



Roundtable: Quo Vadis?

Many of our current and emerging water problems are complex because they are interconnected and interdependent. These boundary crossing water problems are dynamic, non-linear and are often interconnected with other problems including food, energy, health, environment, and ecosystems. Decisions related to these problems – involving variables, processes, actors, and institutions – are likewise complex, making a range of solutions possible.

But not all possible policy choices and decisions are actionable.

When neither the certainty of scientific solution nor the consensus of what intervention to implement exists:

What we need is Water Diplomacy.

**Join us for this two-day Roundtable event
— featuring interactive panel discussions and student presentations — as we
examine the effectiveness of foundational ideas of Water Diplomacy
as well as challenges and barriers to interdisciplinary scholarship.**

Water Diplomacy Roundtable is sponsored by the US National Science Foundation (NSF 0966903)

May 12-13th (Alumnae Hall, Tufts Medford Campus)

RSVP @ bit.ly/waterdiplomacyfinale

Water Diplomacy Roundtable: Quo vadis?

Program Agenda

Friday, May 12

[Alumnae Hall](#)

8:00AM – 8:30AM

Breakfast

8:30AM – 8:45AM

Opening and Introduction

8:45AM – 9:00AM

Welcome Remarks

9:00AM – 9:45AM

Water Diplomacy: Evolution and Accomplishments

9:45AM – 10:15AM

Complexity Science and Water Diplomacy

10:15AM – 10:45AM

Coffee Break

10:45AM – 11:15AM

Negotiation Theory and Water Diplomacy

11:15AM – 12:30PM

Student Presentations: 10-minute presentations with 5-minute Q&A sessions

Tahira Syed
Ashley McCarthy & Greg Sixt
Gabriela Garcia, Jessica Rozek & Charles van Rees
Laura Read & Michal Russo
Wahid Palash & Kevin Smith

[40 Talbot Avenue, Tufts Medford Campus](#)

Glenn Page & Cynthia Jabs, SustainaMetrix

President Anthony Monaco, Tufts University

Shafik Islam

Professor Snowden, Cognitive Edge

Professor Larry Susskind, MIT

A Scale-Descale-Rescale Analysis
Groundwater Management in the High Plains Aquifer
Can Ducks Be Stakeholders?
Flood Diplomacy
Managing Complex Systems with Requisite Simplicity

12:30PM – 1:30PM

Lunch

1:30PM – 2:00PM

Water Diplomacy in Practice

Greg Koch, Senior Director of Global Water Stewardship, Coca-Cola

2:00PM – 4:30PM

Roundtable Discussion I: Water Diplomacy: Theory to Practice

Panel Members: L. Susskind, E. Choudhury, A. Campbell-Ferrari & G. Koch; *Moderator:* Shafik Islam

[Café ArtScience](#)

Evening Gala Celebration and Dinner

[650 East Kendall Street, Cambridge](#)

Group Transportation will be Provided

5:00 – 7:00PM

Reception

All Roundtable Attendees

7:00 – 9:30PM

Dinner

Students, Faculty & Invited Affiliates

Saturday, May 13

[Alumnae Hall](#)

8:30AM – 9:00AM

Breakfast

9:00AM – 9:30AM

**Water Diplomacy:
An Experiment in Interdisciplinary Education**

Glenn Page, SustainaMetrix

9:30AM – 10:45AM

Student Presentations: 10-minute presentations with 5-minute Q&A sessions

Laura Corlin
Agustín Botteron
Michael Ritter
Margaret Garcia
Kevin Smith

Addressing Water Security Challenges on the Navajo Nation
Creating Flexibility in Freshwater Availability for the Eastern Nile Basin
Cholera in Haiti: Why Many Efforts Failed and How We Can Do Better
A Question-Driven Socio-Hydrological Modeling Approach
Robots, Democracy, and Climate Change

10:45M – 11:00AM

Coffee Break

11:00AM – 1:30PM

Roundtable Discussion II: Quo vadis? Interdisciplinary Scholarship and Practice

Panel Members: K. Portney, D. Lantagne, P. Rogers, A. Wolf, J. Bandyopadhyay & B. Crow; *Moderator:* B. Moomaw

1:30 – 3:00PM

Working Lunch: Reflections on Lessons Learned and Next Steps

3:00PM

Closing

Glenn Page & Cynthia Jabs, SustainaMetrix

Please note that agenda and panel members may be subject to change.

Roundtable I: Water Diplomacy - Theory to Practice

Premise: The Water Diplomacy Framework (WDF) aims to help resolve water related conflicts. It acknowledges that traditional problem solving frames are adequate to address simple and complicated problems where reasonable scientific certainty and consensus about intervention exists. The WDF hypothesizes that when water challenges stem from complex – interconnected, uncertain, unpredictable, and boundary crossing – system dynamics with feedback, traditional frames for problem solving can be limiting or counter-productive. A recurrent factor for such limitations is that traditional problem solving frames often separate the observation-based technical (what is) from the value-based socio-political (what ought to be) dimensions of the problem. The WDF further hypothesizes that when dealing with complex problems, these dimensions cannot be de-coupled. The WDF acknowledges both the limits to knowledge – objectivity of observations and subjectivity of interpretation – and the contingent nature of our action. The WDF proposes a principled pragmatic approach to negotiation that is based on credible scientific knowledge mediated through equity and sustainability as guiding principles for policy action. The WDF approach emphasizes that, when addressing complex water problems all parties have a legitimate right to have a voice about the evidence used and its interpretation, the past evidence and future implications of an intervention, metrics of equity and sustainability, and the package of actionable solutions. These parties include users and producers of water knowledge, managers, technical experts, policy makers, decision makers, and politicians. Furthermore, the WDF asserts that parties need to seek consensus and mutual benefits when negotiating a resolution.

We will start with this premise and ask each panel member to (a) provide their assessment of the premise including the conventional wisdom supporting (refuting) the premise? (b) What are the gaps in water diplomacy theory (e.g., intellectual puzzles)? (c) What are the gaps in practice (e.g., implementation and evaluation problems)? (d) What are the gaps in translating the theory into policy and practice for effective water governance and management? (e) What is our path forward to address complex water problems? For example, how can water diplomacy be operationalized by scientific, academic, and practicing professionals in concert with or in conflict with the traditional diplomacy conducted by the policy professionals and politicians?

Then, we will have interactive conversations about the premise and related questions with the audience facilitated by the moderator. The session will be videotaped with a goal to create a book chapter that summarizes key ideas of the WDF from theoretical as well as practical perspectives highlighting how to make WDF ideas clear for actionable outcomes.

Panel Members: Susskind, Choudhury, Campbell-Ferrari, and Koch; **Moderator:** Shafik Islam

Roundtable II: Quo vadis? Interdisciplinary Scholarship and Practice

Context: In 2006, at the beginning of our journey, we argued that the nature of water as a resource is changing. Water resources are increasingly over-used, water quality is sub-optimal, and ecological integrity is excessively taxed. Water conflicts occur when natural, societal, and political forces interact. A changing world requires a changing education. Science alone is not sufficient. Nor is policy-making that doesn't take science into account. Sustainable solutions can only come from diplomacy that takes science, policy and politics into account within water networks of variables, processes, actors, and institutions.

Now in 2017, we recognize that many of our current and emerging water problems are complex because they are interconnected and inter-dependent. Many of these boundary crossing water problems are dynamic, non-linear and are often interconnected with other problems and feedback. Policy decisions addressing these problems are complex - because processes, actors and institutions are interconnected and inter-dependent – making a range of solutions possible. But not all possible decisions are actionable. We argue that context creates the subspace for actionable outcome; we need to account for contextual capacity of effective action and the constraints present in a context to explore and implement intervention for measurable outcome(s).

Premise: The WDF hypothesizes that when water challenges stem from complex – uncertain, interconnected, and boundary crossing – system dynamics with feedback, traditional frames for problem solving can be limiting or counter-productive. Our integrative educational and research plans were designed to impart deep disciplinary skills fused with interdisciplinary perspectives. We recognize that foundational disciplinary knowledge and technical skills will vary between graduates, but all will require and need to be educated in the following scientific and professional abilities to:

- Identify, analyze, and solve a problem with appropriate normative principles, empirical theories, and available tools and techniques;
- Collaborate effectively on teams that include users and producers of data: scientists, engineers, practitioners, and decision makers with very different backgrounds and perspectives;
- Provide scientifically informed advice to decision makers in a timely and actionable way;
- Communicate results for effective action and facilitate discussion on contentious findings;
- Adapt and acquire skill sets to harness emerging technologies, techniques, and tools.

Our Water Diplomacy program has been specifically designed to educate water diplomats how to frame, formulate, design, and implement complex research projects from beginning to end with sensitivity to actionable outcomes that are grounded in the principles of equity and sustainability. What have we learned about interdisciplinary scholarship and practice? Where can we go from here? We will start with this premise and ask each panel member to focus on questions and issues related to interdisciplinarity in education and practice domain.

- **Education:** (a) What are the gaps in translating theory (e.g., intellectual puzzle like coupling of natural and human systems; integration of numbers and narratives) into practice (barriers to implementation and evaluation) for actionable outcome? (b) How is interdisciplinary education operationalized at the university level (e.g., Is simplifying metaphor of “T” a good model of interdisciplinary scholarship? How do we reconcile disciplinary requirements with interdisciplinary expectations?) (c) What are the replicable best practices to enhance interdisciplinary education (e.g., modular course elements; skill building workshops; role play simulations)? (d) What are the effective ways to impart interdisciplinary “thinking and doing” that are transferrable to different problems and contexts?
- **Practice:** (a) Does interdisciplinary education create an identity (e.g., disciplinary identity) crisis within the University as well as in professional life? (b) What transferrable skills are essential to have a life-long interdisciplinary career? (e.g., Can they write their own job description?) (c) Do interdisciplinary professionals need to be entrepreneurial to maintain their freedom to practice in an interdisciplinary way?

Then, we will have interactive conversations about the premise and related questions with the audience facilitated by the moderator. The session will be videotaped with a goal to create a book chapter that will summarize key ideas related to challenges and opportunities of interdisciplinary scholarship with a focus on educating scholars and reflective professionals to govern and manage common resource problems for actionable outcome.

Panel Members: Portney, Lantagne, Rogers, Wolf, Bandyopadhyay, Crow; **Moderator:** William Moomaw

CONNECT TO WATER DIPLOMACY



Joining the Water Diplomacy Network is free and connects individuals and institutions to the research and accomplishments of other network partners. This is also a platform to share your work and shape the emerging notion of water diplomacy. In 2014, we will offer several travel grants to support presentation of research or case studies relevant to water diplomacy, as well as Water Diplomacy Workshop scholarships for Network members. Visit network.waterdiplomacy.org to join our growing network of water professionals.

WATERDIPLOMACY.ORG

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GRADUATE PROGRAM

Our Tufts University program educates doctoral students who will become the next generation of teachers and scholars of water diplomacy. This program teaches interdisciplinary water professionals to think across boundaries, integrate explicit and tacit knowledge, and link knowledge and action from multiple perspectives to help resolve water issues through mutual-gains negotiations.



RESEARCH COORDINATION NETWORK

This group of researchers and practitioners synthesize theory and practice to address complex water problems where natural, societal, and political elements cross multiple boundaries and scales. Our global Water Diplomacy RCN explores ways to incorporate recent developments in complexity theory and negotiations to generate actionable knowledge for collaborative adaptive water management.



WORKSHOP

Our annual “train-the-trainer” event builds the capacity of senior water professionals. Through interactive presentations and collaborative exercises, participants master water network management tools, and gain the skills needed to teach these tools to others. In the past 3 years, we’ve trained 87 water professionals from 34 countries.



AQUAPEDIA CASE STUDY DATABASE

This freely accessible, managed wiki for water case studies provides a platform to access and share reliable and relevant information and wisdom. People who use and produce explicit and tacit water knowledge can contribute to and learn from AquaPedia. The potentially transformative and collaborative power of AquaPedia will help make water a more flexible and expandable resource.