings, and served in effect as a system for learning, not just for remembering. Thematic minutes and associated documents (invitations, thematic minutes, and presentations) are collected in Appendix 3: Invitations + Annotated Minutes + Presentations. A distilled version of these minutes appears below.
    - We wish to thank, especially, Margaret Cope, a member of the Standing Advisory Group who assisted us tremendously in helping to make the project run, including the critical problem of finding meeting space.
    - We also would wish to acknowledge the service of student rapporteurs, in particular Mr. Brandon Schwartz, who enabled us to capture with precision the output of dozens of hours of discussion.

2 We borrowed the term "commons" from the paper, "Tragedy of the Commons," published in *Science* by biologist Garrett Hardin in which, he defined the concept (as described in Wikipedia) as "a situation in a shared-resource system where individual users, acting independently according to their own self-interest, behave contrary to the common good of all users by depleting or spoiling the shared resource through their collective action." American democracy is, in our view, such a system --- the survival of which depends on awareness of collective interest in its preservation. One cannot take the existence of that awareness for granted. Clearly, there is reason for deep concern that various forms of societal stress are threatening that awareness.

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Round Table Participants: The "Virtual" Commons

Mieke Eoyang

As the Vice President for Third Way's National Security Program, Mieke Eoyang is committed to closing the credibility gap between Democrats and Republicans on security issues and crafting a national security strategy that is both tough and smart. She works on every major national security issue—from the details of military personnel policy to electronic surveillance laws—while still making time to mentor the next generation of women in national security. Mieke had a long career on Capitol Hill, most recently serving as Chief of Staff to Representative Anna Eshoo (D-CA). Prior to that, she was the Defense Policy Advisor to Senator Kennedy, the Subcommittee Staff Director on the House Permanent Select Committee on Intelligence, and a Professional Staff Member on the House Armed Services Committee. Mieke began her career as a legislative assistant in the office of Representative Pat Schroeder (D-CO), where she handled the congresswoman's armed services and foreign policy work. Mieke earned her J.D. at the University of California and graduated from Wellesley College.

Charlene Drew Jarvis

In her long and distinguished career, Charlene Drew Jarvis has held positions as a neuroscientist, legislator, and university president. Responding to the need to help rebuild the economy of Washington, D.C. after the riots that followed the death of Martin Luther King, Jr., Jarvis ran for public office and was elected six times to the Council of the District of Columbia (1979-2000). Her work as Chair of the Committee on Economic Development for more than 20 years was pioneering. Dr. Jarvis was appointed in 1996 as president of Southeastern University. Thirteen years later, in 2009, she orchestrated a unique merger of Southeastern University with the USDA Graduate School in Washington, D.C. She was named one of the most powerful women in Washington by "Washingtonian Magazine" in 1989, 1994, and 2007, and by "The Washington Business Journal" in 1985. She received a B.S. from Oberlin College, an M.S. from Howard University, and a Ph.D. in neuropsychology from the University of Maryland.

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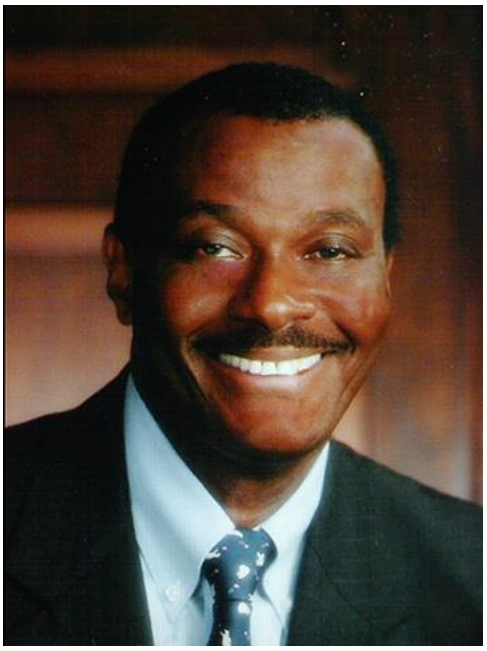
Charlotte Resing

Charlotte Resing is a Policy Analyst focusing on criminal justice for the American Civil Liberties Union (ACLU). Her work there focuses on criminal justice reform, including the overcriminalization of marijuana and drug law reform. Previously, she has worked on political campaigns and as a legal and legislative aid. Resing has a J.D. from the University of the District of Columbia and a B.A. from Tulane University.

Allen Sessoms



Allen Sessoms is the Managing Partner of Higher Education Innovation Group, LLP. Sessoms is a physicist, a former diplomat, and a seasoned education administrator. Sessoms served as the ninth president of Delaware State University prior to his appointment as president of the University of the District of Columbia in 2008. Sessoms began his career as a scientific associate at the European Organization of Nuclear Research (CERN). He joined the U.S. State Department as a senior technical advisor in the Bureau of Oceans and International Environmental and Scientific Affairs, subsequently serving there as Director of the Office of Nuclear Technology and Safeguards before becoming the Counselor for Scientific and Technological Affairs at the U.S. Embassy in France. Sessoms was then assigned to Mexico, where he served as its Deputy Chief of Mission (Deputy Ambassador). Following his government service, Sessoms became the Executive Vice President and Vice President for Academic Affairs at the University of Massachusetts. He left UMASS to accept an appointment as president of Queens College of the City University of New York. He later spent time at Harvard University as a visiting scholar, then as a fellow of the Belfer Center for Science and International Affairs, and as a lecturer in public policy. He was recently a senior vice president with The Hollins Group, an executive search firm, where he managed the higher education practice. Sessoms received a B.S. in physics from Union College, an M.S. in physics from the University of Washington, and both a Master of Philosophy (M.Phil.) and a Ph.D. from Yale University.

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Ian Solomon

Ian H. Solomon left the round table on September 1st to become Dean of Frank Batten School of Leadership and Public Policy at the University of Virginia. Solomon is a lifelong student of negotiation, conflict, and cooperation, having worked as a businessman, policymaker, diplomat, and educator, with 20 years of experience in more than 40 countries. Ian created SolomonGlobal to advance the art and science of working together to address our greatest challenges. Formally educated at Harvard College and Yale Law School, Ian's cross-sectoral experience includes consulting with McKinsey & Company, creating common ground on Capitol Hill, negotiating global agreements at the World Bank, and fostering innovation from senior positions at Yale and the University of Chicago. Ian is also a Lecturer at the University of Chicago Law School, a member of the Council on Foreign Relations, a Senior Fellow on Africa at the Chicago Council on Global Affairs, and a member of the Board of Visitors at National Defense University.

Larry O. Spencer

Larry O. Spencer is a retired 4-star United States Air Force General who served in many commands, comptroller, and other leadership roles during the course of his career. Some of his leadership roles included being the Vice Chief of Staff of the United States Air Force, Commander of the 75th Air Base Wing at Hill Air Force Base, Commander of the 72nd Support Group at Tinker Air Force Base, and the Commander of the 4th Comptroller Squadron at Seymour Johnson Air Force Base. He retired with more than 44 years of distinguished service to the United States. Today, he serves as the top executive at the Air Force Association, directing the association's staff, and holds the position of Publisher for *Air Force Magazine*. He received a B.S. in electrical engineering technology from Southern Illinois University, an M.S. in business management from Webster College, and an M.S. in resource strategy from the National Defense University. He is also the recipient of numerous awards from throughout his career of service, including the Defense Distinguished Service Medal, the Air Force Distinguished Service Medal, and the Legion of Merit.

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Standing Advisory Group (SAG): Foresight Experts

Hans Binnendijk

Dr. Hans Binnendijk is currently a Senior Fellow at the SAIS Center for Transatlantic Relations and at the RAND Corporation. He has held a variety of positions at the National Defense University, National Security Council, State Department, Office of Management and Budget, and Senate Foreign Relations Committee. He has published numerous articles and regularly speaks on issues related to U.S. national security. He received his M.A.L.D. and Ph.D. in international relations from the Fletcher School of Law and Diplomacy at Tufts University.

Elizabeth Boles

Elizabeth M. (Beth) Boles has been a professor of political science and law for more than 25 years, teaching at U.C. Berkeley, Sarah Lawrence College, Pomona College, Ohio State University, and currently with American University's Washington College of Law. She was the founding director of two innovative programs in experiential education for U.C. Berkeley and for the John Glenn School of Public Affairs. She has written and spoken widely about issues in civic education, international education, and comparative politics and foreign policy. She speaks frequently with visiting foreign delegations of senior scholars and government officials and serves as an enrichment lecturer examining the nexus among history, politics, and culture, most recently in Russia, Spain, Southern and East Africa. She is a Member of the Board of The Cultural Treasures Foundation, a non-profit organization dedicated to enhancing international understanding through art and culture, and preserving treasures in conflict zones. Dr. Boles earned her B.A. at Stanford University and her M.A. and Ph.D. at U.C. Berkeley.

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John Bordeaux

John Bordeaux is a Senior Management Scientist at the RAND Corporation. For nearly 20 years, Bordeaux has provided research and advisory services in strategy, knowledge management, information integration, and governance for federal and private sector interests. Primary areas of interest include strategic planning, organizational decision-making, teaming structures, and risk analysis/assessment. Prior to this, he was a Senior Program Analyst with the RAND Corporation, supporting defense policy analysis and wargaming events for the U.S. Department of Defense. John served in the U.S. Air Force as an Intelligence Analyst from 1982-1990. He has a Ph.D. in public policy and an M.S. in management information systems from George Mason University, as well as a B.S. in governmental administration from Christopher Newport University.

James Burke

James (Jim) Burke is the Foresight and Solutions Navigator at DeepDive Foresight. He acts as the Vice Chair at Ascent Virginia, Inc., a non-profit organization that focuses on facilitating economic development, job creation, and technological innovation in Virginia. Burke has a long history of working on futures and forecasting, technology assessment, innovation, and change management. His initial career was in the Air Force, followed by a long stint at TASC, Inc., a leading provider of enterprise systems engineering, mission-enabling architectures, and value-based solutions for the national security and public safety markets. Burke received an M.S. from Virginia Tech in science and technology studies and an M.P.A. from the University of N. Colorado.

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Margaret Cope

Margaret Cope, USAF Colonel (Ret) is an independent consultant. She has over 25 years of success as a leader and executive in the U.S. government, including 15 years of senior logistics management experience leading national strategic plans. Her specialties focus on national security, including gender gap issues, national service, and national security transformation, and she has a range of technical expertise, including international transportation, supply distribution, systems engineering, program management, policy development and implementation, industrial safety, public/private partnerships, quality control programs, and strategic vision. She received an M.A. in strategy and policy from the U.S. Naval War College and a B.A. in microbiology and M.S. in clinical laboratory science.

Carol Dumaine

Carol Dumaine has over 30 years of experience as a U.S. Intelligence Community analyst with an emphasis on strategic and emerging global security issues, including climate change. She created the "Global Futures Partnership" in the early 2000s as an early example of engaging with external, non-government expertise in efforts to improve strategic foresight on unclassified transnational security issues. From 2007 to 2010, she served as the Deputy Director for Energy and Environmental Security in the Office of Intelligence and Counterintelligence at the U.S. Department of Energy. She is a graduate of Georgetown University's School of Foreign Service and holds an M.A. in International Public Policy from Johns Hopkins University's SAIS.

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Banning Garrett

Banning Garrett is a Washington-based strategic thinker, writer, and entrepreneur who focuses on the impact of exponential technologies and their intersection with long-term global trends, urbanization, and geopolitics. Garrett is a consultant to the World Bank; Senior Fellow at the Global Federation of Competitiveness Councils; Senior Fellow for Global Urban Development; co-founder of the nano RFID company nR LLC; and an adviser to several Singularity technology startups. Garrett has also worked extensively on U.S.-China relations since the 1970s, working with the Atlantic Council, the Asia Society, and publishing several influential publications. Garrett received his B.A. in the history of social thought and institutions from Stanford University and his Ph.D. in politics from Brandeis University.

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Jerome C. Glenn is the Co-founder (1996) and CEO of the Millennium Project (on global futures research) and lead-author with Elizabeth Florescu and the Millennium Project Team of the **State of the Future 19.1** report, as well as 18 other **State of the Future** reports over the past 20 years. He was the Washington, D.C. representative for the United Nations University (UNU) as executive director of the American Council for the UNU from 1988 until 2007. He has over 40 years of futures research experience working for governments, international organizations, and private industry in science and technology policy, environmental security, economics, education, defense, space, futures research methodology, international telecommunications, and decision support systems. Glenn has a B.A. in philosophy from American University, an M.A. in teaching social science from Antioch Graduate School of Education (now Antioch University New England), and was a doctoral candidate in general futures research at the University of Massachusetts.

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Eric Popiel is a Strategic Foresight Analyst at the U.S. Office of Personnel Management (OPM). He is responsible for the long-term futures program that informs federal workforce policy for OPM. Popiel is also Co-Chair of the Federal Foresight Community of Interest, a forum based on the discipline and application of foresight. He holds a B.A. in civil engineering from the U.S. Coast Guard Academy and an M.A. in national security and strategic studies from the U.S. Naval War College.

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Trooper Sanders is the CEO of Benefits Data Trust, an organization that uses data, targeted outreach, policy change, and new technologies to connect people with benefits and services, ultimately with the aim of reducing poverty. Trooper has worked at the crossroads of policy, business, and philanthropy, both internationally and domestically. Lately, he has focused especially on frontier technologies, such as artificial intelligence, and the public interest. Trooper served on the White House staff, was a senior advisor to former U.S. President Bill Clinton, and managed initiatives for a variety of

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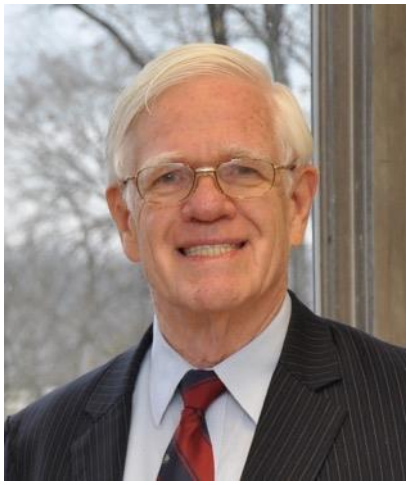
mission-driven organizations. Trooper has an L.L.M. from the University of London, an M.Sc. from the London School of Economics, and a B.A. from the University of Michigan.

Linton Wells II



Dr. Linton Wells II brings more than 20 years of civilian leadership experience in national security affairs. He is particularly familiar with cybersecurity issues, networked capabilities, and the uses of technology, media, and data in defense environments, having served as acting Assistant Secretary of Defense for Networks and Information Integration (ASD NII) and Department of Defense (DoD) Chief Information Officer (CIO). Other senior positions have been related to Command, Control, Communications and Intelligence (C31), and the interface between policy and technology. As Assistant Secretary (acting) and DoD CIO he oversaw the DoD's $30 billion budget for information technology and related areas and was responsible for enhancing the DoD's networked capabilities and support structures. He holds a B.S. in physics and oceanography from the United States Naval Academy, as well as an M.S. in engineering, and a Ph.D. in international relations from Johns Hopkins University. He is Executive Advisor to the C4I & Cyber Center and the Center for Resilient and Sustainable Communities (C-RASC) at George Mason University.

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Briefers:

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Mark Hugo Lopez is director of global migration and demography research at the Pew Research Center. He leads planning of the center's research agenda on international demographic trends, international migration, U.S. immigration trends, and the U.S. Latino community. He is an expert on immigration globally and in the United States, world demography, U.S. Hispanics, and Asian Americans. Prior to joining Pew Research Center, Lopez served as a research assistant professor at the University of Maryland's School of Public Policy and as research director of the Center for Information and Research on Civic Learning and Engagement (CIRCLE). Lopez received his Ph.D. in economics from Princeton University and has authored a number of reports about the Hispanic electorate, Hispanic identity, and immigration.

Carmen A. Medina

Carmen A. Medina is a former CIA Deputy Director of Intelligence with 32 years of experience in the Intelligence Community. She is a recognized expert on intelligence analysis, strategic thinking, diversity of thought, and innovation. She co-authored the book *Rebels At Work: A Handbook for Leading Change from Within*, as well as a landmark Deloitte University Press paper on Diversity's New Frontier "Diversity of Thought and the Future of the Workplace." She had a long career at the CIA, where she oversaw the CIA's Lessons Learned program and led the Agency's first efforts to address the challenges posed by social networks, digital ubiquity, and the emerging culture of collaboration. She received a M.A. in foreign service from Georgetown University and a B.A. in comparative government from the Catholic University of America.

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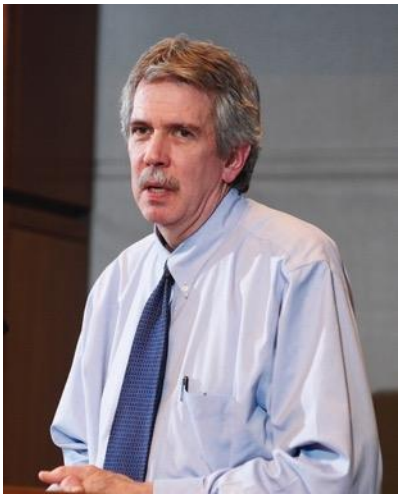
Dave Rejeski



Dave Rejeski is Director of the Technology, Innovation and the Environment Project at the Environmental Law Institute, where his research focuses on better understanding the environmental impacts and opportunities created through emerging technology and innovation, structural change, and new public roles for environmental protection. He previously worked as director of the Science, Technology and Innovation Program at the Woodrow Wilson Center and served in the White House Office of Science and Technology Policy, the Council on Environmental Quality, and the Environmental Protection Agency. He received a B.A. from the Rhode Island School of Design, an M.A. in environmental design from Yale, and an M.P.A. from Harvard University.

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In the course of establishing these panels, Co-researchers conducted nine direct meetings (See Appendix 3: Invitations + Annotated Minutes + Presentations) and extensively researched the literature on the dynamics of groups comprising what we called the national commons (See Appendix 2: Bibliography).

SAG and RT meetings were sequential. Each SAG meeting flowed into the next, and then the overall output of the SAG meetings flowed into the series of Round Table sessions. Thematic minutes established continuity. Flow charts beginning with Figure 1 illustrate the process.

Figure 1. The Overall Process

Standing Advisory Group (SAG): Foresight

Co-researchers used the SAG to: (a) identify a set of long-range developments deemed by experts to present the greatest potential for rapid, discontinuous societal change; and (b) to identify the most effective ways to present this information to members of the Round Table. There were, for these purposes, a series of three meetings of the SAG (See ***Figure 2. The SAG Process***, below).

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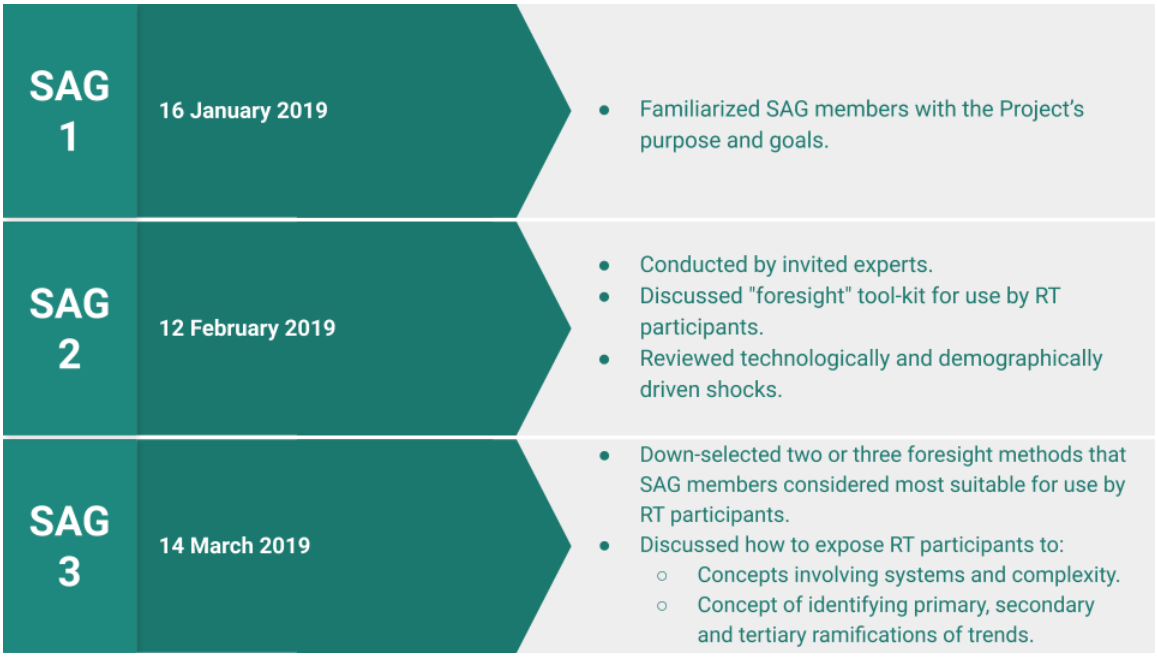
Figure 2. The SAG Process



Five developments were agreed by means of this process. They were:

- Advanced artificial intelligence (AAI). Artificial intelligence (AI) is in what may be thought of as its spoon-fed infancy, in the course of which it depends upon humans for programming and "education"; beyond that it will surge into a period of adolescent growth – characterized by its loss of dependence on humans for further development as it acquires the ability to teach itself, and reciprocally, humans will lose their ability to exert influence over subsequent developments. This stage is referred to as AAI.

- Synthetic biology. Synthetic biology has acquired a series of capabilities – e.g. notably, CRISPR gene editing – which, in combination with AI, promises to accelerate the ability of science to understand and manipulate complex biological processes. Beyond that is a stage of development when the only limit on what can be done to life forms – including human life — is imagination. The capacity will exist to make human beings stronger, smarter, healthier. The tendency will also exist for these improvements to be delivered primarily to the wealthy and the powerful, who alone will be able to afford them. Synthetic biology, in that case, will become an accelerant to the process of economic and social inequality.

- Extreme levels of climate change. Not long ago thought of as tomorrow's problem, climate change is manifesting itself globally at rates that exceed what were once high-end estimates. Damage to eco-systems is approaching levels at which these systems cannot be repaired, such that when and if they eventually reach their new equilibriums, the continuity of industrial civilization – and perhaps the continuity of human life – will be endangered. There may well be tipping points in these processes – and it is within the realm of the possible to consider extreme forms of social stress as triggers for human

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conflict, up to and including the use of weapons of mass destruction: noting that of seven acknowledged nuclear weapon states, three share strategically critical water resources originating in the Tibetan plateau (China, Pakistan and India.)

- "Pan-opticon." This is a term for virtually complete levels of surveillance and thought control which we adapted from an 18th century plan for prisons, according to which control could be achieved over prisoners who — because of the design of the prison — could be observed by a single security guard without the prisoners being able to know whether they were being watched at any given time. Accelerating advances in a collection of technologies (e.g. facial recognition, predictive behavioral analysis, etc.,) place panopticon within reach not only of wardens running prisons, but dictators running countries — with China in the lead.

- Demographic Transition. The United States is rapidly, and irrevocably, transitioning from a "white" numerical majority to a nation of minorities (including the white population as one of the minorities), with profound social, economic and political consequences in prospect.

As a set, these "drivers of change" share a common profile: each of them is already present, and developing rapidly; the present rate of development is close to linear, although on a steep rising slope; the prospect for each is that development will pass a transition point, after which the rate of development will accelerate, beyond which point standard measures of governance will lose their effectiveness; this transition point will occur within the next ten to twenty years.

The SAG meetings were also used by the Co-researchers to identify a set of basic concepts and methodologies that are central to foresight analysis. These were:

- Complexity theory applied to social development, including behavior of non-linear systems. Complexity theory is an outgrowth of theoretical physics which seeks to discover the rules of behavior for non-linear systems (i.e. systems in which changes of output are not proportional to changes in input). Fundamentally, such systems cannot be described by classical equations: they display discontinuities and randomness. The same concepts are well suited for a description of social systems in which humans are the prime movers. They are therefore a corrective for every deterministic theory of history.

- A systems analytic approach. Systems analysis is a powerful method for understanding complex systems in action. Democracy is a complex system (not just complicated, but complex), which requires an understanding of the whole as a unity, as opposed to the whole as a collection of pieces and parts. Complexity theory recognizes the existence of nested complex systems, perhaps best visualized on the model of Russian Matryoshka dolls in which successively smaller versions of the same doll are stacked one with the other. The image is not entirely accurate because such dolls are static, whereas "stacked" complex systems all interact with each other. Again, this approach, borrowed from physics, is a gift to the study of societal behavior which consists of multiple systems interacting with each other.

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- Examples of basic foresight methods. The popular conception of foresight is that it is quasi-mystical, meretriciously prescriptive, and a lot closer to fortune telling than truth-telling. It is in fact an array of techniques that are designed to facilitate exploratory thinking about alternative futures. See Appendix 1: Foresight Methods[3]

At a subsequent series of meetings of the Round Table, SAG members introduced RT participants to these concepts.

The Round Table (RT): "Simulating The Commons"

Early on in the formulation of our terms of reference, we needed a term of art to capture the sense of that part of our experience of life as Americans which emphasizes values we hold in common, defining us as a nation: values that must be understood as a complex whole; as an identity, and not just a collection of hyphenated pieces and parts, differentiated by race, ethnicity, gender, and history. For this purpose, we borrowed the word "commons", defined as "the cultural and natural resources accessible to all members of a society"[4]. In so doing, we also had in mind the term "tragedy of the commons"[5] — the destruction of these common assets as a result of a social free-for-all by stakeholders who consume the commons rather than conserve them.

The Round Table was intended to function as a "virtual commons," and to be a vehicle for testing the impact of foresight methods on the quality of public discourse: specifically, to see if foresight would counter-act strong tendencies to polarization around the needs, ambitions, fears, prejudices, etc. of specific sectors of the public, along fracture lines created by differences over race/ethnicity; gender; age; social status, etc. For this purpose, the co-researchers' original plan was to invite representation from organizations that are formally engaged in advocating the interests of specific sectors of the population.

This plan of action failed to attract interest on the part of such organizations and had to be abandoned after four months of effort. We suspect that the reasons were:

- Tightly defined organizational missions
- Crises generated by the emerging positions and programs of the Trump administration.
- A tendency to distinguish between the immediate present and the longer-term future, by treating them as separable.
- A belief in the adequacy of present organizational systems as a means to deal with longer-term issues.

Ultimately, the Co-researchers decided to try a work-around, involving approaches to persons who, by virtue of their personal experiences and accomplishments could be called upon to comment not so much on what divides the Commons, but on the interests of the Commons in finding ways to overcome divisive forces. In short, we looked for persons who would address what unites, and how to preserve it, notwithstanding their knowledge of what divides it. On this

[3] Fuerth, Leon S., *Anticipatory Governance: Practical Upgrades*, Project on Forward Engagement, Washington, D.C., pages 80-81.
[4] Definition/Explanation of "Commons" (See Footnotes 1 and 2 above).
[5] Definition/Explanation of "Commons" (See Footnotes 1 and 2 above).
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basis, it was possible to recruit participants for the Round Table and to work with them through a series of six Round Table meetings.

Core Team: (CT) Information Flow and Organization

The core team made sure that all participants were informed of the general objectives of the Project, its intended design, and of shifts made necessary in order to correct for new understandings of the subject at hand. (See Overview Flow Chart, above, ***Figure 1. The Overall Process***). All participants were notified in writing of each next session, with references to past and future meetings. Issues were identified in advance, subject to the views of the participants; power point charts were provided during discussions. Near-verbatim minutes were taken, names stripped in accordance with Chatham House procedures; a set of thematic minutes were distilled from these, and circulated for comment; and a final version of these, with marginal notes for comments submitted subsequent to meetings was circulated. (See ***Figure 3. The Round Table Process Showing Archiving***, below). This process assured that all members, including those who had to miss sessions, could be kept current – and that there would be a sense of continuity. The thematic minutes were a basic part of our process. The fact that we circulated these minutes and then allowed time for discussion of them at ensuing meetings is what allows us to assert that our descriptions of what emerged are accurate. After circulating the minutes and receiving feedback and comments from the participants, the Co-researchers are confident that they represent a check on the accuracy of our views.

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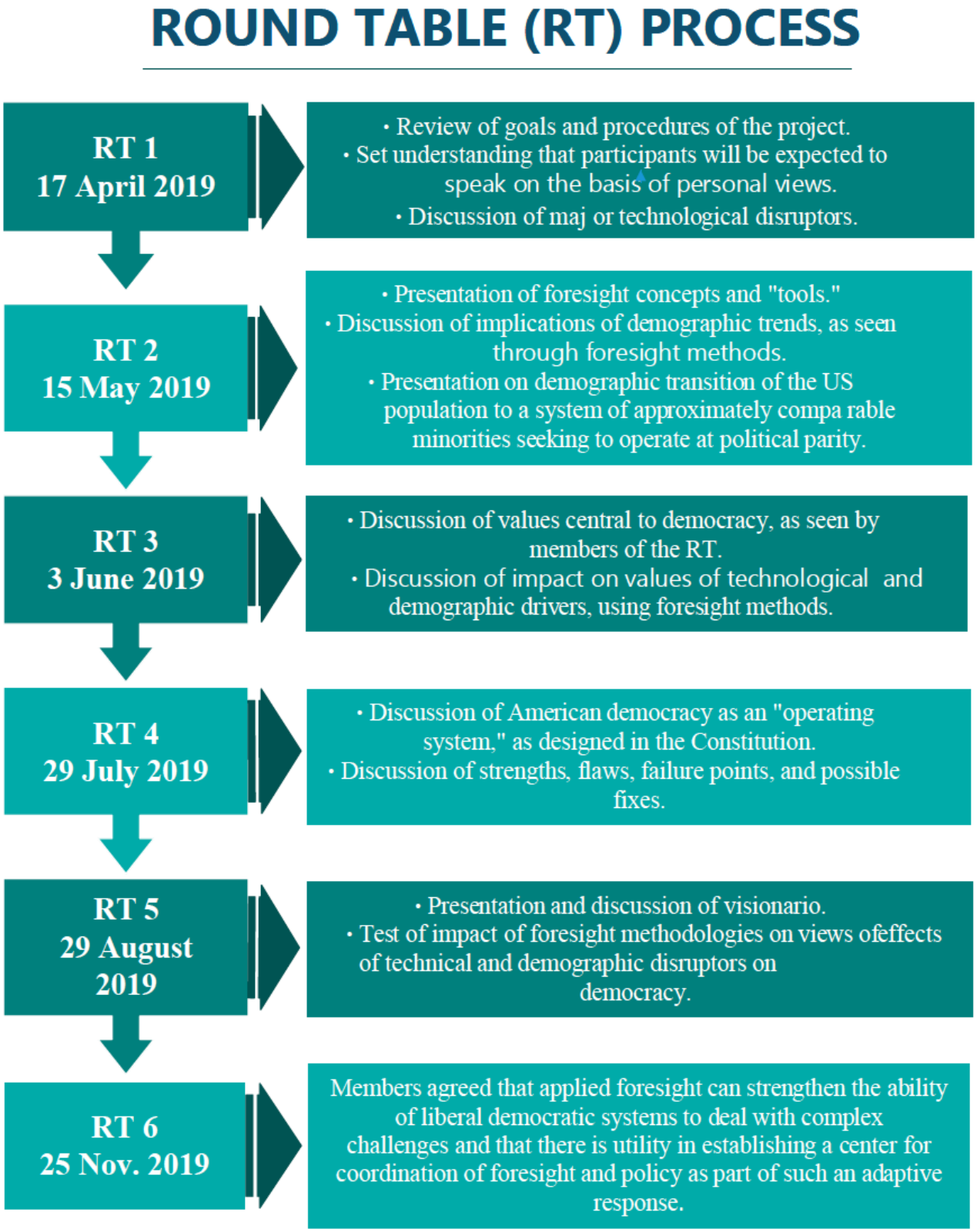
Figure 3. The Round Table Process Showing Archiving



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PROCESS BETWEEN ROUND TABLES

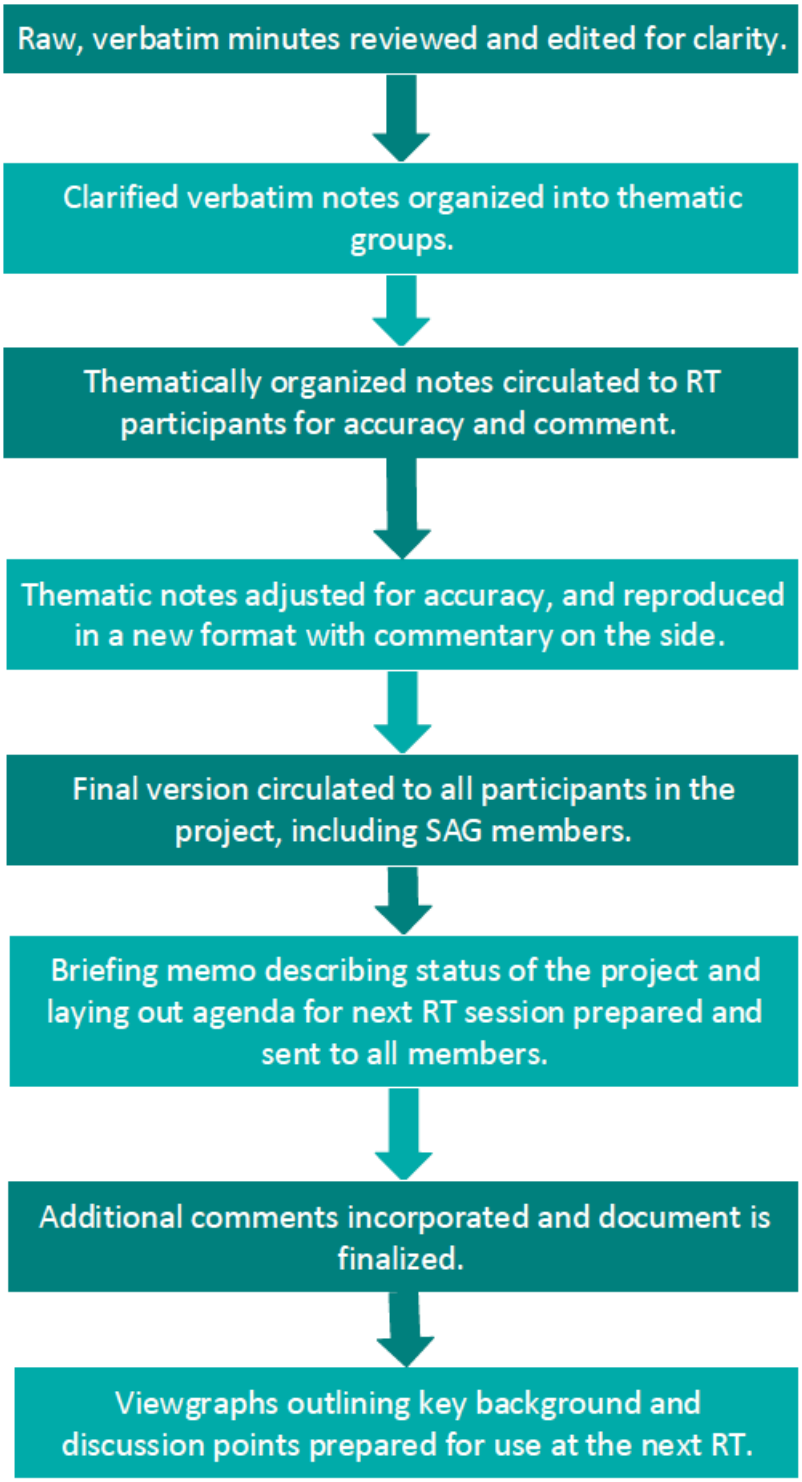

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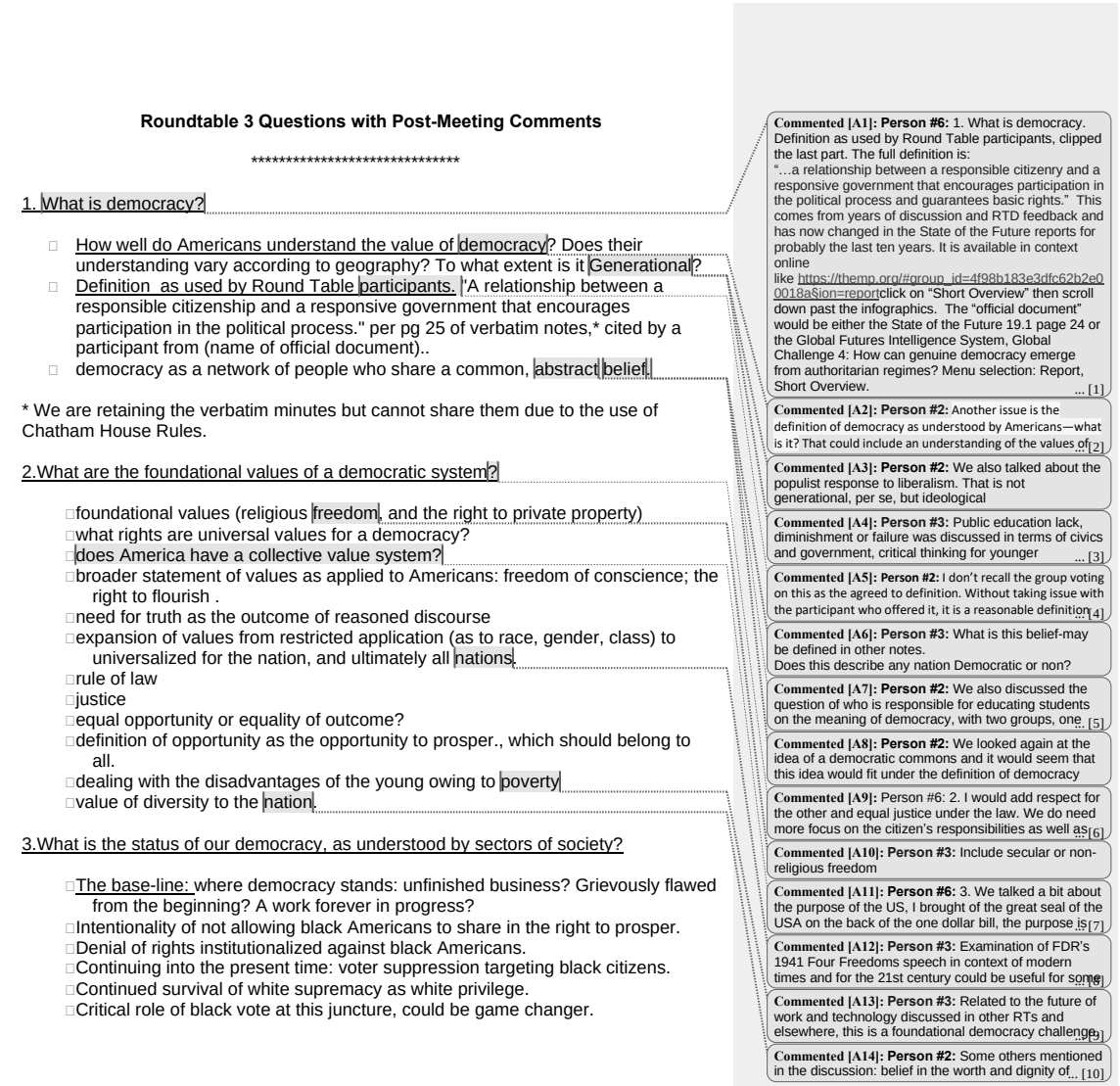
Figure 4. Example of Annotated Minutes From Appendix 3: Invitations + Annotated Minutes + Presentations



Roundtable 3 Questions with Post-Meeting Comments

****

1. What is democracy?

- How well do Americans understand the value of democracy? Does their understanding vary according to geography? To what extent is it Generational?
- Definition as used by Round Table participants. "A relationship between a responsible citizenship and a responsive government that encourages participation in the political process." per pg 25 of verbatim notes,* cited by a participant from (name of official document)..
- democracy as a network of people who share a common, abstract belief.

* We are retaining the verbatim minutes but cannot share them due to the use of Chatham House Rules.

2.What are the foundational values of a democratic system?

- foundational values (religious freedom, and the right to private property)
- what rights are universal values for a democracy?
- does America have a collective value system?
- broader statement of values as applied to Americans: freedom of conscience; the right to flourish .
- need for truth as the outcome of reasoned discourse
- expansion of values from restricted application (as to race, gender, class) to universalized for the nation, and ultimately all nations.
- rule of law
- justice
- equal opportunity or equality of outcome?
- definition of opportunity as the opportunity to prosper., which should belong to all.
- dealing with the disadvantages of the young owing to poverty
- value of diversity to the nation.

3.What is the status of our democracy, as understood by sectors of society?

- The base-line: where democracy stands: unfinished business? Grievously flawed from the beginning? A work forever in progress?
- Intentionality of not allowing black Americans to share in the right to prosper.
- Denial of rights institutionalized against black Americans.
- Continuing into the present time: voter suppression targeting black citizens.
- Continued survival of white supremacy as white privilege.
- Critical role of black vote at this juncture, could be game changer.

1

Commented [A1]: Person #6: 1. What is democracy. Definition as used by Round Table participants, clipped the last part. The full definition is: "…a relationship between a responsible citizenry and a responsive government that encourages participation in the political process and guarantees basic rights." This comes from years of discussion and RTD feedback and has now changed in the State of the Future reports for probably the last ten years. It is available in context online like https://themp.org/#group_id=4f98b183e3dfc62b2e00018a§ion=reportclick on "Short Overview" then scroll down past the infographics. The "official document" would be either the State of the Future 19.1 page 24 or the Global Futures Intelligence System, Global Challenge 4: How can genuine democracy emerge from authoritarian regimes? Menu selection: Report, Short Overview. ... [1]

Commented [A2]: Person #2: Another issue is the definition of democracy as understood by Americans—what is it? That could include an understanding of the values of ... [2]

Commented [A3]: Person #2: We also talked about the populist response to liberalism. That is not generational, per se, but ideological

Commented [A4]: Person #3: Public education lack, diminishment or failure was discussed in terms of civics and government, critical thinking for younger ... [3]

Commented [A5]: Person #2: I don't recall the group voting on this as the agreed to definition. Without taking issue with the participant who offered it, it is a reasonable definition ... [4]

Commented [A6]: Person #3: What is this belief-may be defined in other notes.
Does this describe any nation Democratic or non?

Commented [A7]: Person #2: We also discussed the question of who is responsible for educating students on the meaning of democracy, with two groups, one ... [5]

Commented [A8]: Person #2: We looked again at the idea of a democratic commons and it would seem that this idea would fit under the definition of democracy

Commented [A9]: Person #6: 2. I would add respect for the other and equal justice under the law. We do need more focus on the citizen's responsibilities as well as ... [6]

Commented [A10]: Person #3: Include secular or non-religious freedom

Commented [A11]: Person #6: 3. We talked a bit about the purpose of the US, I brought of the great seal of the USA on the back of the one dollar bill, the purpose is ... [7]

Commented [A12]: Person #3: Examination of FDR's 1941 Four Freedoms speech in context of modern times and for the 21st century could be useful for some ... [8]

Commented [A13]: Person #3: Related to the future of work and technology discussed in other RTs and elsewhere, this is a foundational democracy challenge ... [9]

Commented [A14]: Person #2: Some others mentioned in the discussion: belief in the worth and dignity of ... [10]

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Chapter 2: Output of Round Table Discussions

Our incoming concern was the embitterment and paralysis of public discourse in America, which in our view not only compromised the effectiveness of democracy as a means to deal with major issues in the present and near term, but also in the longer-term. Our premise was that foresight is a mode of thinking which — assuming it could be harnessed — would help sustain open-minded inquiry, and hence support a fundamental precondition for liberal democracy. Our process was designed as an experiment to test this proposition, and to determine if it might be scalable. The steps involved in this process were:

- Build a scale model of the American "commons," capturing its diversity. That was the Round Table (RT)
- Expose its members to foresight concepts we developed with the help of the SAG (Standing Advisory Group).
- Provide its members with expert briefings about a set of major, transformative forces: some arising as consequences of technological change; others as the consequences of demographic change.
- Conduct a series of RT meetings, designed to explore the impact of these advancing forces on the social commons, as members of the Round Table might perceive these impacts to be.
- Evaluate the output of these discussions in terms of the stated objectives.
- Think about applications of this approach, at scale.

Outcome of Discussions:

The definition of democracy, as proposed by a Round Table participant in Round Table 3 (19 June 2019), was: "A relationship between a responsible citizenry and a responsive government that encourages participation in the political process." **The foundational values of democracy** were identified as: religious freedom, and the right to private property. The latter component (right to private property,) was redefined by the group more broadly as the right to flourish. Other basic qualities were identified as: the need for truth as the outcome of reasoned discourse; expansion of values from restricted application as to race, gender, class to a universalization for the nation, and ultimately all nations; rule of law; justice; equal opportunity, further defined as the opportunity to prosper, which should belong to all. This linked to the disadvantages of the young owing to poverty, and the economic value of diversity to the nation.

There was a discussion of the status of democratic development as of the present time — an effort to define a baseline: Where does democracy stand? Is there unfinished business? Has it been grievously flawed from the beginning? Is democracy a work forever in-progress? The focal points of this discussion were: denial of the right to prosper, in the form of a system of economic and financial barriers institutionalized against black Americans, buttressed by voter suppression targeting black citizens and the continued survival of white supremacy as a foundational part of the system. With regard to politics, members of the Round Table underscored the politically critical role of the black vote at this juncture, as a likely game changer. They also noted a trend

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in which the politics of cynicism replace the politics of trust, which could permanently damage the system. Some, however, felt that we have "been there/done that" and survived, during the crises experienced in the course of previous epochs of turmoil in American history. Nevertheless, there was concern about the implications of the loss of public faith in the veracity of government, deemed to be especially noticeable during the current administration.

There followed a discussion about oncoming, transformational forces, arising from demographic shifts: the decline of whites and white privilege; the rise of black political power; the rise of Hispanics and cultural duality; the rise of women; the impact of radical acceleration of technologies that displace human labor, human management, human intelligence and human values.

As to the possible impact of these forces on democracy, key points were:

- Scope and velocity of change raises questions about whether democracy as we know it can keep pace. Can democratic systems be reinforced?
- Different cultural values in America as regards democracy, churning, etc.
- Democracy means churning, not stability
- Has democracy already failed because of inequality?
- World-wide populist uprising against the liberal political order.
- Authoritarians climbing to power by courting the under-served in their societies with shows of an insincere respect. To some extent, by promising to deliver what the establishment has failed to provide, e.g. free medical service for the poor.

Finally, there was a discussion about how foresight could influence the outcome of the interaction of these forces on the evolution of democracy: there is a need for predictive forms of defense of identity, and predictive analysis supported by AI. For example, issues raised include:

- What does it take to be a good citizen in a democracy?
- Ownership of personal digital data taken by corporations.
- Right to ownership of one's personal data.
- The need for positive memes about American democracy.
- Alternative forms of democracy?
- Are we selling democracy short....is it alive and well at the local level?
- Are we losing faith in the process beyond what the facts might indicate?

Round Table 4 analyzed democratic governance as a system comprised of a mission statement focused on permanent values (the Declaration of Independence), and an operating system (the Constitution) designed for the governance of an experimental polity — a republic of laws, deriving its legal and moral authority from the consent of the governed. There was discussion of the role of foresight in the maintenance of this system, particularly in light of oncoming disruptive trends originating in revolutionary technological/economic change, and in fundamental demographic transitions that are underway.

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American Democracy as Value System:

The Declaration of Independence was understood by Round Table members to encapsulate the value system of the United States: but as its drafters aspired it to be, rather than as it was at the time—or, for that matter, rather than it is even today. As such, the Declaration speaks ahead of its time (in fact, ahead of ours) to the universal rights of human beings, as birthrights rather than grants from authority. That assertion — framed in the Declaration in universalist language — did not distinguish between races, creeds, or classes of persons.

The Constitution, on the other hand, was a reflection of political and economic realities at the time of its drafting — most notably, the institution of human slavery as a condition precedent for the Republic. And yet, the Constitution was also seen, to use a modern term, as the operating system for a republic, with provisions intended to make the system self-correcting over time: either by way of a balancing of powers among its co-equal branches; or by way of processes capable of reflecting changing views in society regarding values, laws, and methods of regulation—permitting evolutionary change, but discouraging forms of change deemed to be clearly counter-constitutional, using the law and electoral processes as forces to be arrayed against corruption and abuse of power, which were clearly viewed by the Founders as inherent qualities of human nature.

The Round Table discussions ranged from what could be termed the inherited social challenges of our time (e.g. white supremacy, male privilege, economic inequality) to challenges of the future, and on to interactions between the two. Core values were seen to be currently at risk to trends and events foreseen by the Founders, based on their direct experience of life and affairs. The Constitutional system of balanced powers was seen by Round Table participants as having evolved into a system where powers are distributed on a gradient, ranging from absolutely distinct to shared/blurred. Some believed that this process has reached its possible limit, involving a direct philosophical clash between Originalists and advocates of "unitary" presidential power—resulting in a presidency which regards itself as essentially beyond the reach of the Congress and the Courts. Meanwhile, it was observed that public opinion is already extremely exposed to forms of manipulation that are depleting its confidence in the reality of fact as distinguished from falsehood, while its faith in the integrity of key institutions is being undermined.

Participants discussed challenges both to the values and to the system arising from events beyond the experience and the imaginations of the Founders. Included among these:

- artificial intelligence advanced to the point where it is displacing human judgment from the direction of basic societal functions;
- to synthetic biology, influencing human evolution by means of genetic modification, and beyond that to man-machine unions;
- to climate change, disruptive enough to threaten the continuity of civilization as we now know it; and
- to methods of social control involving the progressive effacement of individual moral and intellectual autonomy.

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Some members stressed the continued vitality of existing forces for rational adaptation, citing the constitutional "operating system" that makes it possible for societal change to be accommodated by elections, legislation, judicial actions, and regulatory processes. Others cited the ability of regions, states, cities, and local groups to devise and experiment with new models of democratic processes. Others counseled awareness of the tremendous adaptive power within the capitalist system. And most others stressed the potential of American youth to break down institutional resistance to change.

These discussions then turned to the possible utility of foresight as a means to reinforce the power of democratic governance to adapt to changes of such magnitude while retaining its essential values. All participants saw foresight as having the potential to preserve focused, open-minded discourse about these matters, and thereby to help sustain the existence of a national commons, even in the presence of both legacy and new oncoming forces of great divisive power.

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On the following pages there are short summaries of all three of the SAG Meetings and all six of the Round Table meetings.

Round Table discussions of these themes were very rich. Key points were:

- American Democracy as Value System
    - The value system for democracy in America is contained in the Declaration of Independence. The operating system for democratic governance in America is written in the Constitution.
    - The Declaration was written in universalist language, in terms meant to apply for all times to all nations. But the operating system of the nation — its Constitution — was written by and for the white population, with tiers of privilege based on economic standing.
    - The Civil War established the principle that the rights and protections of the Constitution are universal for all citizens (and that the former slaves were citizens), but the execution of this principle has been the subject of a continuous effort to reverse that outcome: resulting in a battle which is ongoing to the present moment.
    - Nevertheless, although the values presented in the Declaration are accepted to be universal for all American citizens: the issue remains the persistent gap between aspiration and realization.
    - Whether and how to close this gap is the object of a continuing battle, which has been conducted mostly through the formal political system, but with intervals when it has been fought at levels of violence up to and including the Civil War.
    - There is also a reading of the Declaration which leads to a peculiarly American conviction that American societal values extend to all peoples, as embodied in the Universal Declaration of Human Rights.
    - This, too, has been and remains the object of controversy about the conduct of American foreign policy, including its legitimacy as a basis for the use of coercive force against foreign governments.
    - The pursuit of American societal values remains and will always be, a work in progress.
    - A reading of the Declaration of Independence leads to a distilled list of general values (as distinguished from specific rights, such as are in the first ten amendments to the Constitution).
    - These values can be thought of as “ur-laws” of democratic society, from which specific rights are formed: they are the template by which laws are written, and in the light of which the justice of the system is gauged. For example:
        - The underlying unity of the human species.
        - The moral equality of all people.
        - Respect for differences among people, from the individual to the national.
        - Respect for human dignity.
        - Primary value of truth.
        - Truth is the outcome of search and debate.

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        - The temporary nature of political power
        - Constraints on the exercise of power.
        - Resistance to absolutism.

- American Democracy as Operating System

    - The entire operating system of democratic governance in America is derived from these values. To the extent that the actual operation of the system is destructive of these values, those who are responsible can be replaced. If replacing persons does not correct the discrepancy, the system can be modified. If modifying the system does not correct the discrepancy, abolishing it is — in principle — possible.
    - The Constitution of the United States is, in effect, the Operating System for a republic in the form of a federation.
    - The framers of the Constitution were students of both classical and contemporary history of their own times. They could not foretell the future, but they were able to isolate from their scholarship, and from the accumulated experience of British rule, a knowledge of the kinds of issues that would have to be dealt with by a Constitution.
    - These parameters were identified and exhaustively discussed in the Federalist Papers. There are eighty-five Federalist Papers. Each one addresses a specific design problem to be anticipated in the governance of the republic that the founders were consciously working to create — and then to enact with the support of a dubious and fractious group of newly independent and sovereign states — done, in a little under four months, in Philadelphia.
    - There was no precise antecedent for this endeavor, and every question they dealt with was revolutionary in its origins and consequences. Examples are:
        - Where is the sovereign power of this entity?
        - What is to prevent that power from disintegrating into chaos?
        - What is to prevent that power from escalating into tyranny, whether by a single individual or a mob?
        - How shall laws be made?
        - How shall they be enforced?
        - What prevents the federal entity from overpowering the states; the states from overpowering the localities, and the localities from becoming fiefdoms?
        - Who has the power to make war? Prevent it? Who has the power to make peace?
        - Who is to be chief executive, and in what way is that office to be kept from evolving from a temporary grant of power to a permanent reign?
- How did the Constitution build American societal values into the system of governance?
    - Constrains the powers of the Federal government viz. the powers of the states.
    - Within the Federal Government, the system of checks and balances.
    - The Office of the President,
    - An electoral system to translate the public will into law through selection of the President and members of the legislature.
    - The Bill of Rights.

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- The power of amendment of the Constitution.
- The power of Impeachment.
- The Right to Bear Arms.

Capsule summaries of these discussions are presented below. The full minutes of these discussions are to be found in Appendix 3: Invitations + Annotated Minutes + Presentations.

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Capsule Summaries

SAG Meetings 1-3 Summaries:

Standing Advisory Group: Meeting # 1 of 3
Date: 16 January 2019

The meeting considered a range of major drivers of change deemed capable of producing disruptive levels of social change. Note: the word "disruptive" is meant to connote abrupt as opposed to gradual change. The hyper-polarization of political discourse was identified as a threat to the adaptive capacity of the system as a whole. It was agreed that a need exists for a mode in which stakeholders across the political spectrum may more meaningfully engage with one another. The premise of the project was that utilizing foresight-based analysis (an objective systematic visualization and critical comparison of alternative courses of action) would help create a space for new ideas to survive in an otherwise ideologically polarized environment. The history of various efforts along this line was reviewed.

Past government-funded foresight projects undertaken within the executive branch, have not survived turnover from one presidential administration to the next. Efforts to bring systematic foresight into the legislative branch have repeatedly failed. Accordingly, the Project will attempt to create a foresight engagement model, which can be utilized by the general public.
This foresight model will be underpinned by a series of assumptions: that the general public sees the need to escape political gridlock; that foresight is a system of thought that can be made accessible to the general public, and that foresight is a discipline which, if properly practiced, requires people to leave their preconceptions at the door.

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Standing Advisory Group Meeting #2 of 3
Date: 12 February 2019

Members began a discussion on the nature of foresight methodology, discussing both the need for taking a scientific approach to democracy and governance, and the dangers involved in an excessively narrow use of such an approach. Project leadership summarized this dichotomy through the use of a quote by Carl Sagan:

> "…Democracy can also be subverted more thoroughly through the products of science than any pre-industrial demagogue ever dreamed. Finding the occasional straw of truth awash in a great ocean of confusion and bamboozle requires intelligence, vigilance, dedication and courage. But if we don't practice these tough habits of thought, we cannot hope to solve the truly serious problems that face us—and we risk becoming a nation of suckers, a world of suckers, up for grabs by the next charlatan who comes along."[6]

Members stressed that foresight is an approach for identifying long-range problems, not for crisis management. Foresight methodology is designed to be a tool of anticipatory governance, something that can be applied by policy-makers to help influence the longer-term future. In discussing the application of foresight analysis to policy, a central question was: "how long does it take to change course, and how can that lag time be accommodated in an anticipatory response?"

SAG members discussed examples of foresight methodology in action, including historical United States initiatives and policies that employed foresight as a tool. Certain instances were mentioned, such as the land grant system created after the American Civil War, the Louisiana Purchase, the Marshall Plan, the purchase of Alaska, and the Panama Canal Treaty. All of these instances displayed a great deal of foresight in decision-making; however, they were mostly the result of individual leadership, not an institutionalized system of governance. The purpose of the Project is to provide a foresight engagement model which can be utilized by the wider public and can survive the turnover of presidential administrations or dynamic political priorities.

[6] Sagan, Carl. *The Demon-Haunted World: Science as a Candle in the Dark*, Paw Prints, 2013. Pg. 41.

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Standing Advisory Group Meeting #3 of 3
Date: 14 March 2019

The meeting focused on technologies with a high potential for disruptive consequences.

(1) Artificial Intelligence. The Boeing 737 MAX. Suspicions (not yet proven as of the date of the meeting) that this aircraft's two crashes might be the result of a shift of executive control of the aircraft from its human pilots to a form of artificially intelligence control system. From this point about flight safety, the discussion moved to the general concern that as artificial intelligence continues to develop it can be used in ways that will increasingly displace humans from critical decision-making processes. Members called attention to the role of algorithms in machine performance: noting that at present algorithms are created by humans, and may therefore reflect unconscious biases. One of the members noted the increasing involvement of artificial intelligence in the criminal justice system, citing examples such as algorithmic policing, automation in pre trial administration, and risk-assessment systems in the process for considering paroles.

Artificial Intelligence and algorithmic learning seem to have been implemented rapidly in order to address severe efficiency problems and backlogs in the criminal justice system. However, as politicians and governmental organizations embrace these emerging technologies, human regulators are not keeping pace. As the velocity of innovation quickens, governmental institutions will either need to restructure to match the pace, or risk entirely losing the capacity to exercise oversight of emerging technologies.

(2) Climate Change: The US military already views climate change as a challenge to national security in the form of a "threat multiplier". The 2014 Quadrennial Defense Review was cited as an example: identifying climate change as a force that "will aggravate stressors abroad such as poverty, environmental degradation, political instability, and social tensions – conditions that can enable terrorist activity and other forms of violence".[7] This definition can also be extended to include the ways in which climate change exacerbates strategic tensions, such as the emergence of new maritime passageways as factors in a competition to exploit the Arctic for geopolitical and economic reasons. In discussing the need for application of foresight methodology in governance, members noted the discrepancy of perspectives between generations in their approaches to climate change. Younger generations tend not to see climate change as a distant problem or as a secondary priority, but as something they will be forced to confront in their lifetimes.

In the United States, this generational gap is now beginning to have an impact on national politics, but the political majority has yet to adopt the same sense of urgency that many younger millennials and members of Generation X exhibit. Members noted that, as a result of social media and other emerging technologies, the capacity for futures modeling and for implementation of foresight methodology as a factor in policy, has never been greater, though it has yet to be fully utilized by those in positions of power. This generational discrepancy is

[7] United States Department of Defense. Quadrennial Defense Review 2014, report, March 2014; Washington, D.C. 2014, Pg. 12.

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contributing to distrust in government: a trend that some members believe is likely to worsen without a major shakeup of the political system.

Discussion shifted to the (then) pending first meeting of the Round Table, focused on best practices to employ in order to familiarize RT members with basic foresight concepts. Members agreed on the importance of allowing room for the participants to voice their own thoughts and opinions, rather than setting up a "field day for futurists" by overly populating the RT session with SAG members. It was agreed that this interaction should be designed to encourage and equip participants to discuss issues related to foresight, learn from the discussions, and potentially, to change their perspectives on how to address future issues.

One member suggested that round-table discussions should be opened by asking participants "what are your thoughts about the future?" and then tracking the progression of their responses to that question over the course of the discussions. Members emphasized that SAG members will still play a vital role because although participants may be familiar with individual issues associated with ultra-rapid technological change, exposure to these issues in isolation from each other may not be enough to change ways of thinking. Any discussion of the future needs to be supported by giving the participants basic foresight tools and processes and assisting the participants to apply them. This manner of arranging the discussions will therefore require that futurists in the room should act as coaches, guiding the participants with advice on foresight methodology. SAG members agreed that the objective of the project is to provide foresight methodology to the RT participants as a means to bypass a shift to early polarization.

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Round Table Meeting Summaries

Round Table 1 Meeting #1 of 6
Date: 17 April 2019

The purpose of RT1 was to launch discussions of long-range societal implications of major oncoming trends, reflecting disruptive forms of technology, and other disruptive trends reflecting major oncoming changes in the demographics of the United States. Foresight methodologies were to be introduced to help structure discussions. The primary question to be addressed was whether our system of democratic governance has the capacity to sustain itself in the presence of multiple forms of profoundly disruptive change, under conditions where political discourse is polarized and responsiveness is blocked by stalemate.

RT1 began with the issue: what is the present condition of democratic governance, as a baseline for discussion? Round Table members immediately stressed very high levels of inequality among different components of the population existed. High levels of inequality were manifested in unequal access to education, health care, justice, political representation. Large sectors of the populace believe, correctly, that the dominant system works to disenfranchise them. Elected representatives are seen as primarily interested in office, rather than service. Corporations are seen as super-empowered individuals. Pessimism about the system depresses political engagement to the detriment of groups that should be highly involved in political activities both for the sake of their own interests, and related national concerns.

Three technology driven disruptors were identified: Artificial Intelligence, synthetic biology, climate change.

1. Algorithms, which are the souls of computers, are created by persons (although at a later stage of development AI may write its own algorithms). Machine learning and AI will incorporate and magnify the effects of biases (whether conscious or not) of the specialists who prepare the algorithms. The ability to detect and neutralize bias imbedded in algorithms is critical, but such capabilities are not in existence. Chinese experimentation with AI as a basis for social control on a mass basis is deeply troubling.

2. Synthetic biology, accelerated by CRISPR, can add a new dimension to the advantages of the 1% and their offspring. It is nearly impossible to develop enforceable guidelines to monitor the ethics and deal with the speed of change likely to come from AI, especially as AI capabilities and applications multiply geometrically.

3. Climate change will injure sectors of the population least able to adapt or escape. The younger generation is fatalistic. Many do not believe the human species will last through the next half century absent major change, which they see as very problematic.

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General observations: the rate of change begins as linear, but if one analyses the probable arc of development of each of the technological drivers, there will be a sharp acceleration over the next twenty years, and these trends will be highly interactive. Government will lag behind in coming to grips with all this. Meanwhile, corporations will move out fast to anticipate and manipulate social responses. More anticipatory forms of governance are possible, but unlikely because of our political system. An impulse from the grass roots might get us moving, but that impulse depends on leadership, not yet in evidence.

Some participants believed that the overall tone of the discussion was too pessimistic.

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Round Table Meeting #2 of 6
Date: 15 May 2019

The objectives of the meeting were:

1. Presentation of PEW Foundation analyses of demographic trends in the United States by Dr. Mark Lopez, presentation of foresight methods;
2. Discussion of foresight applied to major change drivers (technology and demographics related) led by Co-researchers.

Presentation on Demographics:

- The Immigration and Naturalization Act (INA) of 1965 was a watershed in U.S. demographics. It opened channels for much higher numbers of immigrants, with lower educational accomplishments and lower skill levels. Mexico was the largest source of immigrants for a generation. This has shifted to Asia, as the Mexican share declined. The U.S. population is aging, but less so than in other countries, due to the lower age of immigrants. The white working population is declining and is close to or just below 50%, with a continuing trend.

- Public Attitudes are split between those who value diversity, and those who deplore it. There is a souring of public attitudes about the future. The trend is most pronounced among whites.

- American youth are less patriotic than previous generations, viewing the United States as good but not best.

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Discussion of Foresight Methods:

A presentation was given of selected basic methods based on prior discussion of the Co-researchers with members of the Standing Advisory Group (SAG).

- **Demonstration of "Futures Wheel – Artificial Intelligence"** As applied to the subject of Artificial Intelligence, RT members pointed out the potential for new scientific discoveries and a new capacity for managing complex issues. However, profound concerns were expressed regarding the impact on democratic governance was called the "tyranny of the algorithm" as a concealed form of bias – specifically, white bias; damage to values; downward pressure on less well-trained; downward pressure on white collar workers; possible unforeseen changes to brain structure (epigenetics); rendering educational system obsolete; perfected forms of surveillance and social compulsion at the disposal of political and corporate power.

- **Demonstration of "Futures Wheel – Synthetic Biology"** As applied to the subject of synthetic biology, there will be new products with radically improved characteristics. However, there is also a high risk of the uncontrolled proliferation of genetic innovations with no effective standards of review and control. Great strides in health, longevity, and increased capabilities are coming. However, these are likely to flow towards the wealthiest states and individuals, including the offspring of the wealthiest. This will reinforce class divisions. "Natural evolution disruption" means you can have a negative, [such as] eroding the oceans, but you could also have a reversal and a prevention of extinctions.

  AI and its expansion of our knowledge of the biome suggests that no single technology is developing in isolation. You can see how AI affects synthetic biology. AI and synthetic biology are biased toward people who are highly-educated. We know about epigenetics, that it will change the next generation. Trauma changes the immune, hormonal, and other systems. If you're in a state of anxiety, there's more cortisol in your system and it will affect your brain. These changes get passed on genetically.

- **Demonstration of "Futures Wheel – Climate Change"** As applied to climate change, some benefits may accrue at early stages, largely flowing to the richest states and wealthiest individuals. However, even at early stages, and with mounting effect, major overall economic losses as a result of declining fertility and productivity in agriculture and aquaculture can occur. Major losses and costs associated with rising sea levels are also possible. At more advanced stages, uncontrollable migration levels; international tensions tilting odds towards warfare and possible triggers for nuclear weapons use by poorer states that have already acquired them. At extreme levels, eco-system collapse could occur.

- Civilizational disorder can occur, creating a need for dramatic anticipatory action increasingly clear to younger persons, who may succeed in stimulating a more vigorous response. But they will be working against entrenched interests.

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- **Demonstration of "Futures Wheel - Panopticon"** As applied to Panopticon (the perfection of surveillance and behavior modification techniques based on AI). There may be greater security, but at the expense of suppression of dissent and loss of freedom at every level. "1984" may be realized. Round Table Observations regarding foresight methods applied to change drivers: "We began to see that none of these disruptive technological trends will develop in isolation from the others." Artificial intelligence is the common denominator. All produce changes biased towards the most powerful and the wealthiest, who emerge as a super-class in the midst of a democratic order trending towards decline.

Round Table Observations of Implications for Governance:

There is a need to beef up expertise in government on foresight and knowledge of how to couple foresight to formulation of long-range policy and how to strengthen regulatory systems. There is also a need for legislators to be much more highly aware of and knowledgeable about disruptive trends, and how to upgrade civics education as well as a need to train young students to navigate the information system, to look for links to values.

Selected Quotes from Participants:

As we started to look at the four areas, we began to see the connection that none of these technologies will be developed in isolation from the other three. We are considering more complex relationships.

It can take a catastrophe before someone does something. We need to beef up the regulatory presence or capability. We need to beef up the government expertise. And it needs to be well funded.

Expecting a U.S. legislator to understand it is currently highly unlikely. You need educated legislators. Do you make them smart after they're elected or can the democratic process allow you to pick smart legislators?

There's a need for greater Federal agency-corporation relations.

The egregiousness of political decisions often allows people to take things into their own hands.

"There may be a way to emerge from this with an enhancement of democracy. For example, we've just now begun teaching children how to just barely navigate the financial system. We don't have anything to teach them how to navigate the information system; sure they know how to get into it, but they don't know how to discern what is and isn't the right information."

"Look at school children and climate change. This goes back to the question of how do we educate the public? If you wait for the decision-makers to start educating the public, then it won't happen. You want to get the public to start educating themselves by spontaneous methods. Don't underestimate children who say you screwed up and we're going to fix it."

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Round Table Meeting #3 of 6
Date: 19 June 2019

RT3 began with a discussion of values that can be considered as central to democracy. This was followed by a discussion covering the possible effects on these values by their intersections with the technological and demographic drivers that were discussed in earlier sessions.

The definition of democracy, as proposed by a Round Table participant was: "A relationship between a responsible citizenship and a responsive government that encourages participation in the political process." The foundational values of democracy were identified as: religious freedom, and the right to private property. The latter component (right to private property,) was redefined by the group more broadly as the right to flourish. Other basic qualities were identified as: the need for truth as the outcome of reasoned discourse; expansion of values from restricted application limited specifically to race, gender, or class, etc. to a universalization for the nation, and ultimately all nations; rule of law; justice; equal opportunity, further defined as the opportunity to prosper, which should belong to all. This linked to the disadvantages of the young owing to poverty, and the economic value of diversity to the nation.

There was a discussion of the status of democratic development as of the present time — an effort to define a base-line: Where does democracy stand? Is there unfinished business? Has it been grievously flawed from the beginning? Is democracy a work forever in progress? The focal points of this discussion were: impediments to the right to prosper, by way of a system of economic and financial barriers institutionalized against black Americans and other minorities, buttressed by voter suppression. With regard to politics, members of the Round Table underscored the politically critical role of the black vote at this juncture, as a likely game changer. They also noted a trend in which the politics of cynicism replace the politics of trust, which could permanently damage the system. Some, however, felt that we have "been there/done that" and survived, during the crises experienced in the course of previous epochs of turmoil in American history. Nevertheless, there was concern about the implications of the loss of public faith in the veracity of government, deemed to be especially noticeable during the current administration.

There followed a discussion about oncoming, transformational forces, including demographic shifts: The decline of whites and white privilege? Rise of black political power? Rise of Hispanics and cultural duality? Rise of women? Impact of radical acceleration of technologies that displace human labor, human management, human intelligence and human values, and which potentially endanger human existence. Synthetic biology can create new forms of inequality.

As to the possible impact of these forces on democracy, key points were:

- Scope and velocity of change raises questions about whether democracy as we know it can keep pace. Can democratic systems be reinforced?
- Different cultural values in America as regards democracy, churning, etc.

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- Democracy means churning, not stability
- Has democracy already failed because of inequality?
- World-wide populist uprising against the liberal political order.
- Authoritarians climb to power by courting the under-served in their societies with shows of respect. To some extent, they build credibility with these sectors by promising to deliver what the Establishment has failed to provide, e.g. free medical service for the poor.

Finally, there was a discussion about how foresight could influence the outcome of the interaction of these forces? There is a need for predictive forms of defense of identity, and predictive analysis supported by AI. For example, issues raised include:

- What does it take to be a good citizen in a democracy?
- Ownership of personal digital data taken by corporations.
- Right to ownership of one's personal data.
- The need for positive memes about American democracy.
  Alternative forms of democracy? Are we selling democracy short....is it alive and well at the local level? Are we losing faith in the process beyond what the facts might indicate?

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Round Table Meeting #4 of 6
Date: 30 July 2019

Round Table 4 analyzed democratic governance as a system comprised of a mission statement focused on permanent values (the Declaration of Independence), and an operating system (the Constitution) designed for the governance of an experimental form of government—a republic of laws, deriving its legal and moral authority from the consent of the governed. There was discussion of the role of foresight in the maintenance of this system, particularly in light of oncoming disruptive trends originating in revolutionary technological/economic change, and in fundamental demographic transitions that are underway.

American Democracy as Value System:

The Declaration of Independence was understood by Round Table members to embody the value system of the United States; but as its drafters aspired it to be, rather than as it was—or, for that matter, rather than it is even today. As such, the Declaration speaks ahead of its time (in fact, ahead of ours) to the universal rights of human beings, as birthrights rather than grants from authority. That assertion did not distinguish between races, creeds or classes of persons. The Constitution, on the other hand, is a snap-shot of political and economic realities—most notably, the institution of human slavery as one of the pillars of the Republic, and a condition precedent for its creation. The Constitution, on the other hand, was seen (in modern terms) as the operating system for a republic, with provisions intended to make the system self-correcting over time, either by way of a balancing of powers among its co-equal branches, or by way of processes capable of reflecting changing views in society regarding values, laws, and methods of regulation—permitting evolutionary change, but discouraging forms of change deemed to be clearly counter-constitutional, using the law and electoral process as forces to be arrayed against corruption and abuse of power, which were clearly viewed by the Founders as inherent qualities of human nature.

The Round Table discussion ranged from what could be termed the inherited social challenges of our time (e.g. white supremacy, male privilege, economic inequality) to challenges of the future, and on to interactions between the two. Core values were seen to be currently at risk to trends and events foreseen by the Founders, based on their direct experience of life and affairs. The Constitutional system of balanced powers has gradually evolved into a system where powers are distributed on a gradient, ranging from absolutely distinct to shared/blurred. That process has reached its possible limit, involving a direct philosophical clash between originalists and advocates of "unitary" presidential powers—resulting in a presidency which regards itself as essentially beyond the reach of the Congress and the Courts, to the extent that it cannot manipulate both through the appointments and electoral processes. Meanwhile, public opinion is already being manipulated in ways that are depleting its confidence in the reality of fact as distinguished from falsehood, while its faith in the integrity of key institutions is being undermined.

Participants discussed challenges both to the values and to the system arising from events beyond the experience and the imaginations of the Founders. Included among these: advanced artificial intelligence displacing human judgment from human affairs, expanding from

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administration to fundamental questions of ethics and justice; synthetic biology influencing human evolution towards deep genetic modification, and beyond that to man-machine unions; climate change disruptive enough to threaten the continuity of civilization as we know it; and to methods of social control involving the progressive effacement of individual moral and intellectual autonomy.

Some members stressed the continued vitality of existing forces for rational adaptation, citing the constitutional "operating system" that makes it possible for change to be accommodated by elections, legislation, judicial actions, and regulatory processes. Others cited the ability of regions, states, cities, and local groups to devise and experiment with new models of democratic processes. Others counseled awareness of the tremendous adaptive power within the capitalist system. And most others stressed the potential of American youth to break down institutional resistance to change. These discussions also dealt with the possible utility of foresight as a means to reinforce the power of democratic governance to adapt to changes of such magnitude while retaining its values and its essential essence as a form of political and social life. All participants saw foresight as having the potential to preserve focused, open-minded discourse about these matters, and thereby to help sustain the existence of a national commons, even in the presence of both legacy and oncoming forces of great divisive power.

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Round Table Meeting #5 of 6
Date: 29 August 2019

The RT5 was organized around a discussion of a "visionario." The term "visionario" was developed by Dr. Ronis. A visionario is an advanced form of scenario: designed to present higher-order complex systems that more closely resemble the experience of reality. The specific visionario used for RT5 was developed and presented to RT members by the Co-researchers. (The text of the visionario is located on page 237 of Appendix 3: Invitations + Annotated Minutes + Presentations).

Round Table participants found the visionario to be realistic, but some felt that it depicted a future in such a pessimistic light that it might discourage thinking about possible responses—thereby defeating its own purpose. Participants focused on three major challenges: (a) the populist revolt against liberal democracy; (b) technological shocks; and (c) demographic pivot points. There was a question whether liberal democracy has the capacity to resolve the kinds of issues postulated in the visionario: partly because of their sheer complexity, and partly because any credible plan of action would require tenacity over a longer period of time than our political system will provide.

A consequence of the polarization of our society is that we tear down rather than seek to perfect what has been accomplished. There was concern that because of this trend, and out of the deepening pessimism that it inspires, an outcome could be growing support for authoritarian rule—probably cloaked in the external appearances of democracy. On the other hand, some members thought that the visionario undervalued possibilities for achieving favorable outcomes within the framework of democratic governance. However, participants thought that such an outcome would require the kind of idealism and activism to be found only in younger persons, or possibly as the result of spontaneous, creative activity at regional, state, and local levels.

Participants were especially pessimistic about chances for a successful response to climate change. There was a general sense that the present administration has significantly damaged democracy and that, were there to be a second term, the damage would be irrevocable. Some participants felt that risk of a large-scale war was growing, looking at interconnections between climate change, regional water crises across international boundaries, cyber war, space warfare, etc.

On a more positive side, participants thought that emerging demographic factors will perhaps sooner rather than later bring to an end the political staying power of white supremacy and male dominance. However, it was noted that even if white supremacy and male dominance were to be driven out or fade away, other forces would remain, in particular the clash between conservative and liberal approaches to social policy. Some members thought it possible that the accelerating pace of science and technology would lead to favorable outcomes of seemingly disastrous trends. Possibilities for repairing and improving democratic governance were also discussed, including: reversing gerrymandering; removing impediments to voting; restoring constraints on political spending; reforming social media, etc. However, it was also noted that, at least currently, trends are heading the other way. Some reforms, moreover, would require amending the Constitution

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(e.g., in particular, either abolishing or changing the mandate for the electoral college). On perhaps a more pragmatic side, there was discussion of restoring respect at least for scientific fact, perhaps by restoring an apolitical congressional entity such as the Office of Technological Assessment (OTA), which was de-funded as a Republican initiative in 1995. Changes to budgetary processes that would enforce the integration of foresight analysis and policy (a requirement theoretically established by the Government Performance and Results Act or GPRA.)[8]

Co-researchers' Comments: The project Co-researchers consider this (the RT5) discussion to have been a threshold event: substantively coherent, displaying an ability to think across categories normally reserved for specialists, and for linking past developments to alternate future possibilities. They believe that the use of the visionario was effective in this regard, but noted that this required a preliminary investment of time needed to prepare a basis for structured learning, as opposed to an immediate dive into opinion.

[8] One of the provisions of GPRA is a requirement for a foresight process to be used in the formulation of policy (a legal requirement, but so far aspirational.)

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Round Table Meeting # 6 of 6
Date: 25 November 2019

RT6 was the last meeting in the process. It was designed to test the impact of the Project in terms of its effect on the tone and content of discourse among the Round Table participants. Co-researchers opened the session by recalling the apparent lack of response of public advocacy groups to the need for longer-range thinking. Round Table participants noted that they have met with similar problems within their organizations, and some believed that it was a matter of limited resources. Others returned to the theme—taken up in earlier meetings—of youth and its impatience with the gradualism.

Climate change was a special case in point: there was an observation to the effect that younger persons have fatalistically accepted that very disruptive levels of climate change are already "baked" into the future, as the result of the failure of the elders to act upon foreknowledge. That, in turn, was linked to the question of whether liberal democracy has the capacity to deal with major, complex, disruptive forms of change. And this in turn opened into a discussion of whether a challenge such as out-of-control climate change would lead to acceptance of a political authority capable of imposing solutions/responses not only on a national, but a global level.

At this juncture, the question arose — "Is there a way to improve the responsiveness of a democratic system?" which triggered a discussion of manifold ways in which the system has historically been run by and for a privileged racial group, which has been able to protect its advantages by blocking full use of the franchise and by diluting its meaning even when it can be exercised.

Some participants then took up the question of whether advanced artificial intelligence would either seal off access to improved forms of democratic governance, or facilitate it. This, in turn, led to a direct discussion of whether foresight can work to strengthen democratic practice. There was, in fact, strong agreement among the Round Table members that "foresight is a mechanism for the improvement of democracy." It is fair to say that some Round Table members had already expressed themselves at disheartening levels of pessimism, so that expressions of optimism about the utility of foresight were noteworthy. The conversation then turned to modalities by which foresight could be systematically coupled to public-policy making and to the execution of such policies.

Scalability. The principle of "nested systems" — drawn from classical complexity theory — holds that there can be systems that may seem to be unrelated, but which in fact are linked and display the system characteristics of complexity. Applied to governance, this suggests that systems operating at regional, national, and even global levels are fully understandable only as elements of an overarching complex system. We believe that this idea provides an essential clue to the kind of thinking that is needed and to the kinds of operations required in order to influence complex systems. According to this principle, complex systems—like the figurines in the Matrioshka doll — can be scaled up or down without fundamentally destroying the system design. This suggested that concepts for applying foresight to governance at the corporate or the

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national level could be scaled up to the global level or down to the level of localities and even small groups of interested citizens. At all levels, the integration of foresight and the making and execution of policy would potentially be an important means for restoring a sense of mutual openness to persuasion on the strength of factual analysis, thereby reinforcing democratic practice.

Commonality. The Co-researchers then presented a principle of their own devising: namely, that any form of governance capable of managing complex systems will be comprised of four sequentially linked functions; Intelligence, Learning, Paradigm Shifting and Application. In the process of developing these concepts, the Co-researchers realized how similar their respective foresight efforts over decades were similar and related. ***Figure 5. Unified Field***, below, describes how these two approaches really represented a "Unified Field" concept. Charts representing two such systems were examined. The first of these was a chart capturing Dr. Ronis' study of the Toyota Corporation, aimed at identifying what it was about their system that accounted for its persistent excellence over time (***Figure 6. Toyota Chart***, below).[9] The second chart applied this analysis to Leon Fuerth's concept of "Anticipatory Governance" (***Figure 7. Anticipatory Governance***, below). A more complete record of this portion of the discussion is contained in the thematic minutes in Appendix 3: Invitations + Annotated Minutes + Presentations.

[9] Ronis, Sheila R., *Timelines into the Future: Strategic Visioning Methods for Government, Business and Other Organizations*, University Press of America, Lanham, 2006, page 151.

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Figure 5. Unified Field

Learning Process Cycle	Anticipatory Governance
Intelligence - information about the future	Foresight - information about the future
Policy Formation - nexus between policy makers and the foresight -"machers"	Policy Formation – nexus between policy makers and the foresight -"machers"
Application - whole of system	Execution - whole of system
Corporate Learning – distilled, applied experience	Feedback – distilled, applied experience

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Figure 6. Toyota Chart

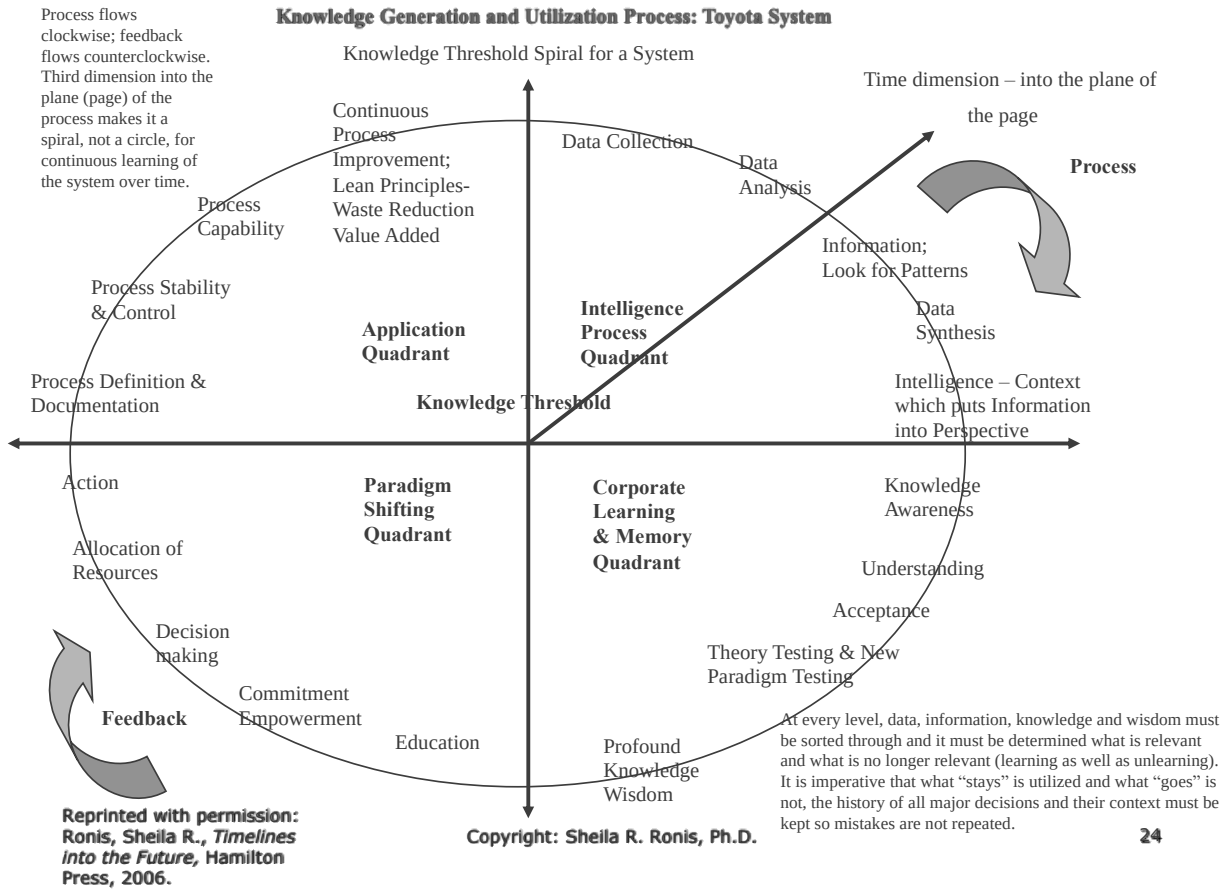
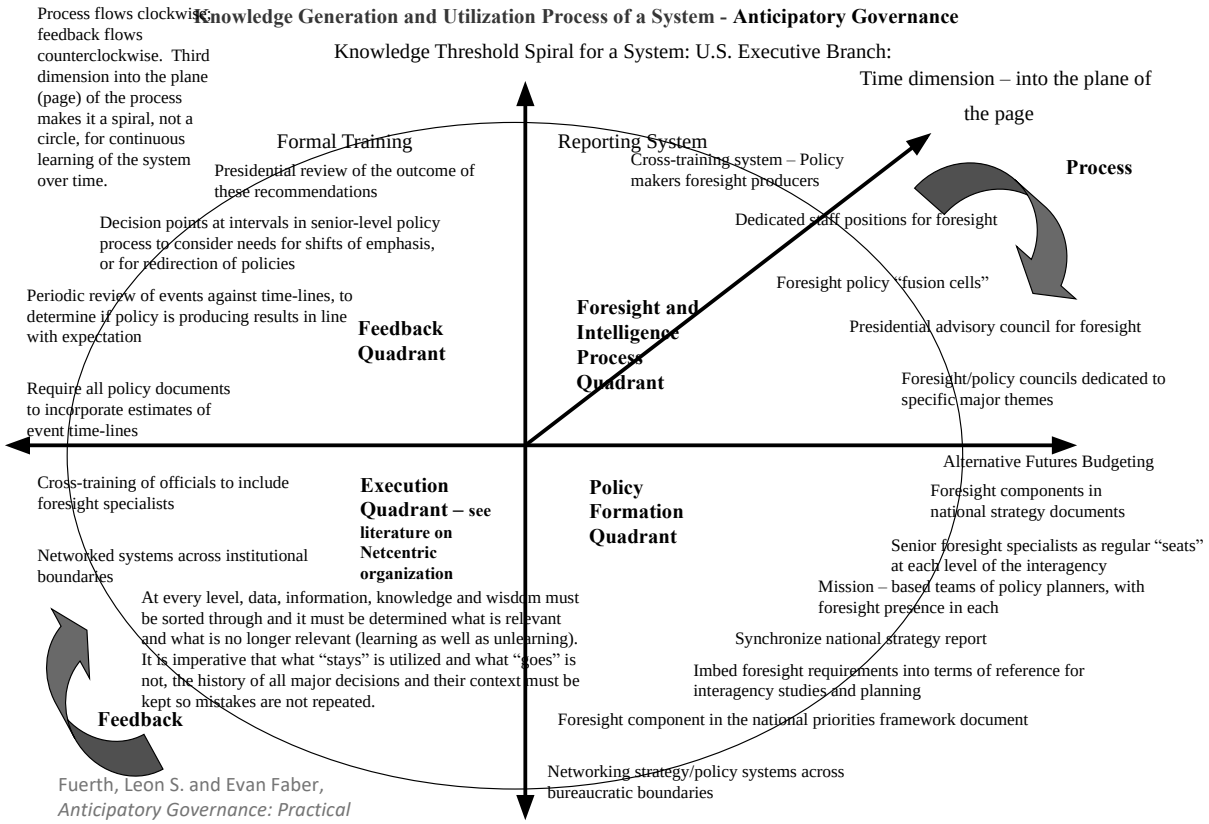


Figure 7. Anticipatory Governance



Fuerth, Leon S. and Evan Faber, *Anticipatory Governance: Practical Upgrades,* Project on Forward Engagement, 2012, pps 20-54.

Both of these diagrams represent systems that are designed to generate knowledge, learn from it, and use it as a means to formulate policy, execute that policy, monitor the consequences, and adapt future behavior in light of that information. One of them applies to a real corporation, the other applies in principle to the executive branch of the United States Government. It is possible to scale such an approach to the level of systems required for the management of issues of global scope.[10]

The same approach could be scaled to issues of local or global concern. In either case, we believe that this kind of fusion of knowledge and application requires a specific methodology and that, in turn, suggests the need for a center – a locus, where all relevant factors could be brought into the same plane of vision as suggested by our Venn diagram logo (**Figure 8. Venn Diagram**). The idea of a center was raised by the Co-researchers who demonstrated its possible application.

[10] Fuerth, Leon S., "Planetary Security and Anticipatory Governance: Climate Change and Other APEC Challenges, Clingendael Policy Brief, *Planetary Security Initiative* October, 2017.

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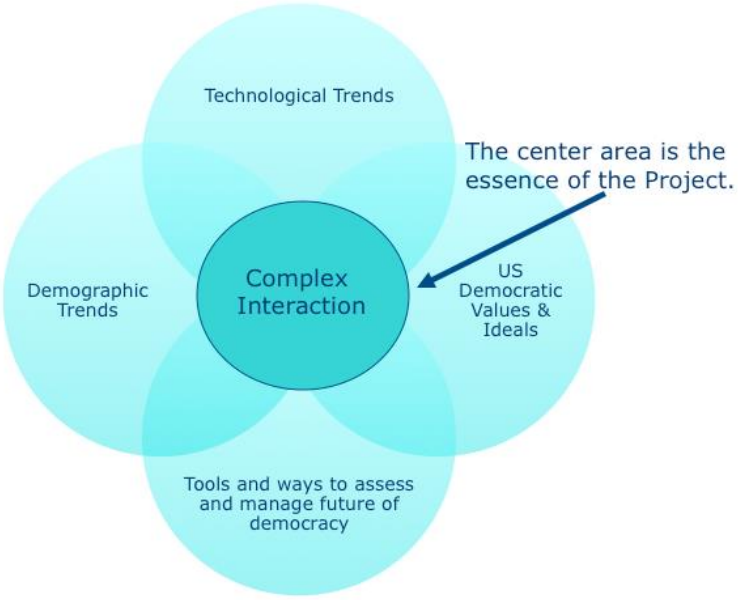
Figure 8. Venn Diagram[11]



[11] Thank you Jim Burke, a member of the Standing Advisory Group, for suggesting this logo.

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Center (proposal for an institutional basis for long-range scanning and foresight/policy integration).

The idea of a center of coordination was discussed in terms of the generic functions that a center would carry out. This led to a comparative analysis of functionally similar systems used in industry (Toyota) or proposed for application in government. From there, the conversation moved to the subject of scalability drawn from one of the principles of complexity theory.

The functions to be accomplished by a center to integrate foresight, policy, and to monitor execution would include the following capabilities:

Foresight

- Situational awareness: State of the World; State of the Union.
- Near-term decisions with potentially significant long-term impact.
- Selected "vital" trends.
- Globalized issues.
- Very long-range issues.
- Ability to use complete set of foresight tools.

Policy Design

- Inventory of issues for decision, needed in the immediate present, middle-term and longer term.
- Possible policy responses: including anticipated costs and consequences.

Feedback

- Periodic monitoring of policy outcomes and projections for the future.
- Whole of system interactions.

The Center would be used by policy-makers to improve key decisions by using the complete suite of foresight tools needed. This would permit alternative futures to be considered for second, third, and fourth-order effects of those decisions

Visionario Use

The Co-researchers tested a design concept for a center by using it in round table discussions of possible major-scale societal disruptions (e.g., climate change; artificial intelligence; permanent, non-reversible genetic modifications to species) and possible anticipatory responses to these (e.g., geo-engineering; biological engineering), with special reference to feasibility, as opposed to doctrinal orthodoxy. The approach used a "visionario," as previously described on page 237. This experiment was designed to test the proposition — central to the Project — that applied foresight can be used to identify major oncoming challenges to democratic governance in time to promote relatively unbiased discussion of their likely consequences and longer-range (and hence, less clear) implications for public policy.

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Chapter 3: Lessons Learned

What Didn't Work

The Co-researchers' original model for their research envisaged a Round Table, the members of which would serve as proxies for sectors of the "American Commons." They proposed to do this by bringing together representatives of non-governmental organizations specialized as representatives of major social groups that comprise the Commons (e.g., covering race/ethnicity; gender; labor; youth; etc.) Responses to those invitations were limited.

The common denominator appears to have been an intense — "all hands on deck" — focus on near-term organizational priorities, especially those subjected to immediate and profound challenges by the current administration. Another major factor was a strong element of denial that established plans and concepts were threatened not only by the current administration, but by the future itself. Some organizations appeared to believe that their strategic planning processes already accounted well enough for multiple possibilities, and that a new approach based on longer range foresight was not necessary.

Ultimately, the Co-researchers decided to try a work-around involving approaches to persons who, notwithstanding their origins and personal experiences, could be called upon to comment not so much on what increasingly divides the Commons, but on the residual interests of the Commons in finding ways to overcome divisive forces. In short, we looked for persons who would address what continues to unite the commons and how to preserve it, notwithstanding their acute awareness of what divides it. On this basis, it was possible to recruit participants for the Round Table and to work with them through a series of six Round Table meetings[12] (See **Figure 3. The Round Table Process Showing Archiving**.)

What Worked Well:

Creation of the Standing Advisory Group, comprised of expert specialists in foresight, and use of that group to help the Round Table acquire a common, basic understanding of foresight methodologies and their characteristics was effective. This group helped the Co-researchers to plan how best to present to lay participants the basic concepts and techniques used in the expert foresight community. Participants in the Round Table have expressed to the Co-researchers the view that this information exposed them, for the first time, to the concept of foresight as a discipline — specifically valuable as a means for imagining alterative futures, and for evaluating these by dispassionate means, in terms of possible impact on values, clearly identified and how this process may be used in planning, decision-making and potential actions that must be taken.

Briefings by outside experts on subjects such as technologically and demographically driven trends were essential. These briefings enabled participants to appreciate the possible consequences — both intended and unintended — of trends in major categories of technological change, looking towards a period of sharp acceleration to be anticipated in each field as well as

[12] We are indebted to Steven Trachtenberg, President Emeritus of George Washington University for suggesting persons who subsequently accepted our invitations to participate in our Round Tables.

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social disruptors. The disruptors used in the discussions included artificial intelligence, synthetic biology, global climate change, the surveillance state, and the massive changes in demographics that are changing the composition of the U.S. population. The briefings enabled participants to recognize the magnitude of profound demographic transitions that are "baked in" to the national future, and the challenges that these changes will present to the strength of common values that make democracy possible, and which, in turn, democracy facilitates.

The introduction of basic complexity theory as an overall conceptual framework was helpful. Exposure to complexity theory introduced participants to a framework for interpreting events in ways that reinforce the precepts of liberal democracy: the persistence of error in human affairs; the presence of surprise and disruptive change as a basic characteristic of the human social experience; awareness that for the most part major trends can be influenced, but not directed with any precision; interactivity between seemingly unrelated systems; the need to study first, second, and third order consequences of decisions or actions; the difference between linear and non-linear projects of events and their consequences; the nature and value of systems thinking. Out of this came the insight that the Bill of Rights is a statement of values; and the Constitution is an operating system.

Limiting the Round Table to a relatively small number of persons, invited to participate on the basis of direct experience at high levels personally and/or professionally, with legacy issues arising from societal fractures owing to race, religion, age, and socio-economic standing was an effective approach to this effort. Our initial plan for a Round Table would have brought together a large number of persons, each of whom would have been deeply invested in the perspectives of specific segments of the population. The results might have been gridlock. We were, therefore, induced to resort to an alternative approach involving a small group of persons whose backgrounds produced broad awareness of the complexity of societal issues. That turned out to be serendipitous because it created an atmosphere conducive to flexibility.

Establishing "thematic minutes" as a way to capture and circulate the essence of successive Round Table discussions, including ways to capture after-thoughts and comments, post-dating the actual sessions worked very well. These minutes avoided the usual approach, keyed to the clock, and in place of this approach, allowed us to experiment with presenting the evolution of ideas in the course of discussion. The minutes also made it possible for members who could not always be present, to remain current with the direction of a meeting, and able to pick up readily when able to resume participation. The thematic minutes for each meeting can be found in Appendix 3: Invitations + Annotated Minutes + Presentations.

Over time, expanding participation in the Round Table meetings to include interested members of the Standing Advisory Group was extremely useful. Our initial thought had been to phase out the Advisory Group, and focus on the Round Table. Instead — and this was another serendipitous development — the continued presence of Advisory Group members helped expand the "dynamic range" of discussion.

If the objective is to encourage creative new thinking, care must be taken in the selection of participants. Persons whose views are deeply polarized are already satisfied that they have sole possession of what is right, and of what works. The right kind of participants are those whose opinions will differ, but whose attitude is open to discussion, and who are looking for new

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approaches to replace those which they see as entrenched and unresponsive to major challenges ahead.

Time must be spent to acquaint participants in a Round Table process with some new "tools" for exploration of issues: foresight methodologies; the concepts of complexity and non-linearity; the objective specifics of forces at work in society, and of forces gathering ahead.

Experienced facilitators are a requirement for the kind of engagement that is necessary for an effort like this where there is a plethora of opinions and ideas are flowing. Accurate and timely reporting of discussions is essential. For this purpose, verbatim reporting is needed to capture a chronological record of what takes place (remarks of participants recorded in the order in which they were produced). We processed these reports into a finished product that captured themes that emerged in the course of the meetings. These "thematic minutes" served as a bridge between sessions.

The use of complex scenarios ("visionarios") worked well for the discussion of future possibilities. In order to facilitate a discussion of the future, it helped to postulate a future to serve as the basis of analysis of possible consequences and responses. Moreover, a visionario — in contrast to a scenario — serves to present an image of the future that reflects a complex reality, as opposed to an oversimplified model.

An integral part of using foresight methodologies is defining the system that the participants are exploring. Drawing a "system map" or use of relatively simple foresight devices such as a "futures wheel" enables discussions of the future. System Values are also critical to define and use as a framework for future efforts.

Co-researchers' Observations on Process: Round Table Participants' Contribution

Participants in the round table process contributed a sense of depth and authenticity to the discussions of foresight and democracy, drawing upon their personal experience and expertise. For example, they substantiated not only the omnipresence of racism in American history, but its continuing pervasiveness in American life. That positioned them to explore the oncoming disruptive trends arising from technology and demography, that will reinforce existing fractures in our society.

The end of white male supremacy stands out as both a crisis and an opportunity. It is a crisis because there is no model for how to manage the emerging power relationships among major groups that define themselves almost exclusively by race, ethnicity, gender, etc. Moreover, the kinds of change that foresight illuminates will also exacerbate existing ("legacy") fractures in society: accentuating inequality, intensifying disparities in terms of education, and creating unprecedented levels of change driven by "the dark side" of brilliant scientific attainments in fields such as artificial intelligence, synthetic biology, etc.

Participants articulated the central importance of the protection of democratic values as the goal and measure of merit of long-range foresight analysis. Participants believed that there is an increasing danger from algorithms that are sources of concealed bias, whether instilled consciously or unconsciously by human programmers. The participants were deeply concerned that the Chinese long-game will overtake the chronic lack of strategic content in the American

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short-game. There was a view among some participants, not shared by most, that a massive, complex threat like climate change cannot be dealt with by democratic means and will usher in authoritarian government. There was a view, shared by most participants, to the effect that American capitalism is on the wrong path and needs to be redirected if it is to survive. On the other hand, there was a minority view that the Round Table was under-valuing the adaptive potential of capitalism, and that the general sense of pessimism needs to be tempered by acknowledgment of the social, economic, and political accomplishments of capitalism, operating within the framework of liberal democracy. Participants agreed that the institutions of democratic governance require an upgrading if the future is to be dealt with in ways that sustain core values. This view centered on measures such as reinforcing voting rights by eliminating manifold impediments that now exist to the full exercise of the franchise, as a combination of partisan political interests often operating on behalf of a desire to preserve white supremacy.

Note: A detailed summary of the substantive output of the SAG and RT meetings is provided below in Appendix 3: Invitations + Annotated Minutes + Presentations.

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Chapter 4: Findings and Conclusions

The Co-researchers of the Project periodically summed up for themselves what they believed was being accomplished, and then circulated these summaries to all participants for their comments — which were received either in the course of actual meetings of the Round Table or as e-mailed responses. In effect, we vetted our estimates of the effects of the process, by cross-checking them with participants. We therefore believe that it is fair to present the following set of findings as an accurate distillation of results of the process, as experienced by those who participated (See "Thematic Notes from RT 6" in Appendix 3: Invitations + Annotated Minutes + Presentations). Note that in describing these results, we frequently use the term, "heightened awareness." That is, because we are well aware that our process has not created these ideas de novo: but we do believe that the Project on Foresight and Democracy describes a new way to think about them in ways that promote synthesis and resist polarization.

- Awareness of democracy as a conjoined system of values (captured in universalist language in the Declaration of Independence), and presented as an operating system for a self-correcting system of self-government (in the form of the Constitution).
- Heightened awareness of the central importance of values at the core of democratic governance.
- Heightened awareness of the existence of alternative sets of values among different groups within the population (to centrifugal effect), counter-balanced by other values deeply held across the population as a whole (to centripetal effect).
- Awareness that equilibrium between these forces is the basis for a sense of national identity and the basis for mutual acceptance of the legitimacy of the social order (aka "The Commons").
- Recognition that values are meant to be perdurable, while the operating system is designed to adjust itself, based on systems that enable it to "learn" from experience.
- Heightened awareness that values representing the Commons are severely challenged as the result of "legacy" issues representing as yet incompletely resolved issues pre-dating the foundation of the country.
- Awareness that values representing the Commons are also subject to an emergent set of new issues: some generated by the unprecedented (and very often, the unintended) consequences of technological change; and others generated by profound changes in the demographic composition of the United States that are "baked" into the next several decades.
- Awareness that societal challenges that appear at first to be domestic problems are manifestations of global problems, for which global solutions are going to be needed.
- Awareness that the global environment is becoming increasingly competitive.
- Heightened awareness of the very short window for action in the present, for the purpose of influencing outcomes in the longer-term future.
- Awareness that, notwithstanding the gravity of challenges facing democratic governance in the present and continuing on into the future, the United States has experienced periods of intense polarization and crisis at intervals, which it has survived.

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- Recognition that there is a tension between pessimistic and optimistic biases that needs to be taken into account insofar as neither of these dispositions entirely captures the truth of our circumstances.
- Need for re-vitalization of democratic governance.
- Agreement that this revitalization must include structural measures in the form of new systems designed to manage the complex, non-linear nature of the challenges we are facing.
- Agreement that existing systems for linking foresight, policy formation, and policy execution are deficient for the task, but that practical methods for overcoming this are available.
- Agreement that the defining characteristic of the resulting system would be that it would be anticipatory.

Based on comments of the Round Table participants and our analysis of major trends in their comments, we conclude that:

1. Exposure to foresight methodology adds a critical dimension to discourse: ability to make connections between seemingly disparate subjects, along timelines that connect – rather than subdivide – the past, the present, and the future.
2. The project, with limited resources, demonstrated on an experimental scale that a combination of foresight and expert data can create the basis for disciplined consideration – within a group of diverse individuals – of the potential for creative synthesis, and for engaging complex issues on the basis of mutual tolerance. We believe that this method can be scaled upwards towards the global level, and scaled downwards towards the grass roots.
3. As a result of the process, participants were better able to acknowledge serious failures of democracy in America, while retaining belief in the possibility of change to the democratic process…although that attitude is shadowed by current trends in American political life. Participants sense that a crisis is not just pending, but has arrived. Their thoughts about how to evaluate and respond to these crises now tend to be "whole of system;" based on an awareness of the complex nature of interactions among seemingly distinct forces; resulting in an interest not just to reforms per se, but to reforms whose broadest implications and interactions have been thought through.
4. Optimism about the future is present, but heavily qualified by awareness that the political system is falling behind the requirements of adaptation needed if democracy is to survive what is coming.

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Coda:

We believe that our project has demonstrated in a small-scale experiment that foresight can strengthen democracy as a political system fit to deal with accelerating rates of change. The alternative is a drift towards authoritarian methods.

The question we set out to answer was how to better equip democracy to influence its own future, in ways that reflect its defining values. Five years ago, when we were still formulating ideas that would later evolve into this project, we recognized an increasingly dangerous threat to democratic governance in the form of converging and interacting societal challenges, together with sharply increasing polarization about the future, at increasingly high cost to the nation's ability to cohere as a Commons.

Democracy is committed to the proposition that the people have the innate wisdom to rule themselves, and therefore the means to preserve the Republic. The quintessential expression of that wisdom is foresight. The presence of foresight is not a given. It is, however, a capability that can be cultivated. The Project on Foresight and Democracy has demonstrated that this approach is workable, in circles of people from widely differing backgrounds and experiences. It remains to be demonstrated whether such circles can be expanded to reach out to the "grass roots." We believe that this is possible and that a method for accomplishing this can be demonstrated at scale. Our next effort will be to do so.

In the period of time since our earliest discussions between ourselves about these matters, many of our deepest concerns about the future of democracy have become urgent matters in the present. It is clear that a simple restoration of things as they were is not feasible. America will need to think fresh about democratic governance in order to keep it. The central issue is, as it has been since the very beginning, how to secure the willing and informed consent of the governed. We believe that our Round Table process shows that it can be done in principle, and our intention is to move on to a demonstration of how it can be done in practice, even under radically changed circumstances, that are in the offing.

The title of this study makes a point of noting that it is a systems approach to democracy and the problems it faces. There are some very important implications to that, and we wish to make sure to have addressed them as we conclude.

A system is an entity comprised of parts that are interactive with each other, such that a change affecting one part affects all others. The "Commons" of which we have written (see Footnote 2) is a system, comprised of citizens interacting with each other collectively, within certain norms of association (e.g., to maintain resources on a sustainable basis, rather than to use them up). A democracy such as our republic is a "commons." Its norms of association are based on values that are broadly and deeply enough respected by citizens to enable them to face challenges successfully — meaning by means of solutions that are consistent with these basic values (see Chapter 2: Output of Round Table Discussions). That is, basically, what the concept of political center-ground is all about.

Periodically in American history there have been crises when it looks as if the center would collapse. It once did collapse utterly and beyond repair, and that was the Civil War. We are

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currently experiencing a crisis of the center: the possibility that the American System is near the limits within which it can exist. That system is beset by forces — to some extent from the far left, but especially, at this time, from the far right — that reject what it offers in response to their deepest values. The defense of the American system requires a good offense in the form of new methods for confronting new problems, within the system's basic parameters: mutual respect; argument based in fact; willingness to find areas of agreement upon which to build the future. The Project on Foresight and Democracy demonstrated a system of analysis that can be used to help sustain these qualities. It was, to be sure, a demonstration on a limited scale. But we believe that the results are positive enough to warrant testing its ability to be effective on a larger scale — specifically, the "grass roots," where American democracy grows.

And our idea is this: to make it possible for groups of people who are already networked to apply the Round Table methodology on their own, as a means of exploring for themselves what the future holds, and for thinking about how to respond to its challenges outside the boundaries established by rigid ideology.

We are extremely grateful to the Rockefeller Brothers Fund for its support in getting us this far, and to Walsh College for its expression of confidence in us and for its service as our administrative "home."

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Chapter 5: Some Ideas About Further Applications

It seems clear to us that the next logical step is to demonstrate that our approach can be applied at scale. Complexity theory, as noted above, offers the theory of "nested systems" according to which the elements of complex systems can be scaled up or down, but the rules of complexity will apply. This suggests that it is possible to apply our approach at scales ranging from grassroots to global. We are considering a second phase aimed at promoting this approach at the grassroots, working with one or more nation-wide networks that promote discussion at the local level.

If it is possible to scale this idea down, it is also possible to scale it up to regional and ultimately global levels. In November, Dr. Ronis was invited to present our ideas at the Organization for Economic Cooperation and Development (OECD) Foresight Community in Paris. Subsequently, we both were invited to present at a European Union (EU) meeting in Brussels (the European Strategy and Policy Analysis System, ESPAS). We came away from those meetings knowing that in other parts of the world there is a recognition of the need for a locus between foresight, policy, and execution, and also a recognition that when the problems are both complex and global in scope, then the organizational response must also be global. The EU, for example, has just created the office of European Commission Vice-President for Institutional Relations and Foresight, headed by a senior official, with whom we were able to have extended discussions.

We have also realized through side-conversations that took place in Brussels, that there is a subset of governments that look upon the incorporation of foresight as an existential requirement. These are governments of physically small states that feel that their national existence is always on the line (like Singapore, Finland, South Korea, and Israel). We think that the comparative study of their approaches would yield important results at both the theoretical and operational levels, where each of these governments has been working to develop systems capable of integrating foresight, short, mid, and long-term policy, and execution. We hope to be able to carry out such a study.

There is a common denominator, and it is the ability of democratic governance to maintain its vitality in the face of enormously challenging developments. Failure to respond will fuel public unease about the future, and thereby encourage the global trend towards the hyper-polarization of politics, and with that, the falling apart of nations both within and without.

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Appendixes

Appendix 1: Foresight Methods

Back-casting: a method of working backward from a hypothetical future event (typically a desired goal) to the present in order to visualize short- and medium-term steps, necessary and sufficient conditions, and possible sequences of events that would lead there.[13][55]

Course of action analysis: a method for assessing the cost, impact and risk associated with alternative action plans. Beginning with a set of alternative plans (courses of action or COAs), the costs, impact and risks of each alternative are expanded upon and then assigned weights that are then measured and compared against each other based on decision rules that reflect priorities.[14]

Cross-impact analysis: a method for forecasting the probabilities of events based on their potential interactions with each other. Each hypothetical in a set is assigned an initial probability; conditional probabilities are determined using a matrix to consider their potential interactions with each other.[15]

Delphi survey method: a method of forecasting by committee that uses a questionnaire to accumulate foresight analysis by experts whose responses are compiled and then recirculated (anonymously) in order to reduce the range of responses and close in on expert consensus about the future.[16]

Environmental scanning: systematic monitoring of an internal and/or external environment in order to detect opportunities and threats in advance so that early action can be taken.

Futures Wheel: a structured brainstorming technique that uses a wheel-and-spoke like graphic arrangement to consider the primary and secondary impacts around a central trend or hypothetical event. This technique was chosen to be used for this study.[17]

Gaming: a structured exercise for stress-testing decisions in a simulated complex environment based on a scenario, which permits participants to test in the mind at minimal cost what may otherwise have to be tested in reality at incalculable cost.

Historical analogy: a method of using the dynamics of events in the past to understand the dynamics underlying current and future events.

Horizon scanning: systematic monitoring and examination of current events (across categories)

[13] Backcasting. World Future Society, available at http://www.wfs.org/node/172.
[14] "A Policy Analysis Approach to Operational Level Course of Action Analysis," Defense Science and Technology Organization, Australia, available at http://www.dodccrp.org/events/5th_ICCRTS/papers/Track2/018.pdf.
[15] Theodore Jay Gordon, "Cross-Impact Method," in Futures Research Methodology Version 3.0, ed. Jerome C. Glenn and Theodore J. Gordon (Washington, DC: Millennium Project, 2009).
[16] RAND Corporation, "Delphi Method," available at www.rand.org/topics/delphi-method.html
[17] Jerome Glenn, "The Futures Wheel," in Futures Research Methodology Version 3.0.
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in order to detect early signs of potential major impending developments and how they may influence the future so that early action can be taken.

Implications Wheel: a structured brainstorming technique that arranges second, third and fourth order events around a central trend or hypothetical events, and uses probabilities to score potential implications.[18]

Issues-analysis: a method of systematically "unpacking" the dilemmas, cross-category implications, and unasked questions that arise from trends, hypothetical future events, and alternative policy choices.[19]

Figure 3 Foresight Methods (Continued).

Morphological analysis: a method for structuring and investigating sets of relationships contained in multi-dimensional, non-quantifiable problem spaces.[20]

Real-Time Delphi: an online version of the Delphi questionnaire that harnesses expert opinion about the future on an accelerated basis.[21]

Roadmapping: a technique of planning that identifies a sequence of goals, prospective future developments, and future "on-ramps" and "off-ramps" for decisionmaking.

Robust decisionmaking: a method of relating short-term policy interventions to different clusters of long-term futures.[22]

Scenarios: case studies of the future that depict in detailed narrative how events might lead from the present to an envisioned future. Scenarios should come in sets covering a range of possible futures that provide a means to visualize outcomes of alternative courses of action, analyze their hypothetical consequences under different combinations of assumptions, and link logical sequences of events.

Simulation/Modeling: a quantitative method for understanding the interactions of a system using a prototype, computer program, or other simplified representation of a real system. Models and simulations permit decisionmakers to experiment with interactive variables (often with large data sets) for a specified duration so as to gain understanding about a system's behavior, probabilities, and range of possible outcomes.

State of the Future Index: an index that measures the 10-year outlook for the future based on key variables and forecasts that collectively depict whether the future promises to be better or

[18] Joel A. Barker, "Implications Wheel," Implications Wheel, 2011, available at http://implicationswheel.com.
[19] "House Annual Commission on Forward Engagement Annual Report," Fall 2006 Forward Engagement Class Report, available at http://forwardengagement.org/images/stories/pdfs/graduate_seminar/fall_2006_final_report.pdf.
[20] Tom Ritchey, "General Morphological Analysis," General Morphological Analysis, June 2011, available at www.swemorph.com/ma.html.
[21] Jerome C. Glenn and Theodore J. Gordon, "Real-Time Delphi," available at www.millennium-project.org/millennium/RTD-general.html.
[22] Robert J. Lempert, Steven W. Popper, and Steven C. Bankes,"Shaping the Next One Hundred Years: New Methods for Quantitative, Long-Term Policy Analysis," RAND, available at www.rand.org/content/dam/rand/pubs/monograph_reports/2007/MR1626.pdf .
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worse.[23]

STEEP Implication Analysis: a method for systematically analyzing the social (S), technological (T), economic (E), environmental (E) and political (P) implications and issues[24] related to a trend, event, decision or policy.[25]

SWOT analysis: a method of analyzing and assigning weight to an operations' internal factors—strengths (S) and weaknesses (W)—and external factors—opportunities (O) and threats (T)—so as to strategically match resources and capabilities to the environment.[26]

Trajectory Analysis: a method of assessing the directionality of trends and oncoming events so as to create manageable pathways that can aid policymakers in identifying engagement opportunities.[27]

Trend Projection: an extrapolation of a current trend line into the future based on historical data, rates of change, and other variables.[28]Projections are based on an assumption that factors will be held constant with no looming discontinuities.

[23] Jerome C. Glenn and Theodore J. Gordon, "State of the Future Index," available at www.millennium-project.org/millennium/SOFI.html.
[24] See "Issues Analysis."
[25] STEEP Analysis Outputs, Glasgow and the Clyde Valley Strategic Development Planning Authority Futures Group, available at www.gcvcore.gov.uk/downloads/futures/STEEPanalysisOutputs.pdf.
[26] Quick MBA, "SWOT Analysis," available at www.quickmba.com/strategy/swot/.
[27] "First Annual Report to the Deputies Committee on Complex Priorities," Fall 2008 Forward Engagement Class Report, available at http://forwardengagement.org/images/stories/pdfs/graduate_seminar/fe_fall08_final.pdf.
[28] "Trend Projection," World Future Society, available at www.wfs.org/node/403.
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Appendix 3: Invitations + Annotated Minutes + Presentations

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Standing Advisory Group 1

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SAG 1

Invitation to Fuerth - Ronis Project on Foresight and Democracy January Meeting (SAG 1 Invitation)

Dear Colleagues:

Sheila Ronis and I are setting up our project on Foresight and Democracy, thanks to a grant from the Rockefeller Brothers Fund. As a basic component of our process, we wish to establish a standing advisory group of experts on foresight. For this purpose, we are inviting you to join us for a preliminary meeting, to be held on January 16th at the Morgan Lewis Law firm, 1111 Pennsylvania Ave., N.W., Washington, D.C. from 10am-3pm. Parking is available in the basement of this building and we will cover the cost for you. We will be providing light refreshments and a lunch.

BACKGROUND. The premise of this proposal is that foresight can be used to restore vision and creativity to democratic discourse about public policy, which is otherwise threatened by ideologically supercharged politics. We would demonstrate this by assembling a "round table" process that would gather persons who are deeply engaged in today's societal issues -- i.e. inequalities based on race/ethnicity, gender, age, economic status, and political agency -- for discussions about the societal implications of oncoming major changes, such as: those arising from high technology (eg., the Crispr revolution in genetics; advanced AI; anthropocene phenomena including climate change and geoengineering; and a completely material basis for the understanding and therefore the potential manipulation of "mind"; and those arising from fundamental and irreversible demographic changes).

We plan a series of round table meetings, from February through June, each meeting to be two days duration. Successive sessions would focus on: (1) the implications of these trends for each of the societal issues identified above; (2) their overall potential impact on democratic governance; and (3) the use of foresight as a means to improve the performance of democratic governance in the face of these challenges.

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We will be using the round table process to test the proposition that foresight can broaden discourse about public policy and governance, by linking it more firmly to facts, and by loosening ideological constraints that limit consideration of practical solutions to foreseeable issues.

AGENDA of MEETING.

- Background, rationale and overall structure of the project
- Schedule and time-line
- Role of standing advisory group
- Output of the process
- Discussion, comments, recommendations
- After-meeting report to participants (by e-mail) indicating adjustments made based on suggestions

We are aware that this represents a significant "ask," but to our knowledge it is the only effort of its kind to ask the question: can democracy survive radical changes owing to discontinuous, complex events resulting from the pace of technology, and of unprecedented demographic change in the United States?

We hope very much that you can join us for this discussion, and, thereafter in the process we seek to establish. Please RSVP for January 16 to: joanna.nicoletti@forwardengagement.org if you can join us or contact either Sheila or me if you have any questions.

All the Best.
Leon Fuerth
Website: http://www.forwardengagement.org/

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Project on Foresight and Democracy

Standing Advisory Group
Morgan Lewis Law Firm
1111 Pennsylvania Ave. N.W.
Washington, D.C.

Leon S. Fuerth and Sheila R. Ronis

16 January 2019

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Project on Foresight and Democracy

- Introduction of group
- presentation on background, history, objectives of the project
- discussion of the above
- presentation on overall organization of the project
- discussion of the above, including: the set of "drivers"
- the set of organizations participating in the Round-Table meetings
- presentation on organization of Round-Tables
- discussion of (1) how to introduce foresight as general subject, and (2) how to introduce **overview** of the drivers, especially as the drivers may affect society overall -- specifically the populations we are including in our study of the democratic "commons" and (3) how to use the round tables for demonstrating practical applications of foresight to the drivers

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Crisis of Democracy

- The institutions of democratic government are under-performing.
- Inability to keep pace with disruptions owing to technology, combined with political deadlock based on ideology.
- New solutions require better communications between experts and the general public.
- Analytic foresight is a way to liberate public discourse

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Foresight and Democracy

- Foresight-based analysis considers the long-term implications of policy choices, and the complex nature of these interactions in the real world.
- The objective is systematic visualization and critical comparison of alternative courses of action and their consequences, supported by non-ideological analysis.
- This process can be used to create a "space" for discourse about issues that might otherwise be ideologically polarized.

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Project on Foresight and Democracy
Objectives

- Over the course of a year's work, explore the use of foresight in discussion of issues of public policy and governance, especially to those issues attributable to longer-range drivers of change.
- Drawing on this experience, develop suggestions for ways to assure sustained applications of foresight to policy, with special reference to the need for involving the lay public -- especially, those portions of it that are deeply affected by deficiencies in democratic practice.

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Project Strategy

- Establish a round-table process bringing together a compact group of individuals (on the order of eight to ten) , to discuss: advanced approaches to foresight; longer range trends and events likely to pose major societal challenges; and implications of these challenges for key sectors of the American polity.
- Places at the table for: foresight methodology; major trend analysis; governance; and the American polity, represented by "proxies" i.e. persons whose activities focus on issues relating to the critical sectors of race/ethnicity, gender; age; and social class.
- For each sector, engage a representative of established system of advocacy such as NAACP.

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Project Strategy

- Discussions to focus first on using foresight methods to identify issues of particular importance to specific segments of the American polity, and then on the implications of these issues for the American polity as a whole (what we call, "the democratic commons").
- The project is designed to demonstrate that: (1) the use of foresight can promote earlier awareness of oncoming issues that will simultaneously challenge the interests of individual sectors of American society, and the needs of the American polity as a whole (the commons); and (2) the use of foresight will encourage consideration of policy alternatives that range beyond ideological and political agendas.

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Project Schedule

- January 16-17. Advisory group meets. we review our project and plans for execution. ask for comments and recommendations. duration. One day.
- February 11-12. Round table meeting 1: Foresight theory -- complexity, democracy, drivers, time lines, general discussion about impact by sector. Two days.
- March 13-14. Round table meeting 2: Foresight applied over next two decades to demographic stressors, race, ethnicity, age, gender. Two days.
- April 16-17. Round Table 3. Foresight applied over the next two decades to economic-political relations. Inequality of opportunity, future of work. Vitality and effectiveness of democratic governance. Polarization. Vitality of democratic forms. Impact of disrupters. Two days.
- May 15-16. Round Table 4. Foresight applied to science and technology over next two decades as stressors to public interests across the board. Two days.
- June 19-20. Round Table 5. Foresight and democratic process. How to upgrade governance to deal with turbulent transitions over next two decades. Two days.
- July – August Draft report. circulate for comment. Produce final draft.

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Leon S. Fuerth

Leon Fuerth | Co-Principal Investigator

Leon Fuerth is the former National Security Advisor to Vice President Al Gore, the Founder of the Project on Forward Engagement, and the creator of Anticipatory Governance as a methodology for enhancing the capacity of the U.S. Government. Fuerth joined the Clinton White House following 30 years in the Foreign Service. He served simultaneously on the Deputies' and Principals' Committees of the National Security Council and the National Economic Council, where he created and managed five bi-national commissions. Since leaving government service, Fuerth has focused on developing enhanced capabilities for Anticipatory Governance, and was the Principal Investigator and lead author of Anticipatory Governance Practical Upgrades, published in 2012 and endorsed by dozens of former senior government officials. Fuerth holds a bachelor's degree in English and a master's degree in history from New York University, as well as a master's degree in public administration from Harvard University.

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Sheila R. Ronis

Sheila Ronis | Co-Principal Investigator

Dr. Sheila R. Ronis is Distinguished Professor of Management, and Director, Center for Complex and Strategic Decisions, Walsh College in Troy, Michigan. She is the Director of the Center for Complex and Strategic Decisions at Walsh College holding a special term appointment as a national security advisor with Argonne National Laboratory University of Chicago. Dr. Ronis is the former Vision Working Group leader of the Project on National Security Reform. In 2014, Dr. Ronis served as guest speaker on the use of foresight methodologies to improve public policy at The Royal Society in London, U.K. Dr. Ronis was awarded the Chairman of the Joint Chiefs of Staff's Outstanding Public Service Award in a formal ceremony in Washington, D.C. in 2013. In 2011-2012, she was awarded a Specialist Fulbright Scholarship to Singapore to study the Prime Minister's Office use of foresight methodologies. Her B.S. is in Physics, Mathematics and Education. Her M.A. and Ph.D. are from The Ohio State University in Large Social System Behavior. She currently is serving as Chairman of the National Defense University Foundation Board of Directors, and is the author of more than 250 papers and articles, and has written and/or edited six books in her career of more than four decades.

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Questions?

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PROJECT ON FORESIGHT AND DEMOCRACY 16 JANUARY 2019 MEETING SUMMATION

Introduction:

The Project on Foresight and Democracy (PFD) convened its first membership group meeting on Wednesday, January 16, 2019. Following brief comments by the group's leadership, PFD members took turns introducing themselves and summarizing their professional backgrounds and connection to the project. Most group members had substantial government experience and had worked on foresight and strategic planning issues previously. PFD leadership emphasized that meetings will adhere to "Chatham House" rules: The PFD may utilize the information discussed in meetings, but will not attribute ideas and affiliations to specific individuals.

Project Mission:

PFD leadership began the discussion by noting that today's extreme political polarization has contributed to a crisis in democracy, as public discourse has not been able to keep pace with disruptive developments in society. This crisis predates the political and social tumult associated with the current presidential Administration, as a combination of political polarization and societal disruptors have strained the democratic process for several years, contributing to a growing sense that governments are unable to adequately address contemporary challenges. This crisis is likely to be exacerbated in the coming decades by truly profound disruptors, such as the future of work in an era of artificial intelligence, accelerating economic inequality, demographic changes associated with race, ethnicity, age, and religion, as well as meaningful access to the political process by all groups in civil society.

The present political environment is unprepared to adequately address these challenges. To promote a method of discourse in which stakeholders throughout the political spectrum may more meaningfully engage with one another, the PFD will attempt to utilize foresight-based analysis (an objective systematic visualization and critical comparison of alternative courses of action) to help create a space for new ideas to otherwise ideologically polarized solutions.

Past government-funded foresight projects have generally not survived turnover in presidential administrations. Accordingly, the PFD will attempt to create a foresight engagement model which can be utilized by the general public. The PFD foresight model will be underpinned by a series of assumptions: that the general public is more politically sensible than the major political parties, that analytic foresight is a tool which can be distributed for public use, and that foresight is a discipline which, if properly practiced, requires people to leave their preconceptions at the door.
The PFD's work is funded by the Democratic Practice Program of the Rockefeller Brother's Fund (RBF). The RBF is interested in supporting an experiment in which people from specific populations within the broader political spectrum engage in foresight exercises to see if they can learn to constructively communicate and engage with one another. The PFD will have to structure interventions to encourage frank conversation between people who would normally never speak with one another. The RBF will fund an approach which brings together organizations which represent race and gender issues, with a particular emphasis on ensuring

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representation for groups which are particularly affected by deficiencies in the current democratic process.

Project Strategy:

The PFD will consist of six roundtable discussion meetings of foresight-focused engagement between political and social groups in the coming months. A final meeting will take place June 19-20, in which participants will share what they have learned and provide feedback to the PFD. PFD will then compose a report of its findings to be drafted in July – August 2019. In accordance with discussions between the PFD and RBF, groups will be based on topical political and social issues (gender, age, religion, race and ethnicity, socioeconomic status). The final meeting in June will be used to discuss lessons from the previous six meetings and to propose ways to use the experiment's findings to promote foresight-based approaches to political and social challenges.

Project Challenges/Issues:

The remainder of the meeting concerned discussions regarding the project's structure, composition, and challenges associated with capturing diverse political and social groups to discuss consequential societal disruptors.

As a threshold matter, the group considered whether foresight analysis is a tool which can be propagated to large numbers of people, or if it requires experts to propagate more generally. Although data is limited, past experience with groups in academic settings (such as Model United Nations) indicates that foresight analysis holds promise if effectively communicated and applied. Another group member mentioned that it might be worthwhile for PFD to examine the Foreign Policy Association's "Great Decisions" program. The goal of this project is to see what happens when groups who are deeply engaged in contemporary political and social issues are brought together and use foresight analysis to examine the significant disruptors PFD believes are on the horizon.

A significant amount of discussion focused on how to best structure a subject group composed of a limited number of people from a diverse spectrum of political and social groups. Particular focus was placed on ensuring that subjects were not from the academia or think tanks, but rather had spent careers meaningfully engaged with their constituent issues.
Similarly, subjects would ideally not be selected from "elite" political, social, or economic backgrounds and positions, as the aim of the PFD's project is to try and use foresight analysis to reach as broad an audience as possible.

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SAG 2

Project on Foresight and Democracy February Round Table (SAG 2 Invitation)

Dear Project on Foresight and Democracy Standing Advisory Board:

You are invited to participate in the February 12, 2019 Round Table from 1000 – 1400, at the Morgan Lewis Law Firm, 1111 Pennsylvania Avenue, N.W. Washington, D.C. for a discussion with us of how best to present foresight theory and basic "foresight tools" to planned Round Table sessions. Lunch will be provided and parking fees will be reimbursed.

The tentative calendar of round tables is below.

February 12, 2019, 1000-1400
First Round Table Meeting

Present on basics of foresight, including the simplest of its tools, such as System Identification, STEEP, Futures Wheel three-step (primary, secondary, tertiary framework). Includes practice session. 3 ½ to 4 hour total duration.

- Morning: presentation to participants on premises of the project; layout of calendar; basic foresight theory and basic tools
- Afternoon: presentation and demonstration of basic tools

March 14, 2019, 1000 - 1500
Second Round Table Meeting
Deals with impact of technology drivers. One day total duration.

- Morning: presentation(s) on specific tech drivers (Artificial intelligence, artificial biology; artificial climate) twenty-year time horizon.
- Afternoon: participants apply basic tools, in three segments: (1) primary = near-term and local; (2) secondary = middle term and national; (3) tertiary = long-term and global.

April 16, 2019, 1000 - 1500
Third Round Table Meeting
Deals with impact of demographic drivers. One day duration.

- Morning: presentation(s) on specific trends relating to demographic drivers. Twenty – year time horizon.
- Afternoon: participants apply basic tools in three segments; (1) primary = near- term and local; (2) secondary = medium term and national; (3) tertiary = longer term and global.

May 15, 2019, 1000 - 1500
Fourth Round Table Meeting
Deals with parameters for an extended process. One day duration.

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- Morning: presentations on two elements of an extended process (a) Anticipatory governance; (b) Center and/or networked equivalent.
- Afternoon: discussion of the premises that extended foresight processes can work to support of democracy.

June 19, 2019, 1000 - 1500
Fifth Round Table Meeting:

Preliminary findings overall. Output of this session is input for our work on draft report to RBF. ONE DAY

This report will then be circulated to participants for comment. Final draft will be sent to RBF by the end of September.

Please RSVP to Sheila at sheilarr@aol.com if you can attend the February meeting. Feel free to call either Sheila on 248-425-1430 or me on 703-898-0463 if you have any questions.

All the best.
Leon S. Fuerth & Sheila R. Ronis, Ph.D.

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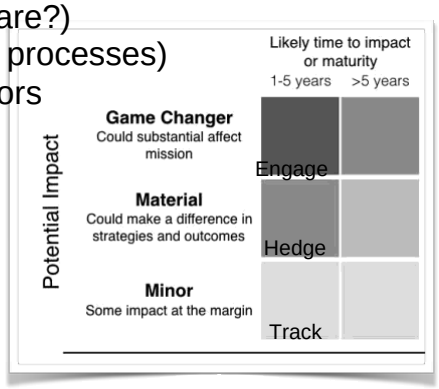
Design Principles for Technology Foresight

Awareness
- Are people even aware?

Clarification
- Concepts (What do people get right or wrong, or have missed)
- Timing (1 yr or 10 yrs?, science or science fiction?)

Relevance
- To issues, programs (why should we care?)
- To decision points (planning/budgeting processes)
- To peers, competitors, funders, regulators

Actions
- What to do (examples)
- When to act (now or later)



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Project on Foresight and Democracy
12 February 2019 Standing Advisory Group Meeting Summation:

Project Summary:
The Project on Foresight and Democracy's work is funded by the Democratic Practice Program of the Rockefeller Brother's Fund (RBF). The RBF is interested in supporting an experiment in which people from specific populations within the broader political spectrum engage with one another. The PFD will have to structure interventions to encourage frank conversation between people who would normally never speak with one another. The RBF will fund an approach which brings together organizations which represent race and gender issues, with a particular emphasis on ensuring representation for groups which are particularly affected by deficiencies in the current democratic process.

The PFD will consist of six roundtable discussion meetings of foresight-focused engagement between political and social groups in the coming months. A final meeting will take place June 19-20, 2019, in which participants will share what they have learned and provide feedback to the PFD. PFD will then compose a report of its findings to be drafted in July-August 2019. In accordance with discussions between the PFD and RBF, groups will be based on topical political and social issues (gender, age, religion, race and ethnicity, socio-economic status). The final meeting in June will be used to discuss lessons from the previous six meetings and to propose ways to use the experiment's findings to promote foresight-based approaches to political and social challenges

Meeting Introduction:
The Project on Foresight and Democracy (PFD) convened it's second Standing Advisory Group (SAG) meeting on Tuesday, February 12, 2019. Following brief opening comments from PFD leadership and a summary of the meeting schedule, members launched into a discussion on the efficacy of the foresight methodology "toolbox" available. The meeting covered a wide range of topics in preparation for the March 14th roundtable discussion, spending the most time focused on the impact of disruptive technologies, and the changing American demographic realities.

Foresight Methodology as a Toolkit:
Members began a discussion on the nature of foresight methodology, discussing both the need for taking a scientific approach to democracy and governance, and the dangers involved with such an approach. PFD leadership summarized this dichotomy through the use of a quote by Carl Sagan:

> "…Democracy can also be subverted more thoroughly through the products of science than any pre-industrial demagogue ever dreamed. Finding the occasional straw of truth awash in a great ocean of confusion and bamboozle requires intelligence, vigilance, dedication and courage. But if we don't practice these tough habits of thought, we cannot hope to solve the truly serious problems that face us -- and we risk becoming a nation of suckers, a world of suckers, up for grabs by the next charlatan who comes along" (Sagan, Carl. *The Demon-Haunted World: Science as a Candle in the Dark*.: Paw Prints, 2013. Pg. 41.)

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Members emphasized that foresight is an approach to assessing and solving long-term problems, not predicting the trends of tomorrow. Foresight methodology is designed to be a tool of anticipatory governance, something that can be applied by policy-makers to make real time decisions, not an analytical tool for providing after-action reports.
Members discussed the necessity for feedback systems in foresight analysis. Feedback was defined as "a flow of information used to appraise the efficacy of what you have been doing in time for policy makers to alter course". In discussing the application of foresight analysis, a central question to analyze is: "how does long does it take to change course, accounting for politics, economics, science – and how can the account of that timeline allow for planning an anticipatory response"? Foresight analysis looks for a projection of policies that need to be produced on this timeline, and then assesses the disparity between what "should" happen and what is happening. Systems can be designed to take this into account (Fuerth, Leon S. "Foresight and Anticipatory Governance." Foresight 11, no. 4 (2009): 14-32. doi:10.1108/14636680910982412.)

PFD members discussed examples of foresight methodology in action, including historical United States initiatives and policies that employed foresight as a tool. Certain instances were mentioned, such as the land grant system created after the American Civil War, the Louisiana Purchase, the Marshall Plan, the purchase of Alaska, and the Panama Canal Treaty. All of these instances displayed a great deal of foresight in decision-making; however, they were mostly the result of individual leadership, not an institutionalized system of governance. The purpose of PFD is to provide a foresight engagement model which can be utilized by the wider public and can survive the turnover of presidential administrations or dynamic political priorities.

Project Challenges:
The PFD's mandate is to bring to the table a diverse collection of political and social groups to be able to discuss the implementation of foresight analysis in their work. PFD leadership has reached out repeatedly to organizations such as the ACLU, LULAC, NOW, AFL-CIO, the Lawyers' Committee for Civil Rights Under Law, and the NAACP, but these organizations have so far been uninterested in engaging in the project. PFD members theorized that perhaps these organizations are so occupied with the political and social battles of the present day that they do not have the time, personnel, or resources to focus on tackling the issues of the future.

PFD leadership then recommended a second strategy, that of coordinating with Stephen Joel Trachtenberg, the President Emeritus of The George Washington University, to be able to bring in student organizations representing the various causes and groups the project seeks to engage with. PFD members also discussed the need to

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include the perspective of conservatives in this project, and while members felt that the use of foresight methodology would not gain much traction in discussion with current administration officials, there are many conservative organizations that have been somewhat side-lined by the current political environment, and still would be interested in this type of analytical approach.

Technology Drivers:

In discussing the impact of new technologies, members outlined that technological progress typically occurs "gradually, then suddenly", typically characterized temporally by the "hockey-stick" model, with a mostly gradual and steady graphical incline followed by a sharp incline towards the end of the graph. (Mooney, Chris. "The Hockey Stick: The Most Controversial Chart in Science, Explained." The Atlantic. May 10, 2013. Accessed February 14, 2019. https://www.theatlantic.com/technology/archive/2013/05/the-hockey-stick-the-most-controversial-chart-in-science-explained/275753/.) Disruptive technologies such as artificial intelligence, workforce automation, synthetic biology, virtual reality, augmented reality, and cross reality, will produce changes that act as discontinuities rather than incremental progress. As the United States faces increased polarization on almost all major societal, foresight methodology is difficult to utilize without working against preset biases. In addressing future technologies and the landscape of tomorrow, foresight analysis has a better chance of being utilized effectively, before those wishing to employ these tools have their views skewed by their preconceptions. This is characterized by the "three-horizons of growth" model created by McKinsey, with the first horizon representing current planning, the far horizon representing the hockey stick model of progress, and the center horizon representing the place where compromise and dialogue can occur. ("Enduring Ideas: The Three Horizons of Growth." McKinsey & Company. December 2009. Accessed February 16, 2019. https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/enduring-ideas-the-three-horizons-of-growth.) PFD members spent time discussing methods for expanding this horizon and opportunity for dialogue.

One of the mindsets PFD wishes to address is the "it won't affect me so I don't care" mentality sometimes taken by older generations in a position of power. To confront this, PFD seeks to incorporate younger participants into the project, those who realistically will have to deal with the long-term effects of decisions made in the present. PFD leadership discussed the importance of incorporating voices like those held by Junior Congresswoman Alexandria Ocasio-Cortez, who represents a movement of mostly younger Americans that are focused on addressing long-term issues such as climate change and the social safety net. Part of the goal of PFD is to encourage participants to begin thinking about common interest and the "public good", as opposed to private interests or tribal identities. Initiatives such as a "boomer-corps", which would bring baby boomers who are still idealistic and have risen to positions of power together with millennials who are likely even more idealistic but have yet to gain control of the societal institutions. PFD members discussed the possibility of bringing a representative from Pew Research to the Standing Advisory Group in order to best create a sample group from diverse demographics.

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SAG member David Rejeski presented the design principles for technology foresight, and addressed several different questions concerning the impact of technology on the future of democracy. The concepts he touched on are the following:

> *Awareness: What is the awareness of people within a group?*
> *Clarification: What do people understand – is there a partial understanding? Timing: Press doesn't clarify when technology like gene editing will happen. Relevance: What does it mean to me? Why should I care?*
> *Peers: People pay attention if their peers are paying attention.*
> *Actions: What do you want us to do? What is the time horizon? What is the potential impact, and should we engage? How important is this, and what should we do?*

Foresight methodology is essential in addressing the changes that technology will bring to the world. Governments specifically should be interested in this analysis technique if they wish to be proactive about regulation regarding emerging technologies. An example of this is that if it takes ten years for artificial intelligence to develop in a manner that may threaten democratic norms, it will likely take fifteen years for an international treaty to be signed related to that technology's governance, and therefore governmental regulators need to start applying these tools immediately in order to address these issues in time.

Demographic Drivers:

After the lunch break, the topic of discussion switched to demographic drivers that will change the societal framework of the United States and will permanently alter the American identity. Trends indicate that Caucasians in the United States will become a minority by 2045, and this will forever change the concept of what it means to be an American. (Frey, William H., and William H. Frey. "The US Will Become 'minority White' in 2045, Census Projects." Brookings.edu. September 10, 2018. Accessed February 13, 2019. https://www.brookings.edu/blog/the-avenue/2018/03/14/the-us-will-become-minority-white-in-2045-census-projects/.) Questions that will arise as part of these changes include "Can the United States integrate all newcomers?", "How do you prepare the population for technology and produce a new American identity?", "What constitutes an American mindset?", "What are the duties of Americans", and do these demographic changes spell the end of the concept of an American 'commons'?" In the process of asking these questions, the group pondered how Alexis de Tocqueville would describe Americans if he were writing today. One major shift that PFD seeks to address is the concentration of wealth and how it fundamentally changes the nature of American democracy. The shrinking middle class, and the urbanization of American youth constitute inherent challenges for the American political model, from the electoral college to social security.

The group then discussed the American model of decision-making in the historical context. The American mindset, in comparison to other global rivals, seems to be disconnected from the past and previous models. This can sometimes be beneficial, such as when Robert Kennedy quoted George Bernard Shaw in a 1968 speech at the University of Kansas, saying "Some people see things as they are and say why? I dream things that never were and say, why not?" ("Remarks at the University of Kansas, March 18, 1968." John F. Kennedy Presidential Library and Museum. Accessed February 15, 2019. https://www.jfklibrary.org/learn/about-jfk/the-kennedy-

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family/robert-f-kennedy/robert-f-kennedy-speeches/remarks-at-the-university-of-kansas-march-18-1968.) This attitude, unbound by the past, allowed Americans to dream big and accomplish monumental feats. Other systems, such as the Chinese decision-making structure, are bound by past models. While this binding may have previously been a hindrance, it is possible that the American model will no longer be competitive in the future, specifically as societal priorities move towards personal interests rather than universal prosperity. PFD members discussed Doris Kearns Goodwin's book *The Bully Pulpit*, which describes how Theodore Roosevelt managed to galvanize the American societal institutions and establish himself as the symbol of progressivism, despite ultimately having a legislative record that was inferior to that of William Howard Taft. Roosevelt managed to seize the "bully pulpit", and in doing so forever left his mark on American ideological history. (Goodwin, Doris Kearns *BULLY PULPIT: Theodore Roosevelt and the Golden Age of Journalism*. S.l.: PENGUIN BOOKS, 2018.) Members related this scenario to the current political arena, where a "bully tweet" can similarly mobilize a large political bloc. In employing foresight-based methodology, a decision maker needs to take into account that there are new avenues of communicating with the public, and flows of information are inherently decentralized as a result.

Frameworks and Conclusion:

The final portion of the meeting consisted of a discussion on the plan for the type of information to present to roundtable participants, and members weighed the potential challenges associated with introducing foresight methodology and decision-making frameworks to "lay-people", or those uninitiated in futures research and study. Members emphasized the need to gauge the participants understanding and ability to apply foresight techniques before and after each roundtable discussion. A differentiation was drawn between the use of foresight methodology in addressing *complex* problems, rather than *complicated* problems. PFD members discussed different frameworks to introduce to roundtable participants, specifically focusing on the Cynefin framework (pronounced ku-*nev*-in), developed by Dave Snowden, which was designed to "allow executives to see things from new viewpoints, assimilate complex concepts, and address real-world problems and opportunities". Using this approach, decision makers are taught to define the framework with examples from their own organization's experiences and histories, in order to outline the impact of potential future actions. This improves communication between the organization's decision-makers and helps executives rapidly understand their operational context. This framework was utilized by the U.S. Defense Advanced Research Projects Agency (DARPA) in developing counterterrorism strategies and is part of the Singaporean government's Risk Assessment and Horizon Scanning Program. (Snowden, David J., and Mary E. Boone. "A Leader's Framework for Decision Making." Harvard Business Review. December 07, 2015. Accessed February 15, 2019. https://hbr.org/2007/11/a-leaders-framework-for-decision-making.) PFD members fleshed out the specific methods available to present futures and foresight concepts to roundtable participants, as well as proper metrics for determining the effectiveness of outlining these techniques. Members agreed that participants should both be asked what their process for thinking about the future is, and continuously determine if that process evolves over the course of the roundtable discussions.

The meeting concluded by circling back to the project's mission, with PFD leadership reminding members that the premise of the roundtable discussions is to present foresight thinking as an antidote to polarization. The roundtable meeting is not only intended to teach the decision-

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makers of tomorrow about foresight methodology and techniques but is also a way of discovering whether or not such a group can organically replicate foresight-based decision-making without the aid of a room of futures experts. As the meeting adjourned, SAG members reiterated the strategies they planned to use to bring more participants to the March 14th Roundtable Discussion.

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SAG 3

Next SAG Meeting 14 March 2019, 1000 - 1500 (SAG 3 Invite and Agenda)

Dear SAG members:

Proposed Shift in Schedule

We've had two highly successful meetings of the SAG, well attended and productive. Upon reviewing the outcome of those meetings, and after some more thought about the schedule going forward, Sheila and I want to propose that we schedule a third, which will link the SAG directly into the scheduled series of Round Table discussions. We have in mind to use the proposed SAG meeting for two purposes: to have a discussion about the trends we intend to present to members of the Round Table; and to discuss which are the best ways to introduce the Round Table members to foresight concepts and methods, for their use in assessing the future impact of these trends. We have designed these objectives into our draft schedule for SAG #3.

1000 - 1200 Morning

Status report on the project.

- Review principle results of SAG#2; review the proposed Round-Table series; report on efforts to recruit a panel for the Round Table series.
- Discuss the intended structure of the series, i.e., dealing sequentially technology-driven changes and demographically driven changes.

1200 - Lunch

- Review the tech-drivers of change (reference to Dave Rejeski's comments at SAG #2; Carmen Medina to lead the discussion.)

1300 - 1500 Afternoon

- Discuss a basic set of two or three Foresight Methodologies suitable for use by Round Table Participants.
- Apply these methods to one or more (time permitting) of the selected trends (objective -- how best to expose Round-Table participants to concepts of systems, complexity, and to awareness of primary, secondary, tertiary ramifications).

The meeting will take place on 14 March, from 1000 - 1500 at 1111 Pennsylvania Ave., N.W. at the Morgan Lewis Law firm office. There will be coffee at the start, and lunch will be served. Please indicate whether you are able to attend this session by responding to this email.

Leon Fuerth
Sheila R. Ronis, Ph.D., President

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Briefers Slides on Technologies

Technology	2009 Report	2019 Report	Both
Nanotechnology			
Software as a Service			
Ambient surveillance			
Web 3.0—the semantic web			
Natural language understanding			
Bots			
Wireless power transfer			
Web 4.0—the object web			
Smart grid			
Universal genetic databases			
Persistent recognition			
Green IT			
Insecure supply chains			
Ubiquitous transparency			
Life logging the quantified self			
Biometric malware			

Technology	2009 Report	2019 Report	Both
Nanotechnology	xx		
Software as a Service	xx		
Ambient surveillance		xx	
Web 3.0—the semantic web			xx
Natural language understanding		xx	
Bots		xx	
Wireless power transfer	xx		
Web 4.0—the object web	xx		
Smart grid	xx		
Universal genetic databases		xx	
Persistent recognition		xx	
Green IT			xx
Insecure supply chains	xx		
Ubiquitous transparency	xx		
Life logging the quantified self	xx		
Biometric malware		xx	

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The greatest impact of technologies occurs when they converge.

Genome editing

Indoor plant factories and micro farms

4D printing

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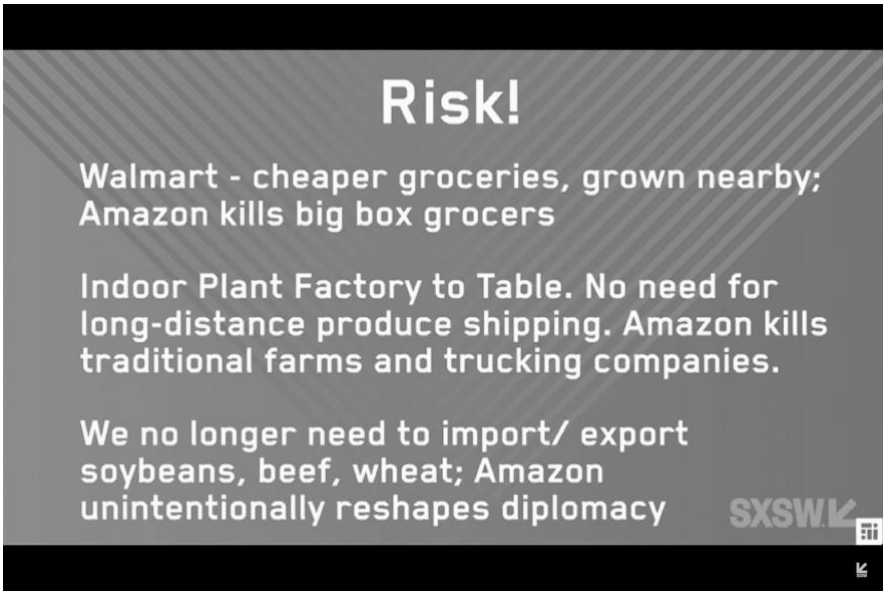

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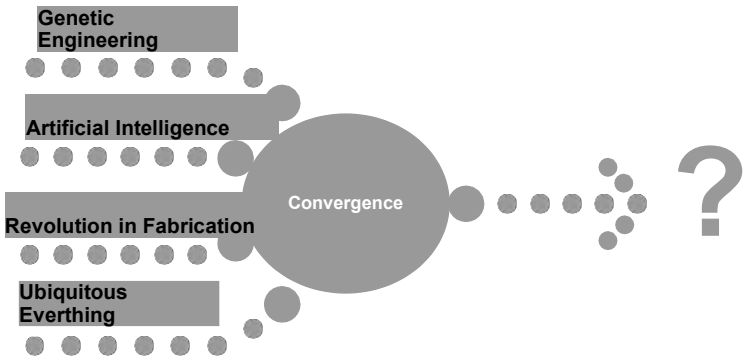
Near Term	Medium Term	Long Term
Data Ethics	Personalized Nutrition	IOT of the Body
5G	AI Labor Force	Quantum Computing
Smart Homes	Biometric Identity	Human Radar
Dynamic Pricing	Drone Labor Force	Autonomous Robots
Digital Agriculture	Neural Resources	Smart Dust
Blockchain	Ubiquitous Facial Recognition	
Real Time Analytics	Edited Humans	
Digital Identity	Emotional/Social Surveillance	
Microsats	Human-machine ecosystem	
Autonomous Cars		



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Project on Foresight and Democracy 14 March 2019 SAG Meeting Summation

Introduction:

The meeting began with a review of ongoing efforts to populate the round-table discussions, which will take up three further sessions. The first meeting, scheduled for 17 April 2019 will focus on scientific and technological drivers of change in democratic systems; the second meeting scheduled for 15 May 2019 will focus on demographic drivers and the third, scheduled for 19 June 2019 will focus on recapping and assessing changes in participants' outlooks as a result of exposure to foresight methodology. Laura Maristany of The Democracy Fund and the Dr. Steven Trachtenberg (former President of GW University) have provided a combined list of 16 possible names, of which seven have responded affirmatively. Leon and Sheila are following up.

Some SAG members emphasized the need for balanced ideological representation, and the meeting recognized a representative from the Charles Koch Institute, who said that she would consult others at the Institute, to determine whether there would be ongoing participation.

Artificial Intelligence as a Disrupter:

The meeting moved on to discussion of certain emerging technologies and their potential effects on society. This conversation naturally gravitated towards discussion on the Boeing 737 MAX, in light of suspicions that this aircraft's two crashes might be the result of excessive reliance on highly – perhaps too highly – automated features of the flight control system.

One member reminded the room that the Boeing 737 MAX is actually less complex than Airbus' equivalent model, and features more circuit breakers to allow for human intervention. The takeaway that this participant had from meetings with both Boeing and Airbus is that the airline industry is aiming to make flying "90%" automated. This trend, he said, reflects a belief that complex, high-performance aircraft cannot fly safely without the aid of artificial intelligence and automated systems. That belief, however, may turn out to have effectively neutralized human capacity to correct for malfunctions within the control system itself.

From this specific point about flight safety, the discussion moved to the general concern that as artificial intelligence continues to develop, it will be important to take into account the diminishing role of humans in machine decision-making. In this connection, members discussed the increasing involvement of artificial intelligence in the criminal justice system, citing examples such as algorithmic policing, automation in pre-trial administration, and risk-assessment systems. One member explained that in some cases, the entire pre-trial process is being determined by algorithmic methods (e.g. a pre-trial release board has been replaced by an automated system that decides what the bail amount should be.) The algorithms for these systems process data from a questionnaire, which can be written in such a way as to retain human bias.

Artificial Intelligence and algorithmic learning seem to have been implemented rapidly in order to address severe efficiency problems and backlogs in the criminal justice system. However, as politicians and governmental organizations embrace these emerging technologies, human

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regulators are not keeping pace. As the velocity of innovation quickens, governmental institutions will either need to restructure to match the pace, or risk entirely losing the capacity to exercise oversight of emerging technologies.

Climate Change:

Members began the discussion on climate change by addressing climate change as a challenge to national security in the form of a "threat multiplier". The 2014 Quadrennial Defense Review was cited as an example: identifying climate change as a force that "will aggravate stressors abroad such as poverty, environmental degradation, political instability, and social tensions – conditions that can enable terrorist activity and other forms of violence". (Department of Defense. Quadrennial Defense Review 2014, Chuck Hagel.) This definition can also be extended to include the ways in which climate change exacerbates existing strategic tensions, such as the emergence of new maritime passageways as factors in a competition to exploit the Arctic for geopolitical and economic reasons. Framing issues around climate change in this manner has allowed the Department of Defense to take a proactive approach to the topic, and one member mentioned that the military will soon be advising civilian organizations on methods to combat these problems.

In discussing the need for application of foresight methodology in governance, members discussed the discrepancy of perspectives between generations in their approaches to climate change. From Stockholm, Sweden, a 15-year-old Greta Thunberg organized a global climate change awareness school strike involving children in over 9000 locations in more than 100 countries. This phenomenon exemplifies how younger generations tend not to see climate change as a distant problem or as a secondary priority, but as something they will be forced to confront in their lifetimes.

In the United States, this generational gap is now beginning to have an impact on national politics, but the political majority have yet to adopt the same sense of urgency that many younger millennials and members of Generation X exhibit. Members noted that, as a result of social media and other emerging technologies, the capacity for futures modeling and for implementation of foresight methodology as a factor in policy, has never been greater, though it has yet to be fully utilized by those in positions of power. This generational discrepancy is contributing to distrust in government: a trend that some members believe is likely to worsen without a major shakeup of the political system.

Emerging and Converging Technologies:

In understanding emerging technologies, members agreed that the greatest impact of distinct technologies occurs when they converge.

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Technology	2009 Report	2019 Report	Both
Nanotechnology	xx		
Software as a Service	xx		
Ambient surveillance		xx	
Web 3.0—the semantic web			xx
Natural language understanding		xx	
Bots		xx	
Wireless power transfer	xx		
Web 4.0—the object web	xx		
Smart grid	xx		
Universal genetic databases		xx	
Persistent recognition		xx	
Green IT			xx
Insecure supply chains	xx		
Ubiquitous transparency	xx		
Life logging the quantified self	xx		
Biometric malware		xx	

SAG Meeting members opened discussion of emerging technology trends by first presenting the findings from the Future Today Institute's "2019 Emerging Technology Trends" report, and the subsequent lectures given by Future Today Institute's Amy Webb. In assessing the effectiveness of the Future Today Institute's forecasting, one SAG member presented the following graph, which lists disruptive technologies mentioned in the 2009 and 2019 reports, and which were mentioned in both. (FTI Tech Trends Report 2019. Report. 12th ed. Future Today Institute.) This analysis serves to exhibit the velocity of technology change, and also demonstrate that despite the best forecasting, some technologies can burst into view spontaneously without much warning.

Amy Webb's presentation listed four specific examples of converging technologies that will radically change society: genome editing, indoor plant factories and micro farms, and 4D printing. Genome editing technology will increasingly allow humans to select for desired genetic

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traits and eliminate genetic diseases but will also produce a host of ethical and scientific dilemmas. Indoor plant factories and micro farms have already become popular in China and Japan, and will become increasingly essential in the United States as it continues to urbanize. The likely impact of this will be the elimination of much of the need for long-distance food production, and the destruction of traditional agricultural and transportation economies, as companies with the financial resources to develop the new forms of cultivation will increasingly control the means of production. Reference was made here to the efforts of major vendors of seeds to substitute variants that do not replicate, and thus force farmers to purchase seed annually, rather than re-seed from existing stocks.

A further take-away from the discussion of Amy Webb's presentation was her categorization of issues into near term, medium term, and long term. Near term issues are defined as those that can arise and require addressing in the next two to three years; medium term issues are within the next ten years; and long-term issues will require attention in ten years and beyond. This chronological categorization was presented as follows:

Near Term	Medium Term	Long Term
Data Ethics	Personalized Nutrition	IOT of the Body
5G	AI Labor Force	Quantum Computing
Smart Homes	Biometric Identity	Human Radar
Dynamic Pricing	Drone Labor Force	Autonomous Robots
Digital Agriculture	Neural Resources	Smart Dust
Blockchain	Ubiquitous Facial Recognition	
Real Time Analytics	Edited Humans	
Digital Identity	Emotional/Social Surveillance	
Microsats	Human-machine ecosystem	
Autonomous Cars		

Roundtable Discussion Formatting:

The meeting concluded with a discussion of the make-up of the pending roundtable discussions, centering on best practices to employ with "lay" participants. Members agreed on the importance of allowing room for the participants to voice their own thoughts and opinions, rather than setting up a "field day for futurists" by overly populating the room with SAG members. It was agreed that this interaction should be designed to encourage and equip participants to discuss issues related to foresight, learn from the discussions, and potentially, to change their perspectives on how to address future issues.

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One member suggested that round-table discussions should be opened by asking participants "what are your thoughts about the future?" and then tracking the progression of their responses to that question over the course of the discussions. Members emphasized that SAG members will still play a vital role, because although participants may be familiar with individual issues associated with ultra-rapid technological change, exposure to these issues in isolation from each other may not be enough to change ways of thinking. Any discussion on thinking about the future needs to be supported by giving the participants basic foresight tools and processes and assisting the participants to apply them. This manner of arranging the discussions will therefore require that futurists in the room should act as coaches, guiding the participants and giving them direction, but taking care not to influence their substantive conclusions.

One member suggested the use of a simple device consisting of a stack of cards imprinted with images of different categories needed in foresight analysis, including technologies, social issues, societal institutions, etc. titled on each card. Participants would then select cards from different categories and talk about how these factors may impact a widening circle of persons, expanding from community to state, to nation, etc. One member will need to record and aggregate these responses so as to track how foresight may affect recognition and analysis of different converging factors among participants.

Another member recalled seeing a video clip of animals in the savanna, with the camera frame centered on two antelope fighting. As the clip continued, a distant shape slowly approached the frame of view, and eventually it became clear that a lion is about to attack the antelopes. The antelopes were so preoccupied with their own rivalry that they do not notice the lion until it was too late, and the lion inevitably caught and killed one of them.
This video illustrated how groups can become hyper-focused on the issues immediately in front of them, to the exclusion of foresight that might otherwise have helped them prevent catastrophe.

SAG members agreed that the objective of the project is to provide foresight methodology to the participants as a means to bypass polarization, and thereby to explore issues related to the future of democracy, resulting also in evidence that civil discourse is still possible in an increasingly diverse society.

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Round Table 1

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Project on Foresight and Democracy Round Table 17 April 2019 (RT 1 Invitation/Agenda)

Sheila Ronis and I want to thank you for your interest in the project on Foresight and Democracy.

Basic information about the project was contained in an e-mail sent out to then-prospective participants, on 5 April 2019 and which we are attaching below, as a reference. The purpose of today's message is to provide specific information concerning the project's first "round table," which you are scheduled to attend on 17 April 2019 from 1000-1500 at 1111 Pennsylvania Ave. N.W., Washington, D.C. Parking is available under the building and parking costs will be reimbursed with your receipt. Refreshments and lunch will be served.

Round Table Purpose

The purpose of the round table is to promote systematic discussions of the long-range societal implications of major oncoming trends owing to disruptive forms of technology and to shifts in the demographics of the United States. These discussions will touch upon the potential consequences of such trends for the specific interests of various sectors of American society, and upon the collective interests of American society as a whole, complex entity. Foresight methodologies will be introduced to help structure the discussions. The major focus of this process will be on the capacity of our system of democratic governance to sustain itself in the presence of multiple forms of profound, disruptive change, under conditions when political discourse has become polarized and the responsiveness of society to change is blocked by stalemate. Participants will be expected to speak on the basis of personal views, rather than to the specific interests of organizations with which they may be (or may have been) associated. Chatham House rules will apply to all discussions.

Participants

- Dr. Allen Sessoms: physicist; diplomat; former president Queens College of the City University of New York. Larry Spencer: US Air Force General (4 star, retired), engineer, budget and financial management.
- Ian H. Solomon: founder, CEO of SolomonGlobal LLC, former Executive Director of World Bank Group, associate dean at Yale Law School.
- Dr. Charlene Drew Jarvis, neuropsychology, educator, elected member of Council of the District of Columbia. Sherri Goodman: former Deputy Undersecretary of Defense (environmental security), Board Chair, Council of Strategic Risks, Senior Strategist, Center for Climate and Security.
- Charlotte Resing, attorney, ACLU.
- Eric Popiel: Commander, US Coast Guard (ret). Program Manager for USCG Strategic Foresight Initiative, OPM Strategic Foresight Manager.
- Margaret Cope, Founder, ServeUSA.
- Trooper Sanders: Technologist.
- John Meagher: Futurist.
- Jim Burke: Futurist.

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- Sheila Ronis: Project Co-Director
- Leon Fuerth: Project Co-Director

Sequence

The schedule for the day's discussions has been arranged to promote an exploration of the round-table's views of the future in circumstances that are designed to test the effects of foresight methods when applied by members of the panel to an assessment of important trends over the longer term. Of interest will be: (1) how the group thinks about the future at the outset of the process; (2) how the group thinks about the future as a result of the process; (3) what the group thinks about the future in substantive terms; and (4) what the group thinks -- if indeed there is consensus---about specific challenges to democratic governance, and the utility (or lack thereof) of foresight as a supporting element.

Agenda

The agenda will be fluid but include four topics. Times are approximate.

State of Democracy: falling confidence in its adaptive capacity; growing demand for change; grid-lock over policy responses. Support for authoritarian solutions is growing. Eyes not on the future. (one hour)

Next Generation Challenges: Both technology driven and demographic. Hockey-stick interactive. Concurrent. Complex. Global. May sharply intensify anti-democratic trends. Could bring to an end the chapter of human development that began in the West, with the Enlightenment . (one hour)

Anticipatory response/theory: (1) Foresight methods to provide earlier alert based on first signals. Tracking. (2) Systems-based approach to promote awareness of primary, secondary, tertiary consequences of trends; (3) Systems approach for better understanding of actions taken and not taken. (working lunch) (one hour)

Anticipatory response/demonstrate: (1) system map; (2) future's matrix (afternoon session). (3) Evaluation (two hours)

Follow on

The second round table on 15 May 2019 will examine the impact of profound demographic change on democratic processes, again using foresight methodologies to assist. The third round table on 19 June 2019 etc. At the conclusion of this sequence, Ronis and Fuerth will prepare a draft summary of findings. These will be presented to the Round Table at a meeting with the project's advisory panel of foresight experts, for a plenary discussion and critique.

5 April 2019 Email:

Thank you again for your interest in the Project on Foresight and Democracy. Sheila and I look forward to your participation. This note provides an overview of the process, including its schedule.

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Project Rationale

Ideological polarization endangers democracy by sharply diminishing its responsiveness to urgent societal
needs. Systematic foresight is an analytic technique for generating earlier awareness of major future contingencies, along with more time to prepare for purposeful, anticipatory action. This is especially necessary in view of the acceleration of major challenges in coming years, as the result of new technologies that will deeply affect the public, along with shifting demographics that will profoundly change the characteristics of the public itself. The project is designed to test this proposition, and to explore ways to apply the results of that test on a larger scale, in a subsequent phase.

Round Table Process

The project is based on a Round-Table process, intended to simulate public thinking in microcosm. Participants in the Round-Table will, by virtue of their professional experience, be able to speak to issues such as: the range of disruptive trends that can reasonably be projected over the next one to two decades; foresight methodologies for characterizing the societal impact these trends may have; challenges these trends may present to democratic governance; and methods for bolstering the adaptive capacity of democratic governance in light of these challenges. These persons will engage on the basis of their personal knowledge and concerns, rather than as spokespersons for institutions. We now have a pool of ten talented people who are ready to contribute their time and imaginations to the process. We are checking to make sure that all parties are willing to have their names and professional histories made available within the group. Meanwhile, we can say that within this group are: educators, entrepreneurs, scientists, managers, demographers, civil rights advocates, foresight specialists, and systems analysts -- some with deep experience in government, others coming from the private sector including NGOs and not- for-profits.

There are three planned meetings of the Round Table: 17 April, 15 May and 19 June. The first session will focus on the implications of technological change. The second session will focus on the implications of demographic change. The third session will focus on prospects for improving the vitality of democratic governance over the longer term.

At each of these meetings, there will be a sequence, as follows:

- The “state” of democracy, reflecting the aspirations and concerns of Americans as seen by sector (race/ethnicity; gender; generational; socio-economic status), and by the society as a whole (“the commons”).
- Disruptive trends and forces over a period of 10-20 years (artificial intelligence, synthetic biology, climate disorientation, demographic transitions, disruption of global power relationships).
- Foresight methods.
- Application of foresight methods to trends.
- Assessment of prospects for democratic governance in light of the foregoing, with discussion of measures to improve the odds for its survival over time.

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The Round Table discussions will be fluid and interactive, to take advantage of the scope of its participants' professional backgrounds. We will limit the size of these meetings in order to make possible more sustained dialog. Minutes will be circulated rapidly after each session, in order to make sure that persons who cannot participate are kept current. Chatham House rules will be applied to the proceedings.

After the Round Tables

After the third meeting of the Round Table, Sheila and I will work with participants to prepare a final summary report of the project for submission to you for comment, and recommendations for further action before we prepare our final report to the Rockefeller Brothers Fund and a release of information to the public. The project is set to run until September or October. By then, we will have made a decision whether to pursue a second phase in the form of an effort to encourage the interested public to replicate the round-table process spontaneously, by making use of internet-based exchanges of information at the level of local civic organizations. Please RSVP to Sheila regarding your availability to attend 17 April at sheilarr@aol.com or simply respond to this email.

Leon Fuerth

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Project on Foresight and Democracy
Round Table 1
Rockefeller Brothers Fund

Leon S. Fuerth and Sheila R. Ronis
Co-Principal Investigators

Morgan Lewis Law Firm
1111 Pennsylvania Ave., N.W.
Washington, D.C.

17 April 2019

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Project on Foresight and Democracy

Sequence

The schedule for the day's discussions has been arranged to promote an exploration of the round-table's views of the future in circumstances that are designed to test the effects of foresight methods when applied by members of the panel to an assessment of important trends over the longer term.

Of interest will be:

(1) how the group thinks about the future at the outset of the process;

(2) how the group thinks about the future as a result of the process;

(3) what the group thinks about the future in substantive terms; and

(4) what the group thinks -- if indeed there is consensus--- about specific challenges to democratic governance, and the utility (or lack thereof) of foresight as a supporting element.

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Project on Foresight and Democracy

Agenda

The agenda will be fluid but include four topics. Times are approximate.

State of Democracy: falling confidence in its adaptive capacity; growing demand for change; grid-lock over policy responses. Support for authoritarian solutions is growing. Eyes not on the future. (one hour)

Next Generation Challenges: Both technology driven and demographic. Hockey-stick interactive. Concurrent. Complex. Global. May sharply intensify anti-democratic trends. Could bring to an end the chapter of human development that began in the West, with the Enlightenment. (one hour)

Anticipatory response/theory: (1) Foresight methods to provide earlier alert based on first signals. Tracking. (2) Systems-based approach to promote awareness of primary, secondary, tertiary consequences of trends; (3) Systems approach for better understanding of actions taken and not taken. (working lunch) (one hour)

Anticipatory response/demonstrate: (1) system map; (2) future's matrix (afternoon session). (3) Evaluation (two hours)

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Project on Foresight and Democracy

(one hour)

State of Democracy:

falling confidence in its adaptive capacity;
growing demand for change;
grid-lock over policy responses.

Support for authoritarian solutions is growing.
Eyes not on the future.

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Project on Foresight and Democracy

Next - Generation Challenges:

Both technology driven and demographic*. Hockey-stick interactive. Concurrent. Complex. Global. May sharply intensify anti-democratic trends. Could bring to an end the chapter of human development that began in the West, with the Enlightenment.
(one hour)

* Demographic challenges will be the subject of the May Round Table

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Next - Generation Challenges

Advanced Artificial Intelligence: upper-tier human skills displaced by machines learning from data, rather than from us. The almighty algorithm. Humans in the loop, but nugatory. Occult value systems. Hyper-speed. Super system of systems. Impact on democratic theory?

Synthetic Biology: all forms of carbon-based life subject to redesign. profit and ambition govern development. development essentially chaotic in its implications. direct intervention in human genetic codes. mimetic machine systems interacting with humans . low entry costs, world wide activity. Implications for democratic theory?

Anthropocene climate: chemistry, thermodynamics, biology interacting rapidly and chaotically. not possible to return to status quo ante, where change in global climate systems was slow enough to allow evolutionary and cultural adaptation. No longer contemplating the approach of chaos, but in its midst. Best case? Self-medicate the climate: treating symptoms of climate change rather than preventive approach. Implications for democratic theory?

Panopticon social order: total surveillance. anticipatory punishment based on earliest symptoms of deviance from a political defined behavioral norm. Collective Man vrs. Enlightenment Man.

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Anticipatory response/theory

- Social systems are complex. Governance systems are linear. Complex change exceeds response time of linear system of governance. Extreme political polarization delays solutions. Destruction of compromise. Implications for democratic theory? Defaults are chaos and/or anti-democratic methods.
- Possible Solution?
  - (1) Foresight methods to provide earlier alert based on first signals. Tracking.
  - (2) Systems-based approach to promote awareness of primary, secondary, tertiary consequences of trends;
  - (3) Systems approach for better understanding of actions taken and not taken.

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The World is a System

- What is a System?
- An entity with interdependent parts that cannot be pulled apart and still be a system…
- Why do I say the world a system? Because it is made up of many smaller systems all interacting with one another…
- There are a few characteristics that all systems share that I call system rules…

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The World is a System

- A few of the system rules include
  - All real world systems have open boundaries which means that forces outside the boundary influence what is inside and vice versa
  - they are in a constant process of interaction with their environment and their many stakeholders and must adapt to their environment in order to survive
  - All social systems are complex... They have people as elements in their system.
  - Complex systems cannot be predicted or controlled – but they can be influenced if understood well.

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The World is a System

- Large complex social systems, such as governments tend to face similar forces on them from the outside
- STEEP –
  - Societal
  - Technological
  - Economic
  - Environmental
  - Political

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The World is a System

Problems are best solved, not by breaking them up into "functional" bites, but by getting into the next larger system and solving them through integrative mechanisms.

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Anticipatory response/application

- Possible Solution to the fact that social systems are complex?
  - (1) Foresight methods to provide earlier alert based on first signals. Tracking.
  - (2) Systems-based approach to promote awareness of primary, secondary, tertiary consequences of trends;
  - (3) Systems approach for better understanding of actions taken and not taken.

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Foresight Methodologies
(featured in *Anticipatory Governance Practical Upgrades*)

Back-casting: *A method of working backward from a hypothetical future event (typically a desired goal) to the present in order to visualize short- and medium-term steps, necessary and sufficient conditions, and possible sequences of events that would lead there.*

Course of action analysis: *A method for assessing the cost, impact and risk associated with alternative action plans. Beginning with a set of alternative plans (courses of action or COAs), the costs, impact and risks of each alternative are expanded upon and then assigned weights that are then measured and compared against each other based on decision rules that reflect priorities.*

Cross-impact analysis: *A method for forecasting the probabilities of events based on their potential interactions with each other. Each hypothetical in a set is assigned an initial probability; conditional probabilities are determined using a matrix to consider their potential interactions with each other.*

Delphi method: *A method of forecasting by committee that uses a questionnaire to accumulate foresight analysis by experts whose responses are compiled and then re-circulated (anonymously) in order to reduce the range of responses and close in on expert consensus about the future.*

Real-Time Delphi: *An online version of the Delphi questionnaire that harnesses expert opinion about the future on an accelerated basis.*

Futures wheel: *A structured brainstorming technique that uses a wheel-and-spoke like graphic arrangement to consider the primary and secondary impacts around a central trend or hypothetical event.*

Implications wheel: *A structured brainstorming technique that arranges second, third and fourth order events around a central trend or hypothetical events, and uses probabilities to score potential implications.*

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Foresight Methodologies
(featured in *Anticipatory Governance Practical Upgrades*)

Issues-analysis: *A method of systematically "unpacking" the dilemmas, cross-category implications, and unasked questions that arise from trends, hypothetical future events, and alternative policy choices.*

Historical analogy: *a method of using the dynamics of events in the past to understand the dynamics underlying current and future events.*

Horizon scanning: *systematic monitoring and examination of current events (across categories) in order to detect early signs of potential major impending developments and how they might influence the future so that early action can be taken.*

Environmental scanning: *systematic monitoring of an internal and/or external environment in order to detect opportunities and threats in advance so that early action can be taken.*

Morphological analysis: *a method for structuring and investigating sets of relationships contained in multi-dimensional, non-quantifiable problem spaces.*

Roadmapping: *a technique of planning that identifies a sequence of goals, prospective future developments, and future "on-ramps" and "off-ramps" for decisionmaking.*

Robust decision-making*: a method of relating short-term policy interventions to different clusters of long-term futures.*

Scenarios: *case studies of the future that depict in detailed narrative how events might lead from the present to an envisioned future. Scenarios should come in sets covering a range of possible futures that provide a means to visualize outcomes of alternative courses of action, analyze their hypothetical consequences under different combinations of assumptions, and link logical sequences of events.*

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Foresight Methodologies
(featured in *Anticipatory Governance Practical Upgrades*)

Simulation/Modeling: *a quantitative method for understanding the* interactions of a system using a prototype, computer program, or other simplified representation of a real system. Models and simulations permit decisionmakers to experiment with interactive variables (often with large data sets) for a specified duration so as to gain understanding about a system's behavior, probabilities, and range of possible outcomes.

State of the Future Index: *an index that measures the 10-year outlook for the future based on key variables and forecasts that collectively depict whether the future promises to be better or worse.*

STEEP Implication Analysis: *a method for systematically analyzing the social (S), technological (T), economic (E), environmental (E) and political (P) implications and issues related to a trend, event, decision or policy.*

SWOT analysis: *a method of analyzing and assigning weight to an operations' internal factors—strengths (S) and weaknesses (W)—and external factors—opportunities (O) and threats (T)—so as to strategically match resources and capabilities to the environment*.

Trajectory Analysis: *a method of assessing the directionality of trends and oncoming events so as to create manageable pathways that can aid policymakers in identifying engagement opportunities*.

Trend Projection: *an extrapolation of a current trend line into the future based on historical data, rates of change, and other essential variables. Projections are based on an assumption that factors will be held constant with no looming discontinuities.*

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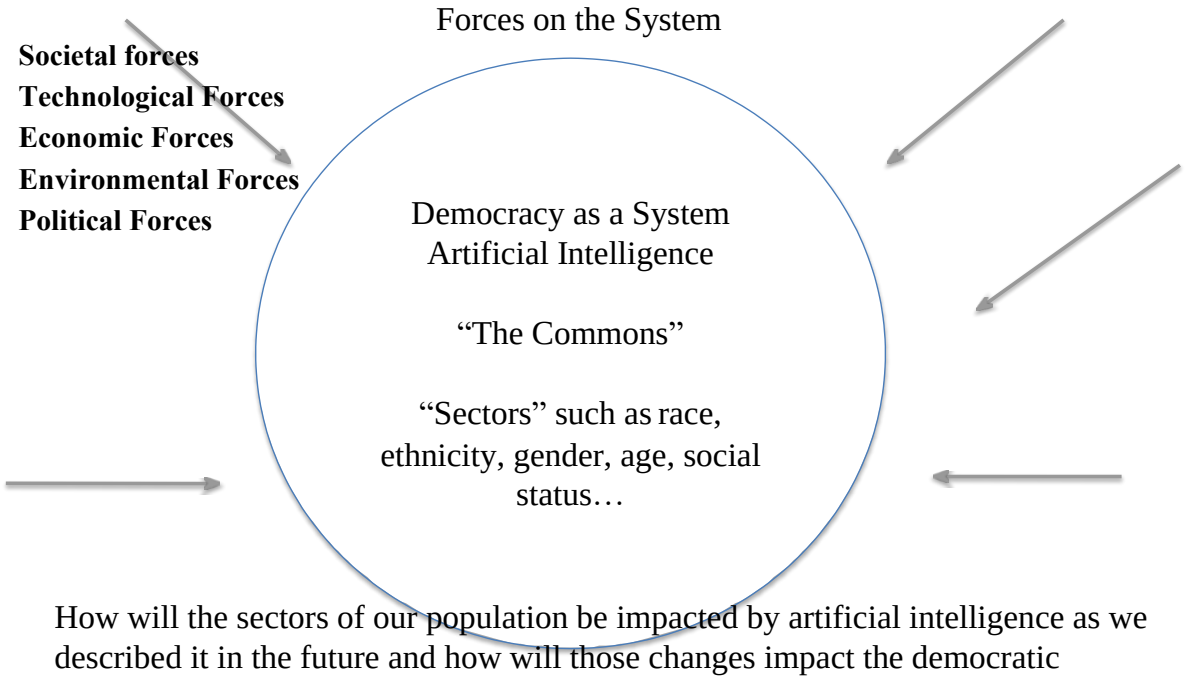
Project on Foresight and Democracy



How will the sectors of our population be impacted by artificial intelligence as we described it in the future and how will those changes impact the democratic commons? Primary, secondary, tertiary?

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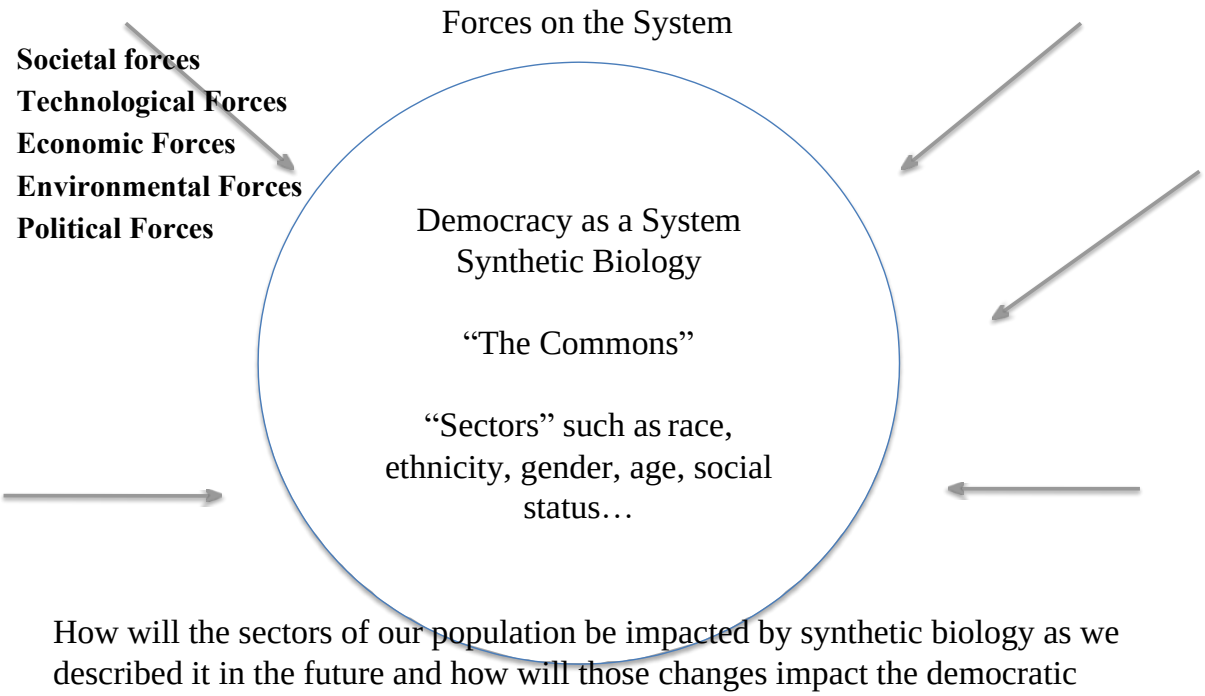
Project on Foresight and Democracy



How will the sectors of our population be impacted by synthetic biology as we described it in the future and how will those changes impact the democratic commons? Primary, secondary, tertiary?

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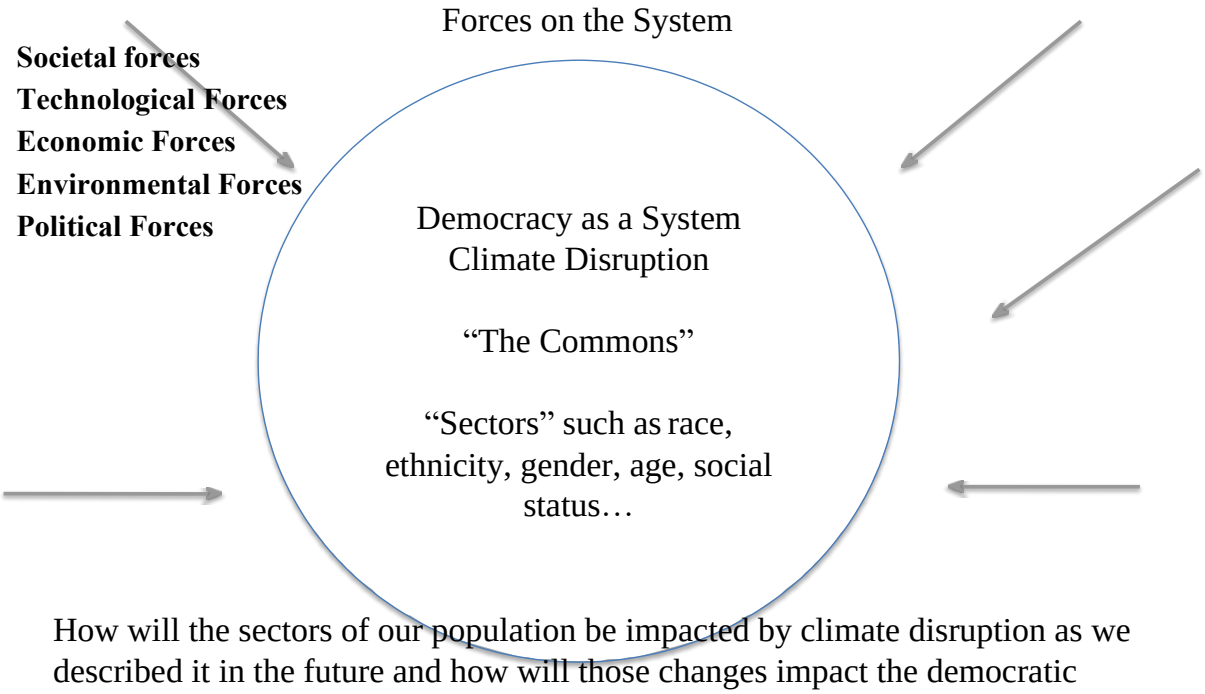

How will the sectors of our population be impacted by climate disruption as we described it in the future and how will those changes impact the democratic commons? Primary, secondary, tertiary?

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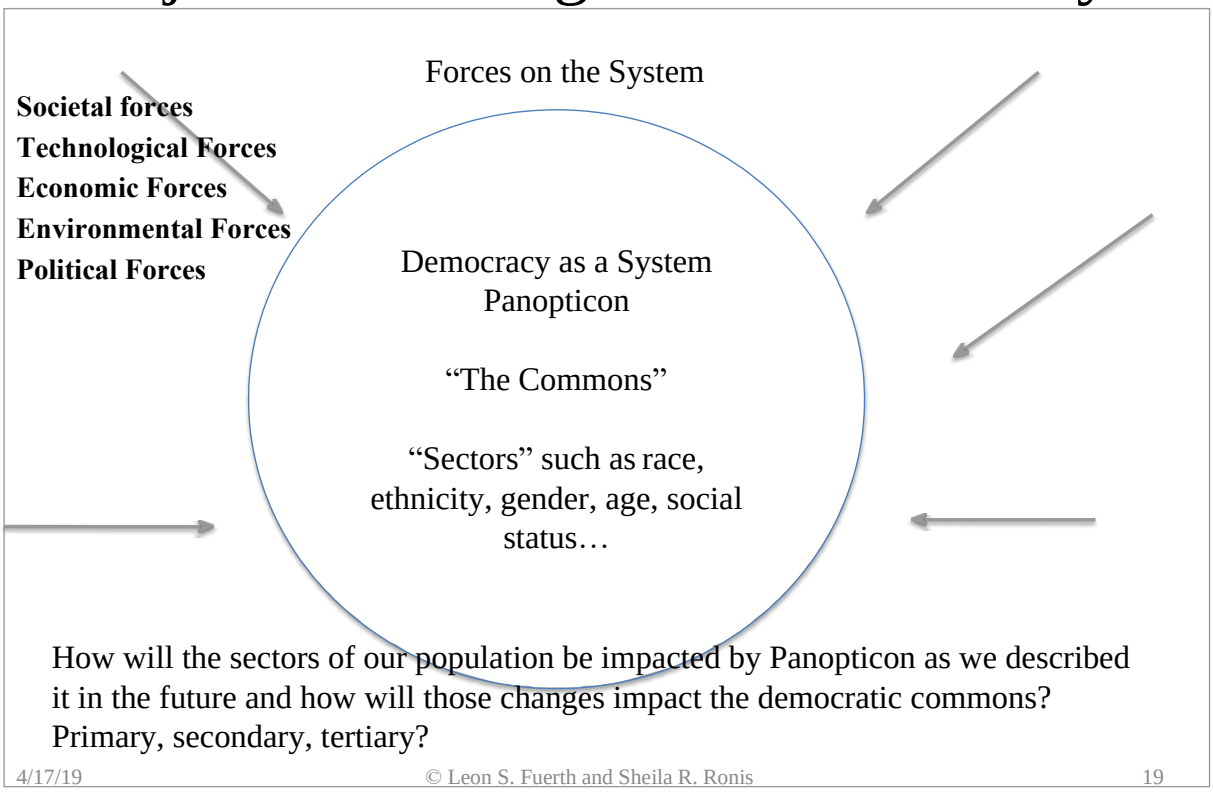

How will the sectors of our population be impacted by Panopticon as we described it in the future and how will those changes impact the democratic commons? Primary, secondary, tertiary?

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Round Table #1 Synthesis

- Collectively, the members feared that the technological drivers were moving at a speed driven by motives of corporate profit-making souped up by geo-political rivalry; that there was a need for foresight to help in the design of rules of the road that would place limits and impose guidance that would be effective over long periods of time; that the corporate world was writing its own rules; that made-in-America rules could not be sustained in a world where Chinese values were dominant; that we are in danger of having the core meaning of democracy -- individual liberty -- suffocated under a tyranny of algorithms written without compassion, without ethical oversight, and in the absence of attributable responsibility for consequences.

Democracy: base line

- If the subject is the impact of technological "drivers" on the American system of democracy, the first question is what is the base-line?
- Manifestly not equal for all.
- Unequal access to knowledge, health, housing, justice, representation.
- Differentiated by race, ethnicity, age, gender, patterns of family dynamics, geography.
- If participation in voting is an indicator, roughly 40% of the electorate does not believe that outcomes materially affect their circumstances and prospects. (Note: participant has questioned this percentage believing the correct number to be about 60%. That question has been referred to the participant who made the statement and response to that question is pending.)
- Large sectors of the populace believe (and have reason to believe) that the system disenfranchises them. Lack of consensus about what the truth is. Role of the media in polarizing conceptions of what the truth is.
- Hard to build consensus, and hard to have a sound political system in the absence of consensus. Large part of the populace believes that the system is in fact rigged against them.
- Elected representatives seen as primarily interested in office, rather than in service.
- The Corporation as super-empowered individual.
- Differential political impact of this belief: substantial numbers of African-Americans declining to vote; substantial numbers of white -Americans looking for political leadership ready to defend their interests, and have found it in Trump.

Tech Disrupters: AI and Democracy.

- Machine learning and AI will incorporate implicit biases of the people who are writing the algorithms.

Commented [A1]: and to have that guidance not impede technical and business model innovation (especially in light of other countries that may not have such sensitivities)

Commented [A2]: I wonder if you want to put this is terms of Chinese and other non-western values, e.g., the eventual rise of India, growing, but slow, influence of Africa, etc.

Commented [A3]: and transparency

Commented [A4]: Charlene's comment about "dignity deficit" might play here. It also may raise a question about the role of advanced technologies in erasing that deficit.

Commented [A5]: And to feedbacks loops that report on government actions and effects

Commented [A6]: With trends towards a cashless society that has an inequitable impact on the "50% of the people who cannot get a credit card?" Note: that was the percentage mentioned at the meeting; I found this on line (which, of course, never lies): "Credit cards are found in most Americans' wallets. Multiple studies say about 7 in 10 Americans have at least one credit card. Boston Federal Reserve data released in August 2017, for example, found 75.7 percent of consumers had at least one credit card, defined as a card that allows the cardholder to make a purchase by borrowing funds that will be paid back to the credit card company later.[1] Using the Census Bureau estimate of 249.5 million adults in the U.S.,[6] that means there are about 189 million Americans adults with at least one credit card."
The point is that there are lots of competing arguments and supporting statistics regarding access and similar matters. Regardless, corporate policies can exacerbate the gap between the haves and have-nots.

Commented [A7]: I am struck by the conclusive downbeat theme of these baseline items. It washes out the large percentage of US citizens who did have hope and optimism for a more inclusive and equitable society. It might be an equal peril to ignore those interests as we create the "baseline."
We still have a country that allows creative people to pursue their technical and non-technical dreams; we still have a country that attracts people globally; we have an activist network that is quick to highlight injustices and to fight for the rights of those oppressed. Those certainly are part of the baseline.
The criticism of the media and nefarious internet forces exert a negative influence on democratic processes, but that arena also allows more potential candidates to enter the fray and press forward their messages in a way unique to our era.
The story your list paints is one that certainly exists, but it is not the singular story of the U.S.
Isn't one challenge of the future to reconcile those two views of the U.S. and to enable the country to move forward under a more democratically-engaged framework?

Commented [A8]: One of Leon's observation might fit in the baseline; a paraphrase: how to transform a slow deliberative structure to adapt to fast-moving events. To that I would suggest adding fast communications and quick characterizations. ... [1]

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- Language has codes for different groups of people, and if you don't understand coded language when you are working with AI, you will have autonomous systems that will mislead people.
- This is a common problem in the national security world, such as the word "Jihad," which we interpret as a commitment to violence, but which also can also mean a spiritual commitment to the solution of a moral challenge in Islam. There is a tricky problem in machine algorithms, when it comes to correctly understanding the nuances of such a term in different communities.
- The ability to recognize such distinctions is crucial. Especially since we will soon have many different categories for sorting people, not just limited to race, gender, or religion, but also to age and vulnerability to disease.
- When talking about the problem of undetected bias, it isn't the bias itself that's the problem, it's the impact of the bias.
- In China, they are piloting AI as a social control system. How do you build a freely accepted common consensus about the nation and the problem it faces, if there is no way to transcend and break out of such algorithms?
- There are different kinds of AI, with different ways of sorting us as kinds of human beings. Perhaps we need a system that can detect such biases?
- Do advanced AI systems have ethical values, and if so, whose?
- We may design AI systems that are without empathy.

Tech Disrupters: Synthetic Biology and Democracy.

- There are many ways it might be used for good, or used negatively.
- It depends on the price-point of the technology, and whether it leads to a world where the wealthiest do not age, have greater political power, and are in a position to reinforce the accumulation of wealth by a super-privileged minority.
- Young people are already getting medical changes which they believe will elongate their lives. (Note: a participant asked for specific information about such changes. That request has been forwarded to the participant who made the comment. A response is pending.)
- AI and synthetic biology could be used to create an algorithm for insurance carriers that will determine the cost structure for individuals.
- Difficult to compare ethical guidelines that can accommodate the velocity of change we are experiencing.

Tech Disrupters: Climate Change and Democracy.

- How will sectors of our population be impacted by it, and what are the 1st, 2nd, and 3rd order consequences?
- Sectors of the population that are least able to protect themselves will suffer the most.
- Large-scale destruction or abandonment of homes due to climate change destroys the sense of community and the ability to organize.
- In China, population centers are much more dense than in the US, and social control is an imperative from ancient times. The government fears a spark that

Commented [A9]: Again, I am struck by the criticisms of AI, valid though they are, without any recognition of the potential positive features that could improve democratic processes, e.g., being able to identify deep fakes, discern patterns that might indicate efforts to limit the votes, point to areas where more active efforts to register voters is called for, could help voters better understand the consequences of candidate platforms, could track post-election voter sentiments to inform legislators, could create models for compromise, could better emphasize the pernicious effects of gerrymandering, could show microtargeting trends that are inequitable, could we use ai to develop a "human capital deficit" metric, could give better voice to the voiceless, could better identify weak signals that could grow into social threats, etc.

Commented [A10]: It is important to note that some corps are struggling with the ethics of advancing technologies, as is the NSF and other government groups in the U.S., complemented by EU efforts

Commented [A11]: Like many things, e.g. cell phones, the rich are often the initial beneficiaries, but the prices drop and the benefits cascade down to the less rich. Perhaps the question is how to speed the transfer of these benefits before the rich have a locked-in advantage that cannot be balanced or reversed.

Commented [A12]: Recommend you consider adding neuroscience to this discussion and the advances from the many public and private initiatives to better understand the brain. This is important because the brain is the target of some of these medical changes. Also, you may want to differentiate synthetic biology, which is the creation of new or dramatically modified forms of life, and human enhancement drugs and techniques.
For a good (and for me, dense) intro to synbio, see the Economist April 6, 2019 issue. The material in the article extend the applications of syn-bio beyond the body and infer some of the benefits that might be more socially distributed, e.g., advances in fuel could reduce environmental impacts that affect less advanced economic areas.

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could set off a societal conflagration, which has happened at intervals in China's history. Therefore, it requires social controls to manage the risk.
- Climate scientists have been talking to each other rather than to the general public, and they have not translated a sense of doom to the public.
- How do you define climate change in a way that conveys a sense of immediate, rather than eventual danger? Climate change will drive demographic shifts, through migration of peoples.
- Huge strains on democracies in Europe as the southern countries become uninhabitable.
- Generation Z view of the future is fatalistic. They don't believe that we will be here as a species in 50 years, without drastic change.

Democracy as a System.

- Social systems are complex. Governance systems are linear. Complex systems need to change faster than the response time of linear systems of government. Extreme polarization delays solutions. Destruction of compromise.
- Foresight can be used to get into systems to see what might work or not. You cannot necessarily predict or control the behavior of a complex system, but you can influence its behavior -- if you understand it well.
- This requires understanding of second, third, fourth order effects of decisions. Foresight methods -- and there are many of them -- can help us identify these.
- Look at democracy as a system and think about the democratic commons and the various societal sectors that we're looking at. Then look at drivers and then ask how these sectors will be impacted by AI, tracing primary, secondary, tertiary effects.

Reinforcing Democracy.

- For the identified technological drivers, curves representing societal impact begin gradually, but during the fifteen-year period elected for study, those curves will become much sharper.
- The changes become interactive.
- Use of foresight to frame the public interest is especially important when applied during the relatively "flat" zones.
- Government will lag behind private sector in setting de jure guidelines, because of the latter's "functional sovereignty" whereby corporations create law and policy de facto through their commercial practices.
- Huge impact on local economies and politics.
- Corporations will attempt to anticipate and manipulate political responses.
- Corporations exerting "virtual sovereignty" over huge areas of technology.
- Need to introduce meaningful long-term principles to apply to such corporations.
- Speeding up government to match technology won't work. Need to get ahead of technology with rules in the public interest that are designed for 30-50 years and that can apply to a generation of new technologies.

Commented [A13]: Are they linear or are they portrayed as linear without any recognition of the cascading effects of legislation—intended and unintended; aren't they also, because, in part, of special interests, siloed which inhibits a systems understanding? Again, there could well be a role for AI in assessing the implications in ways unforeseen today.

Commented [A14]: Need? Or they do change faster? Also, you may want to describe which complex systems you are addressing, the macro complex system that integrates everything on earth and outside systems that affect earth and the sub-systems, plant, animal, human, etc. I am having a hard time understanding the bullets in light of the title of the section. Perhaps if you lead off with the last bullet and expand that definition a bit, it would lay a foundation for the follow on bullets?
Also, are you saying that democracy is a complex system? Perhaps an expansion of that idea.

Commented [A15]: Recommend you define this in the context of this study

Commented [A16]: Commons also implies a common public interest and at question is who defines that interest?

Commented [A17]: This bullet is somewhat dense and, while I think I know what you mean, it is not clear that my assumptions match your reality. This explanation may make more sense to a futurist and you may want to consider more explanation. Ideally, as the study progresses, a paragraph like this would profit from a graphic.

Commented [A18]: And the timelines of those effects—not all occur simultaneously

Commented [A19]: I am unsure what this means for your interpretation. Societal impact can be interpreted in many ways—could you offer a metric or two and, when you say "much sharper" could you explain whether they are sharply up or sharply down?

Commented [A20]: 2019-34?

Commented [A21]: Suggest you explain—if you look at interactivity from a morphological perspective, trends will reinforce and retard other trends. This might be a tie-in to earlier systems discussion.

Commented [A22]: Can you offer some examples?

Commented [A23]: And can do so much more quickly. At the same time, the Internet allows public outcry to become more widespread more quickly and corps have reversed directions very quickly. Perhaps this is another role of AI, monitoring corps?

Commented [A24]: This might argue for a self-governing system, like those encouraged and supported by NIST

Commented [A25]: And at the same time, not constrain innovation

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- International dimension to this: China systematically aiming for the lead. If it succeeds, China will set the rules. Chinese "value-system" for those rules are not consonant with ours.
- Americans need to be educated to understand these technologies. We are instead divesting from public education.
- Federal intervention needed to set certain standards for education, and that will require limiting the sovereignty of individual states, perhaps by withholding federal funds from states that will not comply.
- Talent base of the American people needs to be developed strategically.
- Suppression of talent in the African-American community, and other minority communities, denies the country the assets needed to compensate for the declining birthrate in the white population.
- Crack epidemic has led to a population of two million persons in jails, and therefore subtracted permanently from the potential talent pool the nation needs.
- Privatization of prisons created powerful interest group for which incarceration of millions is a business model.
- Civil rights laws have not been updated for the impact of algorithmic sorting of people and opportunities for people. Invisible hand on the scales. For policing.
- Government can find ways to anticipate such issues.
- Need to set boundaries where technological impact on people concerned, but we may not be wise enough to do that.
- Rising costs of elections has broken the linkage between candidates and voters. Unless you lower the costs of campaigns, you cannot have an effective representative system.
- Congress not acting to protect the security of elections for hacking. Theft of information. Fake news. Amplification and proliferation of extremist narratives.
- But how to do this by means which themselves would be compatible with democratic practice?
- People don't value long- vrs. short-term consequences of things. Secondary consequences are not discussed in an accountability framework. Large tech companies are limiting accountability systems by threatening independent researchers who are producing data the large firms don't like, by threatening the former with suits based on violation of terms of service agreements.
- One-two punch between technology to micro-target voters, and the ability of local politicians to enact gerrymandering and voter suppression efforts.
- Congress also failing to deal with campaign finance reform.

Anticipatory Governance.

- Foresight is a method to reduce the effects of polarization and to make it possible to make progress.
- There is thinking about the future, but it is insufficiently coupled to action.
- Alarms about climate change were set off in the 1970s; it has taken 40 years to get on everyone's radar.
- The time intervals by which we have to hold leaders accountable is not inherently set up to incentivize people to think in 10-15 year increments.

Commented [A26]: And activist NGOs

Commented [A27]: And unlimited contributions

Commented [A28]: At the same time, election processes must protect the rights of free speech
Does this go with last bullet?

Commented [A29]: A role for AI?

Commented [A30]: This is a bold statement and we need to show with arguments and examples why it is true and unique. It could be a method if applied in a bi- or non-partisan way and there were some consensus beforehand. Perhaps another way to say this is that foresight can offer a path to a method that…
Even so, we see competing views of the future, the Trump supporters see a country steadily degenerating and call for forceful limits on liberal sensitivities; liberals see an authoritarian future that wipes out equitable treatment.

Commented [A31]: And it is generally partisan

Commented [A32]: 1960s had predictions relating CO2 to ocean rises

Commented [A33]: At the same time, many environmental and social forecasts made in the 80s did not come to pass, casting skepticism on the discipline.

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- With climate change, you need leaders to take massive political risk.
- Politicians are definitely not doing that now. There is no reason for them to act on the basis of foresight, not only because they won't be in office in ten years, but also because it is harder to mobilize people behind long-term initiatives.
- In most of the country, people have much more immediate problems to focus on.
- There is however a systematic push from the political elites and this can create an opportunity to divert political energy towards the longer range, in order to get ahead of some of these issues within communities.
- It is necessary to translate abstractions into narrative that moves people, without exaggeration.

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Page 1: [1] Commented [A8]	Author

One of Leon's observation might fit in the baseline; a paraphrase: how to transform a slow deliberative structure to adapt to fast-moving events. To that I would suggest adding fast communications and quick characterizations.

How have we handled fast change in the past? In the late 1800's and early 1900s it was free reign, eventually leading to a populist pushback and antitrust legislation.

It is interesting that one theme of the meeting was an assessment that the Republicans are fear-driven and fear-based. Without addressing the truth of that assessment, it was interesting to see how fearful many in the room were of advancing technologies. Perhaps part of the baseline is a liberal fear that technologies would be misused?

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Round Table 2

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Invitation to Project on Foresight and Democracy Round Table 2

You are invited to attend the second Project on Foresight and Democracy Round Table meeting to take place on 15 May from 1000 - 1500 at 1111 Pennsylvania Avenue., N.W. Washington, D.C. We are hoping that all six members will be able to attend. Expertise on demographic trends will be provided by Dr. Mark Lopez. Dr. Lopez is a senior member of the Pew Foundation staff. He will, however, be speaking for himself, rather than representing the Foundation.

Members of the Standing Advisory Group (SAG) who intend to come are requested to let us know, since that has an impact on everything from our sense of resources around the table to our count of the number of sandwiches for lunch.

We intend to send all interested parties a detailed schedule for the date. Essentially, however, the discussion will occur in two "passes."

- In the morning, participants will be briefed by Dr. Lopez regarding the transformation of the United States' population from a system based on a majority plus minorities, to a system comprised of minorities, in need of new ways of thinking about itself as a collection of specific interests on the one hand, and a commonwealth on the other.
- In the afternoon, participants will discuss long-range ramifications of these changes. SAG members will assist from a foresight perspective, taking into account complex interactions.
- We will aim to have detailed minutes in circulation to participants for comment, to be followed by an adjusted version that takes these comments into account..

Please RSVP to Sheila Ronis at sheilarr@aol.com as to your availability. You may call her at 248-425-1430 with questions. Parking costs will be reimbursed and lunch will be provided.

--
Leon Fuerth
Website: http://www.forwardengagement.org/

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Project on Foresight and Democracy
Round Table 1
Rockefeller Brothers Fund

Leon S. Fuerth and Sheila R. Ronis
Co-Principal Investigators

Project on Foresight and Democracy Agenda

- Morning (1000 - 1200)
  - Overview of the Project on Foresight and Democracy: general goals; structure; process. (1000 - 1015)
  - Review of first Round Table meeting (1015 - 1045)
  - Presentation by Dr. Lopez: transformation of US population from a system comprised of dominant majority and auxiliary minorities to a system of minorities. (1045 - 1200)

- Working Lunch (time 1200 - 1315)

  - Presentation of Foresight methods, featuring Futures Wheel with demonstration

- Afternoon session (1315 - 1500)

  - Foresight applied to projected techno drivers, for sectors/commons/democracy.
  - Foresight applied to projected demographic drivers, for sectors/commons/democracy.

  In what ways can major disruptive forces impact the interests of the body politic - sector by sector and collectively?

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Demographic Challenges
Mark Lopez, Pew Foundation

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Distinguishing
General Characteristics of Foresight

- Forecast vs. Prophetic
- Fact-Based vs. Magical
- Transparent vs. Occult
- Systems-based vs. Discontinuities
- Complex vs. Linear
- Accepts Error vs. Enforces Dogma
- Open to Debate vs. Inimical
- Needs Feedback vs. Locked in
- Responds to Reason vs. Authority

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Foresight Methodologies

(featured in *Anticipatory Governance Practical Upgrades*)

Back-casting: *A method of working backward from a hypothetical future event (typically a desired goal) to the present in order to visualize short- and medium-term steps, necessary and sufficient conditions, and possible sequences of events that would lead there.*

Course of action analysis: *A method for assessing the cost, impact and risk associated with alternative action plans. Beginning with a set of alternative plans (courses of action or COAs), the costs, impact and risks of each alternative are expanded upon and then assigned weights that are then measured and compared against each other based on decision rules that reflect priorities.*

Cross-impact analysis: *A method for forecasting the probabilities of events based on their potential interactions with each other. Each hypothetical in a set is assigned an initial probability; conditional probabilities are determined using a matrix to consider their potential interactions with each other.*

Delphi method: *A method of forecasting by committee that uses a questionnaire to accumulate foresight analysis by experts whose responses are compiled and then re-circulated (anonymously) in order to reduce the range of responses and close in on expert consensus about the future.*

Real-Time Delphi: *An online version of the Delphi questionnaire that harnesses expert opinion about the future on an accelerated basis.*

Futures wheel: *A structured brainstorming technique that uses a wheel-and-spoke like graphic arrangement to consider the primary and secondary impacts around a central trend or hypothetical event.*

Implications wheel: *A structured brainstorming technique that arranges second, third and fourth order events around a central trend or hypothetical events, and uses probabilities to score potential implications.*

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Foresight Methodologies
(featured in *Anticipatory Governance Practical Upgrades*)

Issues-analysis: *A method of systematically "unpacking" the dilemmas, cross-category implications, and unasked questions that arise from trends, hypothetical future events, and alternative policy choices.*

Historical analogy: *a method of using the dynamics of events in the past to understand the dynamics underlying current and future events.*

Horizon scanning: *systematic monitoring and examination of current events (across categories) in order to detect early signs of potential major impending developments and how they might influence the future so that early action can be taken.*

Environmental scanning: *systematic monitoring of an internal and/or external environment in order to detect opportunities and threats in advance so that early action can be taken.*

Morphological analysis: *a method for structuring and investigating sets of relationships contained in multi-dimensional, non-quantifiable problem spaces.*

Roadmapping: *a technique of planning that identifies a sequence of goals, prospective future developments, and future "on-ramps" and "off-ramps" for decisionmaking.*

Robust decision-making: *a method of relating short-term policy interventions to different clusters of long-term futures.*

Scenarios: *case studies of the future that depict in detailed narrative how events might lead from the present to an envisioned future. Scenarios should come in sets covering a range of possible futures that provide a means to visualize outcomes of alternative courses of action, analyze their hypothetical consequences under different combinations of assumptions, and link logical sequences of events.*

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Foresight Methodologies

(featured in *Anticipatory Governance Practical Upgrades*)

Simulation/Modeling: *a quantitative method for understanding the* interactions of a system using a prototype, computer program, or other simplified representation of a real system. Models and simulations permit decisionmakers to experiment with interactive variables (often with large data sets) for a specified duration so as to gain understanding about a system's behavior, probabilities, and range of possible outcomes.

State of the Future Index: *an index that measures the 10-year outlook for the future based on key variables and forecasts that collectively depict whether the future promises to be better or worse.*

STEEP Implication Analysis: *a method for systematically analyzing the social (S), technological (T), economic (E), environmental (E) and political (P) implications and issues related to a trend, event, decision or policy.*

SWOT analysis: *a method of analyzing and assigning weight to an operations' internal factors—strengths (S) and weaknesses (W)—and external factors—opportunities (O) and threats (T)—so as to strategically match resources and capabilities to the environment*.

Trajectory Analysis: *a method of assessing the directionality of trends and oncoming events so as to create manageable pathways that can aid policymakers in identifying engagement opportunities*.

Trend Projection: *an extrapolation of a current trend line into the future based on historical data, rates of change, and other essential variables. Projections are based on an assumption that factors will be held constant with no looming discontinuities.*

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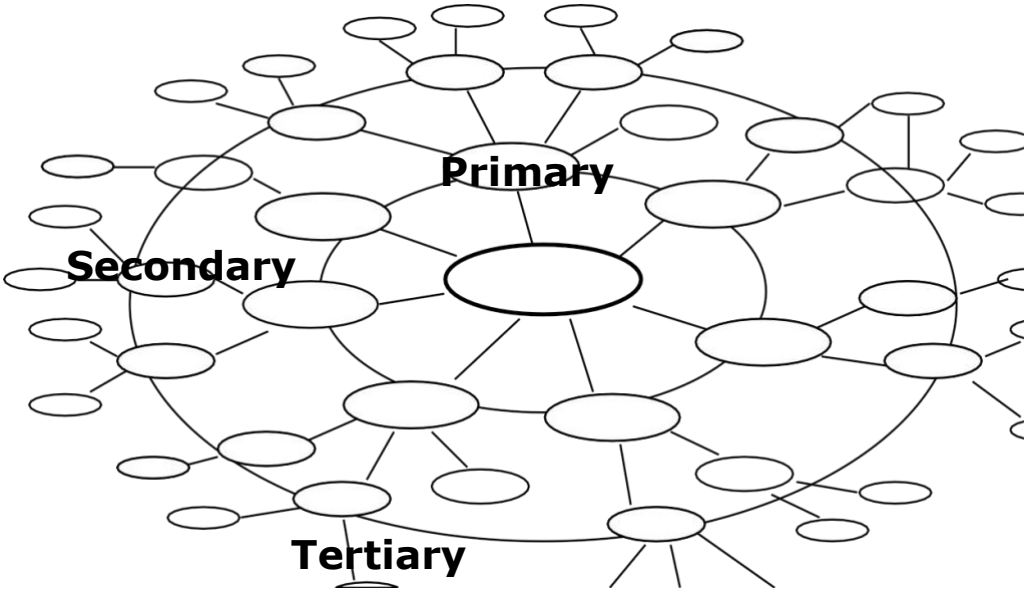
Basic Futures Wheel



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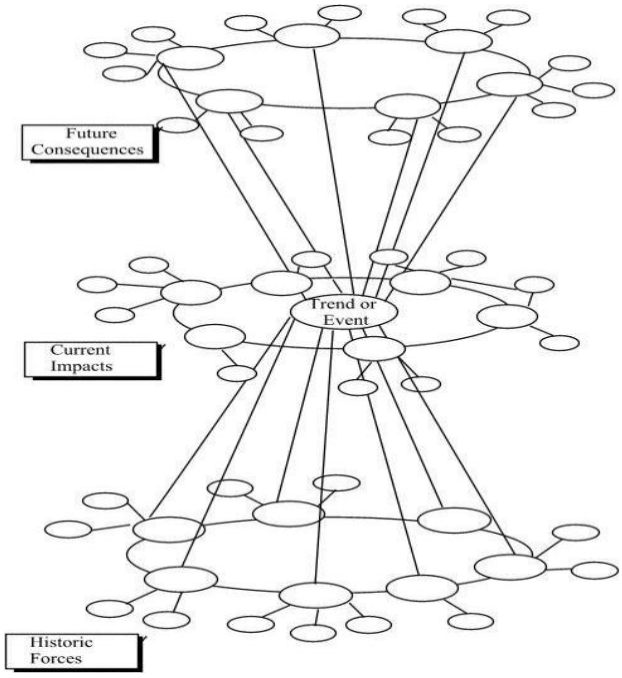
Futures Wheel Past, Present and Future



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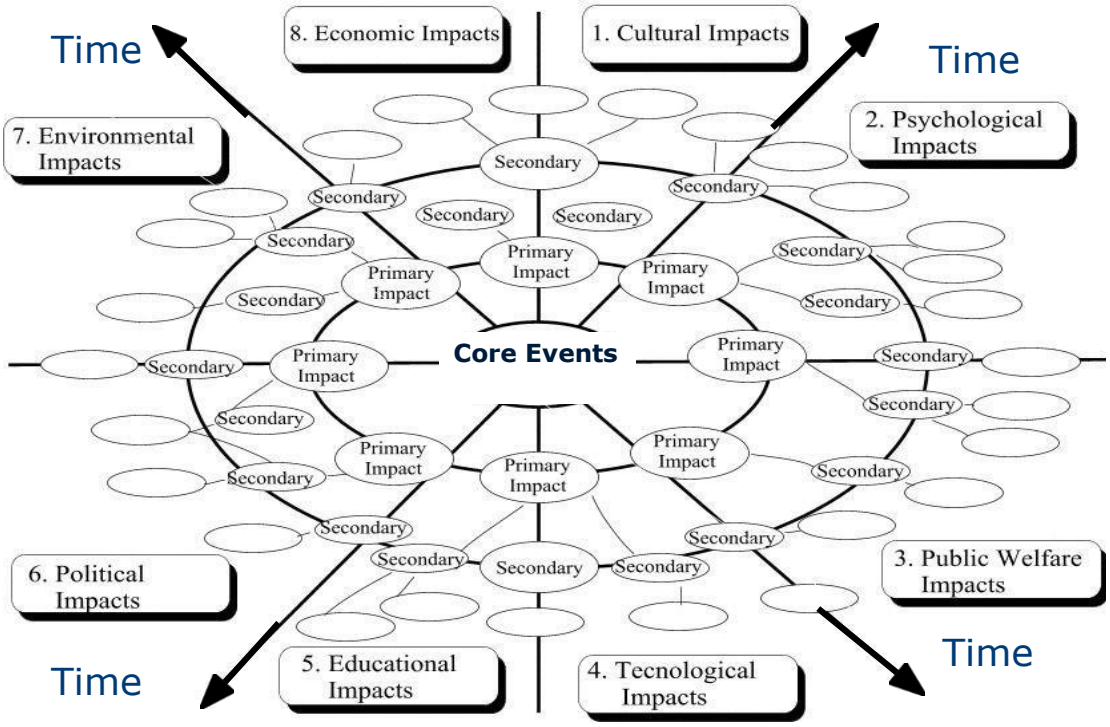
Advanced Futures Wheel
Forces on the System



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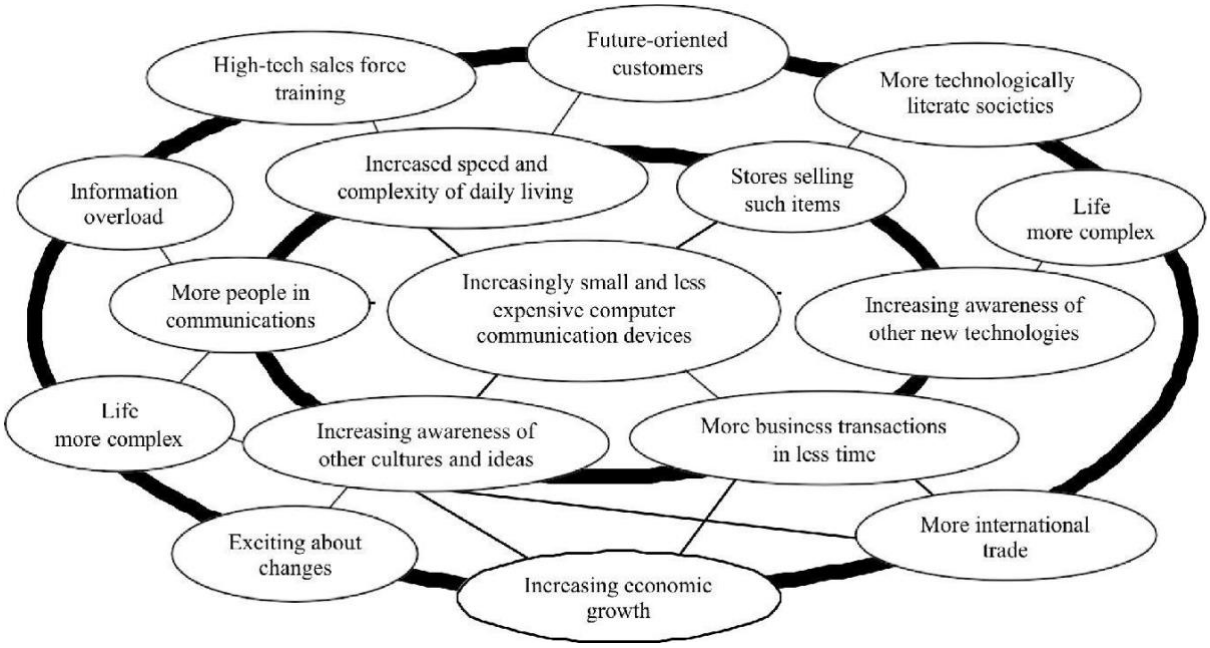
Basic Futures Wheel Applied



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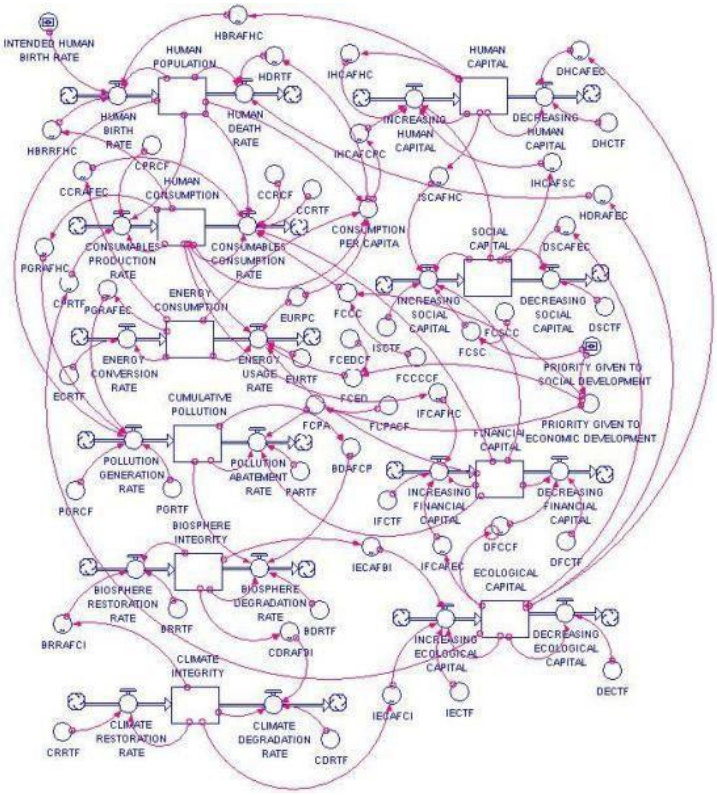
Complexity Visualization



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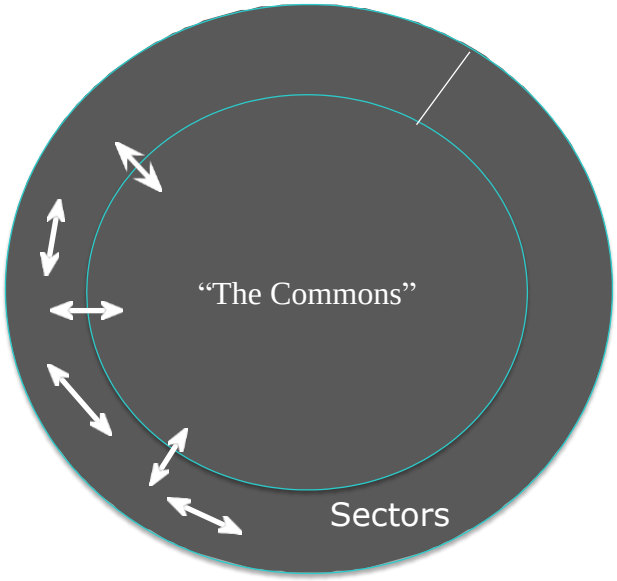
Democracy as a System

Sectors

- **Race/Ethnicity**
- **Gender**
- **Age**
- **Socio-economic status**
- **Faith**
- **Locality**



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Generic Forces
STEEP Variables

- **Societal forces**
  - **Educational**
  - **Psychological**
  - **Cultural**
  - **Public Welfare**
- **Technological Forces**
- **Economic Forces**
- **Environmental Forces**
- **Political Forces**

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Technological Sources of Discontinuity

Advanced Artificial Intelligence: upper-tier human skills displaced by machines learning from data, rather than from us. The almighty algorithm. Humans in the loop, but nugatory. Occult value systems. Hyper-speed. Super system of systems. Impact on democratic theory?

Synthetic Biology: all forms of carbon-based life subject to redesign. profit and ambition govern development. development essentially chaotic in its implications. direct intervention in human genetic codes. mimetic machine systems interacting with humans . low entry costs, world wide activity. Implications for democratic theory?

Anthropocene climate: chemistry, thermodynamics, biology interacting rapidly and chaotically. not possible to return to status quo ante, where change in global climate systems was slow enough to allow evolutionary and cultural adaptation. No longer contemplating the approach of chaos, but in its midst. Best case? Self-medicate the climate: treating symptoms of climate change rather than preventive approach. Implications for democratic theory?

Panopticon social order: total surveillance. anticipatory punishment based on earliest symptoms of deviance from a political defined behavioral norm. Collective Man vrs. Enlightenment Man.

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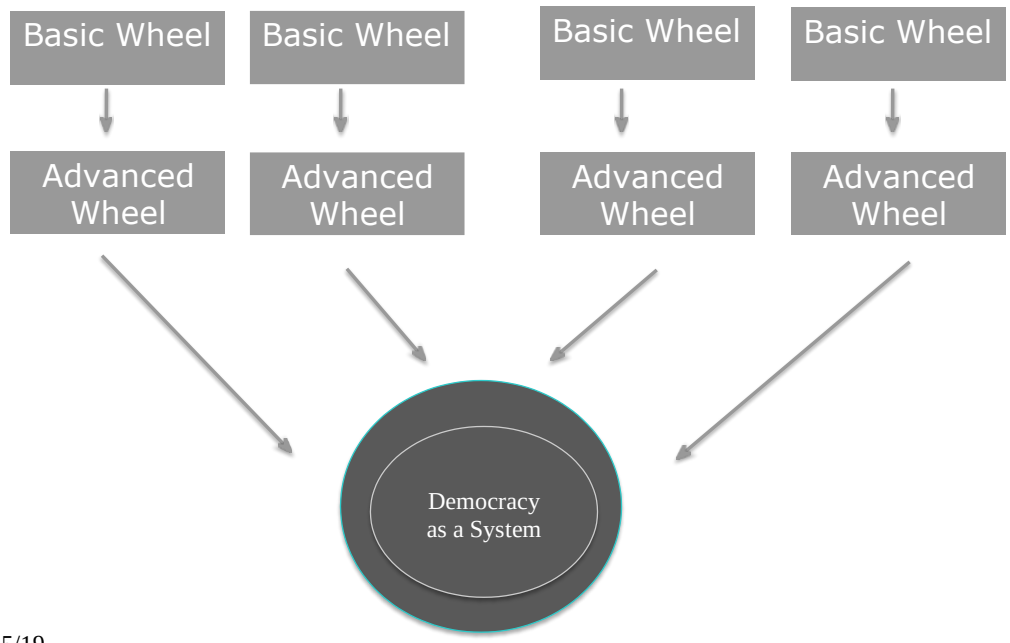
Impact of Technological Disruptors
Futures Wheel Discussion



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Specific Disruptions (Demographic)

- Paradigm Shift “Obama ? Trump”
  - In public opinion
  - Politics
  - Law
- A Second “Great Recession”
- Impact of Climate Change
  - Global, Regional, Local
- Global Pandemic (Super Flu)

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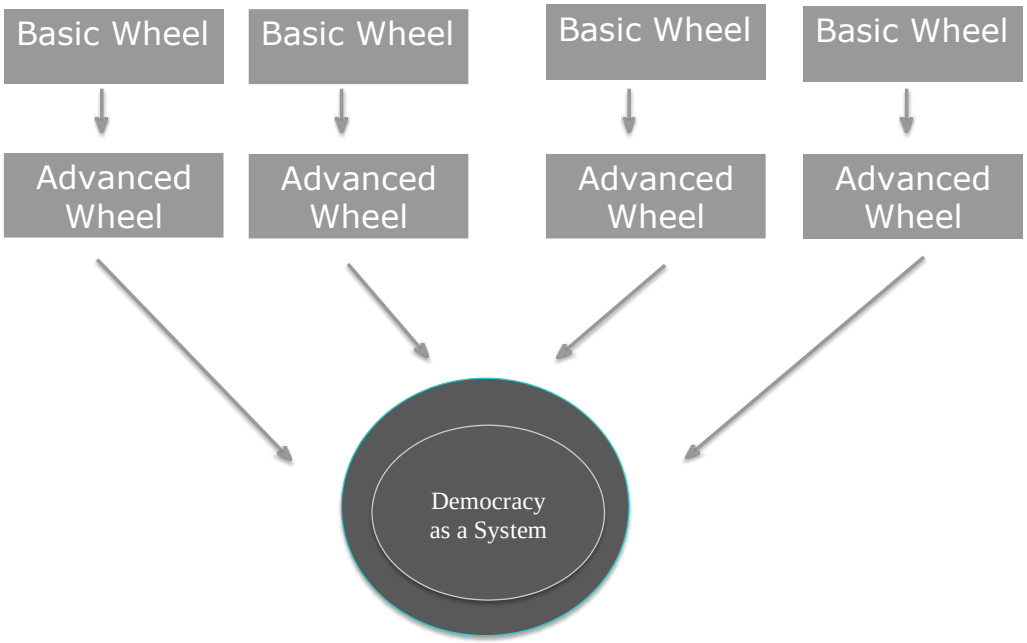
Impact of Demographic Disruptors
Futures Wheel Discussion



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Overview

The first Round Table 1 (RT1) meeting took place on 17 April. Its focal point was a discussion of the implications of certain major technological trends. The second meeting (RT2), which is the subject of this report, took place on 15 May. Its focal point was a discussion of the implications of major demographic trends. The meeting followed this sequence:

- Review of RT1
- Demographic Trends
- Public attitudes
- General characteristics of foresight.
- Range of foresight methodologies
- Futures "wheel" as methodology of choice for RT2
- Application of Futures "wheel" to technological and demographic trends.
- Initial discussion of implications for governance.

A commentary by the project co-researchers is below.

Review of RT1

AI and its impact on democracy.

- Values are hidden in our algorithms that are increasingly used to drive large social systems.
- Algorithms are increasingly in the middle of social systems, but we don't really know what they say. They are continually sorting people into groups (e.g. algorithms in prison systems). Someone has built the algorithms, and within them are judgments; and these have unintended consequences. In fact, no one has asked, "what are the intended outcomes?"

Synthetic Biology.

- We're in a situation where reality is overtaking science fiction. CRISPR allows manipulation of the genetic codes. It raises the question of how values can be maintained when technology outpaces our ability to moderate, or mediate, its impact on society.

Climate Change. It discriminates against the poor who will feel the worst effects of it first. However, at the current rate of deterioration there will come a time when climate change will cause disasters among people of every level of income.

Rate of onset of all disrupters: approaching consolidation in the next 10 years.

Democracy as a System. The U.S. model of Democracy is not well suited to deal with complexity—the political system impedes that, and it's not organized to reflect the complex organization of the world itself.

Briefing on Demographic Drivers

Population Growth. The U.S. population is projected to reach 441 million in 2065. Currently the U.S. population is 325 million people. In 1965 it was 193

Commented [A1]: Person #2: And, it turns out, values and bias also are hidden in the data collected

Commented [A2]: Person #3: Slight disagreement. The intended outcomes for many algorithm systems, e.g. criminal justice, OPM hiring, Netflix and Amazon are well defined as examples.
Understanding personalities for prison safety, the best hire candidate and what people watch and purchase are intended outcomes. The previous point on judgments and unintended consequences not being defined is important. In short the initial implication may well be defined but secondary and tertiary ones are not.

Commented [A3]: Person #2: I missed this particular comment and would say that there are people—programmers, marketers, political groups, etc.—who continually ask about intended outcomes. Even in the Obama administration, there were policy discussions about ways to "nudge" people towards what was seen as better conduct. The issue, as you characterize, is that few seem to be looking at the unintended consequences as the algorithms are developed.

Commented [A4]: Person #2: It may be fair to say another question is how values can be questioned. Are current values ones we want to keep, explicitly?

Commented [A5]: Person #2: and economics demand that the technologies be advanced. Similarly, the matter of unintended consequences when a minority can afford advanced technologies are not being discussed in general by the population. At the same time, this is not uncommon in technology development (e.g., electricity, the internet) and it takes transition time for equalization of benefits.
We have talked about the velocity of technology, but not necessarily about the velocity in terms of deployment across different social and economic groups in the U.S.

Commented [A6]: Person #2: I would suggest that a complementary or even more accurate word is convergence, and also would say that they are converging at different rates and much sooner than 10 years. Consolidation implies some plan or active approach; convergence recognizes that these technologies just come together in unexpected ways.

Commented [A7]: Person #2: We need to better describe this as the product matures; to understand it calls for a grasp of systems, systems thinking, and complexity, which few politicians seem to practice. The challenge is a combination of complexity and velocity of systems forces that are emerging.

Commented [A8]: Person #3: What political systems beyond democracy handles complexity better? I think about the Chernobyl nuclear disaster portrayed on HBO and even some of the long term plans Nations have (e.g. China 5 and 50 year plans). Are impacts being ignored and can these political systems handle major disruption better?

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million. Immigrants are responsible for most, if not all, of the growth. There were 45 million immigrants [living in the United States] in 2015. This is projected to reach 78 million by 2065. 1/5 of immigrants worldwide live in the United States. No other country comes even close.

Commented [A9]: Person #2: These are based on extrapolations of current trends and it may be useful to point out how those trends could change, e.g., as Leon pointed out, climate change; others included legislative changes.

Impact of the Immigration and Naturalization Act.

Since the Immigration and Naturalization Act (INA) was passed in 1965, the immigrant population of the U.S. increased from about 10 million to about 45 million.

- INA was a watershed: prior to the INA, the US had restrictions and quotas on from what parts of the world people could come to the United States. Those were eliminated or significantly changed in 1965. Also in1965, the U.S. put in place different kinds of visas (e.g., high skilled, family reunification, etc.).
- There was a lot of bipartisan support for the INA when it passed. Many advocates said the United States wasn't going to experience a sudden flood of immigrants. That it would not have a major demographic impact. However the number of immigrants who have entered the U.S. since 1960 is very high. There was a sentiment that immigration should be fair. Immigration was regarded as one more space, in addition to education [and other spaces essentially of the Civil Rights era].
- Under the law there are many channels to enter the U.S. legally. As a result, unlike Canada, which has an immigrant population 2/3rds of which have college degrees, ours only has 1/3rd with college degrees. Many countries want to focus on high-skilled immigrants.
- We would have 72 million fewer people today without immigration. Since 2007, Asians are the largest group of arrivals. No longer Hispanic dominated—still about 31% though. This is a change—for 40 years Mexico was the principle source of immigrants to the U.S. It's not that Asians surged, it's that the Mexican share has fallen.
- Major Change from 1960 to 2013: Previously, there were a variety of nationalities that made up the largest immigrant population of each state. Today, Mexicans are the largest group of immigrants in most U.S. states.
- The number of counties where whites are a minority has doubled since1980. By 2065, the white share will fall, the black share will remain the same, while Hispanic (24%) and Asian (14%) will grow
- We can't account for intermarriage, how the Census will change its questions, how identity groups will see themselves. There was no Hispanic identity in the past, just national identities like Puerto Rican, Dominican, etc. Since 2000, we've seen share of black population go from 4% to 8% African-born. The U.S. is a top, or the top, destination for Africans. It's likely that Africa will be the main source of immigrants in the future, because Africa has youth or is young, and everyone else is getting older.
- Some Central American immigrants say they have come to the U.S. because climate change has caused them to leave, among other reasons.
- **Intermarriage:** 42% of all intermarried couples are white and Hispanic (white husband and Hispanic wife (22%), and Hispanic husband and white wife (20%.)

Commented [A10]: Person #2: (46%)

Commented [A11]: Person #2: (13%)

Commented [A12]: Person #2: Suggest a double check of this—the numbers for 2065 don't seem to support Africa as the main source.

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- **Aging**. The U.S. population is aging. Youth are going to fall from a quarter of population today to 20% in 2065. Not as severe as in other countries, but not necessarily true that immigrants are saving the United States from aging. Among other things, they get older as well.
- A rising share of the population aged 55 and older is working. The U.S. working age population will diversify. Today, we have a majority white working population, but out to 2065 it will probably be 44% white.
- There are already more women than men. Women are outpacing men in terms of voter turnout, among other things.

Briefing on Public Attitudes

- In 2016, Trump supporters (81%) said the country was worse for people like them today than it was 50 years ago. 19% of Clinton supporters agreed. 47% of all registered voters held that sentiment.
- 57% of adults say that diversity is good; another 20% say somewhat good. Even among Republicans, 65% say it's very good or somewhat good. Better educated tend to say that diversity is a good thing.
- 6 in 10 say racial and ethnic diversity has a positive impact on the nation's culture.
- Majority of Americans say that population aging will have a negative impact. Views of growing racial and ethnic diversity more mixed.
- The American public was more negative about the future of the country in the last (Pew) survey than ever before. People anticipate that having a majority of nonwhite population will have a negative impact on conflicts, culture. 60% of Republicans who participated in the poll held this view.
- Americans think of diversity as benefiting [America], but then there's this conflicting data about negative impact on culture/conflict. How does one go about reconciling these two conflicting views?
- In terms of diversity having an impact on policymakers ability to address or solve problems there is a consensus that diversity has (or will) make it harder.
- People change their views on [things like this] whether they feel good or bad [at the moment] and this could change.
- Most say that it is more common for people to express racist or racially insensitive views since Trump was elected. A majority of U.S. adults say Trump has made race relations worse. Trump has made racism more obvious and made more people more willing to address the issue.
- **Souring public mood about the future.** The Public is broadly pessimistic about the future of America out to 2030. General public (60%) think U.S. will be less important in the future. 73% think gap between rich and poor will grow. 48% are very worried and 39% are fairly worried that the country's political leaders are not up to the challenge[s]. Americans have become worried about the position of the United States in the world, future of kids, etc.
- Asians and Hispanics are more positive about the future, maybe Hispanics less-so recently because of Trump. The share of Americans saying that the future is better is rising—that the country is headed in the right direction. note?????

Commented [A13]: Person #1: It should be noted that almost everyone who answered probably weren't alive or were quite young 50 years ago. Thus, this sentiment is based on almost no direct knowledge.

Commented [A14]: Person #3: Suggest inserting stats about Democrats and Independents if available. Is Republican support for diversity that high?

Commented [A15]: Person #2: How does this track with previous bullet that talks to positive impact. Can we explain this last phrase more precisely?

Commented [A16]: Person #3: Suggest inserting stats about Democrats and Independents if available.

Commented [A17]: Person #2: Believe this goes with the phrase before?

Commented [A18]: Person #2: If you moved this bullet earlier, above the 57% of adults bullet, it would help to put the following bullets in context.

Commented [A19]: Person #3: Suggest expanding or clarifying what they feel good or bad about (economy, opportunity, recognition, security) if possible. Don't disagree it just begs for definition

Commented [A20]: Person #3: Suggest adding any support figures if available to support. What is the figure for a majority of adults and any breakdown.

Commented [A21]: Person #2: Is there a break between grow phrase and 48% phrase; should be replaced by a semi-colon?

Commented [A22]: Person #3: Suggest adding any support figures for this point.

Commented [A23]: Person #2: I am beginning to think that there are so many variations on the way the data are sliced and represented that this section, if it is used in the final report, would better be served by a table showing the differences.

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- This may not be something unique to our time. Every generation thinks they're at the precipice of disaster. We used to talk about the competition with Japan, but America was able to maintain its leading position nonetheless. Be that as it may, Russia and others are attempting to exploit that pessimism; to say that democracy doesn't work; and to exploit US population's diversity.
- American youth are the least patriotic they've ever been. They think the United States is just another good country, that they could live anywhere (Europe, etc.) and be content. Participant comment: The United States is retreating. The United States has become more politically polarized. America has become so fragmented (selfishness, not seeing themselves as part of a greater community, technology, etc.) that we don't have the overarching sense of what the country stands for.

General Characteristics of Foresight (reference slide also attached)
Foresight Methodologies (reference slide also attached)
Democracy as a system (reference slide also attached)
Major Trends impacting the system (reference slide also attached)

Commented [A24]: Person #2: The competition was real and the U.S. took actions to fight against Japanese economic supremacy; what did not pan out were the pessimistic forecasts about Japan becoming a superior economic power to the U.S.

Commented [A25]: Person #3: Comment. Agree with statement. I think there was some mention about U.S. education being inadequate and possibly missing a generation about what U.S.American Citizenship really constitutes. What binds us now in the 21st century and how that has remained the same or changed.

OUTPUTS OF ROUND TABLE

Artificial Intelligence: positives

- Solving diseases.
- New horizons in materials science
- New scientific breakthroughs
- New capacity for managing issues with complex structures
- xx

Commented [A26]: Person #2: Add: Has the potential to disrupt the way we handle democracy

It is mentioned as a negative and could well be a positive

Artificial Intelligence: negatives

- The tyranny of the algorithm.
- Has the potential to disrupt the way we handle democracy.
- Bias is big problem for administration of justice… it can reinforce existing systematic bias.
- The surveillance techniques don't work as well for minority or ethnic groups.
- Algorithms are created by white men for white people.
- What may be needed is the education of programmers to recognize bias. Ethics, morals, and emotions must be put into the process.
- It would end up programming economic factors.
- A human value loss, devaluation of the elderly, a loss of democratic diversity.
- Changes the economy and how people look at investments.
- People with less education will be pushed out, although some might benefit from opportunities that previously were open only to those with college educations.
- AI is driven by people with biases and therefore it will likely incorporate the biases of programmers/people into the program. It will potentially corrode human values.

Commented [A27]: Person #3: Disagree and this needs explanation for actual intent/meaning. Many cyber programs come from all over the world and even in the U.S., women, Asians, Indians, and African Americans involved. Related to the Panopticon discussions-China is way ahead on surveillance programs/algorithms.

Commented [A28]: Person #1: This is not necessarily a negative; it is more like a possible solution.

Commented [A29]: Person #1: I have no idea what this means.

Commented [A30]: Person #2: This one, too, could be a positive, if I have an AI that checks my investments and advises me on implications, short and long term, of emerging and ongoing trends.

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- AI could change education. AI could render our k-12 educational system obsolete.
- It may affect personal interactions; it may isolate people
- It may change the functioning of the brain. If you don't need to use your brain to problem solve, you don't develop the ability. You will lose neural capacity.

Climate Disruption

- Loss of physical space and loss of physical security.
- The poorest people will be the most impacted initially and they are often women or racial/ethnic minorities.
- Loss of arable land. Food scarcity is already happening.
- It will impact the lowest income communities.
- Degradation of air quality
- Extreme weather events.
- Increased illness.
- Disease spreading to new parts of the globe, as vectors move away from equatorial zones.
- Shorter life-spans.
- The potential collapse of the capitalist model because it's basically undergirded by exponential growth, but there is [a limit on growth].
- Massive mass migration.
- Economic collapse—seeing it in South America and Africa.
- Collapse of the fishing industry.
- Lack of biodiversity will harm viability of economic systems, especially agrarian systems or those that rely on the oceans.
- Increased inequality: for those who can pay their way out of the impacts of climate change.
- Possible flipside: massive reconstruction of economies away from carbon.

Synthetic biology:

- Puts pressure on poor and vulnerable people because it gives advantages to rich people.
- Increased genetic diversity—whenever there's a genetic diversity pool decreased, that causes problems.
- Great moral consequences.
- Pre-birth selection could reduce diversity.
- What this threatens to do is to bring us full circle to the Medieval class system where social class is genetically locked in for the foreseeable future.
- Increased discrimination.
- Displaces natural selection with human will. This has been done historically of course (farming and animal husbandry) but given the new technologies it has gone from a slow process of trial and error to a design process that moves very fast.

Commented [A31]: Person #1: I don't think this is what was meant. It will certainly change how we educate kids, but making it obsolete is nonsense. For example, this was supposed to be the case for computers, and even before that television. None of that came to pass either.

Commented [A32]: Person #2: This seems to be a list of negatives; we should spend time on the potential positive implications of climate change, e.g., creation of new energy sources that could provide power to underserved populations.

Commented [A33]: Person #3: Agree. Benefits from capitalism now not well or evenly distributed leading to exploitative/destructive outcomes from exponential growth.

Commented [A34]: Person #2: Need to split into positive and negative

Commented [A35]: Person #3: Unclear- increase versus decrease

Commented [A36]: Person #3: Agree. Similar to the movie GATTACA a future world of genetically enhanced versus those that are not.
A form of Social Darwinism could emerge that exceeds current wealth/ education divisions and opportunities by magnitudes.

Commented [A37]: Person #1: It has also been done, and is being done in a number of human societies, through the elimination of female offspring in favor of males.

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- Nanotechnology is going to merge with synthetic biology to produce new materials from nature (e.g., rocket parts, metal molding, etc.)
- People will live longer and more productively.

Climate Change

- Falls first on poor and vulnerable.
- But regardless of financial status, there is increased illness (degradation of air quality).
- Loss of jobs.
- Increased jobs from sustainable industries.
- Estimates of huge reduction in GDP
- Food shortage
- Overcrowding as result of population shifts away from regions no longer habitable.
- Will change migration patterns. People move from the coasts inland. Loss of homes.
- More military conflicts over water, marine food sources.
- Military installations on coasts [will be threatened].
- Could lead to overcrowding, which leads to social disruption. Has negative effects on health and on reproductive capacity.
- Eco-system collapse. Inability to adapt. It's going to be unmanageable within the next 15 years, beyond the point where rebalancing the system is possible.
- We're living with collapse. Losing a million species according to the UN. And those are just the ones we know about.
- When government collapses because everybody is in existential mode, the idea of democracy may go out of the window. That's when there's martial law, if any law at all.
- Crisis may induce more international cooperation.
- Synthetic biology could offer some solutions. Creating food that will reduce the environmental impact. New industries that will take advantage of those areas. So even when you have changes in chaos, you might have new industries. With arctic loss there will be more resources available [for the picking].

Panopticon

- Surveillance discourages dissent. Everyone will be watched.
- May move to external incarceration. If you start deviating, punishment may be pre-emptive.
- Increased security.
- The external is going to know more about you than you do yourself.
- The encroachment of machinery and a machine-based ethics on the human soul.
- The destruction of privacy on an intimate level inside a human being.
- It's not just living inside a system that collects and collates info, it's the system that gets inside your brain and deprives you of a place where you can think what you think, but rather you think what somebody else wants you to think.

Commented [A38]: Person #1: And to create new cures for diseases and, perhaps, new, more lethal, weapons.

Commented [A39]: Person #2: Should this be integrated with climate disruption?

Commented [A40]: Person #1: We should explicitly include sea level rise as a proximate cause of the loss of habitable land. It's happening already.

Commented [A41]: Person #1: Things could revert to tribalism, which has its own order and laws. This is already happening in the Middle East and in parts of sub-Saharan Africa.

Commented [A42]: Person #1: With complete Artic loss the human species will become extinct because of global temperature rise above 4 degrees C caused by the release of methane that is trapped in the permafrost. There is really no good news here.

Commented [A43]: Person #1: A better word may be "psyche". The word "soul" has too much baggage associated with it.

Commented [A44]: Person #1: Isn't this the same as the point immediately above it?

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- For a period of time being rich would allow you to evade some of the privacy restrictions.
- Diminution on the value of privacy. People will sell their soul for a 25 cent coupon at CVS. Rich people don't devalue privacy. They don't need to give it up for CVS coupons.
- Everyone is vulnerable.
- Insurance companies could tell people they need to do something so they can get a lower cost, more intrusive, things.
- You have less autonomy.
- It can discourage dissenting actions.
- We lose our freedom of organizing. Lose civil liberties.
- Certain populations are selectively watched without their permission or, sometimes, knowledge.
- Constricts free will. You can imagine a system that manages people. Leads to diminished individuality.
- What about reduced crime? It's a "Minority Report" issue. Anticipatory justice?
- We're trying to not use the phrase "criminal justice system"—we use "criminal system" b/c criminal "justice" is about moral values.
- At birth, if a child is a racial minority, they can be implanted with a chip that monitors them as they grow up and predicts if they're going to be a problem.
- San Francisco just decided not to use facial recognition.

Commented [A45]: Person #1: This is a gross exaggeration. On the other hand, students at some colleges already provide private information to vendors for free cups of coffee. We also do this by answering questionnaires about our preferences on websites and when buying goods online. I never fill out those very invasive tools of Amazon and co.

Commented [A46]: Person #1: Insurance companies already do these things. So do private companies. They dictate smoking (no) and exercise habits for perks like lower insurance rates and, in some cases, promotions. A Japanese medical school just announced that it will no longer hire people who smoke, with some grandfathering for those already employed there. They claimed they had to "practice what they preach".

Impact of Demographic disruptors on the democratic commons

WE DID NOT CONSIDER THIS CATEGORY and we need to correct for that. We will consider this in a separate email to all the original participants in RT2.

Effect of Methodology: Foresight Effect on Responses

- "As we started to look at the four areas, we began to see the connection that none of these technologies will be developed in isolation from the other three."
- We are considering more complex relationships.
- "Natural evolution disruption" You can have a negative, [such as] eroding the oceans. But you could also have a reversal and a prevention of extinction. But that connects with AI. You can't do that unless you understand the biome.
- No single technology is developing in isolation. You can see how AI affects synthetic biology.
- AI and synthetic biology are biased to people who are highly-educated.
- We know about epigenetics, that it will change the next generation. Trauma changes the immune, hormonal, and other systems. If you're in a state of anxiety, there's more cortisol in your system and it will affect your brain. These changes get passed on genetically. It's possible that African Americans have genetic changes in their brain because of slavery.

Commented [A47]: Person #3: Agree. Important finding from RT discussion.
Comment: natural or synthetic biology is a form of nanotechnology. AI will be needed to manage climate and ecosystems of high complexity.

Governance implications

- It can take a catastrophe before someone does something.

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- We need to beef up the regulatory presence or capability. We need to beef up the government expertise. And it needs to be well funded.
- Expecting a U.S. legislator to understand it is currently highly unlikely.
- You need educated legislators.
- Do you make them smart after they're elected or can the democratic process allow you to pick smart legislators?
- There needs to be a way for someone in an entity to sound the alarm.
- There's a need for greater agency-corporation relations.
- The egregiousness of political decisions often allow people to take things into their own hands. There may be a way to emerge from this with an enhancement of democracy. For example, we've just now begun teaching children how to just barely navigate the financial system. We don't have anything to teach them to navigate the information system; sure they know how to get into it, but they don't know [how to discern what is and isn't] the right information.
- I think this is happening. Look at school children and climate change. (Goes back to the question of how do we educate the public.) If you wait for the decision-makers to start educating the public, then it won't happen. You want to get the public to start educating themselves by spontaneous methods.
- Don't underestimate children who say "you screwed up and we're going to fix it."

Commented [A48]: Person #1: I think many Chinese and perhaps Russian legislators already "get it".

Co- Researchers observations

- Based on comments of the RT members, exposure to foresight methodology adds a critical dimension to discourse-- an ability to make connections between seemingly dissimilar categories, along time-lines that connect the past to the present, and the present to the future. In short, as one of them said: "As we looked at the four areas (of the graphic), we began to see the connections."
- Moreover, by the end of the meeting, their field of vision included awareness of the complete set of driving forces including technological and demographic, interacting with the population, in both of its manifestations -- sectorial, representing specific interests, and "the commons," representing what holds us together as a nation.
- It is also fair to say that the group has recognized the need for anticipatory policy as the basis for influencing the course of complex events at the moment when the opportunity to do so is highest: the present.
- The meeting also vindicated our overall process: facts first; foresight methods second; and then, a group reprocessing facts by means of foresight methods.
- Finally, the discussions demonstrated the potential role of foresight as a sustaining force for democracy, as a system of values, in a period of fundamental change.
- If all of the above was the outcome of just one meeting, I would say that it might be accidental. It is in fact the outcome of the whole series of meetings that we have had since the very beginning. In other words, it was the product of a design well-executed.
- Finally, The discussion recognized the importance of governance as a means for translating a set of ideas such as these from concept to action. However, it also recognized (the Pew Survey on attitudes) that the public recognizes the need to

Commented [A49]: Person #2: Seems to be a strong word for the discussions to date. Could you say tended to support?

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counteract the effects of hyper-partisanship, but is pessimistic that a way can be found to accomplish this.

- The one assertion that we have not tested to this point is that this process can be applied on a much larger scale: beyond academic and governmental elites, at the higher level of the general public. We think that the question of how it might be possible to accomplish such a thing, ought to be the focus of Round Table 3.

Commented [A50]: Person #1: This is already happening and has happened in the recent past. Think about climate change, which is now a very public debate in the democratic commons worldwide. Also, consider the discussion about banning smoking in public spaces, especially indoors, which was catalyzed by stewardesses on airplanes.

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Round Table 3

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Round Table 3 Invitation

Dear Members of the Round Table and the Standing Advisory Group:

This Wednesday, Sheila and I will hold the third Round Table meeting from 1000 - 1500 at 1111 Pennsylvania Ave., N.W. Washington, DC. The meeting will begin with an overview of what the Project on Foresight and Democracy has done so far, and more importantly, we will present for discussion, our plan for the path ahead leading to completion of the Project this Fall. Thanks to your enthusiasm and insights, we now have a much clearer idea of what has to be done, than was the case -- truth be told -- when we began. To our knowledge, no one has done something like this before, and it has been as they say " a learning process." One thing we have learned is that we need a total of five Round Table meetings (two more than originally planned) in order to do justice to the subject. We have enough money in the budget to do this. The question is whether we can have your continued engagement.

We will go into this in detail at the meeting, this Wednesday, 19 June. For now, however, we think we should focus on the basics, which are:

- Round table 3 (June 19): use the morning for a discussion of values central to democracy; use the afternoon for a discussion of the possible effects on these values of the technological and demographic "drivers" that we have covered in earlier sessions.
- Round table 4 (tentatively, July 30) use the morning for a discussion of democracy as an "operating system", as designed in the Constitution, including its flaws and failure points; use the afternoon for a discussion of "fixes" to democracy as an operating system, including the training of Americans for 21st century citizenship.
- Round table 5 (tentatively August 29 or Sept (TBD)). Use the morning for presentation of a visionario (which will have been prepared by a working group of SAG members), designed to test the implications of changes to democracy as an operating system. Use the working lunch and afternoon to apply the visonario, looking for emergent ideas from participants about ways to strengthen democracy for the future. Three major challenges will be considered: (a) the populist revolt against liberalism;* (b) technological shocks; (c) demographic pivot points.
- Sheila and I will integrate the results of this process into a final report on the project, to be submitted to the Rockefeller Brothers Fund. We will first circulate that report in draft form to participants in the project (SAG plus RT members); and then submit a final text.

* This is a new topic we have not yet discussed but will in Round Table 3.

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Project on Foresight and Democracy

Leon S. Fuerth and Sheila R. Ronis

19 June 2019

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Agenda
19 June 2019
Round Table 3

1000 – 1100

Review of the project from start to projected end, including agenda for RT3 itself

Additional two meetings of the Round Table/SAG "plenary"

Establishment of the working group to develop a set of visionarios

1100-1200

Discussion of values central to democracy, beginning with the question -- what kind of democracy are we concerned about?

1200 – 1300

Working lunch. Continue to discuss values.

1300-1500

Implication of drivers on the values.

Sectorally; race/gender/age/ethnicity/economic status/political goals

"The Commons"

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What's Been Done

- Funding begins July 13, 2018
- Process begins to identify participants – both SAG and Round Table with several pauses
- SAG 1, January 16, began with an overview and foresight methods discussion including the project purpose to face the crisis of democracy and extreme political polarization in the nation by attempting to utilize foresight-based analysis to help create a space for new ideas that can produce realistic as opposed to polarized solutions.
- SAG 2, February 12, included a discussion on the efficacy of the foresight methodology "toolbox" available. The meeting covered a wide range of topics in preparation for the March 14th roundtable discussion, spending the most time focused on the impact of disruptive technologies, and the changing American demographic realities.
- SAG 3, March 14 explored several disruptive technologies including artificial intelligence, extreme global climate change, synthetic biology and panopticon.
- Round Table 1, April 17, utilized the foresight methodology of a futures wheel to better understand democracy as a system and how the disruptive technologies will impact the democratic commons.
- Round Table 2, May 15, explored the demographic disruptive shifts that are having an impact on the democratic commons.

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What's Next

- Round table 3, June 19: use the morning for a discussion of values central to democracy; use the afternoon for a discussion of the possible effects on these values of the technological and demographic "drivers" that we have covered in earlier sessions.
- Round table 4, July 30 use the morning for a discussion of democracy as an "operating system", as designed in the Constitution, including its flaws and failure points; use the afternoon for a discussion of "fixes" democracy as an operating system, including the training of Americans for 21st century citizenship.
- Round table 5, August 29. Use the morning for presentation of a visionario (which will have been prepared by a working group of SAG members), designed to test the implications of changes to democracy as an operating system. Use the working lunch and afternoon to apply the visonario, looking for emergent ideas from participants about ways to strengthen democracy for the future. Three major challenges will be considered: (a) the populist revolt against liberalism; (b) technological shocks; (c) demographic pivot points.
- Leon and Sheila will integrate the results of this process into a draft final report on the project, to be submitted to the Rockefeller Brothers Fund. We will circulate that report in draft to participants in the project (SAG plus RT members); and then submit a final text.

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Values

- Values influence the design of a system. systems either advance or retard the realization of values.
- Not chicken and egg dilemma as to which came first.
- Pretty clear that American democracy began with the values that the colonists brought with them. Systems design reflected values.
- These were a mix of the values of British governing class, and the values of the colonists themselves.

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Values

- From the beginning, the two principle values were: freedom of belief (religious), and freedom to prosper. Aspiration towards justice. Concept of rights of subjects; duties of monarchy, laws of the society govern; not the will of rulers, respect for spiritual privacy, rights of conscience.
- Sense of national identity or unity.
- Translation of values into the future combined with flexibility, adaptability.
- Rights of families.
- Rights of property.
- Social and physical mobility.
- Aspiration to justice.

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What are the drivers?

- We have looked at tech drivers (review)
  - (1) advanced AI;
  - (2) synthetic biology;
  - (3) extreme climate change;
  - (4) panopticon.
- We have looked at demographic transition (review):
  - (1) Caucasians no longer the defining majority;
  - (2) black Americans facing competition from rising Hispanic-Americans; and both facing competition from Asian-Americans. We have also looked at growing, already extreme, differentials in assets, and other markers of well-being.

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What are the drivers?

- The election of 2016 revealed the existence of what has since become recognized as the Trump "base," as distinguished from either old-line Republican moderates, or the Tea Party faction. The magnitude and permanence of this shift have become clear, and need to be recognized as a schism or rift in the thinking of the American people. This will, regardless of the outcome of the 2020 election, continue to have a major impact influencing practically every response to all major policy issues ahead in the foreseeable future. It deserves to be treated as a new "driver" in its own right.

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What impact might these drivers have on the democratic commons?

- Does the "Commons" have a shared national identity and historical narrative, going forward?
- Are tensions at the fault-lines (age; gender; race, class, political representation region) resolving or becoming more aggravated?
- What are the trend lines as between sectoral levels of confidence in the system and its ability to adjust?
- What are the trend lines as regards democratic governance in general, in terms of present performance, and also in terms of assessments for the future?
- What is the meaning of the populist/liberal divide, in terms of national social solidarity. Stability of purpose. Resistance to outside manipulation. Nationhood vs. tribalism.
- What about complex interactions?
- Does democracy have a failure mode? Is there a credible scenario for that mode becoming active?
- To what extent is American destiny now subject to calculated manipulation either by external enemies, or powerful domestic contenders for dominance?
- What corrections need to be made in relation to values?
- What corrections need to be made in regard to systems upon which democracy depends?
- What can we learn about prospects, time lines, etc. from a visionario?

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Roundtable 3 Questions with Post-Meeting Comments

****

1. What is democracy?

- How well do Americans understand the value of democracy? Does their understanding vary according to geography? To what extent is it Generational?
- Definition as used by Round Table participants. "A relationship between a responsible citizenship and a responsive government that encourages participation in the political process." per pg 25 of verbatim notes,* cited by a participant from (name of official document)..
- democracy as a network of people who share a common, abstract belief.

* We are retaining the verbatim minutes but cannot share them due to the use of Chatham House Rules.

2.What are the foundational values of a democratic system?

- foundational values (religious freedom, and the right to private property)
- what rights are universal values for a democracy?
- does America have a collective value system?
- broader statement of values as applied to Americans: freedom of conscience; the right to flourish .
- need for truth as the outcome of reasoned discourse
- expansion of values from restricted application (as to race, gender, class) to universalized for the nation, and ultimately all nations.
- rule of law
- justice
- equal opportunity or equality of outcome?
- definition of opportunity as the opportunity to prosper., which should belong to all.
- dealing with the disadvantages of the young owing to poverty
- value of diversity to the nation.

3.What is the status of our democracy, as understood by sectors of society?

- The base-line: where democracy stands: unfinished business? Grievously flawed from the beginning? A work forever in progress?
- Intentionality of not allowing black Americans to share in the right to prosper.
- Denial of rights institutionalized against black Americans.
- Continuing into the present time: voter suppression targeting black citizens.
- Continued survival of white supremacy as white privilege.
- Critical role of black vote at this juncture, could be game changer.

Commented [A1]: Person #6: 1. What is democracy. Definition as used by Round Table participants, clipped the last part. The full definition is: "…a relationship between a responsible citizenry and a responsive government that encourages participation in the political process and guarantees basic rights." This comes from years of discussion and RTD feedback and has now changed in the State of the Future reports for probably the last ten years. It is available in context online like https://themp.org/#group_id=4f98b183e3dfc62b2e00018a§ion=reportclick on "Short Overview" then scroll down past the infographics. The "official document" would be either the State of the Future 19.1 page 24 or the Global Futures Intelligence System, Global Challenge 4: How can genuine democracy emerge from authoritarian regimes? Menu selection: Report, Short Overview. ... [1]

Commented [A2]: Person #2: Another issue is the definition of democracy as understood by Americans—what is it? That could include an understanding of the values of ... [2]

Commented [A3]: Person #2: We also talked about the populist response to liberalism. That is not generational, per se, but ideological

Commented [A4]: Person #3: Public education lack, diminishment or failure was discussed in terms of civics and government, critical thinking for younger ... [3]

Commented [A5]: Person #2: I don't recall the group voting on this as the agreed to definition. Without taking issue with the participant who offered it, it is a reasonable definition ... [4]

Commented [A6]: Person #3: What is this belief-may be defined in other notes.
Does this describe any nation Democratic or non?

Commented [A7]: Person #2: We also discussed the question of who is responsible for educating students on the meaning of democracy, with two groups, one ... [5]

Commented [A8]: Person #2: We looked again at the idea of a democratic commons and it would seem that this idea would fit under the definition of democracy

Commented [A9]: Person #6: 2. I would add respect for the other and equal justice under the law. We do need more focus on the citizen's responsibilities as well as ... [6]

Commented [A10]: Person #3: Include secular or non-religious freedom

Commented [A11]: Person #6: 3. We talked a bit about the purpose of the US, I brought of the great seal of the USA on the back of the one dollar bill, the purpose is ... [7]

Commented [A12]: Person #3: Examination of FDR's 1941 Four Freedoms speech in context of modern times and for the 21st century could be useful for some ... [8]

Commented [A13]: Person #3: Related to the future of work and technology discussed in other RTs and elsewhere, this is a foundational democracy challenge ... [9]

Commented [A14]: Person #2: Some others mentioned in the discussion: belief in the worth and dignity of ... [10]

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- Politics of cynicism replace politics of trust. Could permanently damage the system. Or, alternative view that we have "been there/done that" and survived, during the crises of previous epochs of American history.
- Implication of loss of public faith in veracity of government
- Generation Z views on equality are qualitatively different than predecessors.

4. What are the oncoming, transformational forces?

- demographic shifts Decline of whites and white privilege? Black political power? Rise of hispanics and cultural duality? Rise of women?
- Impact of radical acceleration of technologies that displace human labor, human management, human intelligence and human values, and which potentially endanger human existence
- synthetic biology can create new forms of inequality.
- AI and creation of artificial identity.

5. What impact could these forces have on democracy?

- Scope and velocity of change raises questions about whether democracy as we know it can keep pace. Can democratic systems be reinforced?
- Different cultural values in America as regards democracy, churning, etc.
- Democracy means churning, not stability
- Has democracy already failed because of inequality?
- World-wide populist uprising against the liberal political order.
- Authoritarians climb to power by courting the under-served in their societies with shows of respect. To some extent, they build credibility with these sectors by promising to deliver "the goods" that the Establishment has failed to provide, e.g. free medical service for the poor.

- Concerns about Trump's ultimate intentions.

6. In what way could foresight influence the outcome of the interaction of these forces?

- need for predictive forms of defense of identity. predictive analysis supported by AI.
- citizenship...what does it take to be a good citizen in a democracy?
- ownership of personal digital data taken by corporations. right to ownership of one's personal data.
- the need for positive memes about American democracy
- alternative forms of democracy?
- are we selling democracy short....is it alive and well at the local level? are we losing faith in the process --- the power of elections to turn things around?

Commented [A15]: Person #2: We noted that Religious right feels disrespected; that our government regularly lies to us
The list represents a liberal view and it would behoove us to recognize the errors and wrongs that the more conservative elements of our society believes have happened and are happening.

Commented [A16]: Person #2: We also made the point that the US democratic system has been under stress before and wondered what lessons we could glean from those experiences

Commented [A17]: Person #3: Agree with the next three bullets to a point of near certainty. Can lessons be learned from the early part of the late 19th and early 20th century when new technology transformed society but Democracy weathered these changes? I think these enumerated forces are major differences from past history with new forms of synthetic life and integrating them without disruption to our Earth's ecosystem, AI persons possibly superior to Man over time.

Commented [A18]: Person #6: 4. Narrow, general, and supper artificial intelligences should be distinguished one from the other, as their implications are really very different and the public has a muddled picture as a result. It is like lumping the fax machine together with the Internet as if there were similar tools of the information economy. On new forms of inequality, we also discussed augmented intelligence.

Commented [A19]: Person #2: AI is one of a series of technologies that is changing our notion of identity... [11]

Commented [A20]: Person #2: We also wondered what evolutionary changes are necessary to ensure democratic values continue

Commented [A21]: Person #6: 5. I would not say democracy means churning, it is a consequence of democracy.

Commented [A22]: Person #2: We wondered also if we are in a recovery phase.

Commented [A23]: Person #2: Consider rephrasing slightly: In what ways could foresight identify and influence the potential consequences and outcomes of... [12]

Commented [A24]: Person #6: 6. The first point was really about getting ahead of information warfare, rather than just responding to deep fakes and other... [13]

Commented [A25]: Person #3: Suggest adding "In the 21st century". How has it remained the same (foundationally) since WW II (FDR), how has it ... [14]

Commented [A26]: Person #3: This is significant and related to discussions about the Panopticon.

Commented [A27]: Person #2: This may be saying same thing, but we asked if we could identify future... [15]

Commented [A28]: Person #2: One additional thought is to include the idea that we as Americans have embraced in the past, the idea of the US as a beacon... [16]

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Page 1: [1] Commented [A1] **Author**

Person #6: 1. What is democracy. Definition as used by Round Table participants, clipped the last part. The full definition is:
"…a relationship between a responsible citizenry and a responsive government that encourages participation in the political process and guarantees basic rights." This comes from years of discussion and RTD feedback and has now changed in the State of the Future reports for probably the last ten years. It is available in context online
like https://themp.org/#group_id=4f98b183e3dfc62b2e00018a§ion=reportclick on "Short Overview" then scroll down past the infographics. The "official document" would be either the State of the Future 19.1 page 24 or the Global Futures Intelligence System, Global Challenge 4: How can genuine democracy emerge from authoritarian regimes? Menu selection: Report, Short Overview.

Page 1: [2] Commented [A2] **Author**

Person #2: Another issue is the definition of democracy as understood by Americans—what is it? That could include an understanding of the values of democracy. That is a separate question that the "Definition as used..." and is hard to analyze the future of democracy without some common understanding which seems to be missing in the American population.

Page 1: [3] Commented [A4] **Author**

Person #3: Public education lack, diminishment or failure was discussed in terms of civics and government, critical thinking for younger generations by and large, with a few exceptions. The value of democracy is diminishing in younger generations of Americans.

See link to Washington Post article for graphs and info. Not just U.S. but global.

https://www.washingtonpost.com/news/wonk/wp/2016/12/08/yes-millennials-really-are-surprisingly-approving-of-dictators/?utm_term=.3a104680e520

Page 1: [4] Commented [A5] **Author**

Person #2: I don't recall the group voting on this as the agreed to definition. Without taking issue with the participant who offered it, it is a reasonable definition that was used in a context far different from the definition of democracy in the United States and I think the group should try to grapple with a more common definition that would apply to the US or agree that there are multiple definitions today. At the time of the Constitution there likely was greater coherence in a single definition, although the Federalist papers were clear about the difference between a democracy and a republic.
Even this definition offered could be a source of debate, for example, how do you define "responsible citizenship?" And is there a time frame for "a responsive government" to respond? Similarly, what is "participation?" Voting? Visiting your reps? Writing letters?
I think we should spend a bit more time on this issue or dig deeper to find a U.S. definition that will not be so arbitrary.

Page 1: [5] Commented [A7] **Author**

Person #2: We also discussed the question of who is responsible for educating students on the meaning of democracy, with two groups, one which said it isn't being done and another that said it is being done vigorously

Page 1: [6] Commented [A9] **Author**

Person #6: 2. I would add respect for the other and equal justice under the law. We do need more focus on the citizen's responsibilities as well as the government's. There was a comment about the future of work, we will be coming out with the results of a three-year international study on this September 2nd but the Bertelsmann Foundation just came out with an abbreviated version available free
at: https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/ST-BS_Delphi-2019_Englisch.pdf

Page 1: [7] Commented [A11] **Author**

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Person #6: 3. We talked a bit about the purpose of the US, I brought of the great seal of the USA on the back of the one dollar bill, the purpose is enlightenment as imaged by the eye in the pyramid. In general we are squeamish about enlightenment; by not about the back of the great seal, the eagle, which shows our policy.

Page 1: [8] Commented [A12] **Author**

Person #3: Examination of FDR's 1941 Four Freedoms speech in context of modern times and for the 21st century could be useful for some of these foundational bullets for America and elsewhere.

https://en.wikipedia.org/wiki/Four_Freedoms

I think U.N. Human Rights declaration mentioned as well by some participants.

Page 1: [9] Commented [A13] **Author**

Person #3: Related to the future of work and technology discussed in other RTs and elsewhere, this is a foundational democracy challenge.
The trend toward temporary work, transient and not sustainable ("Gig" economy) will make spending/saving for retirement, home ownership, medical expenses, educational loans and other items that require long term financial stream for banking/credit loans very difficult to obtain, or a debt burden that cannot be repaid easily, in our current economic system. This could lead to poverty and greater concentration of wealth and power among the few.

Page 1: [10] Commented [A14] **Author**

Person #2: Some others mentioned in the discussion: belief in the worth and dignity of every individual; respect for all; balance of power; anticipation.
Some not mentioned, but which should be considered: freedom of speech; civilian control of the military; majority rule-minority rights; rule by consent; rule of law; tolerance; autonomy/freedom/cooperation/collaboration; compromise

Page 2: [11] Commented [A19] **Author**

Person #2: AI is one of a series of technologies that is changing our notion of identity
We nibbled at the edges of this phenomenon by noting that tech has allowed us to define different group identities simultaneously, but also for people who were on the fringes and isolated to find and band with people of similar interests. We focused on this as a negative, reflecting on ways that far right groups came together but we may want to note how this also has happened on the far left with more violent leftists, e.g;, antifa, but also people who may never had a chance to band together for positive forces (e.g., those who banded to motivate changes in the way that the FDA approved drugs for patients who had not possible cures left except for experimental drugs).
Jerry also made the good point about predictive analytics being used to create fake identities

Page 2: [12] Commented [A23] **Author**

Person #2: Consider rephrasing slightly: In what ways could foresight identify and influence the potential consequences and outcomes of the interactions of these forces. The point is that foresight is not predictive, but is applied in a broad way to address consequences and actions for a broad constituency.

Page 2: [13] Commented [A24] **Author**

Person #6: 6. The first point was really about getting ahead of information warfare, rather than just responding to deep fakes and other methods. The "predictive analytics supported by AI" was about: 1) Using infowarfare-related data to develop an AI model to predict future actions; 2) identifying characteristics needed to counter/prevent them; and 3) matching social media users with those characteristics and invite their actions.

Page 2: [14] Commented [A25] **Author**

Person #3: Suggest adding "In the 21st century". How has it remained the same (foundationally) since WW II (FDR), how has it changed over time, where and in what way given these forces is it headed?

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Page 2: [15] Commented [A27]	Author

Person #2: This may be saying same thing, but we asked if we could identify future forms of democracy. This implies that there is some path to the future forms, not just alternative ways.

Page 2: [16] Commented [A28]	Author

Person #2: One additional thought is to include the idea that we as Americans have embraced in the past, the idea of the US as a beacon and model for the world, the “shining city on the hill” and how the degradation of that vision affects us internally and externally
We did address the idea of the US myth and that may need to be woven into this summary

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Round Table 4

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Round Table 4 Invitation: July 30th, 2019

Dear SAG and Round Table Participants:

The 4th Round Table will take place on Tuesday 30 July from 1000 - 1500 at the Morgan Lewis Law Firm, 1111 Pennsylvania Ave., NW. Lunch and parking reimbursements will be provided.

The morning will be reserved for discussion of American democracy as an "operating system," as designed in the Constitution, and modified by amendments, and judicial findings to the present time. We will discuss its strengths as well as its flaws and failure points.

The afternoon will be reserved for discussion of possible "fixes" to the operating system of American democracy, including: (a) those which address urgent current deficiencies; and(b) those which address ways to strengthen the ability of the system to handle oncoming major transitions for the longer term, as described in foresight-based discussions at previous Round Tables. Details to follow.

This is the next to last session of the Round Table. To remind, the last session will take place on August 29th, and will involve the use of a "visionario," to facilitate discussion of alternative futures where challenges arising from coming shocks (technological, demographic) are handled successfully in terms of democratic values, and other futures, with undesirable outcomes in terms of basic democratic values.

Please RSVP to Sheila at sheilarr@aol.com and let her know if you can attend if you have not already done so.

--
Leon Fuerth
Website: http://www.forwardengagement.org/
E-mail: hdpf@msn.com OR leon.fuerth@forwardengagement.org

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Project on Foresight and Democracy
Round Table 4

Morgan Lewis Law Firm
1111 Pennsylvania Ave., N.W.
Washington, D.C.
Leon S. Fuerth
Sheila R. Ronis

Rockefeller Brothers Fund

30 July 2019

Agenda

- Morning (Slides 1-8)
- 1000 – 1100
  - American Democracy as conjoined value system and operating system
- 1100 – 1200
  - How did the Constitution build American societal values into the system of governance?
- 1200 – 1300 Slides 9-13
  - Working Lunch – Consequences of deficiencies in the value/operating system of democracy
- 1300 – 1400 Foresight: Impact of Disruptors on Democratic Values (Slides 14-21)
  - Impact of Disruptors on Democratic Values: The race for an adaptive strategy
  - What can foresight do to strengthen democracy?

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American Democracy as conjoined value system and operating system

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American Democracy as Value System

- The value system for democracy in America is contained in the Declaration of Independence. The operating system for democratic governance in America is written in the Constitution.
- The Declaration was written in universalist language, in terms meant to apply for all times to all nations. But the operating system of the nation -- its Constitution -- was written by and for the white population, with tiers of privilege based on economic standing.
- The Civil War established the principle that the rights and protections of the Constitution are universal for all citizens (and that the former slaves were citizens), but the execution of this principle has been the subject of a continuous effort to reverse that outcome: resulting in a battle which is ongoing to the present moment.

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American Democracy as Value System

- Nevertheless, although the values presented in the Declaration are accepted to be universal for all American citizens: the issue remains the persistent gap between aspiration and realization.
- Whether and how to close this gap is the object of a continuing battle, which has been conducted mostly through the formal political system, but with intervals when it has been fought at levels of violence up to and including the Civil War.
- There is also a reading of the Declaration which leads to a peculiarly American conviction that American societal values extend to all peoples, as embodied in the Universal Declaration of Human Rights .
- This, too, has been and remains the object of controversy about the conduct of American foreign policy, including its legitimacy as a basis for the use of coercive force against foreign governments.
- The pursuit of American societal values remains and will always be, a work in progress.
- A reading of the Declaration of Independence leads to a distilled list of general values (as distinguished from specific rights, such as are in the first ten amendments to the Constitution).

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American Democracy as Value System

- These values can be thought of as “ur-laws” of democratic society, from which specific rights are formed: they are the template by which laws are written, and in the light of which the justice of the system is gauged. For example:
  - The underlying unity of the human species.
  - The moral equality of all people.
  - Respect for differences among people, from the individual to the national.
  - Respect for human dignity.
  - Primary value of truth.
  - Truth is the outcome of search and debate.
  - The temporary nature of political power
  - Constraints on the exercise of power.
  - Resistance to absolutism.

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American Democracy as Operating System

- The entire operating system of democratic governance in America is derived from these values. To the extent that the actual operation of the system is destructive of these values, those who are responsible can be replaced. If replacing persons does not correct the discrepancy, the system can be modified. If modifying the system does not correct the discrepancy, abolishing it is -- in principle -- possible.
- The Constitution of the United States is, in effect, the Operating System for a republic in the form of a federation.
- The framers of the Constitution were students of both classical and contemporary history of their own times. They could not foretell the future, but they were able to isolate from their scholarship, and from the accumulated experience of British rule, a knowledge of the kinds of issues that would have to be dealt with by a Constitution.
- These parameters were identified and exhaustively discussed in the Federalist Papers. There are eighty-five Federalist Papers. Each one addresses a specific design problem to be anticipated in the governance of the republic that the founders were consciously working to create -- and then to enact with the support of a dubious and fractious group of newly independent and sovereign states -- done, in a little under four months, in Philadelphia.

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- There was no precise antecedent for this endeavor, and every question they dealt with was revolutionary in its origins and consequences. Examples are:
    - Where is the sovereign power of this entity?
    - What is to prevent that power from disintegrating into chaos?
    - What is to prevent that power from escalating into tyranny, whether by a single individual or a mob?
    - How shall laws be made?
    - How shall they be enforced?
    - What prevents the federal entity from overpowering the states; the states from overpowering the localities, and the localities from becoming fiefdoms?
    - Who has the power to make war? Prevent it? Who has the power to make peace?
    - Who is to be chief executive, and in what way is that office to be kept from evolving from a temporary grant of power to a permanent reign?
    - What was written by hand on parchment by men who traveled on horseback, who were attempting to create a government able to bring law to perhaps four million people living along the East Coast of the United States, while at the same time protecting their individual and local freedoms, has evolved into an operating system for the governance of a continental state, which is the center of a world-wide empire of economic, military, technological and cultural influence…. The “commons”.
    - Will that center hold? It depends on whether the operating system that keeps it running can continue to adjust not only to external challenges, but to the accumulating challenges of its own flaws. How could the system be made to operate under dynamic, changing circumstances?

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How did the Constitution build American societal values into the system of governance?

- Constrains the powers of the Federal government viz the powers of the states.
- Within the Federal Government, the system of checks and balances.
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- An electoral system to translate the public will into law through selection of the President and members of the legislature.
- The Bill of Rights.
- The power of amendment of the Constitution.
- The power of Impeachment.
- The Right to Bear Arms.

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Working Lunch

What were the legacy deficiencies in the Value/Operating Systems in the Constitution from its beginning

- Racial domination, formally incorporated in the original
- Gender inequality, formally incorporated
- Unequal suffrage based on race, gender and class, formally incorporated.
- Unequal opportunity to flourish by dint of talent and/or level of effort, because of unequal access to education, health, etc.

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What was the system "fix?"

- **amendments, law**s and judicial decisions designed to reflect changes of public opinion and sentiment, by altering the operation of the system, by resetting its legal standards of justice and by mandating that it should function as guarantor of rights of equality denied through formal legal means.

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Continuing flaws in the system.

- Segments of the electorate that are deeply opposed to liberalization of the legacy system, and able to resist by open legal means.
- Segments of the population that are deeply opposed to liberalization and able to resist because of the survival of social attitudes and networks that work to nullify the impact of law.
- Segments of the population that are prepared to use illegal means to resist liberalization, and which are still substantially immune from the consequences of their actions (eg. a portion of police forces).
- Segments of political parties, and groups of political representatives that are opposed to liberalization for reasons of personal belief, electoral pressures, and who are in positions enabling them to block change by defeating legislation, underfunding and defunding social functions needing support from government revenues.

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Working Lunch: Consequences of these Deficiencies

- Crime rates. Health deficiencies. Lower educational attainment. Lower economic attainment. Diminished national wealth. Fractured public opinion. Vulnerability to domestic and foreign attacks on the cohesion and resilience of the system. A heavy net cost to the wealth, health and moral well-being of the nation, and to its competitive position in the world.
- Critical failure points: diminished confidence in the will and ability of society to address inequality in palpable, effective ways. Deep cynicism about the system, the honor of its officials, the validity of its principles.
- Challenges arising from unprecedented disruptions that are developing now, but will reach full force in the next 20-30 years.

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Foresight: Impact of Disruptors on Democratic Values

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Artificial Intelligence
Machine Outpaces Humankind

- Machine acquires executive control over broad sectors of society.
- Machine acquires executive control over behavior.
- Machine displaces human artistry.
- Machine imposes tyranny of the algorithm.
- Machine becomes the right hand of supreme political power.
- Machine creation of synthetic history (“Deep Fakes”).
- Machine creation of alternative realities and effacement of the distinction between what is true and not true.
- Unequal benefits from applications of advanced AI flow to white component of the US population, which enters this period with residual advantages in educational and professional status.

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Synthetic Biology

- Consolidation of economic and industrial power over agriculture and agriculturalists.
- Vanity creations without regulation.
- Accelerated extinction of natural life forms, as design displaces evolution.
- Final divorce of humankind from the natural world.
- Unequal benefits from advances in health care continue to flow to the most wealthy (in this case without regard to ethnicity).
- Unequal benefits from advances in health care continue to flow to the white portion of the US population, in the absence of radical redesign of the health care system.

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Climate Change

- Becomes climate crisis.
- No return to previous patterns nationally and globally.
- Profound changes in life style and long range expectations, some induced by physical shifts; some induced by policy shifts made under emergency conditions.
- Paradigm of abundance ends.
- Rights to the free exercise of control over personal property are constrained.
- Intense pressure from environmental refugees; new vectors for military conflict.
- Increased inequality as top tier insulates its life style from change.

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"Panopticon" (transition)

- Legal protections of privacy cease to be effective.
- Customary expectations of privacy cease to be credible.
- Algorithmic prediction of behavior used extensively for commercial, political, and security.
- Expansion of China's "sticks and carrots" approach to social control expands to all authoritarian regimes.
- Expansion of China's "sticks and carrots" approach to behavior modification applied in the private sector of democratic countries.
- Expansion of China's "sticks and carrots" approach to behavior modification applied as feature of legislation in democratic countries.
- Expansion of facial recognition into use by police and intelligence services in democratic countries.

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Demographic Changes

- **W**hite portion of US population becomes a co-minority on numerical par with the Hispanic portion, which supersedes the black portion of the population in the number #2 position.
- Going forward, this trend continues, as white portion of the population continues decline in proportion to the others.
- To the extent that the results of the coming census, gerrymandering, and other voter suppression techniques distort these changes, the gap between the defined meaning of representative democracy and its practice, becomes more sharply evident.
- Supreme Court decision (June 27th, 2019) that federal courts cannot block gerrymandering , locks this inequality into place.
- Pressures continue to grow in the near term to address the issue of reparations for Black Americans.
- Pressures continue to grow for shifts in resources to meet needs specific to the black-American and Hispanic-American communities.
- These needs will be intensified by some of the technological drivers (see sections above on implications of the tech drivers).
- Unequal impact of climate crisis for Black and Hispanic components of the population.
- Unequal impact of climate crisis for all but the upper percentiles among white Americans.
- Super high-tech transition produces effects that are felt unequally by the non-white components of the US population, with negative political implications for an overall sense of unity, social equity, and the efficacy of democratic governance in general.

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The Race for an Adaptive Strategy.

The moral equipment of humankind was built into its genetic system, when homo sapiens emerged.

- There are no new virtues, and there are no new vices.
- What is new is the power of knowledge -- especially science -- to amplify the effectiveness of our capacities for good or evil, as a fulcrum amplifies the effect of a lever.
- The acceleration of science, technology, and unregulated rivalries relating to the early and reckless deployment of these advances means that there is an oncoming clash of values with opportunities for gains in power and wealth.
- To such an extent that end-game is approaching, unless we find a way to grow wisdom faster than we can create mischief.
- There is an urgent need for foresight to provide the early vision, and for that vision to be coupled into new forms of governance that can be termed anticipatory.
- **Not just adaptive, but anticipatory.**

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What can foresight do to strengthen democracy?

- At the aspirational level
- At the operational level
- Organizing governance for anticipatory (before the fact) as well as adaptive (after the fact) behavior.
- Engaging the wisdom of the crowds
- "Grassroots foresight"

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Project on Foresight and Democracy

Minutes of Round Table 4

30 July, 2019

Washington, D.C.

Theme One: The Declaration of Independence and the Constitution, as conjoined system of values, for a democracy, and an operating system for the governance of a republic.

American Democracy as Value System

- The value system for democracy in America is contained in the Declaration of Independence. The operating system for democratic governance in America is written in the Constitution.
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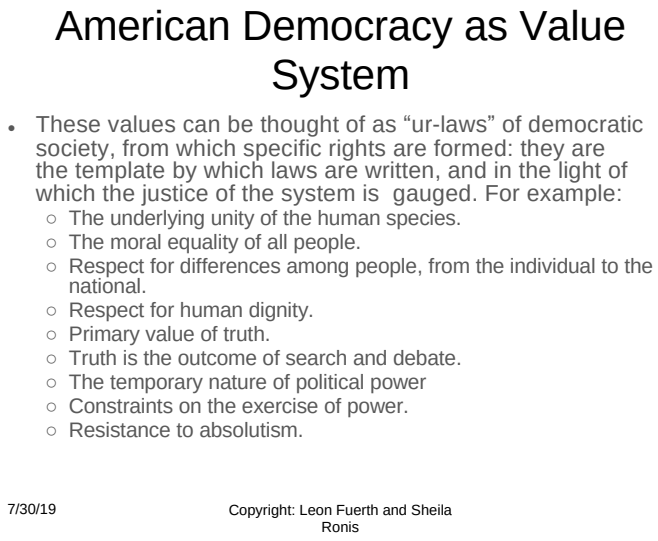

Participants’ Comments:

- The project has two stated objectives: to show that foresight can be used to strengthen democratic governance; and closely related to that, can be used to reduce polarization.
- There is a difference between values articulated in the Declaration and the institutionalization of those values through the Constitution, noting that the values are not supposed to change, but the institutionalization does: e.g. the coexistence of universal rights of humankind in the Declaration, and the sanction of slavery that existed in the Constitution.
- The question, therefore, is not the impact of trends and events on values, it is the impact of trends and events on how the values are to be implemented.
- You can change the Constitution, but not the Declaration.
- The 14th amendment, for example, changed the status of millions of former slaves to that of citizens.
- That is true, but the 14th amendment does not speak to the problem of non-citizens coming to the United States.
- There have been successive waves of non-citizen immigrants, and each of these waves has been the occasion of political resistance from elements of the public -- noting that in time, these waves of people achieved inclusion.
- That, being so, it does not address the treatment of native Americans, whose land were taken, and who experienced what some would call a genocide.
- This raises the question, whether in evaluating the past it is legitimate to apply contemporary standards.
- It also needs to be noted that the European settlement of North America disrupted an equilibrium that had existed for millennia, between native Americans and the environment.
- Once a paradigm shifts, you cannot use the new paradigm to evaluate the past . It is possible to know the facts about the past, but avoid judging people by behavioral

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standards that were impossible for them to know at the time. But we need to use the new standards to judge ourselves.

- If humans cannot learn from what was unavoidable stupidity or blindness, we have a problem since machines have reached the point where they can learn (as in general artificial intelligence).
- The disparity between changes of paradigm and changes in our ability to cope with the effects applies to phenomena in addition to AI. For example the rapid onset of our ability to alter existing life forms, and potentially create new ones. At the rate we are going, everything is going to happen *de facto* before we can deal with it *de jure*.
- That raises a question about the durability of values. Values are under assault by developments that could not be foreseen when these values were articulated.
- Advances in neurobiology, for example, tend to undermine free will, which is a fundamental assumption of democratic theory and legal practice.
- AI tends to change the value system in way that you can't restore.
- It is now possible to have machines with an autonomous ability to kill human beings.
- Certainly, it contradicts our value system to have machines that can chose whom to kill. But what kinds of "pre-emptive bans could be used to control robots?
- This applies in particular to artificial general intelligence. There will have to be some form of international action to prevent the development of a new form of arms race in the deployment of machines with increasing autonomy to kill.

Theme Two: Democracy as Operating System.

American Democracy as Operating System

- The entire operating system of democratic governance in America is derived from these values. To the extent that the actual operation of the system is destructive of these values, those who are responsible can be replaced. If replacing persons does not correct the discrepancy, the system can be modified. If modifying the system does not correct the discrepancy, abolishing it is -- in principle -- possible.
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Participant's Comments:

- It would be more accurate to speak of a system of shared powers, rather than separation of powers. As originally written the Constitution was clearly about separation of powers, but over time it has blended and blurred.
- But then there is also abdication of power, as has occurred as Congress has both actively transferred power to the Presidency, and/or has passively accepted loss of power to Presidential intrusion. The Supreme Court most recently has declared that

gerrymandering of congressional districts is not something the Court should consider one of its areas of responsibility.

- The framers of the Constitution were very much aware of this kind of danger, essentially because of the education of many of its members in the history of republics in classical times.
- The Constitution places the people at the center of the political system. But the question is whether the Presidency is displacing the people. The Constitution recognized the need for each branch of government to stay in its own lane, and the framers to an extent relied on an assumption that at the end of the day, the rules would be followed. That there would be -- in addition to formal rules -- norms of behavior that would continuously operate to keep the system running as intended.
- But these codes of conduct seem to be disappearing. The President attempts continuously to do as he pleases, and 40% of the electorate goes along with it.
- Taking the most extreme example, what would happen if the President is defeated in 2020, but challenges the results and refuses to transfer power?
- Who, possessing access to physical force, would use it to prevent an actual seizure of power? As an extreme example, what would happen to physical possession of the nuclear codes (the "Football")?
- That goes to whether it would be possible to corrupt the military by confronting its members with a choice between the Constitution and loyalty to a President?
- A factor in this would be the attitude of the population, 40% of which seems to be completely supportive of the President's leadership.
- G. Washington warned that democracy will fail if and when people place more weight on loyalty to partisanship than the general interests of the nation.
- That said, we have had government by party for a long time.
- However, despite partisanship facts would eventually swing opinion around.
- Now, however, we have a presidency that controls communications by adept manipulation, and the press -- willingly or not -- amplifies this.
- Foreign interference in US domestic politics. Russians now, others getting into the game.
- Coincides with loss of influence from experts. Media and internet make it possible for people to stay within partisan "bubbles," exposed to closed systems of information and values.
- Returning to concerns about presidential succession. What social force might prevent the equivalent of a refusal to concede an election?
- Number of powerful interest groups might see such behavior as threat to their own interests, and abandon their political support of such a person.
- What is the cumulative effect of constantly installing loyalists in key positions?
- Not to be excessively pessimistic. There is plenty of resistance to that kind of political narrative about this presidency.
- Are there true conservative values that we are overlooking?
- African-Americans are conservative on social issues, although the press does not present this.
- Result is tendency to under-value resistance to radical departure from societal and political norms.
- There has been spectacular mass reaction against the policies of the Administration -- spontaneously organized.

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- There is nothing wrong with political disagreement, but when disagreement becomes uncritical support for faction, at places and in ways that suggest a decline in support for democratic institutions, that's a different matter (e.g. troops at a formation for Trump, wearing MAGA hats
- This raises a question for the issue of balance in this report. How to accommodate the fact that there are millions of people who have bought into what this president says? How should this be presented in foresight analysis, if that form of analysis is supposed to be even-handed about values?
- With respect to race, there are a lot of people who are re-examining their beliefs, they want new conversations, but are unsure how to have them..
- If nothing else, a new bluntness about race may help the 40% who either never believed or never understood in America to understand
- Opinion is being formed in ways we don't fully understand. The marketeer's approach: find and target strategically important parts of the population with messages that will resonate.
- There is a difference between propaganda (information you know is aimed at you) and information warfare (when you do not know what is aimed at you). Our news cycle is so fast, that bold lies spread and take hold very fast, and it takes too long for the truth to catch up
- The administration has made people suspicious about whether the truth is knowable.
- There are signs, however, that egregious falsehoods may actually unify a negative public reaction (citing the reaction in Baltimore to Trump assaults on the reputation of the city).
- What if we get to the point where nobody knows what's true?
- There is a race to create software that could figure that out. And (according to one participant) there is a chance that there will be enough free software around the world by 2020 to double check.

Meeting break for lunch at 1200:

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Working Lunch

What were the legacy deficiencies in the Value/Operating Systems in the Constitution from its beginning

- Racial domination, formally incorporated in the original
- Gender inequality, formally incorporated
- Unequal suffrage based on race, gender and class, formally incorporated.
- Unequal opportunity to flourish by dint of talent and/or level of effort, because of unequal access to education, health, etc.

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What was the system "fix?"

- **amendments, law**s and judicial decisions designed to reflect changes of public opinion and sentiment, by altering the operation of the system, by resetting its legal standards of justice and by mandating that it should function as guarantor of rights of equality denied through formal legal means.

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Continuing flaws in the system.

- Segments of the electorate that are deeply opposed to liberalization of the legacy system, and able to resist by open legal means.
- Segments of the population that are deeply opposed to liberalization and able to resist because of the survival of social attitudes and networks that work to nullify the impact of law.
- Segments of the population that are prepared to use illegal means to resist liberalization, and which are still substantially immune from the consequences of their actions (eg. a portion of police forces).
- Segments of political parties, and groups of political representatives that are opposed to liberalization for reasons of personal belief, electoral pressures, and who are in positions enabling them to block change by defeating legislation, underfunding and defunding social functions needing support from government revenues.

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Working Lunch: Consequences of these Deficiencies

- Crime rates. Health deficiencies. Lower educational attainment. Lower economic attainment. Diminished national wealth. Fractured public opinion. Vulnerability to domestic and foreign attacks on the cohesion and resilience of the system. A heavy net cost to the wealth, health and moral well-being of the nation, and to its competitive position in the world.
- Critical failure points: diminished confidence in the will and ability of society to address inequality in palpable, effective ways. Deep cynicism about the system, the honor of its officials, the validity of its principles.
- Challenges arising from unprecedented disruptions that are developing now, but will reach full force in the next 20-30 years.

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Meeting Resumes at 12:45:

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Foresight: Impact of Disruptors on Democratic Values

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Artificial Intelligence Machine Outpaces Humankind

- Machine acquires executive control over broad sectors of society.
- Machine acquires executive control over behavior.
- Machine displaces human artistry.
- Machine imposes tyranny of the algorithm.
- Machine becomes the right hand of supreme political power.
- Machine creation of synthetic history (“Deep Fakes”).
- Machine creation of alternative realities and effacement of the distinction between what is true and not true.
- Unequal benefits from applications of advanced AI flow to white component of the US population, which enters this period with residual advantages in educational and professional status.

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Synthetic Biology

- Consolidation of economic and industrial power over agriculture and agriculturalists.
- Vanity creations without regulation.
- Accelerated extinction of natural life forms, as design displaces evolution.
- Final divorce of humankind from the natural world.
- Unequal benefits from advances in health care continue to flow to the most wealthy (in this case without regard to ethnicity).
- Unequal benefits from advances in health care continue to flow to the white portion of the US population, in the absence of radical redesign of the health care system.

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Climate Change

- Becomes climate crisis.
- No return to previous patterns nationally and globally.
- Profound changes in life style and long range expectations, some induced by physical shifts; some induced by policy shifts made under emergency conditions.
- Paradigm of abundance ends.
- Rights to the free exercise of control over personal property are constrained.
- Intense pressure from environmental refugees; new vectors for military conflict.
- Increased inequality as top tier insulates its life style from change.

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"Panopticon" (transition)

- Legal protections of privacy cease to be effective.
- Customary expectations of privacy cease to be credible.
- Algorithmic prediction of behavior used extensively for commercial, political, and security.
- Expansion of China's "sticks and carrots" approach to social control expands to all authoritarian regimes.
- Expansion of China's "sticks and carrots" approach to behavior modification applied in the private sector of democratic countries.
- Expansion of China's "sticks and carrots" approach to behavior modification applied as feature of legislation in democratic countries.
- Expansion of facial recognition into use by police and intelligence services in democratic countries.

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Demographic Changes

- **W**hite portion of US population becomes a co-minority on numerical par with the Hispanic portion, which supersedes the black portion of the population in the number #2 position.
- Going forward, this trend continues, as white portion of the population continues decline in proportion to the others.
- To the extent that the results of the coming census, gerrymandering, and other voter suppression techniques distort these changes, the gap between the defined meaning of representative democracy and its practice, becomes more sharply evident.
- Supreme Court decision (June 27th, 2019) that federal courts cannot block gerrymandering , locks this inequality into place.
- Pressures continue to grow in the near term to address the issue of reparations for Black Americans.
- Pressures continue to grow for shifts in resources to meet needs specific to the black-American and Hispanic-American communities.
- These needs will be intensified by some of the technological drivers (see sections above on implications of the tech drivers).
- Unequal impact of climate crisis for Black and Hispanic components of the population.
- Unequal impact of climate crisis for all but the upper percentiles among white Americans.
- Super high-tech transition produces effects that are felt unequally by the non-white components of the US population, with negative political implications for an overall sense of unity, social equity, and the efficacy of democratic governance in general.

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The Race for an Adaptive Strategy.

The moral equipment of humankind was built into its genetic system, when homo sapiens emerged.

- There are no new virtues, and there are no new vices.
- What is new is the power of knowledge -- especially science -- to amplify the effectiveness of our capacities for good or evil, as a fulcrum amplifies the effect of a lever.
- The acceleration of science, technology, and unregulated rivalries relating to the early and reckless deployment of these advances means that there is an oncoming clash of values with opportunities for gains in power and wealth.
- To such an extent that end-game is approaching, unless we find a way to grow wisdom faster than we can create mischief.
- There is an urgent need for foresight to provide the early vision, and for that vision to be coupled into new forms of governance that can be termed anticipatory.
- **Not just adaptive, but anticipatory.**

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What can foresight do to strengthen democracy?

- At the aspirational level
- At the operational level
- Organizing governance for anticipatory (before the fact) as well as adaptive (after the fact) behavior.
- Engaging the wisdom of the crowds
- "Grassroots foresight"

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Participant's Comments:

- Foresight merits a place in the future political process, and in the education process.
- Should not, however, ignore the tremendous impact of foresight on the development of the United States up to and including the present
- Demographics: how is our population going to change and how will politicians evaluate the meaning of that for their careers?
- Of greater concern is how demographic changes will affect the viability of the "commons." Can the nation as a whole retain a sense of unity and common interest?

Here are two examples of phenomenal decisions made with foresight in the nation's history.

- There is a long list of 19th and 20th century examples of things that happened that were absolutely an example of foresight. People understood where they wanted things to go and they made it happen. [For example, the] purchase of Alaska.
- Also, if you wanted to build a transatlantic railroad you knew what you were doing. Also, the Land-Grant Act. All through American history there are these moments when a president absolutely had foresight before everybody else and managed one way or another to get things done whose consequences continue to echo as planned to this day. It's the "as planned" point that matters here, over the serendipitous outcomes.

- We have not yet discussed posterity and its needs/interests, especially as generations live longer.
- We should use the term "white male dominion" in place of softer language such as "racial domination." We should also use the term "build wealth" instead of the sifter "flourish." (Changes will be made to the final report.)
- Wealth is only one aspect of flourishing.
- Is the whole concept that we are organized around meritocracy flawed?
- There's never been a meritocracy. The money gets passed down. But it has to be acknowledged that something like the Land-Grant Act or the GI Bill were efforts to change these dynamics and to allow broader participation.
- Reference back to slide #12. What do we understand by the term liberalism? The term has been stretched between two poles of meaning: one meaning -- the historical meaning -- has to do with maximum freedom to exploit property with minimal direction from government; the other meaning has to do with greater societal care and provision for disadvantaged parts of the public. One leads to greater inequality. The other is concerned to reduce inequality.
- Is there any society where those who have power and wealth are welcoming of change? Where has a system ever welcomed an overturning of the power structure from below?
- That could only happen in a society where everybody gets more benefits and wealth.
- Only one group in this country has had large-scale, inherited privilege.
- Only if the privileged class sees that without change their position is jeopardized
- We have been discussing continuing flaws in the value/governance system. These continuing flaws involve continuing inequality.
- Suppose the remedy is expansion of membership into the legacy system... expanding the circle.
- With respect to the points on slide #13
- With reference to Slide 13: Working Lunch: Consequences of these Deficiencies:
    - Crime rates. Health deficiencies. Lower educational attainment. Lower economic attainment. Diminished national wealth. Fractured public opinion. Vulnerability

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to domestic and foreign attacks on the cohesion and resilience of the system. A heavy net cost to the wealth, health and moral well-being of the nation, and to its competitive position in the world.
    - Critical failure points: diminished confidence in the will and ability of society to address inequality in palpable, effective ways. Deep cynicism about the system, the honor of its officials, the validity of its principles.
    - Challenges arising from unprecedented disruptions that are developing now, but will reach full force in the next 20-30 years.

- Another deficiency in the system is that it was designed to be slow moving. That was, and remains, a safety feature -- but it also works against an ability to respond to rapid change, and, in light of the kinds of change we are anticipating, that is a potential weakness.
- Will these changes plateau or are they accelerating?
- These changes are ongoing, but the point is that it they can each be expected to "hockey-stick" (sharp acceleration) in the next twenty years.
- We are at a bifurcation point, where the challenges over the next 20-30 years could amplify the effects of this deficiency. Alternatively, we still have the time and the means to change and to create a more democratic society over the next decades, which foresight would enable us to plan.
- The “constitutional operating system" enables us to use the system to change the system.
- Moreover, the federal system of governance means that each state can experiment with new ideas, and that may produce results that would work in the rest of the country. Small changes can end up having big effects. The federal system permits diversity of approach and experimentation.
- The constitutional operating system is a big tool kit for changing the system. Change can enter through the electoral process, legislation, judicial actions, and regulatory processes.
- Why not start this slide with reference to heavy net cost to the wealth, health and moral standing of the nation, in turn leading to higher crime, lower efficiencies and diminished economic performance? Agreed these are to be switched around on the slide (in the final report.)
- If we are talking about a system that is accessible to all parts of the public, we are talking about equality -- but equality is, itself, a debatable word. At the last meeting we were talking about equality of opportunity or outcomes. But perhaps the right core meaning is the right or opportunity to build wealth.
- Wealth -- land and money -- is an important element of equality, but in the future it may be more complicated: the freedom to self-actualize, for example. As a large portion of our society moves into a "post-material" world, the concept of wealth is changing.
- There is a spread between the concepts of wealth and well-being. "Life, liberty, and the pursuit of happiness," might actually cover that spread.

- **Climate change** is a bona fide crisis. It is a done deal (baked in).

- But it is possible to be too pessimistic...we should not slight potential solution areas.
- Much writing about **AI** may have made this error.

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- **Regarding demographic change** (see slide 19)... trends show that by 2065, Asian and African immigration will become dominant factor, while Hispanic influx will decline. With respect to Africans, many will be well educated, and will not need to draw on the resources of the US educational system (per one member). Many Africans are trained in the European system. Europe and North America have declining populations. Africa is estimated to overtake Asia by births. A person with skill will get through. In response to questions from participants, co-chairs double- checked accuracy with Dr. Lopez.
    - Slide 19: Demographic Changes
        - **W**hite portion of US population becomes a co-minority on numerical par with the Hispanic portion, which supersedes the black portion of the population in the number #2 position.
        - Going forward, this trend continues, as white portion of the population continues decline in proportion to the others.
        - To the extent that the results of the coming census, gerrymandering, and other voter suppression techniques distort these changes, the gap between the defined meaning of representative democracy and its practice, becomes more sharply evident.
        - Supreme Court decision (June 27th, 2019) that federal courts cannot block gerrymandering, locks this inequality into place.
        - Pressures continue to grow in the near term to address the issue of reparations for Black Americans.
        - Pressures continue to grow for shifts in resources to meet needs specific to the black-American and Hispanic-American communities.
        - These needs will be intensified by some of the technological drivers (see sections above on implications of the tech drivers).
        - Unequal impact of climate crisis for Black and Hispanic components of the population.
        - Unequal impact of climate crisis for all but the upper percentiles among white Americans.
        - Super high-tech transition produces effects that are felt unequally by the non-white components of the US population, with negative political implications for an overall sense of unity, social equity, and the efficacy of democratic governance in general.
- **Regarding AI,** one thing missing is consideration of the implications of man-machine interfacing. Elon Musk's company has just revealed a chip for insertion in the brain with 1024 electrodes that is the size of a neuron. It's a game shifter, with implications for treating impaired senses, and possibly aspects of mental health such as depression. See: Elon Musk demonstration Neurolink.
- First tier applications would be to help people with injuries or genetic impairments. Second tier would be to enhance people, possibly for military purposes, but for cognition, etc. But this could lead to a new division among humans, as between enhanced and non-enhanced.
- **Epigenetics:** according to one participant, there could be epigenetic interactions between humans and machines. Epigenetics defined inheritable changes induced in the pool of parents by constant and unabated stress.

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- **Synthetic biology:** once it becomes possible to create new species, it goes from plant and microbial life all the way up through animals to humans. How many species can we create that don't presently exist on the planet?
- Process of divorcing humankind from the natural world.
- Agreed change on slide 16: consolidate points 5 and 6, or get rid of point 6 entirely. To be done in final report.
- The concentration of control by economic actors, over synthetic biology is already occurring, and will continue.
- The proliferation of synthetic biology could develop beyond regulatory control, making it a danger not only to individuals (e.g. terrorist applications) but to the whole planet.
- First benefits will go to the wealthy.
- Both AI and synthetic biology can be weaponized.
- **Climate change** could be the major driver of change in the US. (regarding slide 17)
- Reference to a book called: (Under a Green Sky: Global Warming, the Mass Extinctions of the past and What they can Tell us About Our Future) Beyond a certain trigger level of CO2, a new type of organism spreads, and releases so2 when it dies.
- We won't get to 2100 if we can't do something about methane release in the next five years. Once the permafrost thawing within 5 years, it's all over for our species within 20. Effective action presupposes an abrupt cultural change.
- **Demographics.** Effects will be felt unequally by the non-white population, or more accurately, by the lower income part of the population: black and Hispanic Americans. By the "vulnerable populations."
- Black and brown people should be looked at as a potential that can be urged to develop as a desperately needed talent-pool.
- The same applies to whites. "Black-lives matter" should be "Black lives matter, also."
- **Reparations** are a subject of conversation today that didn't exist even five years ago.
- There is a question whether the sum total of claims on society can be met: a trillion for vets over the course of their lifetimes; an unknown sum for "reparations" for black-Americans, Native Americans, etc.
- A question is whether you cost out this approach going back to a time before the birth or arrival of the present generation, or even to earlier generations, or whether you fund the consequences of the past going forward into the future.
- One member expressed the view that reparations is a charged word. Perhaps better to say, "to address past inequities."
- The Treaty of Versailles forced extremely severe reparations on Germany at the end of WWI, to the extent that public animus towards them was a factor in the rise of Nazism. The question is whether it is possible to sell to the living populace of America that it owes repayment for what it never did, or whether it is possible to sell the proposition that it must repair the damage of the past as an investment in a better common future.
- It would mean looking at how to fix what is broken now, regardless of how it happened in the past. The past gets you into something that is emotionally charged. But if you look at people who have suffered inequities in the past, circumstances for them are still not good.
- How could a base-line be calculated?
- That's the purpose of the suggested Commission that has been suggested by some advocates of reparations..

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- The Commission's look into this is going to be very important. You characterize the people who would be able to benefit -- but that will be do.
- One reason for that is humiliations have long-lasting consequences. It becomes an integral part of the culture of a people until something is done.
- As demographic changes occur, people who become more powerful begin to have agency, the ability to speak up impactfully about past inequities.
- Mention of Georgetown University shamed into paying damages or compensation to descendants of slaves who once belonged to the university. It's payable because the number of such persons is relatively small.
- **Continuity of effort.** The final Round Table session will take place on 29 August. In the intervening time, Sheila and I will be working to formalize new findings coming out of this discussion.
- Will this report be the end of the process?
- So far as the Rockefeller Brothers Fund is concerned, yes.
- Well, what if this report is distributed to all the candidates still standing for presidential nomination at the time of its release?
- Sheila and I hope for something that has effects. We have to begin, however, by writing a report that will crystallize what we've learned, and then think about ways to convert that into an ongoing effort designed to cause results. We are acutely aware that the period of time for actions that can meaningfully influence events that foresight tells us to attend to, is very short. History is not malleable for long. Unless there is rapid, anticipatory change in the near term, the remaining 25-30 years will involve waiting for consequences to fall. Sheila and I believe that cultivating foresight applications among professionals and political leaders is vital. However, we also believe that the People – the Commons – must participate. We therefore believe that there is a need for processes that we call “grass roots foresight” and we are working on ways to encourage that.

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Round Table 5

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Round Table 5 Invitation: The Visionario; Project on Foresight and Democracy

Dear Colleagues:
As you know, on 29 August, we will have the last projected meeting of the Round Table (RT5). Per usual, the meeting will take place at the Law Offices of Morgan Lewis at 1111 Pennsylvania Ave., N.W. It will be built around a "visionario" which Sheila and I are attaching to this e-mail. Our purpose in sending it to you ahead of the actual meeting is to allow time for you to digest its contents and to think about the discussion that we hope will emerge from it. We thank Jim Burke and John Meagher for their advice and comments along the way, including the attachments.

A little history
Towards the end of WWII, Germany unveiled some stunning advances in military technology, including the first operational ballistic and cruise missiles, and the first operational jet aircraft. Too late to save the Reich. But shocking to the United States, nonetheless (a foreshadowing of other technological surprises involving the Soviet Union during the Cold War.) At any rate, the fledgling United States Air Force (established in 1947) felt the need for some system of forward looking analysis that could provide advance warning of potentially decisive surprises of this kind. Towards that end, it established the RAND Corporation, locating it in Santa Monica, California, not far from Hollywood.

The scenario

The proximity to Hollywood had real consequences. RAND -- borrowing from studio practice -- began to employ scenarios as a methodology for constructing credible alternative futures, so as to explore the future: a kind of long- range intellectual radar to search out potential game changers. There are many other methodologies for doing this, but the scenario remains one of the most important because it was designed to involve participants and to engage their imaginations so as to overcome the assumptions and biases that they otherwise bring with them.

The key to the successful scenario is what the 18th century British critic and poet, Samuel Taylor Coleridge, called a "suspension of disbelief" -- a moment at which the spectator at a play, or the participant in a war game -- accepts a fictitious account as a real event, at least for a brief time, and gives it complete attention. It is more than a teaching device: it is a means to create a credible artificial experience.

The Visionario

The term, "visionario" is Sheila's personal contribution to the art: one that she has employed as a consultant and as a teacher. It is an advanced form of scenario, specially designed to have a particular quality that may or may not be present in any given scenario. That special quality is that a visionario is built to facilitate thinking about social systems that display the characteristics of complexity: many forces and events interacting concurrently, simultaneously affecting the system to which they belong, characterized by surprise, discontinuity, disproportionality between

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inputs and outputs --in other words, the actual behavior of the world, as opposed to over-simplified stock-models we so often rely upon to our subsequent regret.

The Democracy/Foresight Visionario

The Project on Foresight and Democracy is based on a premise: namely, that foresight is a discipline that can help democracy deal with complex societal issues, by enabling discussions of public policy to escape the effects of extreme partisanship. The Visionario that we are presenting to you aims to test that proposition, by inspiring a discussion of the effects of oncoming, foreseeable consequences, in which the simultaneity of events is accommodated, as is the possibility of multiple consequences arising from the same actions. It is intended to be a way of capturing the fluidity of events: much closer to the living beast itself, than to a taxidermist's model.

The Schedule

Slide #2 presents a schedule that sequences discussions at the pending Round Table in a manner that we think flows logically. For each topic, we have identified the pertinent slides by their numbers.

What happens afterwards?

Per usual, Our rapporteur for the day, Maria Sinclair, will produce a near-verbatim record of the discussion. That record will then be condensed into a thematically organized version, which will be circulated to participants for comments. The incorporated comments will become the final version of the record of this Round Table, on the model of earlier accounts that you have seen.

Sheila and I will then begin to draft a final report to capture what can be fairly said for the results of the Project. Circa the beginning of October, a draft of that report will be circulated to participants for comment. Circa November 1, an amended, final report will then be sent to the Rockefeller Brothers Fund, in fulfillment of an obligation that Sheila and I accepted as a condition of the grant. Once that is done, we will find ways to distribute the report as widely as possible. That will involve an effort to establish links to both US and foreign entities that are active in the field of foresight and governance. It will also involve an effort to find a new source of financial support, since the Fund was very clear that this would be a one-time venture for them. In the event that we are able to continue, we have a second phase in mind, which we think we are going to call "Grassroots Foresight and Democratic Engagement." Its goal would be to demonstrate methods by which networks of citizen organizations can engage at their own initiatives in discussions of the sort that we have had. It's about time for lay people to have a way to think on their own about the future, independently of all the forces that seek to herd them into one partisan camp or another.

What about the Round Table?

We would like to sustain the relationships that we have formed with all of you , and we will surface some low to no- cost ideas for doing that. Nothing fancy unless the Project can find resources. But perhaps enough to keep us in communication with each other.

Leon

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Project on Foresight and Democracy

Round Table 5

Leon S. Fuerth and Sheila R. Ronis

29 August 2019
Washington, D.C.

Agenda

1000 – 1100	The Visionario Reviewed Slides 3-13
1100 – 1200	New Directions Slides 14-16
1200 – 1300	Lunch – Things to Build On Slides 17-18
1300 – 1400	Transformational Change, Values? Slides 19-20
1400 – 1500	Can Democracy get us where we need to go? What is the contribution that foresight can make? Slides 21-24

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Visionario

- **It's 2024, going with the flow of history, but almost everyone can hear the roar of the falls…**
- **Two streams of history are converging: climate change and its increasingly disastrous implications for hundreds of millions of people; and the collapse of efforts to prevent the spread of weapons of mass destruction, in circumstances where both domestic and international systems are roiled by the impact of concurrent, interacting paradigm changes driven by technology and demographics.**
- **For some with historical memory, the system seems to be spring-loaded for disaster – reminiscent of the events that led in 1914, upon a single assassination, to the collapse of the sacrifice of a generation of young men, and the destruction of the existing global order, to be succeeded by successive waves of chaos and suffering. To those lacking this historical sense, there is still a growing sense of shared dread at what lies ahead, absent a profound change of course…**

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Visionario

Climate Change

- **It's the election year 2024 in America, and it's too damn hot.**
- **It's too hot in Greenland, which continues to massively shed ice cover, at an accelerating rate.**
- **It's too hot for Antarctica, which is shedding ever larger expanses of its ice as regions the size of nations break off and proceed to melt.**
- **Too hot for the frozen tundra surrounding the arctic circle, which has begun to release methane at geometrically increasing rates.**
- **Too hot for the grain producing regions of the world, where productivity has taken a nose dive beyond the power of fertilizer, bug poisons, and engineered plants to compensate.**
- **Too hot for human life in the Sub Saharan regions of Africa, where millions have been desperately looking for exits.**
- **Too hot for large regions of Central America which have begun to desertify.**
- **Too hot for a million forms of life, which continue to slide at increasing speed, towards the 6th Great Extinction.**
- **Too hot for all persons but the "10%, who can afford to pay" for a climate that sets them apart from all the rest, and for security from the growing anger around them.**

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Visionario

Climate Change (continued)

- **It is also too wet. Too much rain at the wrong times and the wrong places, delivered in ways that do not contribute to fertility, but destroy it even faster than agro-business contaminates it.**
- **Too much consumption of ground water and exhaustion of aquifers.**
- **Too much destruction of the Amazon forest, not at all compensated by spasmodic, hit or miss reforestation and afforestation.**
- **And certainly not too hot or too wet to prevent the infiltration of diseases previously restricted to remote regions, into the heartlands of industrial civilization, where excessive use of antibiotics will already have strengthened the killing power of known bacterial diseases, establishing new pathways to pandemics.**
- **Generally, scientific opinion has by 2024 consolidated around the idea that the time remaining for effective action on climate change and related effects on the biosphere is not more than about ten years, beyond which stabilization at levels compatible with historical norms will no longer be possible.**
- **At the global level there are already meta consequences, in terms of decreasing general health in the developing world; a decline of well-being in what used to be termed the "first world," the extreme senescence of countries including Russia, Japan, and China. Inverted population "pyramids" with the old threatening to overwhelm the young.**

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Visionario

Risk of War

- **General amplification of risk of local conflict spreading into general nuclear warfare. Proliferation of weapons of mass destruction and means for delivery. Arms control dead. Demonstrations of weapons of mass disorientation. Reduction of warning times to from hours to seconds. Shift of control over alert status of weapons from humans to nearly autonomous AI systems.**
- **Expansion of spheres of potential conflict to include the once frozen arctic oceans, near-space, cyber-space, with potential high-speed interactions leading to mobilization races on steroids. No time for second thoughts.**
- **The United States and Russia are no longer bound by arms control agreements limiting major classes of strategic weapons.**
- **The United States, Russia and China are engaged in a race to develop and deploy entirely new classes of strategic weapons, including hypersonic delivery systems with global range. Warning times will be reduced to near zero. Political crises fulminate into direct military confrontation with no time for diplomacy to have effect.**
- **The monopoly of major states over weapons of strategic caliber has been broken: more small states have found the means to get into the game, not only by the development of weapons of mass destruction, but by the development of weapons of mass disorganization, perfected in the form of digital warfare, carried beyond interference with critical electronic systems to the point of interference with the psychology of nations. Terrorist and criminal networks have also moved into this sphere of societal disruption.**

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Visionario

Risk of War

- **Their technologies have brought them to swords' point in every medium of conflict: surface warfare, naval warfare, space warfare, cyber-warfare; and political warfare aimed at psychological disruption.**
- **Political relations among the three are frought. Flash points have continued to develop in every region, including most notably the Arctic, which, as a result of climate change, has become a matter of major challenge to the vital interests of each country.**
- **Russians encouraged and aggressive. Chinese looking to avenge the humiliations of the past and -establish the mandate of history to replace the mandate of heaven. All against all, in efforts variously to deepen fragmentation in the United States and neutralize its ability to respond coherently to challenge.**
- **India and Pakistan have teetered for several years at the edge of conflict over Kashmir. Climate change has increasingly destabilized agriculture in both countries with strong internal political consequences.**
- **International rivalries over sources of fresh water are spiking as the result of unilateral measures taken by states controlling headwaters to dominate the water supply of states downstream through the construction of massive hydroelectric projects.**
- **Coordinated international action has fallen out of favor, treaties take too long to negotiate, and when finally in place are soon disregarded. Events far outrace collective efforts . Unilateralism is the favored instrument of the powerful.**

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Visionario

Domestic Tension:

- **At the national level in the United States, demographic shifts demand new politics, but be careful what you wish for. Authoritarian solutions to intractable problems gain share in the public mind.**
- **The White vs. Black has become white, vs. Brown vs. Black vs. Yellow in a four-cornered fight a "fair share" of a diminished pie, 99% of which is owned by a super-class determined and equipped to stand its ground : in the judiciary system up to and unambiguously including the Supreme Court; in the Senate, where a narrow coalition of Republicans and Democratic anti-activists effectively continues to control the tactical high ground; and in the electoral college as a final redoubt. .**
- **Christians vs. each other for share of congregants and influence on the future. Muslims for standing and acceptance. Women intent on "smashing the patriarchy". The young demanding an end to the preferred economic status of the old. The old demanding something better than penury and the dictatorship of the medical insurers.**

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Visionario

Promethean Powers: From Rapid Development to Hyperspeed

Artificial Intelligence

- **Moving by leaps and bounds to the capacity for independent acquisition of knowledge, without human mediation. Quantum computing opening a new, infinite prospect. The United States and China locked into a competition for supremacy.**
- **This competition fueled by search for super profits; by ego and national pride; and by politics.**
- **Winner take all.**
- **Heavy, repetitive labor (and laborers) rendered superfluous. Vast inroads being made on the utility of not only human physical labor, but of human intellectual work as well.**
- **Profit and power claim that all will eventually be for the best, providing nothing is done to impede their progress. They are highly effective in blocking anything that might.**

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Visionario

Synthetic biology

- **At the verge of replacing evolutionary processes. Life by design from plants to fish to animals to people. Ownership of DNA codes shifts to private, corporate control. Decision-making on what to try next in the lab, and what to try next in the market subject to no law within or among nations, or when subject to law, not enforceable. Corporate/political alliance makes the NRA look old-fashioned.**

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- **Surveillance is inescapable. Means of coercion are developing towards the nth degree of refinement... pushing hundreds of millions of persons towards the goal of all tyrannical systems: perfect obedience based upon internalized constraints on behavior.**

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Visionario

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- **Inequality on steroids, as wealth and power accumulate geometrically. Humanism follows philosophy to the ash-heap of history. The only values that matter are embedded into algorithms, the inner workings of which are no longer fully grasped by the humans who initiated them.**

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Visionario

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- **White supremacy is enfeebled and nearly dead, and good riddance. So, too, the "patriarchy" and male dominance. What is the new glue that holds democracy together? Is everyone intent on getting the biggest possible piece of America? Or is everyone working on the design of "our" America, where the old differences are subsumed by a new identity? Which is what?**

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New Direction

- **A sense has grown that the present generation holds responsibility not only for itself but for successive generations at ranges to be measured in thousands of years. A sense has also grown that the game may already be lost, so party-on. ?**
- **Perhaps, the remedy lies with the rising generation. Perhaps not.**
- **America still matters world-wide, even though we have abdicated leadership and responsibility. But the pending election in the United States is fraught with the sense that the time for action before the future becomes a concatenation of unknowns, is at hand.**
- **Experts have at times been the first to protect their ideas, and the last to recognize the need for paradigm change. But the wisdom of the academies has already been fracked: if trade sanctions can be used to promote old-style national goals, then they can be used to force change in behaviors that threaten the biosphere through climate change. Other orthodoxies may have to go.**

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New Direction

- **Maybe, however, the Wisdom of the Crowd is showing signs of having been under-rated. Substantial numbers of Americans, though not disaffected from country or each other, have become alienated by the hyperpolitics that have paralyzed decision making.**
- **Awareness growing that the situation is complex and deadly: climate change can lead to nuclear war perhaps even more readily than it can to the emiseration of the human species through disease, hunger, poverty. Awareness also that the democratic experiment is under tremendous pressure as the result of technological and demographic change, and unless change can be subordinated to values, the essential morale and coherence of society will break down.**
- **Not interested in manifesto. Demanding plans, resources and action. Super-savvy about politics in the age of the instant network. Skilled about reaching around the existing political parties to find and mobilize each other. Maybe some emergent form of organization that is trans-political and intergenerational? A new centrism?**
- **Maybe some emergent on the Republican side. Nucleus of a new centrism?**
- **What would be its priorities? Splitting the difference, or searching out solutions without reference to the interests of existing factions? Clinging to old orthodoxies on either side of the liberal/conservative divide?**

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New Direction

- **Critical mass of public opinion?**
- **Tipping point reached during the preceding four years, in the US and in much of the rest of the world.**
- **The combined challenges have reached a level threatening to the futures of nations; threatening to the future of our species.**
- **Actions to influence the outcome of these crises are still possible, but time is reduced to a handful of years, beyond which outcomes are beyond control.**

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Things to Build On

In the absence of leadership from the Federal level, individual states, and regional coalitions of states, have taken the lead in establishing regimes of environmental regulation that are stronger than those the remain at Federal level, notably following California's lead on the West Coast and New York's on the East Coast Texas in the Southwest? Similarly, regional groups of states facing common issues as a result of climate change, have been forming blocks to develop regional responses.

- Local governments have been struggling with updated building codes to deal with flooding/high intensity storms.
- The insurance industry has been responding to risk from flooding, etc, with measures that are changing the real estate market on a regional and national level.
- Market penetration has accelerated for technologies that deal with clean energy,water technology, food solutions, human and ecosystem health.
- At the level of individuals, conviction has grown that urgent action is needed across a broad front of issues .....and this conviction, long since a major factor in Democratic politics, has become a force on the Republican side among elements of that party that have been marginalized in terms of access to power -- except the power of the vote .

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Things to Build On

- Artificial Intelligence has reached the stage where it is powerfully augmenting human capacity for understanding complex issues, including the interplay between those issues and measures for dealing with them.
- By the year 2024, looking forward another 20 or so years, technology -- if encouraged by policy -- can offer new options to preserve, restore, or develop improved ecosystem functioning.
- Policies for developing and deploying such technologies are a challenge and opportunity for democratic governance.
- Methods for monitoring ecosystem behavior from international to individual levels are available.... decisions to develop and deploy these have implications for democratic governance.

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Transformational Changes…

- Knowing what the visionario says about the future, what are the elements of a credible scenario in which rising new actors on the scene can redirect the seemingly inescapable flow of events?

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Transformational Changes…

- What fixes are necessary so that the United States can move to solutions, and in so doing, recover the ability to move others in time to regenerate the commons?
- What could that look like?
- How could these generations handle social and ecological revolutions concurrently?
- Could democracy be a high value? or displaced by competition for survival?
- Could future leaders and “The People” think that the practical solution is more, rather than less democracy, and what is the case they will make for this?

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And Values????

WHAT IS THE FUTURE OF VALUES?

- Every segment of society has its own particular set of values: what it holds dear; what it wants for itself; what it wants for its children.
- But a nation is an entity greater than the sum of its parts, or it is no nation at all.
- Every nation must have a "commons," terrain which all segments believe is basic to the well-being of them all.
- The commons consists of both material, spiritual, and political values that all are prepared to preserve, even at the expense of sacrifice.

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And Values????

- **WHAT IS THE FUTURE OF VALUES?**
- Looking to the past, America's commons have included: national independence; the inalienable rights of individuals; the opportunity to thrive by personal effort; the rule of law; the power of the people to drive public policy, and thereby to have a say in the making of their own futures-- collectively, and individually.
- These core values are shared by all segments, but unequally realized among them. The "classical" inequalities are fractures in the commons, along the lines of race; religion, gender, wealth.
- Foresight tells us that vast changes are coming in the not distant future (20-30 years). Deep change is common in American history, but the approaching changes appear to be different not only in degree, but in kind.
- These changes will challenge the ability of the existing system to adapt. Who are we as a national polity? What are we to become as part of a global civilization? What are we to become as a species? In what way must our regarding the role of nature in our species be changed values – not only at the material level but at the spiritual level --?

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Outcomes:
Best Case Scenario for the US and the world?

Systems:

- **Taking this visionario into account, the questions are:**
- **Is the Post-Trump world a return to the Pre-Trump world or a descent into chaos, as the legacy system crumbles under the impact of simultaneous tsunami-like waves of change of the sort we have discussed?**
- **What is the best case scenario you can create as an alternative? Involving not only the US but the global system that includes the US?**
- **How would it be possible to get to the other side of this epoch?**
- **What are the practical changes that need to take place and what is the sequence of those changes?**
- **Are changes in material values sufficient, or will there have to be changes at the level of human values?**

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Outcomes:
Best Case Scenario for the US and the world?

Values:

At the threshold of these changes, (scenario begins in 2024) the questions are:

- **WHAT IS THE ROLE OF FORESIGHT IN ALL THIS?**
- **WHAT IS THE ROLE OF DEMOCRACY IN ALL THIS?**
- **CAN THE CAPACITY FOR FORESIGHT BE IMPROVED AND USED TO STRENGTHEN THE CAPACITY OF DEMOCRACY TO ADAPT/**
- **HOW?**

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Project on Foresight & Democracy
Minutes of Round Table 5
29 August 2019

Project on Foresight and Democracy

Round Table 5

Leon S. Fuerth and Sheila R. Ronis

29 August 2019
Washington, D.C.

Agenda

1000 – 1100	The Visionario Reviewed Slides 3-13
1100 – 1200	New Directions Slides 14-16
1200 – 1300	Lunch – Things to Build On Slides 17-18
1300 – 1400	Transformational Change, Values? Slides 19-20
1400 – 1500	Can Democracy get us where we need to go? What is the contribution that foresight can make? Slides 21-24

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- The longer we have worked at this, the more organized we have been able to get. The agenda that we sent out today pretty well describes what we're going to do and in what order.

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Visionario

- **It's 2024, going with the flow of history, but almost everyone can hear the roar of the falls…**
- **Two streams of history are converging: climate change and its increasingly disastrous implications for hundreds of millions of people; and the collapse of efforts to prevent the spread of weapons of mass destruction, in circumstances where both domestic and international systems are roiled by the impact of concurrent, interacting paradigm changes driven by technology and demographics.**
- **For some with historical memory, the system seems to be spring-loaded for disaster – reminiscent of the events that led in 1914, upon a single assassination, to the collapse of the sacrifice of a generation of young men, and the destruction of the existing global order, to be succeeded by successive waves of chaos and suffering. To those lacking this historical sense, there is still a growing sense of shared dread at what lies ahead, absent a profound change of course…**

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Climate Change

- **It's the election year 2024 in America, and it's too damn hot.**
- **It's too hot in Greenland, which continues to massively shed ice cover, at an accelerating rate.**
- **It's too hot for Antarctica, which is shedding ever larger expanses of its ice as regions the size of nations break off and proceed to melt.**
- **Too hot for the frozen tundra surrounding the arctic circle, which has begun to release methane at geometrically increasing rates.**
- **Too hot for the grain producing regions of the world, where productivity has taken a nose dive beyond the power of fertilizer, bug poisons, and engineered plants to compensate.**
- **Too hot for human life in the Sub Saharan regions of Africa, where millions have been desperately looking for exits.**
- **Too hot for large regions of Central America which have begun to desertify.**
- **Too hot for a million forms of life, which continue to slide at increasing speed, towards the 6th Great Extinction.**
- **Too hot for all persons but the "10%, who can afford to pay" for a climate that sets them apart from all the rest, and for security from the growing anger around them.**

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Climate Change (continued)

- **It is also too wet. Too much rain at the wrong times and the wrong places, delivered in ways that do not contribute to fertility, but destroy it even faster than agro-business contaminates it.**
- **Too much consumption of ground water and exhaustion of aquifers.**
- **Too much destruction of the Amazon forest, not at all compensated by spasmodic, hit or miss reforestation and afforestation.**
- **And certainly not too hot or too wet to prevent the infiltration of diseases previously restricted to remote regions, into the heartlands of industrial civilization, where excessive use of antibiotics will already have strengthened the killing power of known bacterial diseases, establishing new pathways to pandemics.**
- **Generally, scientific opinion has by 2024 consolidated around the idea that the time remaining for effective action on climate change and related effects on the biosphere is not more than about ten years, beyond which stabilization at levels compatible with historical norms will no longer be possible.**
- **At the global level there are already meta consequences, in terms of decreasing general health in the developing world; a decline of well-being in what used to be termed the "first world," the extreme senescence of countries including Russia, Japan, and China. Inverted population "pyramids" with the old threatening to overwhelm the young.**

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Risk of War

- **General amplification of risk of local conflict spreading into general nuclear warfare. Proliferation of weapons of mass destruction and means for delivery. Arms control dead. Demonstrations of weapons of mass disorientation. Reduction of warning times to from hours to seconds. Shift of control over alert status of weapons from humans to nearly autonomous AI systems.**
- **Expansion of spheres of potential conflict to include the once frozen arctic oceans, near-space, cyber-space, with potential high-speed interactions leading to mobilization races on steroids. No time for second thoughts.**
- **The United States and Russia are no longer bound by arms control agreements limiting major classes of strategic weapons.**
- **The United States, Russia and China are engaged in a race to develop and deploy entirely new classes of strategic weapons, including hypersonic delivery systems with global range. Warning times will be reduced to near zero. Political crises fulminate into direct military confrontation with no time for diplomacy to have effect.**
- **The monopoly of major states over weapons of strategic caliber has been broken: more small states have found the means to get into the game, not only by the development of weapons of mass destruction, but by the development of weapons of mass disorganization, perfected in the form of digital warfare, carried beyond interference with critical electronic systems to the point of interference with the psychology of nations. Terrorist and criminal networks have also moved into this sphere of societal disruption.**

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- It was important to have read through the entire document because if we had not seen the first paragraphs or slides, we would have gone "Oh my God, there's nothing we can do about this."
- The way this visionario is organized, it begins roughly four years after the next national election. The visionario itself picks up at that point [2024] and connects with discussions we have been having about the way things might evolve in the more distant future — perhaps two decades. The questions we have to contend with are how these longer range possibilities will affect values and what can be done to influence these outcomes. And finally, the foundational question for this project: Is democracy a system that can actually get us where we want to go? And can it prevent us from getting us where we *don't* want to go? And what influence can foresight have regarding those questions?
- I just thought I would go through the visionario slides.
- The voice that's missing in the conversation is the voice of young people. If we showed young people the questions that were posed in the beginning, I wonder if we would get answers from them that would make our questions seem less real.
- If there were to be a second round, we would make new efforts to get to young people. At the beginning, there was a book called *New Power* which looked at how groups of younger people were discovering how to organize along generational lines and to bring that power to bear on the existing structure. We spoke to the authors of *New Power*, asking them for advice about how to access the views of younger persons. We learned that such groups lack clear leadership structures, making the question of who to contact problemat ic.
- **Another deficiency is organized labor**. Labor organizations were convinced they knew what the future held for them. This included the [ORGANIZATION NAME REDACTED] team, whose attitude was that Labor's prospective issues with artificial intelligence were not going to be significantly tougher than those with automation, a generation earlier.

7

Commented [A1]: A participant questioned whether (liberal)democracy is able to resolve the kinds of issues we have been discussing, and whether, as a result, a large part of the electorate -- sensing this -- is ready to support an authoritarian leader and a movement that will do so. Such an outcome might be propelled by panic at the consequences of unsolved basic systemic challenges. Authoritarian leadership might be embraced as a stop gap measure to create workable solutions, and then a return to democratic norms. But authoritarian figures do not see themselves as temporary. An alternative scenario could be pressure from young people at levels sufficient to accelerate change within a democratic framework. That level of activism could be generated by fear that "our advanced civilization will make life as we know it extinct in the not too distant future."

Commented [A2]: Person #2: And one participant wondered if it would be a voice less pessimistic and whether the environment at universities might tamp down those views

- That's similar to the attitude of corporations, such as Kodak, Blockbuster: "we know what we're doing, we're not changing."
- And the same as top-tier corporate executives at GM, when warned that they were on a path leading to bankruptcy.
- There has been some concern that the visionario begins so pessimistically that it might turn participants off. But the initial conditions of the visionario are no more/less pessimistic than the facts indicate. Moreover, it leaves open the possibility for a turn for the better. At the very last stage of the visionario, where it asks, "can democracy get us where we need to get?", it's up to the discussants here to say "where do w e want to get? Can democracy accomplish that? What's the role of foresight?" As to whether Trump would have been reelected in 2020, it's up to participant in the Visionario, to assess the alternate consequences.
- Whether or not he is re-elected in 2020, circumstances at the beginning of 2024 will reflect one basic assumption. It will probably never be possible to restore the status quo ante.—to return to the pre-Trump world, and pick up where we left off.
- We are looking at two streams of history. One, having to do with climate change and its disastrous impacts. The other, having to do with renewed, intense competiton in the development and deployment of weapons of mass destruction. The planet is already demonstrating the difficulty of dealing with the phenomenal amounts of change. Most recently— was it the ICC that said we only had 12 years?
- The UN said we only have 12 years and are not moving fast enough.
- Going back to younger generation, what impact will this young generation will have? That 16-year-old girl from Sweden [Greta Thunberg] speaking at the UN…she's saying "you clearly screwed it up"
- [Murmured agreement]
- The real question will be as they get a little older, will they be able to muster power to create global change. They may find a method to do it, but it isn't going to be through old means.
- Could an example be the Arab Spring— political [change] that is created by a social network?
- [I think it's] questionable how positive impact of Arab Spring has had.
- The generational pattern is that the young will revolt against what is handed down to them. The outcome will depend upon whether the young are savvy enough and can be avoid being put down by force.. We will see young people make a move.
- That depends on if we have a totalitarian government by the end of Trump. **:** The major change agent is Trump himself . He has revealed that, actually] we have not made as much progress as we thought. Students are still not being taught about slavery. Textbook language will have to change from saying "workers" were brought from Africa, to saying , "Africans were brought to this country and enslaved in order to do that." In all the ways that the white majority has managed to capture the narrative—which the South did after Civil War— in The Lost Cause— that cover has been pulled back _That's why it's important for other people of color to be at the table because we see the world a little differently. I see Trump as both the best and worst of [our] times. Best because he has exposed the underbelly of hate and discrim ination and lies which have been put into our history books and the way we look at the world. ….Now the majority who have grown up and have not been in charge of the narrative and have been socialized into it are saying "I didn't realize that I had been socialized in this way." For me, the outcome has been quite extraordinary.

Commented [A3]: Person #2: In both, there were seeds for adaptation. Kodak developed digital cameras and Blockbuster had considered alternatives. An additional point is that "we're not changing" reflects an inability to open the aperture to the future as well as a confidence in a dying business model. I think the take for the study is that while there are many groups looking at ways to improve the Congress, the impetus inside is rather muted.

Commented [A4]: Person #2: Mentioned AT&T's refusal to consider Toffler's forecast about the breakup of Bell. As an aside, we have multiple examples of this and it lead to a recognition after Pearl Harbor and 9/11—a "failure of imagination"

Commented [A5]: Person #2: If you believe that, then it behooves you, I suggest, to emphasize in the report that this is one visionario and one forecast, that others could have more optimistic outcomes depending on the actions taken. One might argue that the posture of a single, negative visionario is the complementary sin to Kodak, GM, etc.

Commented [A6]: Person #2: This represents a different approach in this report—this is a forecast with some emphasis and without evidence to support or refute it. What/when is "left off"—pre-Hillary campaign? Earlier? Later?

Commented [A7]: Person #2: These indeed are paramount and in parallel is a fundamental global reassessment of economics and international relationships.

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- That's a good point. The number of CEOS who signed the [environmental] corporate social responsibility manifesto— when you talk about the power of the young people that recognizes that power is changing, there's a chance for partnership. One of the questions is whether or not 200+ CEOS are doing this to make themselves look good or something else.
- If it's the corporate context of social responsibility that wins the contest for hearts and minds, that's the end of us. As long as the system works in that way, then we're done.
- Young people don't trust business. Because they're not working.
- who do they trust?
- Themselves.
- Each other. Parents talking about kids talking about trusting people on the internet. I think it's the opposite. I think there's *huge* distrust. We were raised on reality TV. There's an awareness that it's all being sold to us… a realization that might not have been there in older generations.
- Trump is an activating force. Trump is the great disrupter. People don't trust what they're being told. It is much easier to destroy and to distrust than to build. Once we have that skepticism—how do you build something better?
- I don't think it looks good. Climate change… it's not going to be pleasant. Best case scenario, I don't know if you've heard of the eco - totalitarianism future… eco- tyrants. [The catalyst to the solution] must be something that makes everyone's life worse [if we are going] to repond decisively to climate change.
- Whether or not it will be democracy that will be mechanism for coping with these forces [is the question]. [It is becoming] almost an exercise of faith to say it will be democracy.
- If you take a look at the ads of today, you see interracial couples, it is more inclusive— everything used to be white, male, now you're seeing —
- Gays
- [Nods.] Everything is changing on the ad front. Five years ago, you would not have seen that. It may be the younger generation pushing or society changing but you have c orporate America looking at it differently. That might be one way of building that bridge.
- One thing you can say about corporatism is that if it becomes politically dominant, it will calcify. But as long as it is driven by profit, driven by opportunism? Wh o knows how much is ethical versus a calculation of where trends are going and profitability.
- You look at PEW and what PEW indicted is that there will not be a majority of any [racial or ethnic] group in the US. So, corporations have already looked ahead. **:** Trump would say that the change has occurred. The change he is saying can be stopped has already occurred!
- ***** 11:06 AM — 11: 13 AM *** Brief recess**
- We have a few more slides to quickly go through. We talked a little bit about diseases and how they relate to climate change. And, also, the demographics of the inverted population pyramids. Which are of course threatening many countries. There is a lot of risk of war. You couldn't ask national security people to put this together without looking at it. Interesting because of interdependences of global climate change, water, AI, and the risks of war that can be associated with any of those. And looking at the US, Russia, and China. Just this past week the EU described the US, Russia and China as their three big risk factors. It was sobering.
- But to hear this and coming from Merkel, that really is the spike in the —
- Very frightening. [And to add] a little more, the entire cyber sphere, space warfare.

Commented [A8]: Person #2: I don't recall that eco-totalitarianism was the best case, but rather that it was a battle between eco-totalitarianism and democracy to solve the climate change problems.

Commented [A9]: Person #2: At some point, the question of plant-based food came up, with a question about the futures for US and South American ranchers.

Commented [A10]: Person #2: While we have discussed the effects of the negatives, we have not raised the matter of transition to that visionario or a more positive view. Nor have we talked specifically about leverage points in the system.

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- And of course, we have a lot of other issues. From ge opolitical issues that are frightening… India Pakistan and IA; a lot of the strategic rivalries are just heating up.
- Since the origins of the principal river system that waters much of Asia begins in the Tibetan Plateau and in so far as the glaciers are ra pidly melting, there will be too much water in the not so distant future, followed by too little water in the more distant future when the glaciers have melted. Any country in that hydrological system will be thinking about capturing that water for use in their projects. And every time it is captured, downstream countries [will] feel it as a thumb on the jugular vein. In places like Pakistan and India which have nuclear weapons and… this manifestation of climate change translates into severe international stress acting on governments that are not especially stable.
- We've talked about climate-driven migration. Security applications of Mid -East, and the Southeast African youth populations…migration of tens of millions of young people compound the migration problems across the Mediterranean is much worse [now] than [it was] in 2015.
- If I remember correctly, ten years ago Pentagon tried to put migration on same level as *[transcriber did not hear clearly.]*
- The government of Turkey is determined to capture and cont rol the Tigris. That is a direct threat to everyone dependent on it, Iraq in particular. This is similar to the issue we now face with the burning of the rainforest in the Amazon basin. Brazilians regard this as their resource, but the rest of the world re gards it as a global resource and we're headed to some sort of a collision where this planetary resource will far exceed what a **decimated** rainforest can provide.—
- Same thing in the US.. The tradition of water being drawn **aquifers** is being sold commercially. Do we need an eco-dictator to say "you don't own that anymore?"
- One of the major development initiatives over the last ten years in Africa was to dig wells. That ignored the implications of depleting aquafers. In the short term, it made sense. In the long term, it was a very short -sighted policy that is now impacting many countries in Africa because they no longer have access to the water in those aquifers.
- When the Soviet Union set out to create a big industry around cotton textiles, they wanted to be establish a domestic supply of cotton, which at that time they were importing. For that purpose, they changed the geology of the entire region in ways that contributed to the disastrous evaporation of the Aral Sea.
- If we had cheap energy, renewable energ y, we could make water where we need it where and when we want it rather than rely on the physical sources, which we've outgrown. This may become an existential element. We have to produce water where we want it.
- I had a meeting last night with the army energy unit. They're seriously looking at microreactors. It creates fuel problems but doesn't create any excess energy but doesn't create *[transcriber did not hear clearly.]* To what extent salination… on the scale we're talking about is feasible—
- I think it has to—
- You can take a look at some of the technology that the military is looking at. They are looking at creating water from air. One of the things is logistics for the military — power, water, food. You need to create it on sight. How do you move a lot of power and water? Both the national and military research centers are looking at —
- They already have demonstrable system that creates [that] technology.
- Correct. Basically, the military preceded it. Now, to see whether corporate America can create the next step.

Commented [A11]: Person #3: if we had cheap renewable energy we can make water anywhere. Mine the atmosphere via dehumidification for example or desalinization via distillation.
In short, we are awash with free fusion energy from the Sun, if harvested and redirected to water production the cost factor disappears and mankind/natural needs for ecosystem sustainment can be met. We can produce the fresh water needed with abundant energy and technological means supplement, and in some cases, replace rain fall, lakes, rivers, and aquifers. The cost now would be prohibitive, in a free abundant energy future not so. This would be a radically new approach, but possibly existential for our and Natures survival. [A] new economic paradigm with abundant solar (or other cheap) non-fossil energy that would allow physical transformation to happen minus the energy cost liberating Man to do whatever is needed or desired.

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- Food, energy, and water are essentially intertwined.
- It's important that we get through slides 9, 10, 11, 12, and 13. That's the completion of the visionario. We need to start talking about new directions—how badly we need them and what they might be. We need to cover the intervening ground. We have had these discussions already, so this is just a refresher, but it is good to do that just at this point. We have a lot of ground to cover. It begins on slide 14 through slide 16 on New Direction s.
- In the event that white supremacy melts away rapidly, along with a social system organized around male dominance, what are the new patterns of association that would replace these? .
- If the world becomes women- dominated, it will become more collaborative. Collaboration, empathy—
- It's difficult to say that female domination implies behavior that we don't necessarily associate with women in society. If it's female domination, it's not really full collaboration.
- If you open society decision-making to non-white, non-males, you're opening it to greater collaboration, more multi-tasking, and more opportunities for empathy.
- What you're describing are leadership models. The models will change with emphasis on leadership.
- Along with white supremacy and patriarchy going away, one thing that's going away is religious tribalism that separates people.
- Margaret Mead also stressed the difference between high and low synergy. Mead was also stressing idea of high/ low synergy. You make the case that female leadership w ould involve more high-low synergy than male leadership. Because beside the home there are many things to synergize…
- I think it's more than multi-tasking. It's the systems perspective and the context of the multi-tasking and its impact on society.
- Slide 14. We are making an effort to look at places where there are more opportunities for adaptation than pessimism might suggest. The first bullet on slide 14 goes to the point of what the rising generation thinks. That cohort appears to be aware not only of pro blems that it is inheriting, but also aware that it may pass new problems onto future generations. I think that this awareness may be laced with a degree of pessimism because clearly amongst some young people the feeling is that the game is already lost.
- Does the future generation really have a sense of the fact that they are stewards? That is really a profound change.
- My sense is that it's the case. Also, [the impacts of climate change are] going to start happening during our generation. There's an imme diacy about it that we can't escape. This is an immediate problem. It's in the near future that this exacerbates inequality and impacts people with less money… I do think that they're stewards.
- It's not like this has never been part of the narrative…The American Dream…
- But that narrative is dead. It's not about being better; its literally about survival. G
- Most children born around the world today will see the year 2100. You care about your own babies so therefore you have to care… but the idea that the majority of people… the average lifespan is about 70 including the DRC. In the next 30 years, it will be 80.
- The point is it completely changes the dynamic for social safety nets and estate planning, et cetera.
- Maybe the remedy is with the rising generation. Maybe not. And I think the "maybe not" has to be taken into account.
- If not them, who?
- Science.

Commented [A12]: Person #2: And population and population location. One area not mentioned is the role of religion.

Commented [A13]: Person #2: Someone added "mission focus."

Commented [A14]: Person #2: Someone mentioned that this is because young people don't believe in institutions and they don't believe in slow change.

Commented [A15]: Person #2: This is not clear. Why are the poor the stewards?

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- Maybe nobody. Take a hard look at the things we've been discussing…. there is no guarantee assigned by the Creator that we find our way out of these things
- Let's not exclude science.
- And innovation.
- Who is funding possible answers to these questions?
- Survival. What is the positive dream?
- There isn't a positive. We know that our lives are not going to be as good as our parents' and that's with or without drastic climate change making things worse.
- Take what you just said as Exhibit A. The people around the table with more gray hair than you have all feared that thermo-nuclear war between US and Moscow was the future truth, and that it was just a question of when. As it turned out, it didn't happen.
- Sometimes its' a question of timing. Other countries are acquiring nuclear weapons. Countries that already have them are engaged in making massive upgrades.
- But there's a scale difference. The world can survive an Ind ia- Pakistan nuclear conflict, but not a US- Russia one.
- But what does that pessimism mean?
- What's the "so what" that comes after that?
- There's more interest in different governance systems. It would certainly be an error to assume that we are going to have a democracy functioning as it currently does, and if it does [end up happening that way,] that will mean bad things for us.
- What does that mean for you?
- If we were looking backward wouldn't that be the same as in the 1930s?
- Sure, but this is on the horizon. I think that it's slightly different than war destroying the world, it's a great degree of difference that [the thing that could impact this the most] is climate change.
- We didn't have climate change or nuclear warfare in the '30's. So, the multiplic ity of strategic threats was different in the 30s.
- You can still say that the capitalist system was failing.
- We don't have elected officials who seem to be acting in our interests. Who is going to protect us? Who is going to protect us from climate change? Who is going to protect us from the exigencies of climate change? We don't find them, but we found them before in the government who said "these are things that are wrong" but it's missing now.
- We can only sand the edges of capitalism so much until we get to a point where it's not even feasible anymore.
- You kind of look at that and go wait a minute if this is what the younger generation is looking at, how do we change that?" If they don't believe in the institutions that are governing?
- Do you think that civics engagement or a national service can change that for young people?
- I think it would.
- The assumption is that people working for the government would change the fact that the government wasn't working for them. You're just making people more OK w ith the system now, will not help them change it later. I don't believe in a slow change plan when we have global warming in the future. It's too late. It's just not going to work at this point. We don't trust a government that isn't from our generation; t hey're not leaving office, they're staying until they die. They're not making changes that we need.
- … almost everything you've said about the young generation has happened before. Including distrust of elders, thinking that things as they are cannot be tol erated. What is

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really quite new is that the changes ahead of us are really not marginal. Once the Amazon's trees are gone, there's no going back from that. If AI at the grand level reaches the point of autonomy that some people fear, there would be no re turning from that. These are the last years of agency for shaping the future -- providing that can be done at all -- the central question of this project. Democracy needs a lot more than simply the mechanisms of law. It is a spiritual dispensation. Can that survive? Can it guide us out? Can foresight provide us with sufficient insight to make a critical difference?

- **[The group breaks for lunch.]**

- **Session II:**
- **Began at 12:32 PM**
- We've reached the stage where the question is this: if transformational change is out there, to what extent do we have any influence on the outcome? If you look at Slide 20, there are a couple of pertinent questions. What kind of changes do we need in our own country? Acknowledging that change here is dependen t on change in other parts of the world as well, what can those changes look like? How can younger generations handle social and ecological revolutions concurrently? *[refers to list of questions on Slide s 19 -20 "Transformational Changes"]*
- If the governed feel that they are not being governed well by formal systems, then, in a democracy, what is the alternative? Organization. Organized activity.
- Civics is not taught. The idea of citizens' responsibility doesn't exist much. The idea is that government should do things for me.
- We need to have a working democracy. If what we presently have isn't enough, how do we change it, and is there enough time?
- One question: what do we want to keep?
- The question "what do you want to keep?" goes not only to utility, but also to value.
- Successful democratic governance needs a response system.
- Let's look at the system we've got. Is there a feedback system in it? What is the response time and is the system adequate?
- There is one in California - the idea of an initiative. Any citizen can initiate a position and if it passes, it's law.
- Like Prop 13, that gutted the education system of the state?. .
- I'm just saying that an alternative to initiative from the top is the public initiative.
- There already is a feedback mechanism built into voting; if I didn't do a job, they would get rid of me.
- But the person who replaces you might not do a better job.
- If the voters replace me, they will have done so for some reason. What's really subverted [representative government] is the Carl Rove marketing strategy. [Rove] figured out how to target and reconstruct the voting precincts. And once you've figured out how to target the precincts, you've got the very right -moving Republicans and then all of those districts combine to produce legislative outcomes that [represent the agenda of] that group.
- Gerrymandering.
- If you can un-gerrymander districts, [that would be a meaningful change]. Dems did it [gerrymandering] too.
- How do you deal with a process which has advanced to the point th at it has almost truly rigged the system?
- could be reviewed for representing the people in that constituency.

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- You still don't escape some of the other issues. Lack of gerrymandering doesn't automatically get you a good enough feedback loop for people to have a voice in the system.
- Money is not free speech. If we would agree that there's a certain amount of money, airtime. But after Citizens United, corporate political spending is legally a form of free speech. I don't think that it is, and we have to have that resolved.
- Is that a possible recommendation?
- I would think.

Outcomes: Best Case Scenario for the US and the world?

Systems:

- **Taking this visionario into account, the questions are:**
- **Is the Post-Trump world a return to the Pre-Trump world or a descent into chaos, as the legacy system crumbles under the impact of simultaneous tsunami-like waves of change of the sort we have discussed?**
- **What is the best case scenario you can create as an alternative? Involving not only the US but the global system that includes the US?**
- **How would it be possible to get to the other side of this epoch?**
- **What are the practical changes that need to take place and what is the sequence of those changes?**
- **Are changes in material values sufficient, or will there have to be changes at the level of human values?**

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Outcomes:
Best Case Scenario for the US and the world?

Values:

At the threshold of these changes, (scenario begins in 2024) the questions are:

- **WHAT IS THE ROLE OF FORESIGHT IN ALL THIS?**
- **WHAT IS THE ROLE OF DEMOCRACY IN ALL THIS?**
- **CAN THE CAPACITY FOR FORESIGHT BE IMPROVED AND USED TO STRENGTHEN THE CAPACITY OF DEMOCRACY TO ADAPT/**
- **HOW?**

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- If you take a systems approach, you might say that what needs to change is the cost of running for office. There is crowdsourcing. If you ever got a majority in the Congress, you might be trying to establish effective limits on campaign contributions. If you look at the ability of the candidates to communicate with the public— what are the cost drivers?
- And what's getting left out is that the centrists can't compete in the system in the way it is now. In the last 30, 40 years, the center has just gone.
- It's been gerrymandered out. Rove's impact on politics has been a disaster. He targeted it until he could get within a voting block that the kind of voter the Republicans wanted, and the gerrymandering resulted. And one of the biggest things going on in the Democratic party is the issue of changing boundaries…
- I've seen some very serious scholars redraw maps of the US. They said, "Ok, we'll keep 50 units based on demographics and population." The proposal was that you would redraw maps of the US possibly politically every ten years.
- Are you saying that a pre-requisite for the survivability of democracy is to redraw the Constitution?
- No, not exactly
- Because you can't deal with this question, without changing the Constitution.
- We're about to take on the Decennial Census. The Hill will care more about that than the Pentagon because of the impact of the census, but that shouldn't matter where the maps are drawn. We should start with values and build the maps.
- We're making some basic assumptions about what the system needs to look like. There are other options: "rank choice voting." That can get around having to do something that would change the Constitution, but also gets around the " two options" issue of voting that people dislike.. Compared to parliamentary systems, we have relatively low representation for minority beliefs. We have two parties, and if you vote for a third party, you're voting against something, but not much more. "Rank choice voting" essentially involves ranking

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the candidates in the order that you would like to see them elected in office and then do calculations based on ranking. Instead of the lesser of two evils argument, you can put your third-party candidate at the list. That allows for the person to get into office if the math works out.

- That's how the EU parliament works. If you have 25 representatives from Spain, the top 25 people [who enter] get elected.
- It puts people at a distance from the public. If you utilized this, on a national level, but within a given country, what happens?
- For the European parliament, you're allocated so many seats for a state and hundreds of candidates run and the top numbers go to Parliament. They don't represent anyone in particular, although they might represent, for example, certain unions or constituencies.
- How about mail-in ballots? That's been suggested as a way.
- It makes it so that you don't have to worry about polling place differences
- But your congressperson would still be gerrymandered…Everyone knows about "fluid" democracy. Let's say that we each have one vote, but on a particular issue, you [points to one person] know more than I do. And let's just say that on a particular issue, you know more than I do. I might give you 2/3 of my vote, and give someone else 1/3 of my vote. You might think that Sheila knows more than I do. Sheila might give hers… et cetera and et cetera down the line. Why not divide out a vote based on knowledge and trust? You divide up your vote. That's fluid democracy.
- So, the chronic know-nothings win.
- I'm not sure if fluid democracy would work here.
- But it is an option and so I think we should include it here.
- I would second that if we're doing some sweeping options, I know that there are a lot of technologists and others who very much buy into the notion of fluid democracy .Direct democracy. It doesn't solve a lot of the problems of our democracy right now, but…
- One of the original questions is the impact of technology. One of the problems in the past is that we didn't have the technology to make that work. Even if there's a wacky idea, we [should explore it]
- **Okay, so we are talking about the restoration of direct democracy mediated by technology. PLEASE RECORD THIS**
- To complete the subject on Congress, we talked about how we elect members— that unfortunately hasn't been restructured since post WWII. It's essentially the same structure and the same rules, adding stuff on top to make it more complex. War Powers Act, Security, budget process…. But in general, it's really obsolete.
- And the 9/11 Coalition suggested it be updated.
- There are tiers of possibilities. Some are far out, but to the extent that we can identify them and reduce them to succinct formulations, they have a place in the record of this conversation. Some other options are low hanging fruit. Including reducing the friction of voting. Which means reducing all the impediments designed to make it harder to exercise the franchise. I'm not sure that we have time for a deep change in the political sy stem. But we would have time for reform. What's in the category of reform that is low hanging fruit that will have a vivifying effect on the way that democracy works and speed it up to some extent?
- How about the notion that you get fined if you don't vote?
- It seems like there are two big chunks: Getting the voice of people recognized and getting elected representatives to respond to that.

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- The restructuring of Congress after WWII was done in the Legislative Restructuring Act of 1946 and a rewriting of the House and Senate rules to update them. It was all done internally with no Constitutional change.
- That would have to be done independently in each House.
- The Congressional Budget Act was an amendment to the Legislative Reorganization Act
- How would you rewrite House rules?
- First you got to get the right [trails off and pauses] …Both in 1946 and the mid 1970s, the composition of the Congress was such that it could be done. We don't have the composition that would now make it possible to do something simil ar.
- The timing is very different as well. The public at the time was very interested in massive change in thinking about the future. The National Security Act of 1947.
- Something going on now is that the *Popular Vote Interstate Contract* is underway now. There's a need for a handful of other states to get to 270 so that it doesn't require constant change that those states are required …. those electoral college votes of the states have agreed to give their electoral college votes to whichever presidential candidate has the overall popular vote.
- Buttigieg just talked about changing the Electoral College.That would be a constitutional amendment. But what about measures that are less profound, but potentially highly effective?
- No because they [those running for office] are adhered to the current system. That is, you go out and organize and get your voters. I don't hear any of the candidates talking about changing the structure.
- I think we would need the Democratic National Convention to help them do that. Becau se they're writing the rules. We'd have to go to RNC and DNC to change the rules for their candidates.
- But in the system we have, surely there is a way of increasing voters. I don't remember the percentage of people who vote now, but it's less than 50%. Ho w do we get people to vote?
- One suggestion is use ATMs. Take money out or [use the ATM machine] to vote.
- What was the highest voting percentage the US ever had?
- In the high 60s or low 70s.
- Okay, so our ideas at this point are: 1) Fine someone [for not voting];2). ATM ;3) Infinite voting period ;4.) Mail in
- **The Carter Board Committee** put together a whole list to improve the system. It [involved things] like being able to vote on the weekend, or if you were an emergency worker you had more flexibility. Even a nnouncing the results state by state as soon as they came out.
- Having the day off to vote….
- Does the authority of states to make all these rules need to be abridged? The rules are made state by state.
- The board of Elections and Ethics in a state could make a decision that voting is going to be by voting machines located at [city] corners and you have a week before election to vote and essentially you have used the technology to get people up and down to vote. You push it inside so that if it rains or snows, the machine is protected.
- Tuesday as voting day is nationally mandated.
- The basic category that we've been talking about here is measures to increase the number of people exercising the franchise. The other is "Does the next president of the US have to pack the Supreme Court, in order to make legislation of How to make democracy better? It

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ought to be an automatic vote so that it can't be blocked [as happened in the case of Obama's nominee, Eric Garner.

- In 1979, there were deep changes in the rules of the Senate that resulted in the reduction of the power of committee chairs, with the result that a generation of "young Turks" became chairmen, with a profound impact on policy. If it was done in the past, could it be done today?
- You can't lock it in though.
- At least if you had in mind a strategy for revivifying democracy, and you prioritized that we want a suite of low hanging gains things we can campaign for, that would be a big in the aggregate. be a big thing. Is that a point that should go into the minutes?
- **All:** Yes.
- I would think so, but is this doable?
- Maybe if we put it in the context of multitasking. In this context, we need to manage the messes that are going on now and then explore the transformation we need. We can do all of this simultaneously.
- One of the things that brought us to where we are now in terms of the total polarization of opinion was Gingrich's destruction of the study groups in House and Senate which essentially meant that analysis of options fell to outside groups, or in case of the GOP, to centrally directed and highly financed groups. Conservatives also defunded the Office of Technological Assessment, denying Congress nonpartisan assessments of the implications of advancing technologies.
- Foresight legislation [e.g. as in the case of the GIPRAM] hasn't been implemented either, even though it had a bicameral bipartisan blessing
- it got watered down later…
- What we're talking about is ways to change systemic problems, by incremental measures.
- If you really want to get foresight in the game, you have to talk about the budget process. It should have three parts: 1 year, 2-5 years, and 10 years.
- Do we have anything on the books or in the rules that a piece of legislation has to come with analysis and its budgetary implications?
- Well, the Budget Act requires CBO to do it and it works.
- That's different than 1 year, 2-5, and 10 year [structure]That would be a foresight system.
- [That] suggests that we need to pay more attention to how those that are governing operate. If you want to know how the legislature is governed, read the rules. We don't normally read those rules, but we could
- There needs to be an organization that reads those. [For instance, imagine that] I'm a part of an organization that looks and makes suggestions that say there ought to be certain things that are in the rules that are required. And I don't mean subjected to vote but subjected to pressure. As in 'why don't your rules require this?' We don't look as voters at how the legislatures operate.
- The Veteran's Affairs Office has a one year and two year [budget]. That was driven by the healthcare issue.
- If you put something down that says we need to look at how the rules affect them…
- And there needs to be a *translation* mechanism, to take these things from legalese and put them into plain-speak for the public.
- Speed is the issue and the future is the king. The fastest way is to reproduce the OTA. If we are saying that the democratic system does not have foresight for the future, get OTA in there in one legislative session.

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- **Is it a view in this group that foresight analysis needs to be grafted onto the process at every possible level?**
- [Nods and murmurs of assent]
- It already happens on the agency level. When I was in State we had to deal with nuclear and arms control, we had projections for 10 years and always had budgetary [analysis built into that]. DOD has it too; [another question is] whether it makes sense. OMB tends to screw around with it, but the structure is there…
- Some do. DOD. VA. NASA. But there's a handful that are very reactive.
- That's why if you had a process involving federal budgets calculated for 1 year, 2-5 years, and 10 years. How you work about a….
- Closest is A-111 [OMB Circular A-11]. That would require foresight to go into strategic plans.
- Reforming the appropriations process or authorization process— which is broken?
- Both! You have to have a 10-year authorization. These are where assessments of longer range trends intersect money and politics. You're saying that we don't have a system that ensures this takes place in public view.
- If you're trying to identify a change in the system that would have an impact, that would—
- Yes, a huge driver.
- GIPRO was updated in 2010 and it is there and can be used to evaluate agency foresight in a strategic plan, but I don't know if anyone does that .
- I don't disagree that 10-year authorization and OTA aren't important, but how to help reengage to help reestablish democracy?
- In terms of engagement, what about something that would allow citizens in conjunction with a TV program, to make your point known, or a website
- Brilliant. To have someone explain in real time [as was done by C Span] what would be the consequences of a proposed amendment is very valuable, similar to professional commentary for audience watching chess matches. C Span is a means by which the parliamentary system can be interpreted to the public in real time. There are also systems for registering peoples' individual opinions in real time, right? Could C Span be used to keep track to keep track of public responses in real time?
- Yes, but once again that hollows out the middle.
- If you mandate that people vote, there's a way that people have to educate themselves. I'm warm to the idea of mandating the vote.
- One of the things that makes playing sports so much fun is fantasy leagues. What I'm suggesting is to gamify this.
- That goes back to liquid democracy.
- One way to do this would be:. Create the cyber environment that has a replication of the process.
- We could gamify fluid voting.
- We have been on Chart 20. How could these changes handle social and ecological issues? [Reads chart 20]
- But in crises mode we move to a military type managerial structure. The four change drivers— panopticon AI Synthetic biology and climate change—could put our country and others in an ongoing crisis mode.
- The trouble for our democracy is that people are already in a crisis. We haven't recognized it yet as an existential crisis.

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- The political process seems incapable of producing something. There is pressure to move away from the democratic process to get anything done.
- And that's the danger. Margaret Atwood said in an interview recently that the way to move away from democracy is for people to say we will move away from it now in order to return to it later.
- Roosevelt and Lincoln did the same thing but without it we wouldn't be where we are.
- Complexity of the problems we face will ultimately overwhelm the ability of any authoritarian to deal with all of them. The beauty of democracy is that it can adjust. The long run is almost certain to fail in authoritarianism.
- The difference between history and now is that authoritarian strategy is less likely to succeed now than in the past.
- The feedback loop is saying that the lights are flashing red, but the political system is incapable of taking action. The authoritarians can take action, but they would get it wrong over time. The problem is democracy is too slow.
- Feedback loops are essential. So, I'm suggesting it would be helpful to think about ways to design feedback loops that pick up early on issues.
- You're arguing for an autonomous system.
- I'm saying that any legislation should come with benchmarks: "we believe the following legislations, if enacted, would have the following results and there would be a feedback system to check those results."
- So perhaps Watson should be part of a feed-back system.
- That would not be a bad use for Watson.
- There a couple organizations that have AI on the boards of directors. I can see that in terms of complexity, we have talked about AI being used in the justice system .
- Not necessarily well
- The thing that we are lacking now is something that drives the hyperbole out of politics.
- Politics is hyperbole.
- Politics also contains statecraft.
- Yes, but if you drive hyperbole out, you may discourage people who actually should be supportive from joining. Sometimes it's got to be the art of the necessary or we're toast.
- One of the feedback loops is that people feel they have a voice and another is whether what the elected officials are doing works and is good. The real pu blic problem with climate change is that its publicly unpopular.
- But you can't have a Senate that is homogenous in terms of wealth and investment interests because they're not going to operate against their own interests, and money in office has made it very hard for people to run for politics if they themselves do not have considerable resources.
- What can be done to alter this?
- Term limits
- More disclosure
- Limits on the number of people who have served a number of terms.
- If you have autonomous system to help the newcomer, if that person came in and had an autonomous system or staffers to bring him up to speed…
- How do you maximize the value of computational power and network exchanges and information, designed to assist Members?
- Somebody that has a term limit goes out the door with institutional biases. The new person has no institutional knowledge but could be very creative. It could be helpful to combine.

Commented [A16]: Person #2: About this time we also talked about the use of gamification to improve involvement in politics, including voting.

Commented [A17]: Person #2: We discussed the voice of the people, through voting practices, and the response to the voice of the people which could include changing the structure of Congress without resorting to constitutional changes.

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- But Watson doesn't give opinions. Watson votes.
- Watson can give pro and antis. A British VC firm called Deep Knowledge Ventures put an AI on the board five years ago for first time. Watson can be programmed to give pros and cons.
- What is the impact of AI on the prospects for democracy? Maybe there are ways that AI can reinforce democracy.
- There are 3 kinds of AI: Watson is narrow intelligence. The greater impact of narrow AI is doing partnership with the human brain. The Alpha -GO defeated a human GO champion repeatedly. When the Korean team was teamed with the same AI program, the humans + AI won against the AI alone. Because the human thinks of something crazy.
- Local knowledge plays a part.
- Let's go back to the concept of Congressional study committees. Suppose one committee were to put an AI system into service to support its members. The other committee would be forced to follow suit. First you have to make it possible for the study groups to be funded again. What we are doing is looking at systems-fixes of democracy.
- AI assisted in Legislative Analysis. I would add in not just have AI assist t he political analysis process, but such that all of the arguments pro and arguments con are presented to the humans. When you say good, it gets back to this system of trying to design an AI system that does not have a bias.
- It's not objective. You still have humans that are creating the categories. How it would like categorically includes—
- My worry about that is not that we ask AI to tell us what the literature is. My concern is that we not depend on AI to make the interpretation. To be a voting member, lit erally. The world is complex. And what is pro to one person in con to someone else.
- If you're using AI in a legislative staff body in a study group X —
- We just have to be very careful.
- Partnership there can also solve some of those issue. AI but also staffers gives the full circle. But if at any point all that the freshman senator is seeing is a pro and con list, that's problematic.
- You're worrying about robot automation. She's saying you'd still be making the decisions. The argument is that people will take it as more than it is.

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Future of Values

And Values????

WHAT IS THE FUTURE OF VALUES?

- Every segment of society has its own particular set of values: what it holds dear; what it wants for itself; what it wants for its children.
- But a nation is an entity greater than the sum of its parts, or it is no nation at all.
- Every nation must have a "commons," terrain which all segments believe is basic to the well-being of them all.
- The commons consists of both material, spiritual, and political values that all are prepared to preserve, even at the expense of sacrifice.

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And Values????

- **WHAT IS THE FUTURE OF VALUES?**
- Looking to the past, America's commons have included: national independence; the inalienable rights of individuals; the opportunity to thrive by personal effort; the rule of law; the power of the people to drive public policy, and thereby to have a say in the making of their own futures-- collectively, and individually.
- These core values are shared by all segments, but unequally realized among them. The "classical" inequalities are fractures in the commons, along the lines of race; religion, gender, wealth.
- Foresight tells us that vast changes are coming in the not distant future (20-30 years). Deep change is common in American history, but the approaching changes appear to be different not only in degree, but in kind.
- These changes will challenge the ability of the existing system to adapt. Who are we as a national polity? What are we to become as part of a global civilization? What are we to become as a species? In what way must our regarding the role of nature in our species be changed values – not only at the material level but at the spiritual level --?

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- Given time remaining, two charts on 21 and 22. The future of values is something that has to be discussed. In a world changing as rapidly as ours, values appear to be more and more in a point of the past. Is that just the way that the world has to go, or is there a way to preserve values?
- From where we started using the Declaration of Independence, two things didn't get in there: one is posterity got into the preamble. That's our link to the future part of it: making more explicit our responsibility to future generations.
- The future generations that we can communicate with are standing in the wings already. The question is how do our values and needs translate to their needs and values, and who represents those values?
- The Universal Declaration of Human Rights is the #1 question.
- That brings up an interesting proposal— should we have a new right: the right to own your own data?
- The second thing that was left out was stewardship for our natural systems and the fact that we don't teach it.
- It can be argued that people are sufficiently selfish that they don't care what effects their children. What we see is that people worry about themselves.
- An interesting question is whether The PEW Foundation has asked "What are you prepared to give up for your children?"
- People don't view it as that clear cut. They say it, but there's also a lot that they're not giving up.. Even people who believe that clim ate change is real act in this way.
- When we talk about the values, we definitely need to say that it's from the US viewpoint. What we value is as a US citizen; we should talk about values.
- The UN Declaration of Human Rights is somehow wrapped up in the val ues that are contained in the United States Declaration of Independence.
- Informed also by other documents .
- I'm not sure that we can say easily that there is a single, sacrosanct list of US values. Can we even say what the US system of values is anymore?
- I think you would find that life liberty and pursuit of happiness are the values of the country. My life, liberty, pursuit of happiness, not yours. I think they would embrace it but seen as if it's an egocentric perspective.
- They forget that it might not be the attainment, but rather the pursuit or opportunity.
- Slides 23 and 24. With respect to this discussion, The window of our ability to influence things is closing rapidly— in 5-10 years. Then the question will be what changes should we be making in the operational system now so that there is a chance that the system is updating itself and making the right choices? Absent that change, it can't move fast enough. The practical issue is what needs to be done now so that the system is up to those future challenges. Is that a fair restatement?
- When I look at this list, it almost sounds like foresight is even more important than democracy. The answer is that foresight can help democracy.
- The best partnership is human and machine. Watson may already be better at foresight analysis than we are.
- We have to do stuff now. Foresight has to have some time frame that really is a couple of years.
- But it takes 20-30 years to figure out what we want to do now, it's like trying to turn an aircraft carrier. The reason we go out that far, is to figure out what to do now. The purpose is to improve decision making of futures research.
- Not long term

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- You want to do an analysis that may be perfectly reasonable in 20-30 years, but you have to have the time to figure out how to get there
- Walk and chew gum at the same time.
- I haven't seen that happen.
- Foresight is about alerting democracies about actions that should be taken to avoid the destruction of society.
- And how to do things today that improve that future.
- To alert democracies about actions that must be taken to improve the quality of life or prevent the destruction of societies—
- Will you go to page 23? The second bullet: The Post -Trump world or return to the Pre - Trump utopia. That's not even relevant. The structures have been crumb ling for a generation.
- Even if there were no Trump, that world was visibly fraying on the edges, but he has been an accelerant. There's no returning to the status quo ante. There's got to be something….and we've come to the conclusion that we have to desig n something else.
- We second for five-minute recess

- **[The group takes a short break.]**

- This is the last programmed meeting of the roundtable. What's next is that Sheila and I will prepare a draft of the report to the Rockefeller Brothers Fund. It's an obligation we accepted as a condition for receiving the Funds' support. In the course of pr eparing that report, we will circulate it to you. We were just asking [redacted] if we can have permission to use this room for a discussion of the draft in the early Fall. One of the things we can do in advance is to thank everybody for what has become a really melded group. Can we share names and affiliations with the rest of us? At least for a while, we will want to try to maintain some kind of communication provided you think that there is a reason for doing so. One thing that we have been talking about is simply to take all of the articles and arrange to have them circulated to everybody in a bibliography. The next question is to ask is whether prospectively you should keep on sending new items that we can continue to circulate that by the same means.
- The question we've got is whether this kind of multilogue could be exported to groups around the country who have a self-generated interest in learning more about what's going on.. Assuming we find a way to do that, we'll come back to you for suggestions o n how to design this system for different education levels, different parts of the country, and so on. You will get a draft final report for comment. We hope to meet with you to tell you about the final draft of the report and to report on prospects for a follow-on stage, which we are referring to as Grassroots Foresight.
- Two things: a briefing on the Foreign Policy's Association Great Decisions Program all over the country in local groups in countries and classrooms and everywhere. IT provides its materials as a book and a video that they do every year on eight issues for that year. This year it was nuclear, Turkey, cyber…others you would recognize, and it functions. It's grassroots.

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Round Table 6

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Round Table 6 Invitation and Briefing Memo
Dear Colleagues:

To remind: RT6 will occur on 25 November at 9am - 3pm. Lunch will be served. As of now, Sheila and I view this as the last such gathering, and also the most consequential. We hope to see many of you there, to add value to the discussion -- but also in order to be able to thank as many of you in person, as possible.

In our message to you of 12 November, we laid out two goals for RT6:

- to discuss the idea of an institutional center focused on practical ways to use foresight as a means to bolster the capacity of democratic governance to deal with the kinds of disruptors that have been the subject of our meetings; and
- to talk with you about a second phase to this project, in which we would look at the scaleability of our ideas: upwards to the global level, and downwards to the "grass roots."

A Center

In an ideal case, governance should (and in our opinion, can) be organized to integrate foresight, the policy process, and the execution of policy. Sheila has dealt with this through her "visionario" processes and I have worked on a different approach, called "anticipatory governance." Either way, our proposals begin from the same premise: that foresight is a discipline for strategic thinking, and that it ought to be systemically integrated with the policy process. Both of us, in our own ways, have proposed methods for accomplishing this. Moreover, despite our differences over operational details, we are in broad agreement about the characteristics that a center would have and the functions it would serve, and it is these -- rather than anything like a detailed contractor's blueprint --that we would like to discuss with you at RT6:

Characteristics

- Continuity of effort.
- Whole of government
- Whole of system.
- Near, middle and long term
- Primary, secondary and tertiary consequences
- Advisory
- Professional
- Processes need to work continuously, not episodically.
- Processes need to be routinized, rather than left to happenstance.

Foresight function

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- Situational awareness: State of the World; State of the Union.
- Near-term decisions with potentially significant long-term impact.
- Selected "vital" trends.
- Globalized issues.
- Very long-range issues.

Policy design function

- Inventory of issues for decision, needed in the immediate present, middle-term and longer term.
- Possible policy responses: including anticipated costs and consequences.

Feedback function

- Periodic monitoring of policy outcomes and projections for the future.
- Whole of system interactions

System integration function

- Adapted version of Round Table processes for fusing streams of information bearing on trends, disruptive events, values, policy issues, etc.
- Use of "high-band-width" visionarios to deal with complex interactions on realistic basis.
- Study of netcentric organizational concepts for execution of policy, such as Art Cebrowsky's work on netcentric warfare and anticipatory governance, etc.)

Scaleability Phase 2

In complexity theory, there is a concept of "nested systems." Applied to the question of foresight and governance, this would mean that whether one is thinking at the local, national or global level, the process remains the same: only its scale changes. Sheila and I believe that if there were to be a phase 2 in this project, it ought to explore the scaleability of our ideas involving **scale-ability up**, in which we would explore the global dimension of most of these issues, and **scale-ability down**, in which we would explore at the level of "grassroots foresight." The link between these segments is: without American leadership, chances of global responsiveness to global challenges are zero -- and without domestic public support in the US, chances for that kind of American leadership are also zero.

We have been thinking about this for some time, but our ideas crystalized as the result of a string of discussions we have had in recent months, with experts working on the problem of foresight and governance in several key overseas groups: Singpore's Horizon Scanning and Risk Assessment Center; the OECD, and a recent high level discussion with EU officials. We will fill you in on these discussions in a follow-on to this memo.

Wrap-up Assessment

This project began four years ago, when Sheila and I began a conversation -- as colleagues of long standing, and as citizens -- about the intensifying polarization of public opinion, and its

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effects on our system of liberal democracy. Before long, however, we began to think about this trend from the perspective of foresight, and, in due course we decided to pull together a research proposal which -- thanks to the Rockefeller Brothers Fund -- became the Project on Foresight and Democracy.

A fundamental premise of the project was that foresight could take people from different mental models and value systems to a place where they might be able to articulate shared values and a shared vision: of a better place in the future towards which they could work together. Meanwhile, however, that sense of a shared "commons" has deteriorated with alarming speed over the period during which we and you have been working on this project. Our country, and in fact our civilization, has entered the outer bands of a perfect storm, from which there is no assurance of a safe exit. The ability of reason to master complexity is in doubt.

Sheila and I believe that foresight can help light the way. We plan to end RT-6 by asking for your views.

Leon

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Project on Foresight and Democracy

Round Table 5

Leon S. Fuerth and Sheila R. Ronis

29 August 2019
Washington, D.C.

Agenda

1000 – 1100	The Visionario Reviewed Slides 3-13
1100 – 1200	New Directions Slides 14-16
1200 – 1300	Lunch – Things to Build On Slides 17-18
1300 – 1400	Transformational Change, Values? Slides 19-20
1400 – 1500	Can Democracy get us where we need to go? What is the contribution that foresight can make? Slides 21-24

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Visionario

- **It's 2024, going with the flow of history, but almost everyone can hear the roar of the falls…**
- **Two streams of history are converging: climate change and its increasingly disastrous implications for hundreds of millions of people; and the collapse of efforts to prevent the spread of weapons of mass destruction, in circumstances where both domestic and international systems are roiled by the impact of concurrent, interacting paradigm changes driven by technology and demographics.**
- **For some with historical memory, the system seems to be spring-loaded for disaster – reminiscent of the events that led in 1914, upon a single assassination, to the collapse of the sacrifice of a generation of young men, and the destruction of the existing global order, to be succeeded by successive waves of chaos and suffering. To those lacking this historical sense, there is still a growing sense of shared dread at what lies ahead, absent a profound change of course…**

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Visionario

Climate Change

- **It's the election year 2024 in America, and it's too damn hot.**
- **It's too hot in Greenland, which continues to massively shed ice cover, at an accelerating rate.**
- **It's too hot for Antarctica, which is shedding ever larger expanses of its ice as regions the size of nations break off and proceed to melt.**
- **Too hot for the frozen tundra surrounding the arctic circle, which has begun to release methane at geometrically increasing rates.**
- **Too hot for the grain producing regions of the world, where productivity has taken a nose dive beyond the power of fertilizer, bug poisons, and engineered plants to compensate.**
- **Too hot for human life in the Sub Saharan regions of Africa, where millions have been desperately looking for exits.**
- **Too hot for large regions of Central America which have begun to desertify.**
- **Too hot for a million forms of life, which continue to slide at increasing speed, towards the 6th Great Extinction.**
- **Too hot for all persons but the "10%, who can afford to pay" for a climate that sets them apart from all the rest, and for security from the growing anger around them.**

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Visionario

Climate Change (continued)

- **It is also too wet. Too much rain at the wrong times and the wrong places, delivered in ways that do not contribute to fertility, but destroy it even faster than agro-business contaminates it.**
- **Too much consumption of ground water and exhaustion of aquifers.**
- **Too much destruction of the Amazon forest, not at all compensated by spasmodic, hit or miss reforestation and afforestation.**
- **And certainly not too hot or too wet to prevent the infiltration of diseases previously restricted to remote regions, into the heartlands of industrial civilization, where excessive use of antibiotics will already have strengthened the killing power of known bacterial diseases, establishing new pathways to pandemics.**
- **Generally, scientific opinion has by 2024 consolidated around the idea that the time remaining for effective action on climate change and related effects on the biosphere is not more than about ten years, beyond which stabilization at levels compatible with historical norms will no longer be possible.**
- **At the global level there are already meta consequences, in terms of decreasing general health in the developing world; a decline of well-being in what used to be termed the "first world," the extreme senescence of countries including Russia, Japan, and China. Inverted population "pyramids" with the old threatening to overwhelm the young.**

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Visionario

Risk of War

- **General amplification of risk of local conflict spreading into general nuclear warfare. Proliferation of weapons of mass destruction and means for delivery. Arms control dead. Demonstrations of weapons of mass disorientation. Reduction of warning times to from hours to seconds. Shift of control over alert status of weapons from humans to nearly autonomous AI systems.**
- **Expansion of spheres of potential conflict to include the once frozen arctic oceans, near-space, cyber-space, with potential high-speed interactions leading to mobilization races on steroids. No time for second thoughts.**
- **The United States and Russia are no longer bound by arms control agreements limiting major classes of strategic weapons.**
- **The United States, Russia and China are engaged in a race to develop and deploy entirely new classes of strategic weapons, including hypersonic delivery systems with global range. Warning times will be reduced to near zero. Political crises fulminate into direct military confrontation with no time for diplomacy to have effect.**
- **The monopoly of major states over weapons of strategic caliber has been broken: more small states have found the means to get into the game, not only by the development of weapons of mass destruction, but by the development of weapons of mass disorganization, perfected in the form of digital warfare, carried beyond interference with critical electronic systems to the point of interference with the psychology of nations. Terrorist and criminal networks have also moved into this sphere of societal disruption.**

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Risk of War

- **Their technologies have brought them to swords' point in every medium of conflict: surface warfare, naval warfare, space warfare, cyber-warfare; and political warfare aimed at psychological disruption.**
- **Political relations among the three are frought. Flash points have continued to develop in every region, including most notably the Arctic, which, as a result of climate change, has become a matter of major challenge to the vital interests of each country.**
- **Russians encouraged and aggressive. Chinese looking to avenge the humiliations of the past and -establish the mandate of history to replace the mandate of heaven. All against all, in efforts variously to deepen fragmentation in the United States and neutralize its ability to respond coherently to challenge.**
- **India and Pakistan have teetered for several years at the edge of conflict over Kashmir. Climate change has increasingly destabilized agriculture in both countries with strong internal political consequences.**
- **International rivalries over sources of fresh water are spiking as the result of unilateral measures taken by states controlling headwaters to dominate the water supply of states downstream through the construction of massive hydroelectric projects.**
- **Coordinated international action has fallen out of favor, treaties take too long to negotiate, and when finally in place are soon disregarded. Events far outrace collective efforts . Unilateralism is the favored instrument of the powerful.**

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Visionario

Domestic Tension:

- **At the national level in the United States, demographic shifts demand new politics, but be careful what you wish for. Authoritarian solutions to intractable problems gain share in the public mind.**
- **The White vs. Black has become white, vs. Brown vs. Black vs. Yellow in a four-cornered fight a "fair share" of a diminished pie, 99% of which is owned by a super-class determined and equipped to stand its ground : in the judiciary system up to and unambiguously including the Supreme Court; in the Senate, where a narrow coalition of Republicans and Democratic anti-activists effectively continues to control the tactical high ground; and in the electoral college as a final redoubt. .**
- **Christians vs. each other for share of congregants and influence on the future. Muslims for standing and acceptance. Women intent on "smashing the patriarchy". The young demanding an end to the preferred economic status of the old. The old demanding something better than penury and the dictatorship of the medical insurers.**

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Visionario

Promethean Powers: From Rapid Development to Hyperspeed

Artificial Intelligence

- **Moving by leaps and bounds to the capacity for independent acquisition of knowledge, without human mediation. Quantum computing opening a new, infinite prospect. The United States and China locked into a competition for supremacy.**
- **This competition fueled by search for super profits; by ego and national pride; and by politics.**
- **Winner take all.**
- **Heavy, repetitive labor (and laborers) rendered superfluous. Vast inroads being made on the utility of not only human physical labor, but of human intellectual work as well.**
- **Profit and power claim that all will eventually be for the best, providing nothing is done to impede their progress. They are highly effective in blocking anything that might.**

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Visionario

Synthetic biology

- **At the verge of replacing evolutionary processes. Life by design from plants to fish to animals to people. Ownership of DNA codes shifts to private, corporate control. Decision-making on what to try next in the lab, and what to try next in the market subject to no law within or among nations, or when subject to law, not enforceable. Corporate/political alliance makes the NRA look old-fashioned.**

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Visionario

Panopticon:

- **Surveillance is inescapable. Means of coercion are developing towards the nth degree of refinement... pushing hundreds of millions of persons towards the goal of all tyrannical systems: perfect obedience based upon internalized constraints on behavior.**

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Visionario

The Death of Values

- **Inequality on steroids, as wealth and power accumulate geometrically. Humanism follows philosophy to the ash-heap of history. The only values that matter are embedded into algorithms, the inner workings of which are no longer fully grasped by the humans who initiated them.**

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Visionario

The Death of the Commons

- **White supremacy is enfeebled and nearly dead, and good riddance. So, too, the "patriarchy" and male dominance. What is the new glue that holds democracy together? Is everyone intent on getting the biggest possible piece of America? Or is everyone working on the design of "our" America, where the old differences are subsumed by a new identity? Which is what?**

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New Direction

- **A sense has grown that the present generation holds responsibility not only for itself but for successive generations at ranges to be measured in thousands of years. A sense has also grown that the game may already be lost, so party-on. ?**
- **Perhaps, the remedy lies with the rising generation. Perhaps not.**
- **America still matters world-wide, even though we have abdicated leadership and responsibility. But the pending election in the United States is fraught with the sense that the time for action before the future becomes a concatenation of unknowns, is at hand.**
- **Experts have at times been the first to protect their ideas, and the last to recognize the need for paradigm change. But the wisdom of the academies has already been fracked: if trade sanctions can be used to promote old-style national goals, then they can be used to force change in behaviors that threaten the biosphere through climate change. Other orthodoxies may have to go.**

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New Direction

- **Maybe, however, the Wisdom of the Crowd is showing signs of having been under-rated. Substantial numbers of Americans, though not disaffected from country or each other, have become alienated by the hyperpolitics that have paralyzed decision making.**
- **Awareness growing that the situation is complex and deadly: climate change can lead to nuclear war perhaps even more readily than it can to the emiseration of the human species through disease, hunger, poverty. Awareness also that the democratic experiment is under tremendous pressure as the result of technological and demographic change, and unless change can be subordinated to values, the essential morale and coherence of society will break down.**
- **Not interested in manifesto. Demanding plans, resources and action. Super-savvy about politics in the age of the instant network. Skilled about reaching around the existing political parties to find and mobilize each other. Maybe some emergent form of organization that is trans-political and intergenerational? A new centrism?**
- **Maybe some emergent on the Republican side. Nucleus of a new centrism?**
- **What would be its priorities? Splitting the difference, or searching out solutions without reference to the interests of existing factions? Clinging to old orthodoxies on either side of the liberal/conservative divide?**

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New Direction

- **Critical mass of public opinion?**
- **Tipping point reached during the preceding four years, in the US and in much of the rest of the world.**
- **The combined challenges have reached a level threatening to the futures of nations; threatening to the future of our species.**
- **Actions to influence the outcome of these crises are still possible, but time is reduced to a handful of years, beyond which outcomes are beyond control.**

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Things to Build On

In the absence of leadership from the Federal level, individual states, and regional coalitions of states, have taken the lead in establishing regimes of environmental regulation that are stronger than those the remain at Federal level, notably following California's lead on the West Coast and New York's on the East Coast Texas in the Southwest? Similarly, regional groups of states facing common issues as a result of climate change, have been forming blocks to develop regional responses.

- Local governments have been struggling with updated building codes to deal with flooding/high intensity storms.
- The insurance industry has been responding to risk from flooding, etc, with measures that are changing the real estate market on a regional and national level.
- Market penetration has accelerated for technologies that deal with clean energy,water technology, food solutions, human and ecosystem health.
- At the level of individuals, conviction has grown that urgent action is needed across a broad front of issues .....and this conviction, long since a major factor in Democratic politics, has become a force on the Republican side among elements of that party that have been marginalized in terms of access to power -- except the power of the vote .

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Things to Build On

- Artificial Intelligence has reached the stage where it is powerfully augmenting human capacity for understanding complex issues, including the interplay between those issues and measures for dealing with them.
- By the year 2024, looking forward another 20 or so years, technology -- if encouraged by policy -- can offer new options to preserve, restore, or develop improved ecosystem functioning.
- Policies for developing and deploying such technologies are a challenge and opportunity for democratic governance.
- Methods for monitoring ecosystem behavior from international to individual levels are available.... decisions to develop and deploy these have implications for democratic governance.

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Transformational Changes…

- Knowing what the visionario says about the future, what are the elements of a credible scenario in which rising new actors on the scene can redirect the seemingly inescapable flow of events?

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Transformational Changes…

- What fixes are necessary so that the United States can move to solutions, and in so doing, recover the ability to move others in time to regenerate the commons?
- What could that look like?
- How could these generations handle social and ecological revolutions concurrently?
- Could democracy be a high value? or displaced by competition for survival?
- Could future leaders and “The People” think that the practical solution is more, rather than less democracy, and what is the case they will make for this?

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And Values????

WHAT IS THE FUTURE OF VALUES?

- Every segment of society has its own particular set of values: what it holds dear; what it wants for itself; what it wants for its children.
- But a nation is an entity greater than the sum of its parts, or it is no nation at all.
- Every nation must have a "commons," terrain which all segments believe is basic to the well-being of them all.
- The commons consists of both material, spiritual, and political values that all are prepared to preserve, even at the expense of sacrifice.

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And Values????

- **WHAT IS THE FUTURE OF VALUES?**
- Looking to the past, America's commons have included: national independence; the inalienable rights of individuals; the opportunity to thrive by personal effort; the rule of law; the power of the people to drive public policy, and thereby to have a say in the making of their own futures-- collectively, and individually.
- These core values are shared by all segments, but unequally realized among them. The "classical" inequalities are fractures in the commons, along the lines of race; religion, gender, wealth.
- Foresight tells us that vast changes are coming in the not distant future (20-30 years). Deep change is common in American history, but the approaching changes appear to be different not only in degree, but in kind.
- These changes will challenge the ability of the existing system to adapt. Who are we as a national polity? What are we to become as part of a global civilization? What are we to become as a species? In what way must our regarding the role of nature in our species be changed values – not only at the material level but at the spiritual level --?

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Outcomes:
Best Case Scenario for the US and the world?

Systems:

- **Taking this visionario into account, the questions are:**
- **Is the Post-Trump world a return to the Pre-Trump world or a descent into chaos, as the legacy system crumbles under the impact of simultaneous tsunami-like waves of change of the sort we have discussed?**
- **What is the best case scenario you can create as an alternative? Involving not only the US but the global system that includes the US?**
- **How would it be possible to get to the other side of this epoch?**
- **What are the practical changes that need to take place and what is the sequence of those changes?**
- **Are changes in material values sufficient, or will there have to be changes at the level of human values?**

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Outcomes:
Best Case Scenario for the US and the world?

Values:

At the threshold of these changes, (scenario begins in 2024) the questions are:

- **WHAT IS THE ROLE OF FORESIGHT IN ALL THIS?**
- **WHAT IS THE ROLE OF DEMOCRACY IN ALL THIS?**
- **CAN THE CAPACITY FOR FORESIGHT BE IMPROVED AND USED TO STRENGTHEN THE CAPACITY OF DEMOCRACY TO ADAPT/**
- **HOW?**

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Thematic Notes from RT 6

Meeting Date: November 25, 2019

Based on editing of Original verbatim Notes Returned to Leon and Sheila: November 26, 2019

Meeting begins at 10:16 AM

Sequence of discussion, outlined for participants

This is the last Round Table Meeting. Co-chairs will now produce a final report for the Rockefeller Brothers Fund. Today's meeting will cover three topics: (1) a review of the process we have been using in the conduct of this project, and a discussion of the effectiveness of that process; (2) the concept of a "center" that might be brought into being to promote the integration of foresight and policy as a "steady-state" process; (3) the concept of "scalability" (i.e., scalability of the process "up" from national to global issues, and scalability "down" to the grass roots).

Review of Process and effectiveness

Slide #5

Process Summary

1. Selection and balancing of the participants.
2. Selection and characterization by experts on drivers to be considered.
3. Selection and characterization by experts of foresight methodologies as tools.
4. Briefing Round Table participants on drivers of change.
5. Briefing Round Table participants on foresight methods.
6. Application of methods to discussion of drivers.
7. Use of minutes, thematically organized, to provide continuity between consecutive sessions.
8. Use of a "visionario" to get one's arms around a complex, non-linear global system.

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Surprising indifference of public advocacy groups to longer-range thinking.

Co-researchers recounted their original model for the Round Table, intended to involve sectoral representation of social groups through participation of major organizations (e.g., covering race/ethnicity; gender; labor; youth; etc.). Participation of these groups was solicited by multiple letters of invitation and efforts to make contact by phone. None of these efforts worked: the common denominator appears to have been intense focus on specific group interests in the near-term.

Sheila: Even in the organizations that we met with we found so much denial. They thought they were already doing this and, of course. they weren't.

Participant: I remember when we proposed futures studies to non-profits, a lot of folks feel that in their little subsection they do strategic planning… they already see everything, and that attitude is hard to overcome. One of the biggest problems you might have run into, that I have run into, is that everybody is afraid to speak for the organization [other] than the CEO.

Participant: I just want to say that I was interested in this project and I pushed it with my boss to allow me to come, but I think it's hard to find people in other organizations like mine to take a day every 3 months because we always have fires going on. I don't know if days can be moved, but sometimes it's easier to get institutional buy-in if it's days in a row, like one week.

Leon: We also thought that this Administration presented everybody with a "to the barriers!" challenge, and we believe that these organizations are thinly staffed to begin with. Nevertheless, multiple letters and phone calls went unacknowledged, and answering systems functioned as moats around some of these organizations, rather than bridges of access.

Generational differences within organizations

Participants at the RT6 meeting discussed possible reasons, on a sectoral basis, for non-responsiveness of organized groups. Formal "sectoral" organizations are overwhelmed by immediate issues, in particular by challenges arising from the agenda of the Trump administration. Growing impatience with representative democracy itself, as too slow a process: a particularly strong sentiment among younger persons.

Round Table members noted similar problems they have encountered in formal organizations of which they are members, when these organizations seek to attract younger participants. This was interpreted to be a generational issue, in which younger persons seek action resulting in near-term results. Participants noted that in some instances, even spectacular short-term results erode or in extreme cases (Arab Spring) are suffocated by inertia or extinguished by force.

Participants recommended that final version of Report be sent to younger members of the group. Chairs noted that the Report will go to all participants.

Question arose, whether an issue such as climate change hasn't shifted from longer-term to immediate. View was that this has happened, and patience with gradualism is galling to young

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people, who see their futures as already compromised by the failure of the present generation to act.

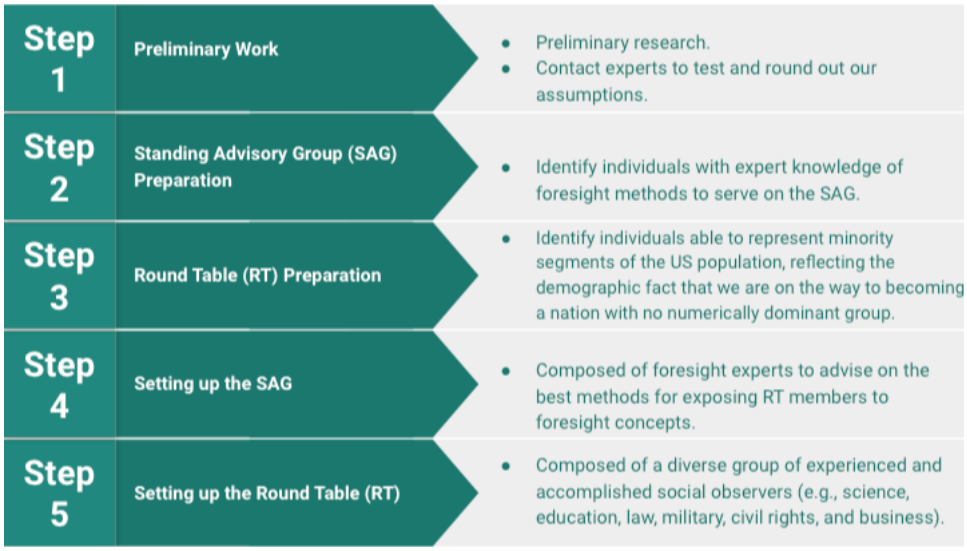
In effect the long-range has been telescoped into the immediate, and in the course of that process there is an extinction of all sorts of intermediate options for which there might otherwise have been time.

<u>"Plan B" for populating the Round Table</u>

Co-chairs noted that after spending substantial time in the initial effort to populate the Round Table with persons representing advocacy groups (see narrative chapter on organization), co-chairs decided to adopt a work-around, in the form of a Round-Table comprised of persons not representing sectoral advocacy groups, but, who are personally qualified to speak interpretively of societal interests, based on their own perspectives and experiences (see biographic section of this report).

Co-researcher: Move to slide #6, 7, 8, and 9.

Slide #6



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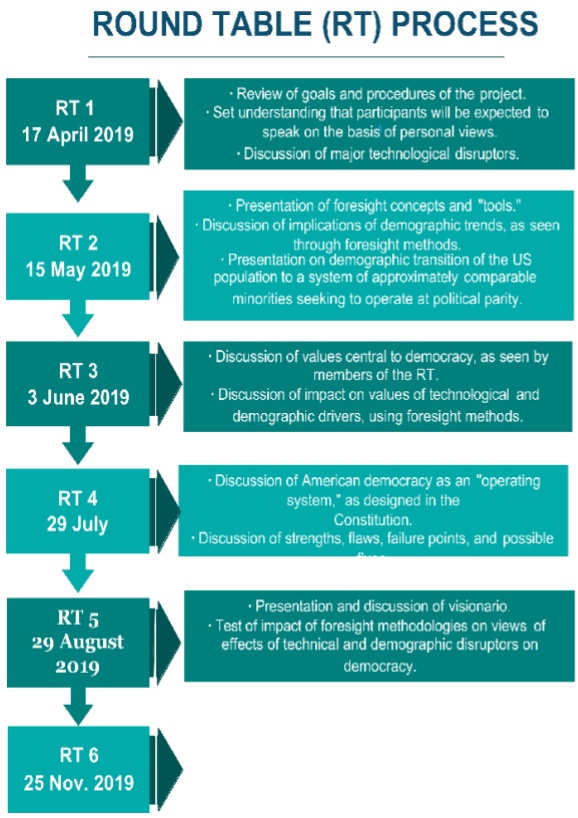
Slide #7

Slide # 8



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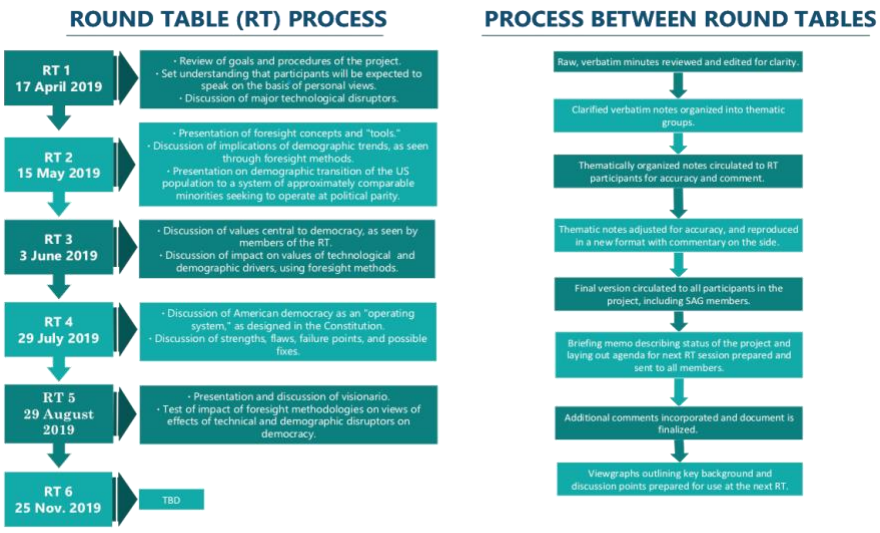
Slide #9



Facts and alternate facts

Leon. Hyper-polarization of discourse is reflected in and intensified by the ongoing attack on facts: once, the absolute standard against which to evaluate the soundness of different positions on public issues, but now treated as matters of belief and therefore the basis for magical thinking.

Participant: means nothing is factual. Because [if] you say "this is my fact and it's equally relevant," then others (actual facts) are not relevant and there is no truth beyond opinion.

Participant: I heard Neil deGrasse Tyson say we have three kinds of facts: my personal beliefs; (can't prove it); official truth (rules and regulations); and scientific truth (objective facts that you can test).

Participant: Did anyone see the Washington post piece about Roy Cohn? His philosophy was captured in the phrase: "Forget the system, who is the judge?" The system is just something to use against your opponents to drag out the process. The objective and outcome is minority rule by manipulation of the system…the rule of law is displaced by a process of manipulation aimed at control and power.

Participant: Facts that don't comport with political beliefs [or] religion are rejected. It really requires an analysis that isolates the motivations and belief systems of people, as part of the process for evaluating the case they make for their version of facts.

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Impact of the process we used, on the thinking of members individually, and on the group.

Slide #11

Impact

- Awareness of democracy as a conjoined system of values (in the form of the Declaration of Independence) and an operating system (in the form of the Constitution).
- Heightened awareness of the central importance of non-material values at the core of democratic governance.
- Heightened awareness of the existence of alternative sets of values.
- Heightened awareness of the bifurcated meaning of liberalism -- individual freedom based on primacy of concern for self, vs. social freedom based on primacy of concern for the group.
- Heightened awareness of the contrasting features of complex vs. linear thinking. Heightened awareness of the persistence of legacy issues and societal fractures in American society.
-

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Slide #12

Impact

- Heightened awareness of a set of “tsunami-class” challenges originating in technological, economic, and demographic transitions over the next several decades.
- Heightened awareness of the deep challenges these changes bring to the sense of a national Commons of shared identities as Americans and shared values.
- Heightened awareness of the United States’ role in a complex, global system of systems, where we act and are acted upon.
- Awareness of the very short window for action in the present to influence the longer-term future.
- Tension between optimistic and pessimistic biases when interpreting the consequences of the same facts.
- Need for re-vitalization of democracy.

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Slide #13

Impact

- More, rather than less, democracy is the requirement for dealing with complexity, legacy fractures, and tsunami - like social shocks. The potential value of these forms of awareness as a means to counter the extreme polarization that we are undergoing, providing it is possible to infuse them into public discourse.

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Co-director: We have begun with a review of the process we have used to guide our discussions here. This next slide addresses the effects of that process. Later we will address the question of whether this process could be adjusted and scaled in order for it to produce desirable effects in groups scaled up to levels approximating the global, and scaled downwards towards the "grass roots."

Participant: Two things come to mind on this. One was the discussion we had on whether climate change is something that can be successfully addressed in a democracy.

Participant: Can you ask the same question for any of the major disruptive trends we have discussed?

Participant: Well like for example in World War II, FDR was sort of a dictator. He could tell GM "you guys aren't making any cars anymore." To deal with the threat of losing something like a world war, we had (for a time) a quasi-dictatorship...so if climate change is something like this…

Person #5: What are the non-material values mentioned on the chart?

(Rapporteur Note: Various people: freedom and liberty.)

Person #5: Right, so maybe "freedom," "justice"… What you're describing is the heightened awareness of the DIFFERENCE of our non-material values.

Leon: is the problem the use of the word "central" in that sentence?

Person #5: No it's the "non-material" part.

Sheila: Can we put it, "Such as, but not limited to justice, freedom, liberty."

Person #5: and the very last one, can we make 2 bullets out of that? Those are two things.

Sheila and Leon: We will.

Person #5: What did you mean by "legacy issues?"

Leon: Things that haven't been resolved.

Person #1: Let's not focus just on race…

Person #2: Let's look at what one of us said about the "dignity deficit". It was something I was vaguely aware of, but once it was identified, it hit me hard.

Person #1: Trump was certainly aware of it.

Person #5: That phrase appeared in an *Atlantic* article, it wasn't de novo, to be clear. If you really mean the past is not past and is reflected in our current politics and policy

Leon: We're living with it, but not fully aware of its impact. I think the past is not past and it's reflected…history is reflected in our policy and politics.

Person #9: Or history is interpreted by our history and politics?

Person #1: Well, past is not past. People thought WWI was past, and then WWII was past, then Vietnam happened, just stupid stuff, and we're still doing it now.

Person #5: I think you can use clearer language to say that the past is really present and is reflected in our policy and politics.

Person #1: This discussion on whether democracy can handle climate change -- it's not the same as the question of how a democracy adapts to the demands of war. Wars are fought locally, but climate change has to be dealt with globally..

Person #9: But don't you have to deal with climate change locally, and build outward?

Person #1: Well no. It would be nice if there were enough time. Look at California which has been doing wonderful things for decades. But if – on the global scale -- only the US did it (i.e., made these changes), it would do nothing. If China and Russia and others don't collaborate as part of a collective response {to a global issue} their individual actions will be ineffectual. (And you don't need a local dictator to do that. You need someone who's global, who has the ability to get everyone to act.

Person #7: But while you try to get there why don't you start with doing it ourselves?

Person #1: That's not enough!

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Person #7: Part of the problem of common action is that our system doesn't price things right. We don't [value] externalities.

Person #7: But what you're suggesting is that there needs to be priority given to the requirements of a global commons, that supplants the focus on national commons.

Person #1: When you're talking about health problems…people will go to the locality and deal with the problem, like Ebola. But climate change is so big that it's pervasive. Will what we do necessarily affect what the Chinese do?

Person #5: I like this slide because it has actions that come from our (expanded) understanding.

Leon: So, taking both pages, as a whole, do you think those are an accurate description of what we've talked about?

Person #7: What does re-vitalization of democracy mean?

Leon: It means removing impediments to the exercise of the franchise. And there are [plenty of] methods that have been created to keep people from voting. For example, we were talking about gerrymandering.

Person #5: We were also talking about mail-in ballots and gerrymandering. These are things that will improve access to the ballot.

Leon: We've also discussed changing the electoral college.

Person #5: But instead of changing the system, we are just talking about ballots.

Person #3: It's about the need to avoid minority rule. I look at John Boehner's time where he said "We (meaning the Republicans) speak for the majority of the people, but if you look at the number of votes, you had more votes cast for the Democratic minority than the Republican majority.

Leon: What was the rule on television that required equal time? A rule that has been eliminated (in 2011)?

Person #2: The Fairness Doctrine. And the year before that there was the Supreme Court decision (Citizens United) that gave corporations and unions first amendment rights to spend money as they wish, without limit, for political purposes..

Person #1: Gerrymandering is in a sense, a local issue that cannot be affected by some nation-wide ruling. Every state decides it.

(Leon: That's what the Supreme Court just said).

Person #5: That's not democracy working locally, that's the attempt to exclude.

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Leon: I think many of these measures that are taken to distort the relative weight of votes are not just taken locally, they are consciously meant to be national by a process of accretion from one locality to the next, and the next.

Person #5: I think it's the need for actions that address the restrictive techniques we have listed.

Person #9: It's also the Judiciary that is changing.

Leon: A future generation that will want to use the judicial and political system to evolve the laws will be blocked by the incoming class of conservative judges. How do you break the lock hold of a judiciary trying to stop the law from evolving? FDR tried to rebalance the Supreme Court in the 30s.

Person #7: and that didn't go well. Didn't work. Is this something years from now where people are lamenting the…if everything we talk about comes into place, people will be lamenting the loss of something we have now?

Leon: Yes. The majority rules now, but it has a tendency to rule without mercy. No zone of compromise. So what the winners put in place will be seen by the losers as oppressive.

Person #7: But wasn't one of the organizing principles of the country protection of the majority from minority rule?

Leon: Depends on what minority you're talking about. If you were Roman Catholic at that time living in Maryland, your idea of protecting minority rights would be religion-based, but you wouldn't give a second thought to the oppression of black people.

Person #3: I think you're right, that was the idea behind the creation of the Electoral College

Person #5: So, "the need for action to provide fairness in access to the ballot."

Person #7: Well, "revitalization" is a good word, you just add "e.g."

Leon: "e.g.," will be on the right-hand side.

Leon: But even our concept of fairness is changing. Originalism will block the United States from keeping up with deep currents of change, which, unless accompanied by evolutionary changes in the legal system, will lead to violent, earthquake-like eruptions of impatience…

Person #1: It has happened before.

Leon: Right, it happens over and over again. There are periods of rebellion that are put down by those who wish to preserve the existing order without change. Often by violent measures.

Person #5: In the next to last bullet, "tension between optimistic and pessimistic biases," you might just say "tension between biases when interpreting the consequences of the same facts."

Person #2: I wouldn't have objections to deleting it, but somewhere in this report which has up to this point been fairly pessimistic, there needs to be some recognition that some of these [things/trends] can be interpreted optimistically. Those perspectives will have to be resolved one way or another…

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Person #5: Challenges are viewed optimistically and pessimistically, just make another bullet point about it specifically.

Person #1: But aren't these just different views on these things?

Person #3: Can we have a bullet that says "various forms of cognitive bias?

Person #2: That's different.

Sheila: I think of cognitive bias as being completely different from an optimistic point of view and a pessimistic point of view.

Person #5: You can say "cognitive biases and optimistic or pessimistic views of the world"

Leon: This is not marginal; this is a very important part of our discussion.

Person #5: I think the pessimistic and optimistic distinction is important, because if people are going to read this report and say "all is lost" or "it's impossible for us to recapture the democracy"….if you come away saying there's no hope, or if there's some optimism here…I think the impact of the report will be either getting people to think we can change things or, alternatively, just throwing up their hands.

Person #1: Some people I've talked to about technology think that advanced tech will be democracy enhancers because AI will let us get past biases and will help us interpret facts.

Person #6: AI can go any direction the algorithm takes them, including support for organized crime, which has the resources to buy the best systems in the world.

Person #1: What I'm saying is that the way to view tech as positive or negative is a bit extreme.

Leon: I think the point is that the opportunity to exert influence on whether these things turn out for good or ill are good or bad is coming to a close.

Person #2: I'm a bit confused on the fact that the Project's purpose was to look at foresight methods, and now we're…

Leon: The question is, "Does this process offer a way to permit more creative and more open discussion of what these oncoming challenges are going to present to us?"

Person #5: Actions! Not more discussions. Actions!

Person #2: Well, I think that we believe foresight methodologies can help us in the future. So for those who aren't futurists, do you think foresight can be a valuable tool? If so, reflect that in the report.

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Slide #13

Impact

- More, rather than less, democracy is the requirement for dealing with complexity, legacy fractures, and tsunami - like social shocks. The potential value of these forms of awareness as a means to counter the extreme polarization that we are undergoing, providing it is possible to infuse them into public discourse.

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Person #1: I simply don't believe in that statement (above). You simply cannot solve something like the climate change problem through a democratic process.

Person #6: Is a healthy democracy one that can go in and out of dictatorial behavior? So maybe we go more dictatorial for climate change?

Person #7: Lincoln suspended *habeas corpus* during the Civil War.

Leon: Can you accept that foresight allows more time for democratic processes to be effective as ways for dealing with oncoming tsunamis?

Sheila: And I think part of that issue is whether we can use foresight methods to promote civil discourse among people who see the world differently?

Person #3: I think that's part of the answer, if you have scientific critical thinking. Substance versus process.

Person #3: When we can stick to the substance, that has gotten us to where we are now as a superpower.

Leon: objective evidence is the gold standard. But we now have doubts about what constitutes objective evidence.

Person #5: I don't understand what it means to say that solutions to our oncoming problems require more rather than less democracy.

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Person #1: Is foresight a requirement for action/democracy?

Sheila: It should be.

Person #6: Maybe what you can say is, "You can improve democracy with foresight."

Person #2: Foresight lets us look at consequences that are intended and unintended.

Leon: what you've been saying about the value of foresight is not clearly expressed in these points. So what we need is a point that one of our consequences of exposure to this process of the value of foresight as…

(Person #6: "Foresight is a mechanism for the improvement of democracy") (Rapporteur Note: Lots of agreement.)

Person #5: I keep wanting action.

Person #7: But if you want action, don't you want to know what the consequences are? (Rapporteur Note: Broad agreement in the room.)

Sheila: When I used to do these scenarios for the Pentagon we would look at consequences (2nd, 3rd order, etc, effects).

Person #5: Think before you act kind of a thing.

Person #7: [I'm trying to think] about four times when foresight was used:

[Examples:]

From [Kennan's Long Telegram] and NSC 68, got us through the Cold War…some might argue we need to revisit the National Security Act of 1947. Another is the Interstate Highway System.

Person #2: And the NSF.

Person #3: I don't have examples, but Man on the Moon.

Leon: One thing we can do is a page from the report on Anticipatory Governance which identifies examples going back into the 18th and 19th centuries where our leaders made major decisions based on foresight.

Person #1: Drawing down the nukes.

Person #6: Einstein's letter to FDR saying the Germans are doing it so we have to move.

Person #3: And more recently with the Ebola crisis where health providers said if US isn't involved we won't solve the problem.

Person #6: One I'm getting optimistic about is that when the internet began, I was involved in the 70's, we didn't think about the negative stuff, we just didn't…and now we're in another roll of the dice with AI…and now everyone around the world is saying we have to think this through.

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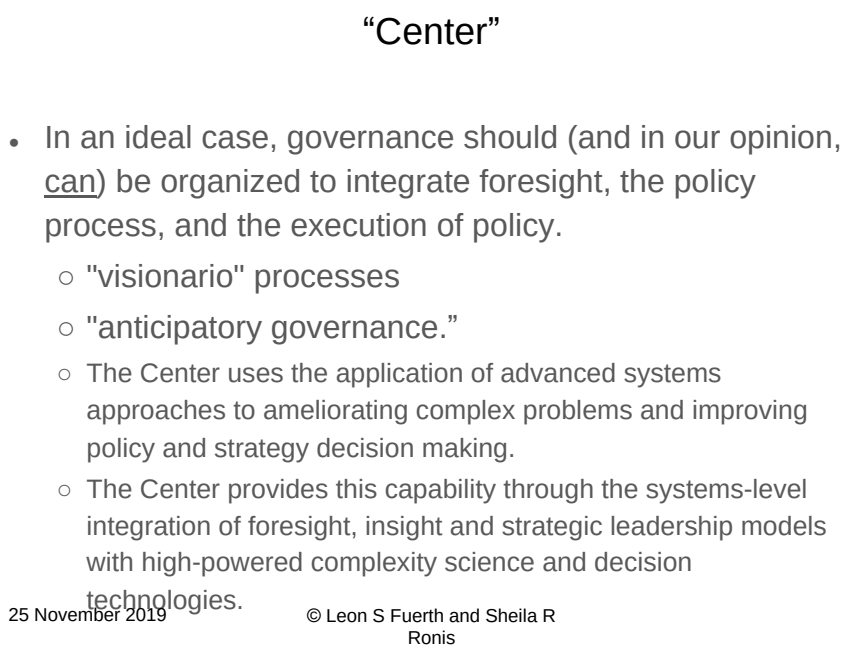
Person #1: That's also true with the synthetic biology…

Slide #14



Leon: go to slide #14, the Center. I think the Center should be seen as the means for making a transition between foresight and action.

Person #1: Don't they do some of this in government?

Person #6: I did a study of 30 governments and the US was the most disorganized.

VALUES

Leon: When Sheila and I began our work on this project, we were thinking in terms of systems. But in the course of our encounters with you, we were reminded that values must always be clearly identified, as the starting point even for thinking in terms of systems such as foresight

Person #5: before we resume, I want to say I'm delighted to have been invited to this group. I had never previously heard of foresighters (Leon: Try foresight macher!) So it's a field of which I was not aware, and I now see how important it is, and I'm pleased to have learned from you, and it has changed the way I think because I now look for evidence that someone is thinking ahead : we need to address problems before they overtake us. It has given me a framework for looking at the news, and at books, and at who is taking the future seriously and who, on the other hand, doesn't think about the consequences of current actions for future generations.

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Person #3: I never thought about how the human mind is changing as a result of its encounter with high technology (points to cell phone). I've benefitted from your (Person #5's) background in neuroscience.

GOOGLE GROUP

Leon: Members of the SAG (Standing Advisory Group) and the RT (Round Table) have been sending me and Sheila many articles and references to books. It's a level of interest and engagement that suggests the formation of a group identity. We've been thinking about whether this group could continue to exchange such information and our thoughts about them by using a free electronic platform.

Rapporteur: (Explained the Google Group to everyone)

CENTER

Co-chair: The word "Center" needs some discussion. The concept of a center was something Sheila and I identified in the foundational document we sent to the Rockefeller Brothers Fund according to the letter to Marsha Kelliher from the Rockefeller Brothers Fund dated July 18, 2018, with the comment that we intended to explore this idea as part of the Project. And the points that are in front of you are meant to satisfy that commitment. I think it just needs a little bit of exposition in terms of what this concept means.

When I first started working on foresight and policy, I imagined that there was going to be an institute on foresight created at the university where I was teaching as a policy practitioner. But one day I got a message from my school's dean who said they were overpopulated by institutes as it was. So, I went back to thinking about what the functions of such an entity should be, rather than about where it would be located, staffed and financed.

Sheila has – in her work -- considered a much more concrete visualization of what a Center might be, and those are represented in charts 15-20 (Sheila: Which Person #2 helped me bring together.). But the establishment of such organizations is typically the work of many years, and she and I know that there is really not that much time to get ahead of the issues that are oncoming. As a result, we've worked to integrate our approaches, by identifying what basic functions are common to our respective approaches.

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Slide #15

The Center context and scope will include:

Space

Global

Regional

Country

Domestic

Cyber-Space

Slide #16

“Center”

Characteristics

- Continuity of effort.
- Whole of government
- Whole of system.
- Near, middle and long term
- Primary, secondary and tertiary consequences
- Advisory
- Professional
- Processes need to work continuously, not episodically.
- Processes need to be routinized, rather than left to happenstance.

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Slide #17

“Center”

Foresight

- Situational awareness: State of the World; State of the Union.
- Near-term decisions with potentially significant long-term impact.
- Selected "vital" trends.
- Globalized issues.
- Very long-range issues.

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Slide #18

“Center”

Policy formation

- Inventory of issues for decision, needed in the immediate present, middle-term and longer term.
- Possible policy responses: including anticipated costs and consequences.

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Slide #19

“Center”

Execution

- Adapted version of Round Table processes for fusing streams of information bearing on trends, disruptive events, values, policy issues, etc.
- Use of “high-band-width” visionarios to deal with complex interactions on realistic basis.
- Study of netcentric organizational concepts for execution of policy, such as Art Cebrowsky’s work on netcentric warfare and anticipatory governance, etc.)

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Slide #20

“Center”

Feedback

- Periodic monitoring of policy outcomes and projections for the future.
- Whole of system interactions

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Sheila: And that's what Dr. Deming did with Toyota. He practically lived in Japan.

Leon: Where it says the "Center uses" we really mean "would use." We're not describing a thing that exists, just an idea that might exist one day.

Participant: What does it mean in the 3rd bullet, where is says "the application of advanced systems approaches to ameliorating…" Can you give some examples?

Sheila: Yes. By helping anyone who is trying to ameliorate a problem, start with mapping the system.

Participant: And "ameliorating", what does that mean?

Sheila: Some problems can't be solved, just ameliorated.

Person #2: The idea of visualization…

Sheila: Well, that's inherent in my identification of advanced systems.

Person #2: So maybe spell it out?

Sheila: Spell it out.

Person #2: As part of the reporting process, the Center includes visualization to describe problems, opportunities, and solutions.

Person #6: I'd like to highlight that the Academy of Science did a lot of climate change stuff, and their number one conclusion was that until you can get simple online visual interactive software, you can't get change. And [in] another meeting, I don't remember where, [the main takeaway] was that we need infographics.

Leon: This is not a trivial point. Complexity requires the representation of information [in comprehensible form]. The ability to present complex information in visual form comes closer than words can to illuminating providing interactions among the elements of a complex system. It makes it possible to directly interrogate a system about how a different approach might work. It's more like sophisticated models to depict weather formations, because you can change the data or parameters and it will show you different sequences of events, far better than sequences described in writing.

Sheila: And a lot of my thinking changed when I started to work with the NGA (National Geospatial-Intelligence Agency) on some things they were working on with the National Laboratories. And they [had] very advanced models that used agent-based modeling techniques. And these systems of visualization clearly allowed someone to see the ramifications of decisions.

Person #2: Let me just bounce something off of you, there's a lot of foresight out there, lots of commercial agencies, and companies that do it. What doesn't exist today that the Center could conceivably do is create a network of these groups, the way you (Person #6) do with the nodes. You take the local and bring it into an integrated picture of the global, which is complexity. And if the Center can bring together studies on foresight

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Person #6 on slide 15: You can look at it on a continuing basis.

Person #6 on slide 16: Maybe use a range of methods and continually evaluate what you use, in contrast to most think- tanks that pick a couple and stick with them. You should be forced to consider the other ones.

Person #2: Another point is to draw from for-profits and non-profits. (Rapporteur Note: Lots of agreement with this in the room.)

Slide #17,18,19 – see above

Leon: These are functions. I've had to approach these things inside the Executive branch and had to deal with senior policymakers exposed to these concepts for the first time and their first question is "Where are you going to get money for this additional staff?" From my point of view it's important at this stage of the game to get people to focus on the necessary or urgent parts of the function. Some of this stuff is important, but not a matter of survival at this point. So I wouldn't disturb these at all and would be happy to see them refined. Just keep in mind that they all carry an implied period of time for staffing, training, accommodation in an existing bureaucratic system, and money that Congress is very unlikely to appropriate. So my question is "How do you begin with a fertilized seed?"

Person #3: Would a reasonable question be, "Does this fill a gap that isn't being done now?" I'm questioning whether some of these aren't done right now. Like the situational awareness, and globalized issues.

Person #6: You can see all these functions done by everyone, but there's no integration. That's where you use collective integration software.

Person #2: I think the integration is important, but I think what's important is the actual forecasts.

Leon: Yes, and I think the word integration is missing and that's a very important descriptor.

Sheila: Some of these are done in the US government, but they aren't pulled together in a whole-of- government way.

Person #7: Isn't that what the NIC is supposed to do?

Sheila: They don't.

Person #2: They haven't done it for years

Person #6: They also don't like to talk to certain people who they should, in order to get new insights.

Leon: At one point I asked Sheila if she was thinking about expanding this thing until it becomes the government? The answer is no, but then how far does it go? If you add up these functions, it certainly sounds like the government to me. And so you have an anointed group of experts who have heated disagreements with each other replacing a group of anointed policymakers.

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Person #6: So what I select from a collective intelligence system…

Person #2: What kind of intel? Classified or unclassified information?

Person #7: Isn't this more of a net assessment thing you're trying to do?

Sheila: Yes.

Person #7: What you're saying is IQ, not intel.

Leon: I think what you're talking about is simply the ability to comprehend complex systems.

Person #6: Well, understanding doesn't get you action.

Person #2: But you have to understand first…

Leon: At this stage of the concept, the Center would have a place inside a larger system of governance, which has ways of deciding how actions are decided, and has places for monitoring the consequences of those actions. One of those things Person #5 has left us is her gift of not forgetting that action is needed as a product of contemplation.

Sheila: Go through the policy formation slide first.

Person #1: I don't see why you need a lot of staffing for this kind of thing. A lot of this can be done with software. To understand the universe of info, collate it. It's a lot cheaper and faster than people doing it. I think you have to worry about function more than staffing.

Person #7: If you were staffing in a government office you would have to worry about it.

Person #3: I'm worried about policy formation, does that go beyond advisory?

Leon: No. It's not intended to go beyond advisory.

Person #3: Right, this is more how the customers choose how to use the info.

Person #7: Isn't this how the Congressional Research Service says [you can do these various things, but here's what happens if you do].

Person #6: Yes. All of this is being done. They've considered consequences over here, in addition to linear analysis.

Person #2: Is it possible to just say "options for action"?

Sheila: I love that!

Person #7: If you include the last bullet of saying…

Person #2: Take out the last bullet where it says "policy" with "action."

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Person #1: I serve on a couple of policy boards and they ask for recommendations. So you have to tell them what they should know and how they need to think about that. So I think a term like "possible policy recommendations" is better. You need to focus on the ones that are reasonable, not every last thing that one might possibly do.

Person #2: Because policy is the framework under which actions take place.

Moving to slide #19 on Execution.

Leon: "High-band-width," I took the term from communications technology and it means a form of electronic signal capable of carrying more information..

Person #7: Are you saying all visionarios are high bandwidth or that there are high and low visionarios?

Sheila: There are both, but most of the visionarios I developed were specifically designed to illustrate complexity. If the visionario is low-bandwidth, it carries less information, and qualifies as a relatively simple scenario, as opposed to a visionario.

Person #2: Mike Jackson is doing that today with his commercial firm and they come across as very fragmented, so there's a lot of work to be done.

Person #2: One other thing, as you consider visionarios, right now they're very text-heavy so maybe more visualization [would help]?

Sheila: The more we can use technology to compress data into visualization the better, but the tools are not free yet.

Person #6: I suspect there's a lot of free software you can get in addition to state of the art materials to which you might also have commercial access to right now.

Leon: I'm going to propose adding a bullet under the heading of execution: my favorite --- "holodeck," (as in Star Trek) that could be used for very realistic simulation of real life circumstances as a way of allowing officials to practice and test alternative ideas.

Sheila: It's almost like the war-games that I developed my visionaries to test; it's a lot of where my early work was done in the 90s.

Person #1: That's a challenge similar to visualization in particle physics: billions of collisions, and there is software in use for that every day.

Person #6: Whatever platform is used, it would have to be able to generate a variety of virtual experiences.

Person #3: I'm thinking…Rob Lemperts "Robust Decision Making" from RAND. My understanding is that you can have a thousand variables, around climate change, it's heavily data driven, so [it's] expensive. But for complex things it can be a tool.

Person #1: The IPCC's (Intergovernmental Panel on Climate Change) model for climate change analysis is complex.

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Person #7: But other people are not responding to that work.

Person #6: China is. We're the outliers.

Person #1: Yes. The Chinese are.

Netcentric

Person #1: Will you (Leon) define net-centric for me?

Leon: Yes, it comes from net-centric warfare (*Network Centric Warfare*, Alberts, Gartska, Stein, 2nd ed., August 1999).

Person #7: Yes, the shorthand is "power to the edge." How do you empower the edge of a flattened military network to make decisions?

Leon: How do you shorten the path of information, by eliminating the layers of middle-processers who manipulate information flowing between tactical decisions at the battle field and strategic decision makers at the top of the system? The problem is that the old system has a tendency to reassert itself because it doesn't want to give up the power to make decisions. In the early days of the Iraq War there was a spontaneously organized network of younger officers who were using very basic internet methods to share lessons they were learning about the conduct of operations.

Feedback

Sheila: Do you want to say a word about feedback?

Person #6: [goes back to slide #20] instead of periodic, do you mean "continual"?

Sheila and Leon: Yes!

Person #6: And the part that is often missed is how you respond to that feedback.

Leon: What you now have is after-action analysis, but those might take years to write. What you need from feedback in the real world is [that] it's part of the living process.

Person #1: Either it is instantaneous or it's useless.

Leon: Right, so I'm thinking of that kind of feedback for people in the government. I tried to analyze what are the elements of a feedback circuit.

Person #2: Along those lines with the earlier conversation, do you want to consider "Continuous monitoring of policy and action outcomes and projections for the future."

Leon: We "fire and forget." A doctor prescribes a medicine and there are unintended consequences, and another [is prescribed] to deal with those, and another to deal with the ones that [one] creates, and so on.

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Person #2: It might capture something saying it a different way “policy actions and outcomes and side effects”

Person #9: We’ve talked all about feedback and gathering but nothing about disseminating.

Leon:. Because I’m familiar with the cycles of policy planning in government, in my head I can pick out a point in the policy process where it would be a good idea for feedback to be put back in. This means you need to identify not only what you think is going to happen and when you think it is going to happen, and you need to feed that information in near real-time to persons who can make crucial judgment as to whether policies are or are not working as designed.

Person #6: You just identified the weak point of the system.

Leon: I’ve also identified a loop.

Person #1: It is all a continuous loop.

Person #9: Well maybe adding continuous feedback.

Person #6: That brings up the point that you look at the system as a whole system and you say, “Okay, what is its improvement system?” most people struggle with that, now you apply it and you say, “How do I improve the system the purpose of which is to improve the quality of feedback?” What that is trying to say [is] look at the whole system and what is the improvement of the system itself.

Slide #22

“Scalability”

Scaleability Phase 2

- In complexity theory, there is a concept of “nested systems.” Applied to the question of foresight and governance, this would mean that whether one is thinking at the local, national or global level, the process remains the same: only its scale changes.
- Phase 2 in this project ought to explore the scaleability of our ideas:
  - **scale-ability up**, in which we would explore the global dimension of most of these issues, and
  - **scale-ability down**, in which we would explore at the level of “grassroots foresight.”

Space, Global, Regional, Country, Domestic, Cyber-Space

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Scalability

Leon: Complexity theory holds that the elements of complex systems can be scaled up or down. Sheila and I realized that this principle could (and should) be applied to systems of organization for governance, at a number of levels. We have prepared a set of five graphics illustrating this insight:

 # 23 (unified field)

Slide #23

"Unified Field"
(*Equivalencies)*

Anticipatory Governance	Learning Process Cycle
Foresight - information about the future	Intelligence - information about the future
Policy Formation - nexus between policy makers and the foresight-"machers"	Policy Formation –nexus between policy makers and the foresight-"machers"
Execution - whole of system	Application - whole of system
Feedback – distilled, applied experience	Corporate Learning – distilled, applied experience

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This slide illustrates the equivalence of the nomenclature Sheila and I have developed for our respective approaches – (mine) Anticipatory Governance on the left and (hers) Learning Process Cycle, on the right.

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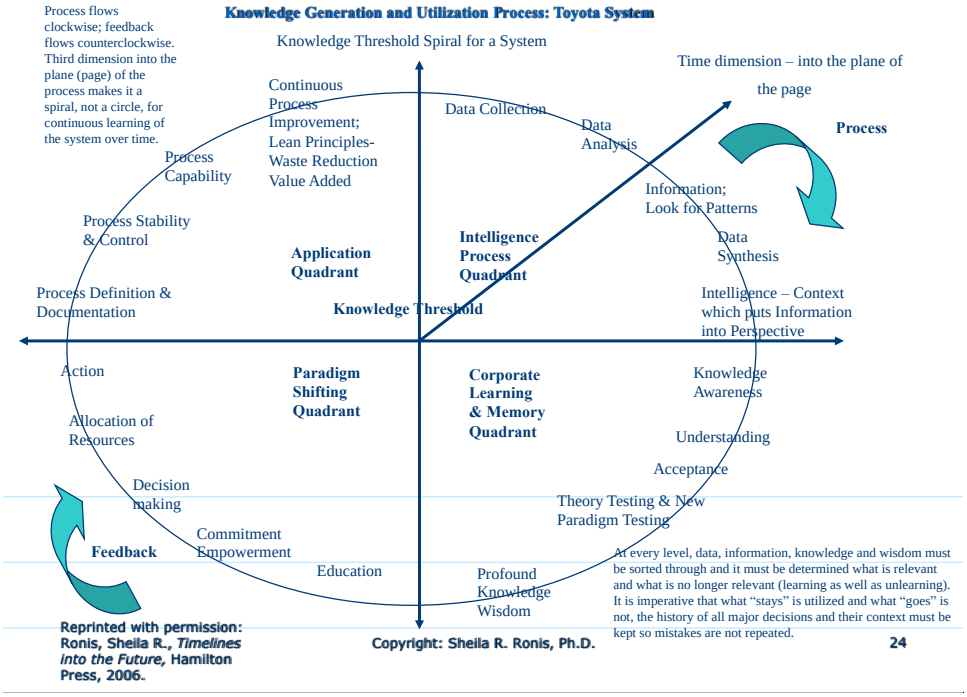
#24 (Toyota – Learning Process Cycle)



Development of this system map began in 1989 on Sheila's first trip to Japan with Dr. Deming, and although he died in 1993, it took her until 2000 to finish this depiction of the learning process that had evolved at Toyota, beginning in the 1950s. Note that the graphic needs to be read as a spiral: every time you go around the ellipse, you are further along a time line, around which complex events continue to play themselves out. What Sheila found interesting about studying Toyota so closely was that the people inside the community really did not understand consciously that this was going on, but it was going on, and when she finally showed the graphic to some people at Toyota, there was a shock of recognition ("Oh my G-d, that is us!") What the chart shows is not only a snap-shot of a complex system at a given period, but how that system produced information for learning and for improvement over time (feed-back). The existence of this system accounts for the difficulties that other automobile manufacturers had in their efforts to catch up, since this system – and improvements based on continuous learning – was the basis for Toyota's innovative and qualitative advantage in the marketplace.

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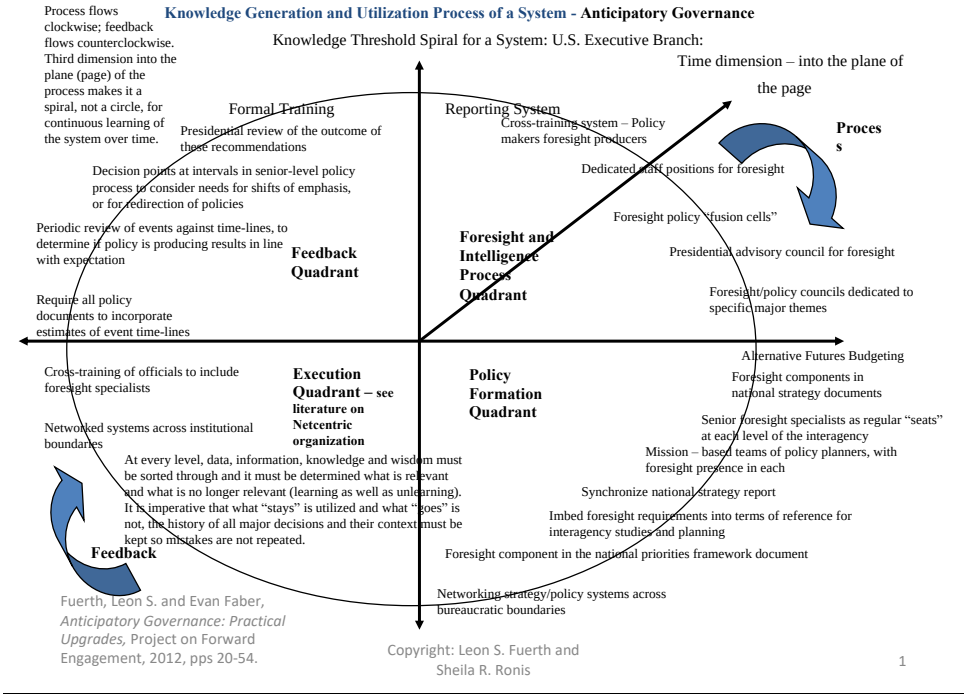
#25 (US government executive branch- Anticipatory Governance)



Development of this concept began in 2000, as a consequence of Leon's operational experiences in the Clinton Administration (National Security Adviser to the Vice President), and then took form as formal analyses over the next decade (George Washington University) in the form of "Forward Engagement," a method for operationally fusing foresight and policy processes, and Anticipatory Governance – a method for fusing foresight, policy and execution by practical upgrades and system learning (feedback). This was not an analysis of the system as it was, but a description of the system as it might, and very much needed to be. It can be said, however, that there was a shock of recognition, in the form of formal endorsement by forty + senior officials of the Clinton administration and by thought leaders from principle think-tanks. Notwithstanding the differences in nomenclature, the systems described in Leon's chart are functionally analogous to the system described in Sheila's (see chart #23, for the equivalences)..

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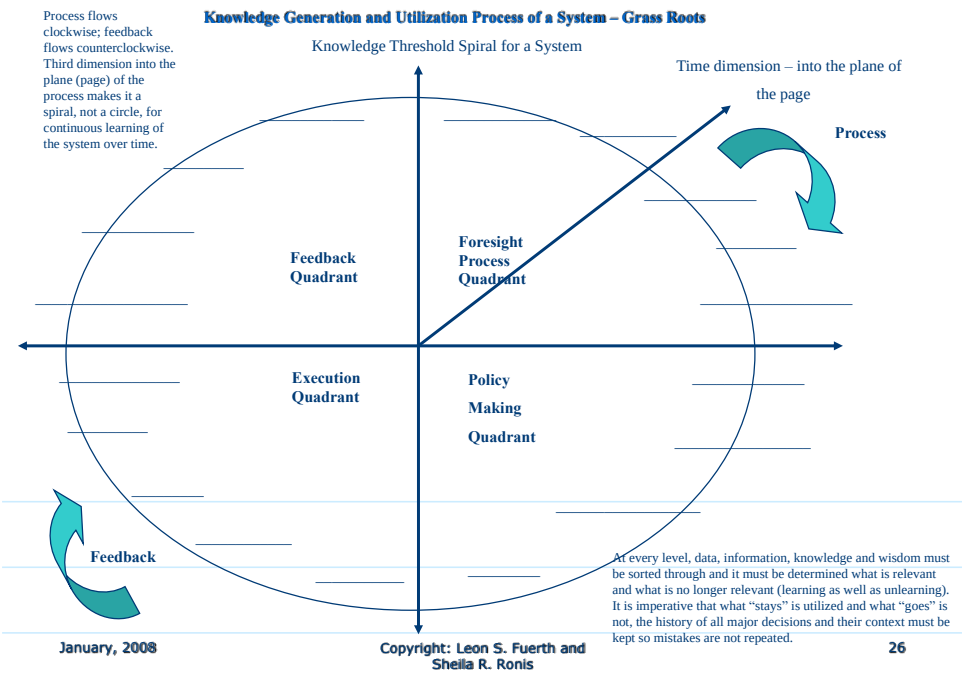
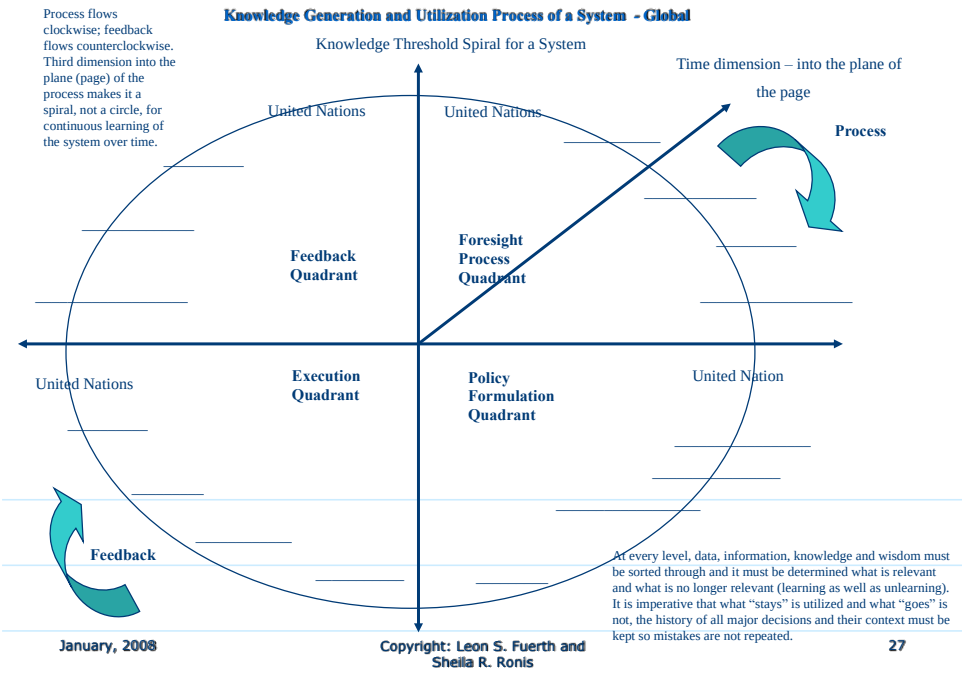
#26 and #27 (grass roots and global, respectively)

Slide #26



Slide #27



For follow-on analysis.

Unlearning the old; learning the new.

Sheila: More important than knowledge and awareness was the acceptance. When confronted by new knowledge the critical question was whether those concerned would accept it. If you can't refute the data, you must accept it. Something has to change when confronted with facts.

Person #1: It's true in science as well because half of the discoveries end up being fake/false. I'm telling you more than half of the discoveries in my field were wrong. So people don't accept them quickly because they have to test them to find out if they're wrong.

Person #2: Science advances one funeral at a time. So [too in] politics?

Person #2: How do you change behavior?

Sheila: You have to change the process to change behavior. You have to consciously unlearn. You have to unlearn the old process and leave it behind.

Sheila: What does it take to unlearn the old process? Because what it takes may not be the force of argument, it may be the cost of a calamity.

Person #2: So what I'm hearing is you have to bring in a cognitive scientist to understand how these things can be changed.

Sheila: And the theory of psychology was one of Dr. Deming's 4 theories of profound knowledge because he knew that understanding how people thought and felt was so important.

Leon: That goes back to a function of the center, assuming it has the capability to promote continuous experiment with new ideas by virtual means.

****

Scaling Down: Grassroots

Sheila: And so we want you all to take some time before you leave today to look at the system and decide what would be the pieces and parts for a grassroots approach.

Leon: Well, what does a policy formation quadrant mean if you're thinking about something at the grassroots level.

Person #1: There's a group out of Oregon called Hack Oregon where they focus on a certain problem like housing or transportation and you get a lot of people to work over the weekend to gather a lot of data and what can be done. There's also a group in DC that does this, out of the CIOs office of DC, I can't remember the name, a woman with a background in cyber security, a Yalie. There was one in Oregon, one in DC, they have them three times a year or so.

Person #10: I think that's sort of an ideal and some segments of grassroots do that, but I think decisions get made in a much more informal manner.

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Person #9: Well, there's crowdsourcing like you mentioned.

Leon: Is hackathon a word someone owns?

Person #6: No, it's in general use.

Person #2: Do you remember the work John did two parties ago where he characterized foresight in Virginia….

Person #1: The people who do it in this area (i.e., DC/Virginia) are the developers.

Sheila: In all areas. Those people do this all the time. They do planning to understand how a certain construction project or a new Metro line will affect [folks] and plan for that expansion.

Person #9: Basically an urban planner takes a look and analyses potential consequences.

Leon: So what are the grassroots parts of it?

Person #2: So, for example, in Virginia there is a Lee Highway local alliance and they get together and ask, "what do we want Lee highway to look like in a couple of years."

Leon: In Chicago they had a futures exercise at the grassroots level more than 10 years ago, and it was an effort to get citizens' views on how proposed changes would affect the system from their point of view.

Person #6: Have you heard of a Charrette? [It's a term derived from a French word that originally referred to frantic last minute efforts by architecture students to finish their assigned work, later evolved to mean an intense final effort to finish a project. That term migrated to the field of urban planning, where it became a consultative design methodology. And the advantage of it is that if the two players don't agree, neither person wins, and neither of their ideas are carried over into the final design.

Person #1: DC had something like that with ANCs. A friend of mine was the ANC for the Southwest waterfront project and they had meetings every week.

Person #10: You have the same problem where people can't get there because of all the other stuff they're doing.

Person #6: You need someone who is impartial and you need to know who the participants should be.

Person #1: No, I think you, Person #10, have a point, we had the ANC office in the university and we would host the students and others (ward 3) and we would take care of the kids [by providing] childcare.

Person #10: Some of them do, some don't. And as a person who is active in local politics, I don't go to ANC meetings.

Person #1: Well, how would you modify it?

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Person #10: Modernize it. It needs to be something that's less formal. I think the formal process needs to be something that needs to exist…but people need to have flexibility in timing and type of input they can give.

Person #1: Technology can be useful for sure.

Person #10: When I think of grassroots movements, I think of multiple city police violence forums, all of those communications happen over encrypted messaging apps…it's from a spark.

Person #6: There is a charrette committee that meets before and they pull together all of the budgets, [among other things].

Sheila: I've been involved in some of these and they're all at the community/town level. In Michigan they do them all the time and they're very successful. They get three towns together, none of which can act alone, they know they can act in concert if they choose too, so they have all 3 city councils coming in and they figure things out cooperatively. Lots of MOUs come out of these.

Person #3: In Virginia there's the [council thing…maybe the Metropolitan Washington Council of Governments???] but they're kind of siloed, so they look at what will urban transportation need be 5-10 years down the line.

Sheila: One I was involved in as the Michigan delegate to the Great Lakes [Water] Authority, which includes Ontario, and the way it works is that anything that has to do with taking water out of the Great Lakes has to come out of this multi-state group.

Person #1: I think we really need to figure out from Person #10 how you get the younger generation involved.

Leon: Is the younger generation interested in a charette-like process? You're already starting to depart from that?

Person #10: Yes I am, [laughter].)

Person #10: I think one of the things that's difficult in terms of gaining buy-in by younger people is that we don't trust the system to fix our needs so these methods don't appeal to us. I think we view it as somewhat outdated. So part of it , in my opinion, is getting people to buy-in or getting people involved, if you're going to figure out the committee, you need young people involved. Make everything more flexible or accessible. Like internet participation. Low lifts, a lot work 2 jobs so they don't have energy to participate in something they care about until something bad happens and it's reactive. I've seen a move to really compensate people for their time and energy.

Person #6: If you want to have working people of lower income involved you have to pay them.

Person #1: You pay and have daycare.

Person #10:. I think the key is compensation, that's huge. There's also an element where most of these systems have been run by people multiple generations above us and that feels like…the conversation has become way more difficult and requires more energy because they're so on a

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different page than you are…so for young people walking into a room [filled with] people they perceive to be multiple generations above them, they're not interested in that.

Person #1: One of the problems I have with this -- and I agree it's a reasonable process-- but it's old. It's for my generation and your generation, but not my kids. It's not fast enough. If you want to sit and analyze things, you lose the people who just want to do something. How do you get to those people?

Person #10: I think if you provide people ways of analyzing what they want, and I think this is missing in a lot of grassroots conversations, and even grass "tops" like I work for, we don't do 5-10 year plans. Providing these as a resource for these groups, I think people could see these are useful, but it must be in the context of what they're doing. If you provide it as a blank resource, you won't get buy-in.

Person #9: So your Charette group doesn't go back and look at [the] consequences of what you [pushed for]?

Person #10: I think a lot of work I do and others in my space is we're undoing the damage. Getting back to square one instead of moving it forward. So, no, it doesn't have a lot of forethought or evolutionary thinking. I think you can get people to do that if you give them the right tools and let them do it the right way. It's something that needs to be done…

Meta-conclusion

Slide #29

Maneuvering within the complexity of today's world requires strategic thinkers who have the ability to understand non-linear and unintended consequences of their policies and decisions.

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Slide #30

The link between these segments is: without American leadership, chances of global responsiveness to global challenges are zero -- and without domestic public support in the US, chances for that kind of American leadership are also zero.

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Person #1: The first statement is not true. If we wait for American leadership this will not go anywhere. The Americans, the United States, are becoming followers.

Leon: What I'm trying to say is that absent U.S. leadership the chances of advancement are nil.

Person #1: The Chinese would disagree.

Person #10: There can be a caveat, under the "American leadership paradigm."

Person #7: There was talk in Japan recently that the international digital system is at risk of bifurcating into two systems.

Leon: I'm saying the bifurcation you're talking about is going to be a choice of societal values, as well as instruments to project the power of the state.

Person #9: The Chinese – twenty years ago – looked at places they were going to make investments, the U.S. did not. If you look at ports, the 3rd country has tied themselves to a Chinese backed solution. So they've got the manufacturing, the technology, and here's something else we'll give you, plus here's a bunch of money we'll give you to set up the system.

Person #1: The Chinese have never been colonialists.

Person #9: They are now. They are trying to expand.

Person #1: They're not trying to govern; they're trying to control. And that's different. You can still have a [Zimbabwe, with a democratic system, but you pay the Chinese.]

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Person #6: What we can say is if we don't change our approach to strategic planning , China will be in charge -- not us.

Person #1: We have to participate. We are not even participating anymore.

Person #1: If the Chinese can figure out how to suck all of the excess carbon out of the air, no one will blame them for asserting leadership.

Person #6: That gets us to democracy in your report: democracy has a problem of consistency between administrations. China doesn't have that problem.

Person #9: We're seeing that in Africa, South America, [etc.] right now. Lots of companies are looking at it and changing, saying we're not tied to a U.S.-backed ideology or company.

Abroad

Leon: Last month, Sheila went to the OECD meeting in Paris where the subject was foresight, and then both of us attended an EU meeting in Brussels (ESPAS). We came away from those meetings knowing that in other parts of the world there is a recognition of the need for a locus between foresight, policy and execution, and also a recognition that when the problems are both complex and global in scope, then the organizational response must also be global. For example, in the EU, they have just created the office of European Commission Vice-President for Institutional Relations and Foresight, headed by a senior official.

We have also realized through side-conversations that took place in Brussels, that there is a subset of governments that look upon the incorporation of foresight as an existential requirement. Those are the governments of physically small states, that feel that their national existence is always on the line (like Singapore, Finland, Singapore, Israel).

Participant: Yes, and although South Korea isn't small, they are in a tough spot.

Leon: And one of the things Sheila and I intend to do is to find a way to pay special attention to what is going on in those places to see how they have created systems to integrate foresight, short, mid and long-term policy, and execution.

Participant: If you'll permit a story on South Korea. When Park Geun-hye was president, or 10-15 years Herman Kahn would hang out with him at a mountain retreat outside of Seoul I think Herman sought him out because the Cold War lines had been drawn, and it was very important for the United States that South Korea be successful. What Kahn would do is rather than listen to the [bullshit government meetings], Herman would meet up with him for drinks and just hang out. Kahn presented advanced foresight and scenario methods that Park adapted, and which played a key part in South Korea's economic "miracle". The reason the story is not known is because people who don't like Park don't want to acknowledge his part in the economic miracle, while the other folks who like him don't want to say an American was responsible. So that's the best story I've ever heard. Hang out with a futurist, and get it in your bones.

Sheila: Dr. Deming's intense presence in Japan was key to the transfer of his concepts into Japanese corporate practice.

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