LANCE J. HOFFMAN

Professor Emeritus
Computer Science Department
The George Washington University
Washington, D. C. 20052
lancehoffmancyber@gmail.com

B. S. Mathematics, Carnegie Institute of Technology   1964
M. S. Computer Science, Stanford University   1967
Ph. D. Computer Science, Stanford University   1970

VITA SUMMARY

I.   Professional Experience

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I. PROFESSIONAL EXPERIENCE

A. Salaried Positions Held

1977-	The George Washington University, Washington, D. C.
2009-	Director, Cyber Security and Policy Research Institute
2004-	Professor Emeritus
2000-	Distinguished Research Professor
1993-1998	Director, Cyberspace Policy Institute (formerly Institute for Computer and Telecommunications Systems Policy)
1985-2002	Professor
1977-1985	Associate Professor, Department of Electrical Engineering and Computer Science
June 1985-December 2003	Hoffman Business Associates, Inc., Chevy Chase, Md., President
July 1970-June 1977	University of California, Department of Electrical Engineering and Computer Science, Berkeley, California, Assistant Professor
July 1969-June 1971	National Academy of Sciences, Project on Computer Data Banks, Washington, D. C., Staff Associate
Sept. 1966-June 1970	Stanford University, Stanford, California
1967-1970:	Staff Associate, Stanford Linear Accelerator Center
1967-1969:	Teaching Assistant, Computer Science Department
1966-1970:	Research Assistant, Computer Science Department
June 1967-Sept. 1967	Bolt Beranek and Newman, Inc., Cambridge, Mass., Senior Systems Programmer
June 1964-Sept. 1966	Control Data Corporation, St. Paul, Minn. and Palo Alto, Calif., Associate Programmer Analyst
June 1963-Sept. 1963	System Development Corporation, Santa Monica, California, Student Associate
Sept. 1962-June 1963	Carnegie Institute of Technology, Pittsburgh, Pa., Systems Programmer

B.   Selected Panels and Invited Talks

28 Feb 2019, Cosmos Club Washington, "The Wild West of Cyberspace: Is the Sheriff on the Way?"

17-18 March 2015, Sarasota Institute of Lifelong Learning, talks on "Who's Watching You? Privacy in the Internet Age" and "Cybersecurity Chaos: Impacts on Countries, Corporations, and Consumers"

18 June 2013, panelist, Expert Workshop on Cybersecurity and Privacy, Defense Advanced Research Projects Agency, Arlington VA

14 March 2013, panelist, "Systemic Risk: Securing Big Data, Bloomberg Big Data Conference, Washington"

8 Sept 2010, panelist, "Cyber Security in East Asia and Policy Cooperation between Japan and the U. S.", US-Japan Research institute conference

21 July 2010, panelist, "Cyber Security and Data Fusion", Annual Technology Review Conference, International Test and Evaluation Association, Charleston, SC

27 January 2010, moderator, "Cyberwar: Is Congress Preparing for the Common Defense?" at the State of the Net Conference in Washington. The video recording of it is at http://www.ustream.tv/recorded/4256330.

1 November 2004, Moderator, Can electronic voting be better than voting without computers?, CyberSecurity Awareness Forum, George Washington University, Washington, DC

8 April 2003, Keynote Speaker, Fourth Annual Information Security Symposium, Center for Education and Research in Information Assurance and Security, Purdue University, West Lafayette, IN

21 March 2003, Government Pattern Analysis: Securing Terrorists While Preserving Privacy?, Advisory Committee to Congressional Internet Caucus, Washington, DC

19 May 2002, Personal Privacy in the Digital Age: The Challenge for State and Local Governments, Arlington, VA

15 May 2002, Computer Security in the Post-Attack Age, Tech

Talk, National Press Club, Washington, DC

10 May 2002, Information Policy in the Post-Attack Age, Rand Corp., Santa Monica, CA

9 May 2002, Case Study on Implementing an Internet Based Transactional System, Computer and Internet Law Institute, Law School, University of Southern California, Los Angeles, CA

18 April 2002, Session Chair, Role Play on Intellectual Property and the Internet, 12th ACM Conference on Computers, Freedom, and Privacy, San Francisco, CA

11 December 2001, "Computer Security and Privacy in the Post-Attack Age", Internet Security Forum, Alexandria, VA

3 December 2001, "Computer Security: Internet Under Siege", 10th Anniversary Celebration, GWU at Loudon-Dulles.

30 November 2001, "Balancing Consumer Privacy Interests with Monitoring and Security Requirements", Conference on Ensuring End-to-End Security for Wireless Networking, Washington.

19-20 April 2001, International Symposium on Network Economy and Economic Governance, Beijing, China

23-24 April 2001, International Symposium on Government and E-commerce development, Ningbo, China (www.isged.org.cn)

24-25 March 2001, "e-Government", keynote address, Conference on e-Government in the Baltic Sea Region, Schwerin, Germany

14 March 2001, "Regulation in the Internet", Global Forum, Naples, Italy

17 May 2000, "Protecting Your Enterprise in the Information Economy", U. S. Consulate, Hamburg, Germany

20 October 1999 Panel Chair, "Teaching Information Warfare-- Lessons Learned", 22nd National Information Systems Security Conference, Crystal City, VA

3 February 1999 Presenter, "How the Internet Works", 22nd Mid-Winter Institute, American Intellectual Property Law Association, Lake Buena Vista, Florida

4 October 1998 Panelist   on   Electronic   Commerce,   National
Information Systems Security Conference,

26 September 1998   Lecturer to Alumni College, The George
Washington University, on "Are Big Brother and Hackers Real?
Security and Privacy on the Internet"

24 June 1998 Invited panelist, U. S. Commerce Dept. Public
Meeting on Internet Privacy

11 May 1998 Invited speaker, Association for Computing Machinery
Policy'98   Conference,   "Teaching   Electronic   Commerce   to   a
Multidisciplinary Class: Lessons Learned"

21 Nov 1997   Invited speaker, Workshop on Educational Modules
in the Field of International Relations and Security, "HelpBot --
a MultiMedia Tool to Describe Computer Systems and Educate Their
Users", ETH Zurich, Switzerland

18 Apr 1997   Invited speaker, U. S. Congress Internet Caucus,
    "Privacy Issues Unique to the Internet"

11 Apr 1997   Invited   speaker,   National   Policy   Association,
    Committee on New American Realities, "Unlocking the Future:
    The Application of Information Technology"

3 Apr 1997   Invited   Distinguished   Lecturer,   Purdue
    University, "Internet security: new problems, new solutions"

13 Mar 1997   Panel Chair, "What's Hot?", 7th Conference on
    Computers, Freedom, and Privacy, Burlingame, CA

12 Mar 1997   Panelist, "Spamming", 7th Conference on
 Computers, Freedom, and Privacy, Burlingame, CA

6 Mar 1997   Invited speaker, Security and Privacy in Project
                Phoenix, Global Forum on Telemedicine,
                Washington, D. C.

1996, 1997   Invited   Speaker,   Security   and   Privacy   Policy
                Issues in Emerging National and Global Networks,
                at   □Inside   Washington: Business   and   Public
                Policy□, Brookings Institution

6 May 1996   Panel Chair, □Making Your Net Site a Safe Place
                to do Business□, Digital Commerce Conference,

Washington, D.C.

26 March 1996   Computer Crime and Civil Liberties, John Hopkins
                 University School of Advanced International
                 Studies

19 March 1996   Panelist, Computer Security, Federal Library and
                 Information Center Committee 1996 Forum

6 March 1996   Moderator, ☐Law Enforcement on the Internet:
                 Prosecutions and Privacy☐, D. C. Bar 1996 Winter
                 Convention

May 1995   Keynote   Speaker,   Information   Security,
                 International   Federation   of   Information
                 Processing, Capetown, South Africa

7 Dec 1994   Stanford Vital Issues Forum, "Building in Big
                 Brother", panel moderator

14 July 1994   Organizer and featured speaker, "Encryption Wars on
                 the Global Information Highway: Beyond the Clipper
                 Chip   Battle",   Center   for   Strategic   and
                 International Studies

9 May 1994   Co-moderator, "The Great Clipper Debate: National
                 Security or National Surveillance", Georgetown
                 University Law School

26 Jan 1994   Invited panelist, National Security: Classification
                 of Information, Government Secrecy, Science and
                 Technology
                 Freedom Forum on "Can Democracy Survive New
                 Technology?"

19 Oct 1993   University   Symposium,   The   George   Washington
                 University,   Private   Freedom   vs.   Public
                 Responsibility

1993   Invited panelist, Technological Strategies for
                 Protecting Intellectual Property in the Networked
                 Multimedia Environment, April 1993, Harvard
                 University

1992-1993   Panel chair, Digital telephony and cryptographic
                 privacy, National Computer Security Conference and
                 the Third Conference on Computers, Freedom, and

Privacy

1992	Invited speaker, Vulnerability, International Federation of Information Processing Congress, Madrid
1992	Invited speaker, Computers, Freedom, and Privacy, Australian Computer Society
1991	Invited speaker, Computer Security, numerous universities and institutes in China and Japan
1991	Keynote speaker, SecurTech '91, Crystal City, VA
1991	Panel chair and debate moderator, The First Conference on Computers, Freedom, and Privacy, Burlingame, CA
1990	Invited panelist, Risk Analysis, 13th National Computer Security Conference
1990	Invited panelist, Network Policy Considerations, 13th National Computer Security Conference
1990	Invited to address the Computer System Security and Privacy Advisory Board of NIST on Policy Implications of National and International Networks
1990	Invited tutorial, Introduction to Computer Security, Information Security and Integrity Systems Symposium, University of Houston
1990	Panel Chair, Computer Viruses, Annual Meeting of the American Association for the Advancement of Science, New Orleans
1989	Session chair, Management Responsibility vs. Individual Rights, 12th National Computer Security Conference
1989	Testimony before U. S. Congress House of Representatives Committee on Government Operations on the Computer Security Act of 1987 and Committee on the Judiciary on computer virus legislation
1989	Invited tutorial, Introduction to Computer Security, 12th National Computer Security

Conference

1989	Session chair, Management Responsibility vs. Individual Rights, 12th National Computer Security Conference
1989	Testimony before U. S. Congress House of Representatives Committee on Government Operations on the Computer Security Act of 1987
1988	National Bureau of Standards Workshop on Risk Analysis, Denver
1988	Panel Chair and Organizer, Security and Reliability of Computerized Vote-Counting Systems, COMPASS 88, National Bureau of Standards
1988	Facilitator, Election Center Planning Meeting No. 1, San Francisco
1987	Invited Speaker, New Law Workshop and Seminars, California County Clerks Association, Sacramento
1987	Invited Speaker, Fourth United Kingdom National Computer Security Conference, Windsor
1987	Computerized Elections -- Security, Reliability, and Administrative Problems, Ohio Secretary of State's 1987 Summer Conference
1987	Taking Security Technology Out of the Lab into the Marketplace: Lessons Learned, The Market for Information Security Products and Services Conference, Washington, DC.
1986	Session Chairman, Society for Risk Analysis National Conference
1986	Bank Administration Institute, Automated Risk Analysis, Atlanta
1986	4th PC Faire, Power Users, San Francisco
1985	Wang Institute Distinguished Lecturer
1985	Risk Analysis, Federal DP Expo

1985	EDP Auditors' Conference on Automated Audit Tools and Techniques
1983	Panel Chairman and Organizer, The Vulnerability of Society to Computer Systems, International Federation for Information Processing Conference, Paris, France
1982	Data Security Leaders Conference, IBM, San Jose, Calif.
1982, 1971	Session Chairman, AFIPS Fall Joint Computer Conference and National Computer Conference
1981	Invited Lecturer, The Vulnerability of Society to Computer Systems, Organization for Economic Cooperation and Development, Workshop on the Vulnerability of the Computerized Society, Siguenza, Spain
1980	Session Chairman, International Conference on Computers and Communications
1980	Panel Moderator, Microcomputers and Privacy, National Computer Conference
1979-1980	Distinguished Visitor, IEEE Computer Society
1979	Computers and Privacy in the Next Decade, National Computer Conference
1978	Panel Moderator, Social Impacts of Microcomputers, 2nd Rocky Mountain Symposium on Microcomputers
1978	Session Chairman, ACM National Conference
1977	NBS-IEEE Symposium on Computer Security: Trends and Applications, Gaithersburg, Md.
1976	NSF Exploratory Workshop to Analyze Public Policy Implications and to Establish a Research Agenda Concerning Electronic Funds Transfer Systems
1976	IRIA Workshop on Privacy and Security in Computer Networks, Rocquencourt, France
1976	Computers and Privacy, Sam Rayburn Public Affairs

Symposium, East Texas State University, Commerce, Texas

1975   Privacy Laws Affecting System Design, Fall DECUS Symposium, Los Angeles, California

1974   The Legislative Situation in North America, Conference on Privacy and Security of Computerized Information, Brunel University, Oxbridge, Middlesex, England

1974   Current Research in Data Privacy and Security, National Computer Conference

1973   Panelist, Stanford/AFIPS Conference on Computers, Society, and the Law: The Role of Legal Education

1972-1973   Association for Computing Machinery National Lecturer on Computer Security and Privacy

Listed in Who's Who in Science and Engineering and in American Men and Women of Science. Appearances on ABC Nightline, CBS-TV News, Fox Morning News, Fox TV, Cable News Network, Voice of America, CNBC, WAMU Diane Rehms Show, Mike Cuthbert Show, KQED, Christian Broadcasting Network, Associated Press (print and TV), Reuters. Interviews or articles by *New York Times, Washington Post, Los Angeles Times, National Journal, Scientific American, Scientist, Omni, Popular Science*, and other publications or news services. Numerous other invited talks at universities, and to professional societies, government agencies, and industrial organizations.

C. Professional Activities and Committees

2017-   Affiliated Scholar, Cybersecurity Law Initiative, George Washington University

2015-   Advisory Board and Editorial Board, Journal of Technology Science

2013   Commenter, Privacy Law Scholars Conference, Berkeley CA

2010-2011   Member, Program Committee, The Tenth Workshop on Economics of Information Security (WEIS 2011)

2004-   Advisory Board, *Journal of Privacy Technology*

2003   Member, Program Committee, ICEC03 (Fifth International Conference on Electronic Commerce)

2000-2002   Chair, Steering Committee, ACM Conference on Computers, Freedom, and Privacy

2001-2004   IBM Research Privacy Institute Advisory Board

2001   Participant, Election Reform Initiative, The Constitution Project, www.constitutionproject.org

1998-2001   GWU Faculty Advisory Committee, Graduate School of Political Management's "Democracy Online" project

1997-   Advisory Committee, PrivacyExchange.org

1997   Panelist, President's Commission on Critical Infrastructure Protection

1997   Invited participant, "Privacy in the Age of Electronic Commerce", The Brookings Institution, Washington, D.C.

1996   International Advisory Board, Transatlantic Telemedicine Summit, Atlantic Rim Conference

1996-1997   U. S. Experts Group, Project to Foster Development of U. S. Corporate Privacy Policies for Handling Personal Information in the European and Global Arenas

1996-1998   IBM Emergency Response Service Advisory Board

1995-1996   Reviewer, National Research Council report on cryptography policy

1993-   Faculty Associate, National Center for Communication Studies, The George Washington University

1993-1994   Member, Computer Use and Abuse Project Advisory Committee, American Association for the Advancement of Science

1993-   Member, National Advisory Board, <u>Privacy and American Business</u>

1993-1994   Member, Senior Advisory Committee, Project on Social Science and Findings on Privacy and the Genome Project, Center for Social and Legal Research, Hackensack, NJ

1992   Organizer, National Science Foundation/George Washington University Workshop on Policy Questions Related to Networks

1991-1992   General Chair, The Second Conference on Computers, Freedom, and Privacy, Washington, DC

1991   Participant, NIH-DOE ELSI Working Group, Workshop on Privacy Protections for Genetic Information, September 11-12, 1991, Bethesda, MD

1990-1991   Advisor, The First Conference on Computers, Freedom, and Privacy, Burlingame, CA

1991-1992   Chair, IEEE Committee on Communications and Information Policy, Information Security Subcommittee (member 1990-1992)

1991-1994   Member, Working Group 11.8 (Information Security Education) of Technical Committee 11 of the International Federation of Information Processing

1990   Program Committee, ACM/SIGCAS Conference on Computers and the Quality of Life (CQL 90)

1990-1996	National Advisory Committee, Reference Point
1989-1999	Member, Editorial Board, Journal of Information Systems Security
1989	Co-chairman, Program Committee, Annual Meeting, Computer Professionals for Social Responsibility
1989	Program Committee, 2nd International Computer Security Risk Management Model Builders Workshop, Ottawa, Canada
1988	Advisory Panel, Ethics and Values Program, National Science Foundation
1988-1989	Co-chair, Planning Section, The Election Center
1987	Expert Panel on FBI NCIC Expansion, Subcommittee on Civil and Constitutional Rights, Committee on the Judiciary, House of Representatives
1987	Consultant, Computer Security Curricula Workshop, National Computer Security Center
1987-1988	Advisory Board, Project on Comparative Engineering, Computer Science, and Human Factors Evaluation of Current Voting Systems, ECRI
1987	Advisory Committee on "Coping with Computer-Age Vulnerability" International Conference, Amsterdam
1987	Organizer, Workshop on Security and Reliability of Computerized Election Systems, Captiva Island, Fla.
1985-	Member, International Board of Editors, <u>Computers and Security</u>
1985	Organizer, Workshop on the Application of Risk Analysis to Computer Security, National Computer Security Center
1985	Advisory Panel on Security, U. S. Department of Treasury Financial Management Service
1981	Co-organizer, ABA/AFIPS National Symposium on Personal Privacy and Information Technology, Amelia Island, Fla.

1979-1980   Participant, NSF Chautauqua-Type Short Course on Risk-Benefit Analysis

1979-1981   Member, National Crime Information Center Advisory Panel, Office of Technology Assessment, U. S. Congress

1979-1981   Member, Special Advisory Panel on Information Technology, Office of Technology Assessment, U. S. Congress

1979-1986   Member, Editorial Board, Computer Security Journal

1979   Organizer, AFIPS Asilomar Conference on Computers and Privacy in the Next Decade

1979   Member, IEEE Compcon Technical Program Committee

1979-1980   Member, IEEE Technical Committee on Security and Privacy

1978-1979   Member, AFIPS Panel on Transborder Data Flow

1977-1979   Member, Task Force on Science and Technology in the Criminal Justice System, Scientists' Institute for Public Information

1977-1982   Chair, Special Committee on the Right to Privacy of the American Federation of Information Processing Societies (AFIPS)

1973   Member, Planning Committee, ACM/NBS Workshop on Privacy

1972   Member, Planning Committee, ACM/NBS Workshop on Controlled Accessibility

1972-1975   Member, Advisory Council to the Privacy Committee of the American Civil Liberties Union

Reviewer for National Computer Conference, *Communications of the ACM, ACM Transactions on Database Systems, Computer Security Journal*, numerous other publications, and the National Science Foundation. Session chair at numerous conferences.

D. Public Service

2006-2008	Member, Chevy Chase Maryland Town Council
2005-2006	Chair, Town of Chevy Chase Water Subcommittee
2005-2012	Member, U.S. Department of Homeland Security Data Privacy and Integrity Advisory Committee.
2000	Member, Federal Trade Commission Advisory Committee on Online Access and Security
1999-2000	Member, Town of Chevy Chase Year 2000 Preparedness Team
1996-	Member, Advisory Committee, Center for Democracy and Technology
1987-1994	Member, National Advisory Committee, Reference Point
1979-1987	Director, Educational Fund for Individual Rights, Inc.
1975-1976	Member, Steering Committee, Bateman Neighborhood Association, Berkeley, California
1974-1975	Chair, Alameda County Board of Supervisors Citizens Committee on CORPUS
1974-1975	Director, Consumers Group Legal Services, Berkeley, California
1972-1974	Member, Berkeley City Council Committee on Berkeley Police Department Records, Access, Privacy, and Retention
1973	Member, Accuracy and Certification Board for Computerized Elections, City of Berkeley
1972	Co-author, City of Berkeley Ordinance 4732-N.S. (social impact statement for computer systems)
1969-1970	Member, Advisory Committee to the California Assembly Committee on Statewide Information Policy

E. University Service

2010	Member, University Global Security Task Force
2002-	Coordinator, Computer Security and Information Assurance Scholarship Program
1998-1999	Committee to Explore SBPM/SEAS Initiatives
1997-2001	Advisory Committee Representative for The George Washington University to the World Wide Web Consortium
1997-1999	Information Technology Policy and Systems Committee of the Information Technology Advisory Council
1997-1999	School of Engineering Research Advisory Committee
1997-1999	University Committee on Information Systems
1995-1998	University Committee on Research
1991-1992	Chair, Department Committee on Financial Aid
1991-1994, 1989-1990	Chair, Department Committee on External Relations
1986-1987	Convenor, The Information Age University Seminar
1970-	Undergraduate and Graduate Student Advisor, The George Washington University and University of California, Berkeley

Doctoral dissertations completed under my supervision
> Don Clements
> Paul Clark
> John Fitch
> Christopher Feudo
> John Miller
> John Cary
> Linda Rutledge
> Anya Kim
> Jeremy Blum

1985-1987   Member, Department Committee on Academic Standards, The George Washington University (Chair 1985-1986)

1977-2002   Member, Department Committees on Recruiting, Colloquium, Comprehensive Examination, Student Affairs, Retreat, and Research, The George Washington University

1984   Coordinator, Industrial Liaison Program, Department of Electrical Engineering and Computer Science, The George Washington University

1983   Instructional Television Coordinating Committee, The George Washington University

1981-1982   Committee on Instructional Television, The George Washington University

1980   University Planning Committee on Graduate School Master's Degree in Administration, The George Washington University

1975-1977   Chair, Advisory Committee to the Institute for Library Research, University of California, Berkeley

1971-1977   Member, Department Committees on Preliminary Examinations, Recruiting, Student-Faculty Relations, and Scheduling, University of California, Berkeley

1971   Member, Privacy Subcommittee of the President's Records Management Committee, University of California, Berkeley

1970   Member, Stanford University Ad Hoc Committee on Protection of Privacy of Information

II. RESEARCH INTERESTS

A. Current Interests

Security and privacy in computer systems, computer-assisted risk analysis, vulnerability of society to computer systems,

computer viruses and rogue programs, computer network security policies and education, cryptography policy issues, electronic commerce, electronic voting, information warfare

B. Grants and Contracts Obtained for Host Institution (Private Consulting Contracts Not Included)

(Hardware and software donations not listed here)

(Continuation grants to scholarship projects below resulted in a total of over $10 million in scholarships being awarded to students to obtain degrees with a focus on cybersecurity.)

August 13, 2012-July 31, 2016
    National Science Foundation, Addendum to PISCES-S-2014: Partnership in Security Cyberspace through Education and Service—2013 Cybersecurity Workforce Development Workshop, Implementation Site Visits, and SF Institution Mentoring
$149,963

August 1, 2012-July 31, 2013
    National Science Foundation, Stimulating SaTC Research Through PI Meeting, $87,491

September 1, 2012-August 31, 2013
    National Science Foundation, Cyber Security Workshop for Social Science Researchers, $68,439

September 1, 2011-August 31, 2013
    National Science Foundation, Collaborative Project: Teaching Strategic, Operational, and Defensive Cybersecurity to the Next Generation from Sea to Shining Sea, $170,843

August 1, 2010-July 31, 2014
    National Science Foundation, PISCES-S 2014: Partnership in Securing Cyberspace through Education and Service, $2,001,910

September 2006-August 2010
    National Science Foundation, PISCES-S 2010: Partnership in Securing Cyberspace through Education and Service, $1,749,968

October 2005-May 2006
    National Science Foundation, Supplement to PISCES-S

grant to support a workshop on exploring maximizing the effect of SFS students on computer security and information assurance at the state and local government level, $19,911

November 2004-May 2005
National Science Foundation, Supplement to PISCES-S grant to support a National Job Fair for Scholarship for Service students, $348,010

May 2004-August 2004
National Institute of Standards and Technology, Summer Research Fellows program, $4,000

December 2003-May 2004
George Mason University, Cyber Defense Portable Educational Network Assistance, $10,000

September 2003-August 2005
National Science Foundation, PISCES-A&I: Partners in Securing Cyberspace through Education and Service-Module Adaptation and Implementation, $198,745

September 2003-August 2004
National Science Foundation, A Workshop to Define a National Cyber Defense Exercise Competition, $70,396

August 2003-August 2004
National Science Foundation, Combined Workshop Support, $113,036

June 2003-May 2007
National Science Foundation, PISCES-S: Partnership in Securing Cyberspace through Education and Service, $3,053,067

June 2003-May 2005
National Science Foundation, PISCES-CB: Partners in Securing Cyberspace through Education and Service Capacity Building, $499,737

September 2002-August 2003, September 2003-August 2004, September 2004-August 2005, September 2005-August 2006,August 2006-August 2007, continuous through August 2010
National Security Agency, Information Assurance Scholarship Program and Security Capacity Building

May 1999-August 1999
     Americans for Computer Privacy, Cryptography Products
     and Market Survey

November 1997-October 1999
     Center for Social and Legal Research, Development and
     Maintenance of Privacy and Security Information on the
     World Wide Web

   October 1996-March 1997
     National Library of Medicine (via Georgetown
University),   Security and
Privacy in Telemedicine Systems

   September 1995-August 1997
     National Science Foundation, Seed Funding for Institute
     for Computer and Telecommunications Policy

   September 1995-August 1997
     National Science Foundation, Videotaped Seminar Series
     II on Interdisciplinary Aspects of the Information
     Superhighway (and supplement for undergraduate research
     experiences)

   July 1995-October 1995
     National Science Foundation, Supplement to Videotaped
     Seminar Series on Interdisciplinary Aspects of the
     Electronic Superhighway

   November 1994-August 1995
     Bell Atlantic, Videotaping Assistance for Seminar Series
     in Information Policy

   September 1994-August 1995
     National Science Foundation, Seminar Series in
     Information Policy

   April 1993-December 1994
     Martin Marietta Corporation contract, co-Principal
     Investigator, Trends in Cryptography Law and Policy

   March 1992-January 1994
     National Science Foundation grant, Principal
     Investigator
     Workshop on Policy Questions Related to Computer
     Networks

September 1990-August 1991
    National Science Foundation grant, Principal
    Investigator
    Travel to China/Japan

September 1987-August 1988
    U. S. Secret Service contract, Principal Investigator
    Vulnerability Analysis for Compounds and Structures

September 1987-August 1988
    U. S. Census Bureau joint statistical agreement
    (contract), Principal Investigator
    Risk Analysis of a File Matching Program

August 1986-June 1988
    Markle Foundation grant, Principal Investigator
    Workshop on the Security and Reliability of Computerized
    Elections

May 1985-January 1986
    National Security Agency contract, Principal
    Investigator
    Workshop on Risk Analysis and Its Application to
    Computer Security

July 1980-December 1981
    National Science Foundation grant, Co-Principal
    Investigator
    National Symposium on Privacy and Technology

February 1980-June 1980
    System Development Corporation contract, Project
    Director
    Computer System Security Research

February 1979-October 1980
    National Science Foundation grant, Principal
    Investigator
    A Workshop to Explore the Interaction of Computers and
    Privacy Issues in the Next Decade

February 1978-July 1981
    National Science Foundation grant, Principal
    Investigator
    New Models and Metrics in Computer Security

December 1977-August 1978
>   National Science Foundation grant, Principal Investigator
>   A Workshop to Develop an Agenda for the Application of Computer Networks to Scientific Research

June 1976-November 1977
>   National Science Foundation grant, Principal Investigator
>   Models and Metrics for Secure Computer Systems

November 1972-June 1975
>   National Science Foundation grant, Principal Investigator Studies of the Effects of Application-Oriented Languages on Costs of Computer Privacy and Security

C. Doctoral Graduate Students Advised

>   John Miller, Ph. D., University of California, Berkeley, 1974, Information Retrieval.
>   Don Clements, Ph. D., University of California, Berkeley, 1977, Fuzzy Ratings for Computer Security Evaluation.
>   John Cary, D. Sc., The George Washington University, 1980, A Modular Method for Measuring Overhead Costs
>   Linda Rutledge, D. Sc., The George Washington University, 1985, Network Security
>   Jack Fitch, D. Sc., The George Washington University, 1993, "A Shortest Path Network Security Model"
>   Christopher Feudo, D. Sc., The George Washington University, 1994, "Computer Network Security Against RF Attacks"
>   Paul Clark, D. Sc., 1994, "BITS:Boot Integrity Token System"
>   Anya Kim, D. Sc., The George Washington University, 2001, "Principal Agent Theory Applied to Computer Science Applications"
>   Jeremy Blum, D. Sc., The George Washington University, 2005, "Security and Privacy in Intelligent Vehicle Systems"

>   D. Visiting Scholars Sponsored

>   Jiang Jihong, Southwest Telecommunications Institute,

Chengdu, Sichuan, China
Sang Kee Ko, Korea

III. PUBLICATIONS

A. Books

Building in Big Brother: The Encryption Policy Debate (Editor), Springer-Verlag, New York, N. Y., 1995

Proceedings of the Second Conference on Computers, Freedom, and Privacy (Editor), Association for Computing Machinery Conferences Office, New York, N. Y., 1993.

Rogue Programs: Viruses, Worms, and Trojan Horses (Editor), Van Nostrand Reinhold, New York, N. Y., 1990.

Computers and Privacy in the Next Decade (Editor), Academic Press, New York, N. Y., 1980.

Modern Methods for Computer Privacy and Security, Prentice-Hall, Inc., Englewood Cliffs, N. J., 1977.
        translated into Polish, 1982

Security and Privacy in Computer Systems (Editor), Melville Publishing Co., Los Angeles, California, 1973.

B. Papers

(with Rachelle Heller and Costis Toregas) "Reach to Teach: Preparing Cybersecurity Experts as Adjunct Community College Faculty", 11th International Conference on Computer Supported Education, CSEDU 2019, Heraklion, Crete, Greece, http://www.csedu.org

(with Samuel Klein), A New Privacy Framework with Criteria Inspired by Fair Information Practice Principles, Report GW-CSPRI-2015-02, August 2015, http://static1.squarespace.com/static/53b2efd7e4b0018990a073c4/t/55ef062be4b0c8a589c826bc/1441728043340/Klein+-+Privacy+CSPRI+Report.pdf

(with Carl Landwehr), Secure and Trustworthy Cyberspace First PI Meeting Summary Report, Report GW-CSPRI-2013-01, March 2013,

http://www.cspri.seas.gwu.edu/publications/2013/03/2013_SaTC_Final_Report_Web.pdf

(with Ronald C. Dodge and Costis Toregas), Cybersecurity Workforce Development Directions, Proc. 6th Int'l Symposium on Human Aspects of Information Security and Assurance, HAISA 2012, Crete, Greece, http://www.lulu.com/us/en/shop/nathan-clarke-and-steven-furnell/proceedings-of-the-sixth-international-symposium-on-human-aspects-of-information-security-assurance-haisa-2012/paperback/product-20113004.html

Lance J. Hoffman, Diana L. Burley, Costis Toregas, "Holistically Building the Cybersecurity Workforce", IEEE Security & Privacy vol. 10, no. 2 (March/April 2012), pp. 33-39. http://doi.ieeecomputersociety.org/10.1109/MSP.2011.181.

(with Lisa Ugelow), Fighting on A New Battlefield Armed With Old Laws: How to Monitor Terrorism in the Virtual World, University of Pennsylvania Journal of Constitutional Law, vol. 14, no. 4, March 2012.

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C. Reports

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Making Every Vote Count: Security and Reliability of Computerized Vote-Counting Systems, Report GWU-IIST-87-17, Department of Electrical Engineering and Computer Science, The George Washington University, Washington, D. C., December

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D. Films

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  a) Authentication Methods in Computer Systems
  b) Authorization and Logging in Computer Systems
  c) Modern Encryption Techniques

IV. COURSES TAUGHT

A. Regular University Credit Courses

      Information Warfare
      Electronic Commerce
      Information Policy and Computer Security
      Technical Methods for Computer Privacy and Security
      Advanced Computer Security Seminar
      Computer Virus Seminar
      Programming Techniques and Data Structures
      Machine Structures
      Assembly Language
      Introduction to Computer Programming
      Operating Systems
      Computers and Society
      Privacy in the Computer Age

B. Short Courses

      Cryptography
      Cryptography Policy
      Information Policy
      Computer Viruses
      Risk Analysis and Expert Systems
      Technical Methods for Computer Security
      Computer Security and Privacy
      Computer Security and Risk Analysis
      Privacy: Legal and Technological Protection in the Computer Age
      Law Enforcement Information System Management

These were given at the following places:

Year	Place
1996, 1997	Western Institute for Computer Science, Stanford University
1995	25th Annual Institute in Computer Science, Stanford University
1991	National Security Agency
1988	Secret Service
1988	National Computer Security Center
1987	National Institutes of Health
1985	Mobil Oil Corporation
1984-1985	Office of Personnel Management
1984	ACM Washington Chapter Professional Development Seminar
1981	Eleventh Annual Institute in Computer Science, University of California, Santa Cruz
1978	ACM Washington Chapter Professional Development Seminar

1975	IRIA, Rocquencourt, France
1975	Genootschap voor Automatisering, Amsterdam, Holland
1975	Universite Scientifique et Medicale, Grenoble, France
1970-1974	University of California Extension, Berkeley
1974	ACM San Francisco Peninsula Chapter
1974	Fourth Annual Institute in Computer Science, University of California, Santa Cruz
1973	International Summer School on Time-Sharing, The Technion, Haifa, Israel
1972	IBM Summer Institute, San Jose, California

V. PROFESSIONAL SOCIETIES

Fellow, Association for Computing Machinery