International Collaborations

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My first, substantive experience with international collaborations, after my receipt of my PhD from Brown University, was taking part in a European Advanced Summer Institute in Umea, Sweden, June 9-28, 1986.

At this Institute it was announced that I was the recipient of the Kempe Prize, along with Professor Jacques Thisse, which led to stronger connections with Sweden.
When I was approached several years later to apply for a Distinguished Guest Professorship at the Royal Institute of Technology (KTH) in Stockholm, Sweden, in a competition across all fields, I did so. KTH wished to increase the visibility of female academics.

From June -December 1996, I assumed this appointment, taught a course there, and had offices in two different departments.
During this period, my family and I lived at the Wenner Gren Center in Stockholm. This is a community of international scholars and researchers (150 families). Living and working in Sweden was an outstanding experience.

In order to continue the linkages that were established, in 2000, I applied for, and received, a grant from NSF – *U.S.-Sweden Collaborative Research: Sustainable Transportation and Land Use in the Information Society.*

As part of this grant, a doctoral student of mine spent time at KTH.
The experiences in Sweden led me to actively pursue other international collaborations and experiences (over and above the usual international conferences).

In 2001, I was awarded a Fulbright / University of Innsbruck Distinguished Faculty Chaired Professorship and my family and I lived from March – June, 2002, in Innsbruck, Austria.
Anna Nagurney and her family lived in Austria for four months while she taught courses in network economics, financial networks, and sustainable transportation at the SOWI Business School of the University of Innsbruck.

"The exchanges and discussions surrounding the applications of the material to Austria and Europe as compared to the United States were lively, fascinating and often filled with laughter," she explained.

As a result of her stay, several students would like to continue their studies on topics that Nagurney taught and have suggested that they might participate in an exchange program with the United States.

In addition to her busy class schedule, she gave guest lectures in Switzerland, France, and in Germany at the John F. Kennedy Institute in Berlin. Nagurney was also able to continue her scholarly research on Supernetworks, Supply Chain Management, Electronic Commerce, and International Financial Networks while in Innsbruck. "My research productivity was maintained with the completion and submission of several papers and the revision and subsequent acceptance of two additional papers," she said.

Besides the professional fulfillment from Nagurney's Fulbright experience, her family members' lives were also enriched by living, working, and attending school in the majestic Austrian Alps. According to Nagurney, her eight-year-old daughter's experience was greatly enhanced by attending an Austrian school.

"My daughter's experiences in her Austrian Volksschule are alone worth the stay in Innsbruck," noted Nagurney. "Not a day goes by that she does not mention how much she loved living in Austria and says that whenever I can go on another Fulbright adventure, she will be ready."

"The Fulbright experience at the University of Innsbruck, Austria exceeded my expectations," she added. "The students in my courses called Innsbruck paradise with which I fully agree. Clearly, I hope to return someday!"
While at the University of Innsbruck, I taught several courses, conducted research, and my family and I had experiences that we treasure to this day. We have returned on several occasions.

Also, one of my students there, Tina Wakolbinger, later became my PhD student at the Isenberg School of Management at UMass Amherst. She is now a Full Professor at the Vienna University of Economics and Business.
The international collaborations multiplied and together with Braess, we translated from German to English the Braess (1968) article with this famous paradox:

**On a Paradox of Traffic Planning**

by Braess, Nagurney, Wakolbinger, which appeared in the November 2005 issue of *Transportation Science*
Sometimes one has to travel to forge international collaborations, and, sometimes, one gets approached to participate in international collaborations.

It is important to avail oneself of funding for such collaborations.
Two female researchers, Patrizia Daniele, from Italy, and Monica-Gabriela Cojocaru, based in Canada, the country of my birthplace, had been following and citing my research and had contacted me.

In order to further our research (and to allow us to meet, face to face) I applied for a Rockefeller Foundation Bellagio Center team residency at the Center on Lake Como, Italy.
Bellagio Research Team Residency
March 2004
2005-2006, I was one of twelve Science Fellows at the Radcliffe Institute for Advanced Study at Harvard University.

Professor Daniele visited me for several months there and we worked with Professor David Parkes of Harvard on dynamic networks.
In March 2008, I was a Fulbright Senior Specialist in Business Administration at the University of Catania, Italy.

Professor Patrizia Daniele and I organized a workshop on complex networks, and I gave several lectures, plus reviewed the curriculum in operations research there.
In May 2008, I organized the Workshop: Humanitarian Logistics: Networks for Africa, under the auspices of the Rockefeller Foundation's Bellagio Center Conference Programs; http://hlogistics.isenberumass.edu/
Virtual Center for Supernetworks
Now that several of my former doctoral students have academic positions in different countries this further extends our international collaborations.

Other recent international activities have included serving on the Advisory Board of a European Union funded project COMISEF and on the Advisory Council of the Networks Laboratory in Russia.

The opportunities to serve as an external examiner on doctoral dissertations is another great experience. I have done this for doctoral students in Norway, New Zealand, and Canada.
It is a real honor and privilege to be appointed a Visiting Professor at the School of Business, Economics and Law at the University of Gothenburg.

This week I will be speaking on some of my research on supply chains and on financial networks. These are two topics of great interest to me.
I look forward to collaborations with you on a variety of networks themes from transportation and logistics to sustainability to finance and economics.

Thank you for the opportunity to speak today.
The Virtual Center for Supernetworks at the Isenberg School of Management, under the directorship of Anna Nagurney, the John F. Smith Memorial Professor, is an interdisciplinary center, and includes the Supernetworks Laboratory for Computation and Visualization.

**Mission:** The mission of the Virtual Center for Supernetworks is to foster the study and application of supernetworks and to serve as a resource to academia, industry, and government on networks ranging from transportation, supply chains, telecommunication, and electric power networks to economic, environmental, financial, knowledge and social networks.

**The Applications of Supernetworks Include:** complex networks and decision-making; critical infrastructure from transportation to electric power and the Internet; financial, economic, and social networks; energy and the environment; global supply chain management; corporate social responsibility; risk management; network vulnerability, resiliency, and performance metrics; ecological networks; humanitarian logistics and healthcare.

http://supernet.isenbg.umnass.edu