

CHRIS BRONK, Ph.D.

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<http://www.uh.edu/technology/departments/ilt/people/faculty/?l=bronk&f=chris>

PROFESSIONAL EXPERIENCE

UNIVERSITY OF HOUSTON, Houston, TX

Assistant Professor, Computer and Information Systems 2014 – Present

Associate Director, Center for Information Security Research and Education 2014 – Present

RICE UNIVERSITY, Houston, TX

Director – Program on Energy and Cybersecurity, Center for Energy Studies 2013 – 2014

Fellow – Baker Institute for Public Policy 2006 – 2014

Adjunct Associate Professor – Department of Computer Science 2011 – Present

Lecturer – Department of Computer Science 2007 – 2011

U.S. DEPARTMENT OF STATE, Washington, D.C.

Senior Advisor – Office of eDiplomacy 2009 – 2015

Foreign Service Officer 2002 – 2006

UNIVERSITY OF TORONTO, Toronto, ONT

Senior Fellow in Cyber Geopolitics – Canada Ctr. for Security Studies 2012 – 2014

SYRACUSE UNIVERSITY, Syracuse, NY

Senior Research Fellow 2010

SYRACUSE LANGUAGE SYSTEMS, Syracuse, NY

Technical Staff Coordinator/Software Developer 1995 – 2000

EDUCATION

SYRACUSE UNIVERSITY MAXWELL SCHOOL, Syracuse, NY

Ph.D. in Political Science, 2006

* Dissertation: In Confidence: Information Technology, Secrecy and the State.

* Subfields: International Relations and Public Administration

MA in Political Science, 2001

YONSEI UNIVERSITY, Seoul, S. Korea

Coursework in Asian Studies and Korean, 2001 – 2002

UNIVERSITY OF WISCONSIN, Madison, WI

BS in History, with distinction, 1995

OXFORD UNIVERSITY, Oxford, UK

Coursework in International Politics and History, 1992

HONORS

UNIVERSITY OF HOUSTON

*Faculty award – shared with Wm. Arthur Conklin.

U.S. DEPARTMENT OF STATE, Washington, DC

* Recipient of the Benjamin Franklin Award.

* Tenured as a Foreign Service Officer of the United States, January 2006.

SYRACUSE UNIVERSITY, MAXWELL SCHOOL, Syracuse, NY

* Syracuse All-University Doctoral Prize, 2005.

* De Sardon-Glass Research Assistance-ship from the Global Affairs Institute, Maxwell School of Citizenship, Spring 2000.

* Information Management & Technology Interdisciplinary Fellowship, 2001-2002.

REFEREED JOURNAL PUBLICATIONS

Chris Bronk and Gregory Anderson, "Encounter Battle: Engaging ISIS in Cyberspace," *Cyber Defense Review* 2 (1) 2017.

Asal, Victor, Chris Bronk, Ken Cousins, Jacob Mauslein, Amanda Murdie, and Joe Young. Forthcoming. "Repression, Education and Politically Motivated Denial of Service Attacks." *Journal of Global Security Studies*. Volume 1(3), 1 August 2016, Pages 235–247.

Theodore Book & Chris Bronk, "I see you, you see me: Mobile advertisements and privacy," *First Monday: Peer Reviewed Journal on the Internet* 21 (3) 2016.

Ijeoma Onyeyi, Morgan Bazilian and Chris Bronk, "Cyber Security and the Critical Energy Infrastructure," *The Electricity Journal*, 27:2, 2014.

Chris Bronk and Eneken Tikk, "The Cyber Attack on Saudi Aramco," *Survival: Global Politics and Strategy*, 55:2, 2013.

Chris Bronk, Cody Monk and John Villasenor, "The Dark Side of Cyber Finance," *Survival: Global Politics and Strategy*, 54:2, 2012.

Chris Bronk, "Blown to Bits: China's War in Cyberspace, August – September 2020," *Strategic Studies Quarterly*, Spring 2011.

Chris Bronk and Bernardo Gonzalez-Arechiga, "Border Security: From a Bilateral to Truly Bi-national Policy Process," *Latin America Policy*, 2 (2), 2011.

Chris Bronk, "Treasure Trove or Trouble: Cyber-Enabled Intelligence and International Politics," *American Intelligence Journal*, 28(2), 2011.

Chris Bronk, "Webtapping: Securing the Internet to Save Us from Transnational Terror?" *First Monday*, 13(11), November 2008.

Chris Bronk, "Hacking the Nation State: Security, Information Technology and Policies of Assurance," *Journal of Information Systems Security*, Vol. 17, No. 3, 2008.

CONFERENCE PAPERS

J. C. Dressler, C. Bronk, and D. S. Wallach. Exploiting military opsec through open-source vulnerabilities. In *2015 IEEE Military Communications Conference (MILCOM '15)*, Tampa, FL, Oct. 2015.

Rima. S. Tanash, Z. Chen, T. Thakur, C. Bronk, D. Subramanian, D. S. Wallach, "Known unknowns: An analysis of Twitter censorship in Turkey," *Workshop on Privacy in the Electronic Society*, Denver, CO, Oct. 2015.

Chris Bronk, "A Prime Directive: Placing Agendas for Cyberspace in Perspective," paper presented at the *54th Conference of the International Studies Association*, San Francisco, April 2013.

Chris Bronk, "From Tunis to Tunis: Considering the Planks of US International Cyber Policy 2005-2011," paper presented at the *53rd Conference of the International Studies Association*, San Diego, April 2012.

Chris Bronk, "A Governance Switchboard: Scalability Issues in International Cyber Policymaking," *Cyber Dialogue 2012: What is Stewardship in Cyberspace?* University of Toronto, March 2012.

Chris Bronk, "Between War and Peace: Considering the Statecraft of Cyberspace from the Perspective of the U.S. State Department," paper presented at the *52nd Conference of the International Studies Association*, Montreal, March 2011.

Chris Bronk and Tiffany Smith, "Diplopedia Imagined: Building State's Diplomacy Wiki," *2010 International Symposium on Collaborative Technologies and Systems*, Chicago, IL, May 2010.

Chris Bronk, "Diplomacy Rebooted: Making Digital Statecraft a Reality," *Foreign Service Journal*, March 2010.

Chris Bronk, "Fusing Information to Distill Actionable Intelligence: A Case Study of the DOD's Interagency Collaboration Limited Objective Experiment," paper presented at the *51st Convention of the International Studies Association*, New Orleans, LA, February 2010.

Chris Bronk, Devika Subramanian, Derek Ruths, John Miller and Nicholas Muscara, "Relational Linkages of Associational Networks Embedded in Terrorist Events," *Networks in Political Science (POLNET)*, Kennedy School of Government, Harvard University, June 2008.

Chris Bronk, "May a Thousand Wikis Bloom: the Politics of Ubiquitous Web Publishing in the U.S. Federal Bureaucracy," presented to the *American Political Science Association*, Chicago, IL, September 1, 2007.

Chris Bronk, "Planning, Legislating, and Implementing the Information Revolution in South Korea," presented to the *American Political Science Association*, Chicago, IL, September 2004.

Chris Bronk, "Western Military Intervention in the Peacemaking Process," presented at *The Interdisciplinary Forum on Military Studies*, Ohio State University, November 2000.

BOOK

Bronk, Chris, *Cyber Threat: the Rise of Information Geopolitics in U.S. National Security*, Praeger: Santa Barbara, 2016.

BOOK CHAPTERS

Chris Bronk, "Cybersecurity," in *The Handbook for Defence Studies*, John Deni and David Galbraith, eds., Routledge: Abingdon 2018.

Chris Bronk, "Hacks on Gas: Energy, Cybersecurity, and Defense," in John Deni, ed., *New Realities: Energy Security in the 2010s and Implications for the U.S. Military*, Carlisle Barracks: Army War College Security Studies Institute, 2015.

Chris Bronk and Derek Ruths, "Classification Inference & Event Attribution," in *Policy Informatics*, Kevin DeSouza and Erik Johnson, eds., Routledge: Abingdon 2014.

Chris Bronk, "Between War and Peace: Considering the Statecraft of Cyberspace," in *The Secure Information Society*, Sandro Gaycken ed., Springer 2013.

Chris Bronk, "Cyber: Building Organizational Response Policy for Information Security Incident," in *Cyber Security: Public Sector Threats and Responses*, Kim Andreasson, ed., London: Taylor & Francis 2011.

ENCYCLOPEDIA

Bronk, C. 2013. Cyberconflict. *Wiley-Blackwell Encyclopedia of Globalization*.

REVIEWS

Chris Bronk, Cyberwar and Cybersecurity; What Everyone Needs to Know (Review), *Strategic Studies Quarterly*, Summer 2014.

Chris Bronk, Conquest in Cyberspace (Review), *Journal of Information Technology and Policy*, Spring 2008.

FORTHCOMING AND UNDER REVIEW

Book Chapter

Chris Bronk, "Cyber Propaganda," in Garth Jowett & Victoria O'Donnell, *Propaganda and Persuasion*, Seventh Edition, SAGE: New York.

Journal Article

Chris Bronk, "Getting Creative on What Will Do: Cyber Espionage, Conflict and Covert Action."

POLICY AND WHITE PAPERS

Chris Bronk, "Imagining the limits of complexity in computerized critical infrastructure," *International Journal of Critical Infrastructure Protection* (2016).

Chris Bronk, "Two Securities: How Contemporary Cyber Geopolitics Impacts Critical Infrastructure Protection," *International Journal of Critical Infrastructure Protection* (2015), pp. 24-26.

Chris Bronk, "Risk Intelligence Governance in the Age of Cyberthreats," Baker Institute for Public Policy, April 2013.

Chris Bronk and Adam Pridgen, "Cybersecurity Issues and Policy Options for the U.S. Energy Industry," Baker Institute for Public Policy, September 2012.

Chris Bronk and Scott Smith, "How Data Visualization Can Change Diplomacy," *Foreign Service Journal*, March 2012.

Chris Bronk, Tory Gattis, Vivas Kumar, and Robyn Moscovitz, "Considering a New Information Infrastructure for the City of Houston," Baker Institute for Public Policy, October 2011.

John Villasenor, Chris Bronk and Cody Monk, "Shadowy Figures: Tracking Illicit Financial Transactions in the Murky World of Digital Currencies, Peer-to-Peer Networks, and Mobile Device Payments," published jointly between the Baker Institute for Public Policy and Brookings Institution, August 2011.

Tao Zhu, Chris Bronk, and Dan Wallach, "An Analysis of Chinese Search Engine Filtering," arXiv, 2011.

Chris Bronk and Tony Payan, "Managing the U.S – Mexico Border: Human Security and Technology," Baker Institute for Public Policy, Houston, TX, April 2009.

Chris Bronk, "Wiretapping, Surveillance and the Internet," Baker Institute for Public Policy, Houston, TX, January 2008.

Chris Bronk and Kirsten Jones, "Municipal Connectivity Provision: Societal Imperative or Fiscal Folly," Baker Institute for Public Policy, Houston, TX, June 2008.

Chris Bronk, "The Electronic Passport or What Computers Can't Do," *Managing Borders in a New Security Environment*, a conference of the Migration Policy Institute, Laredo, TX, August 11, 2007.

Chris Bronk, "Innovation by Policy: A Study of the Electronic Passport," Baker Institute for Public Policy, Houston, TX, May 2007.

Chris Bronk, "Law, Trust and the Wired World: Privacy, Profiling and E-Commerce," *Maxwell Review*, Spring 2001.

SPONSORED RESEARCH AND RESEARCH FUNDING

NSA 2017 Cybersecurity Workforce Education – CNAP Initiatives, 2017, \$166,948.42, PI.

NSF SaTC-EDU:EAGER:A Wiki Space for Information Security Education Exchange, 2015-2017, \$286,819.00, Co-PI with Wm. Arthur Conklin.

NSA 2015 CAE Cybersecurity Research Grant – BAA-003-15, 2015, \$130,807 – Co-PI with Wm. Arthur Conklin and Deniz Gurkan.

DOE Cyber Resilient Energy Delivery Consortium sub-award through Univ. Illinois, \$918,400 total over 2015-2020, \$256,032 in year 1, Co-PI with Wm. Arthur Conklin and Deniz Gurkan.

Clarkson Aerospace, Clarkson Aerospace, Cyber-Spectrum Research and Technology Development Virtual Environment, \$144,022. 2015, PI.

International Association of Oil and Gas Producers, 2014, \$17,500, grant for research.

Clarkson Aerospace, 2013, \$25,000, programmatic gift.

Clarkson Aerospace, 2012, \$25,000, travel support gift for international cybersecurity policymaking.

Deloitte, 2012, \$40,000, for research and conference proceedings on cybersecurity and the energy industry.

Kelly Day Foundation, 2011, \$150,000, for research on the Internet and Middle East politics.

AT&T, Cybersecurity Research and Policy Analysis 2011, \$80,000.

Enriching Rice through Information Technology, 2010, \$24,985, *Connecting the Dots: Non-State Actors, Security and Information Overload*, with Ric Stoll and Devika Subramanian.

AT&T, 2008, \$40,000, *The Conference on Convergence and Connectivity*.

Microsoft, 2008, \$10,000, *The Conference on Convergence and Connectivity*.

U.S. Strategic Command (STRATCOM), \$26,000, Sponsored research in collaboration technologies and information fusion, with Joe Warren and Derek Ruths.

Methodist Hospital and Cornell University, Weill School of Medicine, 2007, \$4,000, *Electronic Health Record Adoption in the Ambulatory Clinic Setting*.

Rice University Center for Leadership, 2007, \$4,000 *Ethnographic Study of Community WiFi Internet Access*.

INVITED PRESENTATIONS & WORKSHOPS (Selected)

Cyber Norms Conference, Massachusetts Institute of Technology, March 2018 (organizer)

Student Conference on National Affairs, Texas A&M University, April 2017

Cyber Norms Conference, Massachusetts Institute of Technology, March 2016 (organizer)

Workshop on Strategic Use of Offensive Operations in Cyberspace, Stanford University, March 2016
Cybered Futures and Conflict/Governance Implications, U.S. Naval War College & Brown University, September 2015

Student Conference on U.S. Affairs, USMA-West Point, November 2014 & November 2016

Rice Engineering and Construction Forum, Rice University, September 2014

Student Conference on National Affairs, Texas A&M University, April 2014

Cyber Norms Conference, Massachusetts Institute of Technology, March 2014

John Tower Center, Southern Methodist University, February 2014

Next Generation Texas, University of Texas, January 2014
Cybersecurity and Energy, New Realities: Energy Security in the 2010s and Implications for the U.S. Military, U.S. Army War College, November 2013
Oil and Gas Mobility Summit, October 2013
Connaught Institute, University of Toronto, July 2013
Deloitte Energy Conference, May 2013
ISACA National Meeting, May 2013
Rice University/Fullbright & Jaworski Energy Directors Conference, March 2013
Academic Collaboration, Federal Bureau of Investigation, January 2013
Cyber Security in Oil & Gas, Council on Foreign Relations, January 2013
Cyber Norms Conference, Massachusetts Institute of Technology, September 2012
Tech@State: Wiki.Gov, July 2012 (organizer)
National Aeronautics and Space Administration, Open Source Summit, June 2012
Department of Defense, Strategic Multilayer Assessment, January 2012
International School on Disarmament and Research on Conflicts (ISODARCO), January 2012
Cyber Geopolitics, Federal Bureau of Investigation, April & November 2011, March 2012
South by Southwest (SXSW) Interactive, March 2011 & March 2012
American Petroleum Institute, November 2010
IJIS Institute, January 2010
American Council for Technology – Industry Advisory Council, May 2009
University of St. Thomas, April 2009
Secureworld Houston Exposition, February 2009
Migration Policy Institute, February 2009
Intelligence and National Security Alliance, July 2008
Secretaria de Relaciones Exteriores de Mexico, April 2008
El Colegio de Mexico, March 2008
University of Texas, School of Public Health, March 2008 & April 2009
ISC2, March 2008
Exxon-Mobil Corporation, October 2007
Greater Houston Chamber of Commerce, September 2007
Rockefeller College, SUNY Albany, April 2007
Wikimania: Conference of the Wikia Foundation, August 2006
National Foreign Affairs Training Center, March 2006
George Washington University, February 2006
Universidad Iberoamericana, July 2004

TEACHING

University of Houston

Computer and Information Science 2237 – Fundamentals of Information Security
Computer and Information Science 3351 – Intrusion Detection and Incident Response
Computer and Information Science 6321 – Introduction to Information Security
Computer and Information Science 6322 – Enterprise Security
Computer and Information Science 6397 – Critical Thinking in Cybersecurity

Rice University

Computer Science 301 – Technology and Politics in the Information Age
Computer Science 514 – Energy, Sustainability & IT
Political Science 470 – International Relations
Political Science 473 – The Craft of Intelligence

Continuing Studies – National Security in the Post-Cold War, Post-9/11 World

PROFESSIONAL SERVICE

Academic Honesty Hearing Officer, UH, 2014-2017
Dean’s Advisory Committee, UH College of Technology, 2016-Present
Faculty Advisor, UH Cybersecurity Club, 2016-Present
Faculty Advisor, UH Cyber Collegiate Defense Competition (CCDC) Team, 2015 - Present
Assistant Professor Search Committee–Security, UH, 2017
Assistant Professor Search Committee–CIS, UH, 2017
Instructional Assistant Professor Search Committee–CIS, UH, 2017
Assistant Professor Search Committee–Security, UH, 2015
Assistant Professor Search Committee–AI & Machine Learning, UH, 2015
Member-at-Large, US ACM Council, 2013.
Member, Rice University Information Technology Task Force, 2012.
Member, Rice University Information Technology Advisory Committee, 2008 – 2014.
Member, Greater Houston Partnership Technology Infrastructure Committee, 2009 – 2012.
Co-Chair, Rice University Educational Technology Committee, 2009 – 2010.
Mentor, Rice University Fellowships and Awards Community, 2007 – 2014.
Member, Houston Serious Games Consortia, 2006 – 2012.
Member, Executive Committee, Information Technology and Politics section, American Political Science Association, 2007 – 2009.
Reviewer, International Digital Government Working Group, Center for Technology in Government, SUNY Albany, 2006.
Hometown Diplomat, U.S. Department of State, Summer 2005.

REVIEWER

Blavatnik Interdisciplinary Cyber Research Center, Communications of the ACM, Journal of Information Systems Security, Journal of Information Technology and Politics, International Studies Quarterly, Science, Middle East Journal, Democracy and Security, Czech Science Foundation, Information Security Journal – A Global Perspective, Strategic Studies Quarterly, European Journal of International Relations, IGI Global, First Monday, Security Dialogue, Contemporary Security Policy, The Information Society

GRADUATE STUDENTS

Committee member for doctoral theses of:

Rima Tanash, Rice University, 2017
Adam Pridgen, Rice University, 2017
Theodore Book, Rice University, 2015
Judson Dressler, Rice University, 2015
Anhei Shiu, Rice University, 2014
Aaron Brantly, University of Georgia, 2012

Master’s thesis (UH):

Afnan Abdulatif (Forthcoming)*
Nicole Bushong (Forthcoming)*

Pablo Delgado (Forthcoming)*
Pranav Narain (Forthcoming)*
Nafisa Jassani (Forthcoming)*
Barry Yim, (Forthcoming)*
Ayushman Dutta, 2017*
Gregory Anderson, 2017*
Xi Lu, 2017
Santosh KC, 2017
Anthony Moyegun, 2016*
Arthur Dunbar, 2016
Adelina Kaza, 2016*
Matt Rhodes, 2015*

* Denotes thesis chair

Master's project

Shaun Erik Tavitiki (Forthcoming)
Arjun Bhardwaj (Forthcoming)
Fidelis Agbor, 2017

TECHNICAL SKILLS

Technically proficient in: client-server application design, object-oriented software development, HTML, SQL, SAS, SPSS, Lotus Notes, Visio, Linux, Networking, LaTeX, Ethernet, Internet and Telecommunications Protocols, Service Oriented Architecture (SOA), MediaWiki, PHP, and PERL.

AFFILIATIONS

Member of the Association for Computing Machinery (ACM) and International Studies Association (ISA).

Former member of the American Political Science Association (APSA), American Foreign Service Association (AFSA), Information Systems Security Association (ISSA), and Federation of American Scientists (FAS).

PRESS

Appearances in The New York Times, Foreign Policy, Der Spiegel, Scientific American, NPR, The Wall Street Journal, The Guardian, ABC, CNN, BBC, Australian Broadcasting Corporation and the Houston Chronicle.

LANGUAGES

Fluent speaker of Spanish.