

SUMMARY

Transdisciplinary science, technology, and policy professional focused on the use of socio-environmental data and information to address large-scale socio-environmental challenges. Strategized and executed initiatives to engage the US Congress, the White House, federal agencies, public policy professionals, academia, and the private sector. Expert navigator of the interstitial space between organizational goals, constituent needs, and policy drivers.

CORE COMPETENCIES

- **Science:** Global environmental change, agro-ecosystems, earth sciences, climate adaptation.
- **Technology:** Artificial intelligence, informatics, technical interoperability, e-infrastructure, in-situ sensing, remote sensing.
- **Policy:** Environmental protection (various US statutes and associated regulations), scientific research (US Congressional authorization and appropriations), ecosystem services, biodiversity, open data, earth observations.
- **Administration and Management:** Government relations, strategic planning, organizational governance, contract management, business development.

PROFESSIONAL EXPERIENCE

Founder and Managing Director (Retired)

Apr 2016 – Feb 2022

MASSIVE CONNECTIONS, LLC. Sole proprietorship providing services to connect data, science, technology, and policy to societal needs.

- Convened fora to connect practitioners, earth-science data professionals, and informatics experts on the use of advanced informatics for science-informed, data-driven climate adaptation decision-making for wildfire management, nature-based solutions for agriculture, and wildlife conservation.
- Managed AAAS scientific review panels on climate adaptation and artificial intelligence scientific proposals from the Kingdom of Saudi Arabia. Served on NASA scientific review panels. Conducted audits of US EPA laboratories. Provided secretarial support for the NOAA Weather, Water, and Climate Board.
- Authored memos, analyses, and presentations on decision analyses for environmental risk assessment for selected US environmental statutes and regulations for briefings with US House of Representatives committees and the Government Accountability Office.

Chief of Strategic Alliances / External Affairs

May 2008 – Apr 2016

NATIONAL ECOLOGICAL OBSERVATORY NETWORK (NEON) INC. NEON Inc. is a non-profit charged with the design, implementation, and operation of the US National Science Foundation's \$434M continental-scale ecological observatory for observing the impacts of climate change.

- US Legislative Branch:
 - Prepared witnesses and testimonies for in-person hearings before US House and US Senate committees.
 - Developed written materials and conducted in-person briefings for US House appropriations and authorizing committees, US Senate appropriations and authorizing committees, and the Congressional Research Service.
- US Executive Branch:
 - Led science, technology, and policy interactions with National Science and Technology Council related entities, including the US Global Change Research Program, the US Group on Earth Observations, and the Interagency Working Group on Scientific Collections (deprecated). Invited to present before President Obama's President's Council of Advisors on Science and Technology.
 - Led science, technology, and policy interactions with NASA, NOAA, NSF, DOI, the USDA, the US EPA, and the Smithsonian Institution. Technical point of contact for science and technology MOUs with federal agencies.
- Corporate leadership:
 - Bootstrapped NEON Inc government relations, human resource, procurement, and finance business functions.
 - Assessed science and technology priorities promulgated by US science leadership and identified opportunities for the NEON community to contribute to those priorities.
- Fostered national and international scientific partnerships on environmental observations and climate impacts through workshops and embassy briefings.

EDUCATION

Ph.D. (Evolution, Ecology, and Behavior)

University of Texas at Austin
1998 – 2004

M.Sc. (Computer Science) with a focus on Artificial Intelligence

Northwestern University
1993 – 1995
(Under a corporate scholarship from Andersen Consulting)

B.Sc. (Information Systems and Computer Science)

National University of Singapore
1989 – 1992
(Under a corporate scholarship from Neptune Orient Lines, Singapore)

INTERNATIONAL LIAISON

Interfaced with consulates of:

- Australia
- Czech Republic
- France
- South Korea
- Norway

Invited to lead/present at workshops/fora in:

- Belgium
- France
- Germany
- South Korea
- Spain
- Taiwan
- Vietnam

PROFESSIONAL EXPERIENCE (Continued)

NEON Administrative Director

Sep 2006 – May 2008

AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES (AIBS). AIBS is a non-profit charged awarded a grant to bootstrap the new NEON Inc. non-profit.

- Orchestrated and wrote NSF proposals for AIBS and NEON Inc in the total amount of more than \$27M (\$30.9M after subsequent amendments).
- Administered programmatic expenditures of approximately \$7M, including oversight of contractors, submission of financial reports, negotiation of contractual terms and conditions, hiring of staff.
- Shepherded the process of designing the initial national constellation of 108 ecological observatory sites.
- Successfully led the NEON team through a major organizational shakeup.

NEON Staff Scientist

Sep 2005 – Sep 2006

AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES (AIBS).

- Managed the identification and recruitment of scientific teams to gather requirements for the proposed scientific infrastructure.
- Synthesized external scientific input for the NEON Integrated Science and Education Plan.

NEON Post-doctoral Associate

Dec 2004 – Sep 2005

AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES (AIBS).

- Contributed to the creation of the NEON, Inc. corporate bylaws and articles of incorporation.
- Synthesized input from the scientific community on their expectations of the NEON scientific infrastructure.

Senior Consultant

Jun 1995 – Sep 1998

ANDERSEN CONSULTING (now Accenture). Accenture is a global consulting company.

- Team leader on (1) a Singapore Ministry of Defense electronic procurement system; (2) Singapore's e-government website for citizens to obtain information on government services and perform transactions electronically; (3) a Singapore Ministry of Education project to design and implement a website for school students to bid for placement in junior colleges.
- Received awards for Outstanding Team Performance (1996, 1997).

Consultant

Jun 1992 – Sep 1993

ANDERSEN CONSULTING.

- Team member on (1) an enterprise information management system project for a gold and copper mining firm; (2) a systems integration project for a major gold and copper mining firm; (3) a systems integration project for a Belgian Export and Import Bank.
- Awarded a full corporate scholarship for my M.Sc. at Northwestern University (1993 – 1995) while remaining under the employ of Andersen Consulting.
- Received award for Outstanding Individual Achievement (1993).