Lewis Shepherd

lewisshepherd@alumni.stanford.edu www.lewisshepherd.com 202-306-3024 Washington, DC

2014 - (current) Private Consultant on Advanced Technologies and Public Sector Innovation

Leading advisor on public sector innovation, with senior-executive background in Silicon Valley and government. Clients include the world's leading technology companies and leadership at government agencies. Expertise from a three-decade career in strategic planning, R&D, innovation investment decisions, and leading complex change. Adjunct Professor at George Mason University, member of Georgetown University's Technology Management Advisory Council, current membership on several government advisory boards focusing on advanced technologies and cyber security. Superb communicator, noted author/keynote speaker. Current Top Secret/SCI clearance.

2007 - 2014: CTO and Director, Microsoft Institute for Advanced Technology in Government

Microsoft senior executive, drove \$MM revenue in Microsoft sales and services for government early-adopter customers by applying R&D to solve significant mission challenges. Hired as CTO, promoted to lead the Institute. Conceived and managed efforts to create unique scalable solutions. Managed team of former US/international senior government executives and senior technical experts. Named a Partner in 2011 (highest internal MSFT employee level).

Among the Institute's prototyped or deployed advanced technical solutions:

- Social-media semantic analytics, paired with Geo-temporal data visualization.
- Big-data solutions and deep-learning neural-network systems.
- Multilingual machine translation for enterprise-scale deployment.
- Immersive augmented-reality applications, and voice/touch/gesture user-interface control systems.
- Advanced encryption solutions and cyber defense/forensics for intelligence, defense, space/counterspace agencies.

Partnered with government agencies, government contractors, Microsoft product groups, Microsoft account executives; heavy use of dynamically organized virtual teams. Represented the Microsoft Institute with Legal and Corporate Affairs. Member of the Microsoft Federal Strategic Programs and Policy Issues group.

2003 - 2007: Defense Intelligence Agency / Senior Technology Officer

Joined agency as part of Silicon Valley influx to DC in wake of 9/11 attacks, recruited as program manager for the Joint Intelligence Virtual Architecture (JIVA). Promoted to flag-rank Group Chief for Requirements & Research for global defense intelligence, a Fortune-200-equivalent enterprise. Direct report to DIA Deputy Director/Chief Information Officer. Deployed next-generation solutions for a \$6B+ agency with a \$1B+ enterprise IT budget. Created/led global network of development labs for rapid innovation.

Senior innovator determining acquisition of all new information technologies (spanning infrastructure, hardware, middleware, and software) for the DoDIIS enterprise servicing 70,000 users in 500+ locations around the world, providing global real-time data, applications, VoIP, video, satellite communications on 30+ secure networks.

Managed a nine-figure-budget and 250+ technologists and intelligence officers on three continents, run along agile-development lines. Adapted corporate best practices to transform the DoD intelligence enterprise, comprising DIA, Army/Navy/Air Force/Marine Corps Intelligence, and commands worldwide.

Appointed by DIA Director to Strategic Planning Committee. Interaction with Director of National Intelligence, Congressional members, staff, U.S. and allied officials inside and outside intelligence community (IC).

Key innovations & transformations achieved while leading DIA team:

- Web 2.0: First in IC to deploy social-software capabilities (wikis, blogs, RSS etc.) to explosive growth.
- Disruptive Analytic Technologies: Deployed 20+ revolutionary data-centric/predictive/semantic systems.
- Merger/Acquisition: Led two-year major M&A effort to combine the new-technology operations of 11 independent military commands (Strategic Command, Pacific Command, European Command, etc.) into one global team under central control. Negotiated \$35 million in enterprise licenses to cover 20,000 users.
- Data Center Consolidation: With CIO, designed and led radical drawdown from a dozen existing independent IT
 cost centers to five global data centers, smartly providing IT services across 30+ networks.

Career History (continued)

Tech Startup, Head of Business Development H5 Technologies, Inc.San Francisco, CA
2001 – 2003

Successful technology startup providing advanced software to media, corporate, and intelligence customers. Led corporate marketing strategy. Joined founder/CEO in devising and presenting strategy to top venture capital firms (won \$6.5 million in 2002). Personally pitched and closed company's first \$250,000 in software sales. Successfully matrixed marketing with product-development team, to ensure engineering execution.

VP of Public Affairs & Public PolicySan Francisco, CA **Clinton Reilly Group**1998 – 2000

Leading West Coast government consulting firm. Senior lead on national/local accounts and officials. Firm's clients have included Nancy Pelosi, Dianne Feinstein, San Francisco Chamber of Commerce. Developed comprehensive strategy for technology enterprise-zones, with urban tax incentives to foster startups.

Strategic Marketing ConsultantSan Jose / Silicon Valley, CA **City of San Jose, agencies, corporations**1991 – 1994, 1997 – 1998

Consultant on multi-billion dollar projects for Redevelopment Agency of San Jose; other work for public agencies, private firms. Described as a "Silicon Valley luminary" by the San Jose Mercury News.

Director of CommunicationsSan Francisco, CASan Francisco Mayor Frank Jordan1995 – 1996

Directed communications strategy and public policy for the mayor of San Francisco, including technology policy. Managed policy team on economic and tax strategy helping to spark the explosion of dot-com startups in San Francisco. Wrote policy papers, State of the City Address, Annual Budget Message.

Tech Startup, Founder / CEOSan Francisco, CA
SiliContext
1992, 1996

Conceived and coded software for analytic tool with automated text-mining + authoring in a graphical interface. In 1992 scripted data manipulation and GUI in HyperTalk programming language. Restarted project part-time in 1996 while consulting, recruited a colleague. Failed for scalability reasons; excellent lessons in entrepreneurship.

Executive Director San Jose / Silicon Valley, CA

San Jose Tomorrow Foundation 1991 – 1994

Led prestigious Silicon Valley non-profit, funded by Apple and other tech firms plus government grants.

Special Assistant on Policy and SpeechwriterSan Jose, CASan Jose Mayor Tom McEnery1989-91

Senior aide and technology advisor for mayor of America's tenth-largest city. Devised international initiatives to market Silicon Valley. Liaison to CEOs of major technology firms (e.g. Apple, IBM, HP, Oracle).

Consultant & Soviet Foreign Policy Analyst Pentagon, Washington, DC

DoD / OSD / Office of Net Assessment 1985-86

Consultant on Soviet analysis during graduate school on contract to Office of the Secretary of Defense / Net Assessment for "US-Soviet Long-Term Competition" strategic review. Conducted complex Kremlinological leadership analyses, wrote white papers and short reports. Briefed results to Director OSD/NA Andrew Marshall; led National War College panel including senior analysts from CIA, DIA, other government agencies.

Education

Harvard University, Kennedy School of Government (2009) Executive Education non-degree program.

Stanford University (1984-87) PhD program in Political Science (ABD). MA in Political Science. Three-year Rockefeller Doctoral Fellow. International relations, global trade, U.S. politics/legislative affairs.

University of Virginia (1980-84) BA cum laude in Government. MA coursework in Foreign Affairs. Politics, international law and economics, Russia/Middle East politics. Arabic and Russian languages.

Université Libre de Bruxelles (Belgium, 1979-80) Troisième Degré in French language.

Awards

- National winner, "Government IT Leadership Award" given by Government Computer News and Washington Post/Newsweek for "exceptional accomplishments over a substantial period of time in government."
- Department of Defense, DIA Medal for Meritorious Civilian Service.
- DIA Director's Annual Award for Outstanding Team Performance.
- Ford Foundation Fellow in International Security; Rockefeller Foundation Fellow in Russian Studies.
- Fulbright Scholarship for study in Middle East.

Publications

- Foreword "Bridge to the Cyber 21st Century," in book *Inside Cyber Warfare: Mapping the Cyber Underworld*, by Jeffrey Carr (2009: O'Reilly Publishing).
- Co-author, *The Captive American* (Hampton, 1988), hardcover best-seller, earned National Press Club Annual Authors Award.
- Co-author, The New City-State (Roberts Rinehart, 1994), hardcover on entrepreneurial urban policies.
- Multiple classified policy documents and studies.
- Op-ed pieces, speeches for political/business executives; earned "Quote of the Day" in New York Times.

Professional / Civic Leadership Roles

Georgetown University Washington, DC **Technology Management Advisory Council** 2014 – (current)

Appointed member of senior outside advisory body for university's graduate-degree-granting program in Technology Management, charged with guidance on curriculum, career preparation, strategic planning.

AFCEA International Washington DC

Vice Chair, AFCEA Intelligence Committee 2014-2016 (current elected term)

The AFCEA Intelligence Committee consists of senior public and private sector intelligence professionals overseeing AFCEA's Intelligence outreach bridge-building between government and industry.

NDN Technology Conferences Silicon Valley **Co-Sponsor and Participant** 1998, 1999

Annual three-day gathering of Members of U.S. Congress, tech executives and policy experts on the future of technology policy. Seminars at leading companies in software, e-commerce, biotech and broadband. Described as "the largest gathering of elected officials in Silicon Valley ever" (San Jose Mercury News).

Democracy in the Soviet Union Project
U.S.S.R. (Russia and Ukraine)
Seminar Leader
1990

Invited in elite delegation of American political professionals, organized with U.S. State Department, "Campaigns & Elections" magazine, and leaders of emerging Soviet democratic groups. Taught hundreds in Moscow, Leningrad (now St. Petersburg), Kiev. Taught seminars on mass-marketing techniques, polling, campaign technology and the democratic process. Many attendees later won free elections in Russia/Ukraine.

University or Online Lectures

2015 Fall Semester: George Mason University, Adjunct Professor, teaching graduate course "Big Data and Advanced Analytics," in Graduate School of Engineering, M.S./Ph.D. students.

2015 May: Washington Center for Internships, "National Security / Academic Seminar." (agenda)

2015 March: Intelligence Community Center for Academic Excellence, "The Internet, 2015-2025: Business and Policy Challenges for the Private Sector," University of Central Florida. (agenda)

2015 February: University of Maryland, Graduate School of Public Policy: "Speed, Omniscience, and Democratic Accountability: Pick Two for National Security Intelligence" (abstract)

2013 February: George Mason University, Graduate Program in Intelligence Technology Management; "Leadership in Intelligence from Big Data."

2012 December: Pepperdine University; "Engagement with Government through Tech & Gamification" (video)

2012 August: Purdue University, CERIAS Security Seminar, "Challenges for R&D in the Security Field" (video)

2011 November: Univ. of Pennsylvania, Convergent Risk in Business and Government Symposium; "Emerging Counter-Intelligence Insider Threats and Latest Challenges in Cyber Security," panel chair. (agenda)

2011 September: University lecture tour across Argentina for U.S. State Department (article, blog, DoS press release)

- Universidad Abierta Interamericana (UAI, the Open InterAmerican University), Buenos Aires; "Advances in Robotics and Engineering." (article)
- National Technological University (UTN), Buenos Aires; "Innovation and Government," also transmitted live to 13 campuses of the University across Argentina. (article)
- Universidad Abierto Interamericana (UAI), Rosario campus; "New Technologies' Impact on Government." (article and video highlight)
- Universidad Nacional de la Plata (UNLP, National University of La Plata), Informatics Faculty, "Innovation and Government." (article and video interview)
- Universidad Argentina de la Empresa, (UADE, Argentine University of Enterprise), "Government 2.0: Relationship of Government, Law, and Engineering." (article)
- Universidad Católica Argentina (UCA, Catholic University of Argentina), Business School and Economic Sciences; "Government 2.0."

2010 May: O'Reilly Webcast, "Hiring the Next-Generation of Cybersecurity Professionals in Government" (archived)

2009 December: Princeton University, Center for Information Technology Policy; "Federal Government Technology: Way Ahead and Far Behind" (abstract)

2009 November: GWU, Graduate Seminar in Social Media; "Research & Practice in Social Media."

2009 November: Devry University, Roundtable on Information Security (video)

2009 January: Princeton University, Center for Information Technology Policy; "Open Government: Defining, Designing, and Sustaining Transparency" panel. (video)

1990-91, 1991-92: Stanford University, Graduate School of Business; Guest Lecturer for M.B.A. course on government and finance, "Politics and Management."

Speeches, Conferences, Panels

2015 September: Intelligence and National Security Summit, Washington DC. "The Impact of Key Technologies on Intelligence, Defense, Economic & Political Norms," panel chair. (agenda)

2015 June: Federal Judicial Center and Georgetown University Law School, Conference on National Security, Surveillance Technology and the Law. "Computer Architecture and Remote Access."

2015 May: AFCEA Spring Intelligence Symposium, panel chair for "Industry R&D Investment," and chair, "Revolutionary Changes for Intelligence" with SpaceX/Tesla CEO Elon Musk. (agenda)

2015 April: U.S. State Department / EOP / DoD / ODNI, Foreign Service Institute, National Security Executive Leadership Seminar. "Technology and Collaboration."

2015 March: U.S. Technology Leadership Council, "Implications of 3-D Immnersive Technologies and Natural User Interfaces for Government and R&D." (agenda)

2014 September: Intelligence and National Security Summit, Washington DC. "The Internet of Things and its Implications for Intelligence," panel chair. (article)

2014 April: AFCEA Spring Intelligence Symposium; panel chair, "Big Data and Knowledge Creation, Technology and Tradecraft." Classified conference. (agenda)

2014 April: United Nations Foundation, Diplomacy and Social Good Conference, Washington DC; "The Future of Diplomacy, Digital's Impact on an Ancient Art," panel. (agenda)

2013 December: Global Intelligence Symposium, Brussels; "Strengthening the Government - Industry Partnership for Collective Security." (agenda)

2013 December: Center for Policy on Emerging Technologies, Washington DC, panel. (article)

2013 November: MILCOM 2013 "Cyber Security and Survivability" (annual IEEE Military Communications Conference). (agenda)

2013 October: AFCEA Fall Intelligence Symposium; panel chair, "Dealing with Big Data." Classified conference. (agenda)

2013 July: NextGov and INSA Conference; "Assessing Cyber R&D: What Progress and What Priorities?" panel chair. (article)

2012 December: AFCEA - Global Intelligence Symposium, Brussels; Industry Panel. (agenda)

2012 October: MILCOM 2012: "Trusted Communications" (annual IEEE Military Communications Conference).

2012 October: AFCEA Fall Intelligence Symposium; panel chair, "Intelligence Standards and Governance." Classified conference. (agenda)

2011 November: American Association for Artificial Intelligence (AAAI), Open Government Knowledge conference. "Manichean Progress, Positive and Negative States of the Art in Web-Scale Data" (Lecture slides)

2011 June: AFA Space and Cyberspace Warfare Symposium 2011.

2011 October: MIT, Security Innovation Network Summit, "Early Adoption Opportunities" (panel). (agenda)

2011 June: Defense Intelligence Information Enterprise Conference, Dallas TX; "Emerging Cloud Technologies," panel. (agenda)

2011 April: U.S. State Department, Mobile Citizen Summit: "Connecting Global Communities" (article)

2011 April: AFCEA Spring Intelligence Symposium; panel chair, "IT and Networks in the Integrated Defense Intelligence Enterprise." Classified conference. (agenda)

2011 March: NRO/NGA Collaboration Operations Tech Summit, Washington DC; "Collaboration and Technology Enablers and Strategies," panel. (agenda)

2011 January: Gov 2.0 LA Conference, Los Angeles CA, "Government Leadership, Vision and Action" Panel. (video)

2010 December: "Defense 2.0: Transforming DoD Conference," "Information Assurance and Agility in a Web 2.0 World" panel. (agenda).

2010 October: "Sharepoint DC Federal" presentation on "The Power of a Global Platform." (video)

2010 May: O'Reilly Government 2.0 Expo. "Open Source Spying" panel. (agenda)

2009 December: Solutions Developers Technology Leadership Roundtable, keynote "Cloud Research and Distributed Computing." (article)

2009 October: U.S. Army DCGS-A Worldwide Conference; "Advanced R&D for Big Data Analytics."

2009 September: Government 2.0 Expo; "Government as a Protector" panel chair. (agenda)

2009 July: Open Government & Innovation Conference, Washington DC, "Web 2.0 and National Security" panel. (article)

2009 March: Stanford University, IT Security Entrepreneurs' Forum, "Groundbreaking Security Technologies for Government." (video)

2008 December: MIT Robotics Conference, "A Foundational Role for Robotics in the Next Computing Revolution." (abstract)

2008 June: Semantic Government Leadership Summit, Washington DC. "Intellipedia: Mission-Critical Wikis," panel. (agenda)

Conference Keynotes

2015 June: Armed Forces Communications & Electronics Association, Central Virginia. "Big Data Engagement: Why the IC and DoD Need Your Work."

2015 May: TechUK & WIRED Business Media, Suits and Spooks Conference, London UK. "Complex Tectonics: The Yin/Yang Relationship between Security Agencies and the Tech Industry."

2014 October: Commonwealth of Virginia. "New Technologies' Impact on Local/State Government."

2013 May: U.S. intelligence agency, "Next-Gen Cyber Analysis" classified conference, keynote.

2012 July: Gov 2.0 Los Angeles, keynote "Gamification & Innovation in Government" (video)

2010 August: NASA IT Summit, Washington DC, keynote "Government & the Revolution in Scientific Computing" (article)

2010 April: DC Cybersecurity Leadership Summit, keynote "Cyber Public Policy" (article)

2010 April: Social Media in Law Enforcement Conference, closing keynote "Law Enforcement in a Brave New World" (article)

2009 December: Technology Leadership Roundtable, keynote "Cloud Research." (article)

2009 May: US Census, International Field Directors and Technology Conference; keynote "Instrumenting the World" (article)

2008 July: Office of the Director of National Intelligence, Research in America Summit, at Penn State University, keynote "State of Research in the Private Sector."

2008 May: Intelligence Advanced Research Projects Activity (IARPA), Incisive Analysis Conference, "Shorter Loop, Longer Tail: R&D 2.0 for Analysis." (Keynote, slides here)