

CURRICULUM VITAE

Gary Craig Kessler

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Technical Specialties:

Course development, teaching, and consulting in the areas of computer, mobile device, and network forensics; computer and network security; TCP/IP and the Internet; Information Technology (IT) management; and data communications protocols and technologies.

Education:

- B.A., Mathematics (*cum laude*), Humboldt State University, Arcata, CA, 1975
- Graduate study in Computer Science, University of Arizona, Tucson, AZ, 1975-1976
- M.S., Computer Science, University of Vermont, Burlington, VT, 1980
- Ph.D., Computing Technology in Education, Nova Southeastern University, Ft. Lauderdale, FL, 2010
- Industry certifications held: (ISC)² CCFP, (ISC)² CISSP, ISFCE CCE
- Security clearance information provided upon request
- Additional certifications: PADI Divemaster/Master SCUBA Diver Trainer, USCG Captain's license

Work Experience:

- *Department Chair, Embry-Riddle Aeronautical University, Daytona Beach, FL, 7/2015-present.* Responsible for managing more than a dozen faculty members, two undergraduate and two graduate programs, and budget for the Security Studies & International Affairs Dept.
- *Professor, Embry-Riddle Aeronautical University, Daytona Beach, FL, 8/2012-7/2015.* Responsible for curriculum design and development of cybersecurity courses as a minor within the Homeland Security program, as well as development of a masters degree in cybersecurity management.

- *Program Director and Associate Professor, Norwich University, Northfield, VT, 9/2011-6/2012.* Responsible for curriculum design and development, recruitment and retention of faculty, and student admissions for the M.S. in Information Assurance (MSIA) program.
- *President, Gary Kessler Associates, Burlington, VT, 7/2010-present.* Develop and deliver training, consulting, and services related to computer forensics and information security.
- *Assoc. Professor and Program Director, Champlain College, Burlington, VT, 7/2000-6/2010.* Responsible for coordinating course offerings, hiring and managing full-time and adjunct faculty, designing and teaching courses, and updating the curriculum for the Computer Networking, Computer & Digital Forensics, and Information Security majors. Director, Champlain College Center for Digital Investigation. Led team preparing successful application for college's designation as a National Center of Academic Excellence in Information Assurance Education (CAEIAE). Developer and director of the M.S., Digital Investigation Management program.
- *Senior Network Security Analyst, SymQuest Group, South Burlington, VT, 7/1999-6/2000.* Manage and helped build the company's consulting practices in the network security, Internet access, and WAN space. Involved in all aspects of the practice, from sales, recruitment, RFP response, needs assessment, training, and implementation.
- *Director, Information Technology/Senior Member of Technical Staff, Hill Associates, Colchester, VT, 3/1997-7/1999.* Managed the IT staff, provided structure for IT decisions, managed the information security function, and incorporated IT as a strategic business tool. Major project was to coordinate upgrade to new course development and publishing tools, and implementation of document management/database system. Secondary role was to develop and deliver telecommunication technology training courses.
- *Senior Consultant, BBN Systems and Technologies Professional Services Group, Cambridge, MA/Colchester, VT, 9/1996-1/1997.* Coordinated BBN's role within CommerceNet.
- *Senior Member of Technical Staff, Hill Associates, Colchester, VT, 4/1993-9/1996.* Developed and delivered data communications courses to many customers in the telecommunications industry. Responsible for company's Internet connection and information security, and informal oversight for corporate IT directions.
- *President, Gary Kessler Associates, Colchester, VT, 7/88-3/93 and Vice President, Technology, MAN Technology Corporation, Burlington, VT, 10/1991-3/1993.* Developed and delivered

telecommunications training courses, and consulted in the areas of communications technology and industry directions.

- *Member of Technical Staff, Hill Associates, Colchester, VT, 2/1984-6/1988.* Developed and delivered telecommunications training courses. One major project was to analyze current and future educational training needs of a large R&D organization.
- *Software Engineer, Lawrence Livermore National Laboratory, Livermore, CA, 11/1981-1/1984.* Coordinator for computer-aided engineering (CAE) software tools within my division in the Electronics Engineering Department.
- *Coordinator of Academic Computing, St. Michael's College, Colchester, VT, 7/1979-10/1981.* Defined and managed college's first academic computer center. Primary designer of college's first Computer Science curriculum and taught programming courses.
- *Graduate Research Fellow, University of Vermont, Burlington, VT, 9/1978-5/1979.*
- *Computer Programmer, Vermont State Health Department, Burlington, VT, 11/1977-8/1978.*
- *Applications Programmer, Cedars-Sinai Medical Center, Los Angeles, CA, 8/1976-10/1977.*

Other Professional Information:

- Public Outreach Coordinator, mobile device examiner, and advisory board member of the Vermont Internet Crimes Against Children (ICAC) and Internet Crimes Task Forces (1999-2012); mobile device examiner, North Florida ICAC (2012-present).
- Founding Chair (2000-2005) and Secretary (2006-2012), Vermont InfraGard chapter.
- Editor-in-chief (2011-2012) and member of editorial board (2005-present), *Journal of Digital Forensics, Security and Law*.
- Numerous training and consulting activities in computing and data communications within the telecommunications industry, to both technical and non-technical audiences; have also taught and/or consulted in Australia, Brazil, Canada, Mexico, and the U.K. Have provided instruction or advice to numerous community groups, including testifying to the Vermont Legislature about the need for computer crime and digital signature legislation, and defining the role of digital forensics examiners.
- Instructor with the U.S. Department of State, Diplomatic Security Service, Anti-Terrorism Assistance Cybertraining program.

- Author of more than 70 articles in industry publications and academic journals about digital forensics and investigations, the Internet, TCP/IP, network security, e-commerce, computing, data communications standards and protocols, and computer history. Lead author of *ISDN: Concepts, Facilities, and Services*, 4th ed. (McGraw-Hill, 1998) and *METROPOLITAN AREA NETWORKS: Concepts, Standards, and Services* (McGraw-Hill, 1992).
- Frequent speaker at industry and academic conferences in North America and overseas, including High Technology Crime Investigation Association (HTCIA) meetings, Conference on Digital Forensics, Security and Law (CDFSL), Mobile Forensics World, National Cyber Crime Conference. Have been on the organizing and/or program committee for many conferences.
- Past and current participant in numerous standards activities, including those related to computer forensics education and practitioner certification, and networking technologies including FDDI, frame relay, packet switching/X.25, site security, and Switched Multimegabit Data Service (SMDS).
- Adjunct Associate Professor, Edith Cowan University, Mt. Lawley, Western Australia; California Community College Instructor Credential in Computer Science; former adjunct faculty member, Prevel School of Business, St. Michael's College, Colchester, VT and Information Assurance graduate program, Norwich University, Northfield, VT.

Personal Information:

- Life Member (and former chief) of Colchester Rescue Squad, past member of the Green Mountain Critical Incident Stress Debriefing Team, and past member of Malletts Bay Fire Department.
 - Hobbies include reading, playing the guitar, SCUBA diving, boating, walking, and hiking.
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DETAILED RESUME

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EDUCATION AND CERTIFICATIONS:

- 1975 Humboldt State University, Arcata,
California
B.A., Mathematics (*cum laude*)
(Computer and Statistics options)
- 1975-1976 University of Arizona, Tucson, Arizona
Graduate study in Computer Science
- 1980 University of Vermont, Burlington, Vermont
M.S., Computer Science
Thesis title: *A Computer Model of Hypoxic
Man*
- 2010 Nova Southeastern University, Ft.
Lauderdale, Florida
Ph.D., Computing Technology in Education
Research title: *Judges' Awareness,
Understanding, and Application of Digital
Evidence*

Professional Certifications:

- Certified under the CCNA™ (Cisco Certified Network Associate) program, February 2000
- SANS/GIAC Security Essentials Certification (GSEC), December 2000
- International Information Systems Forensics Association (IISFA) Certified Information Forensics Investigator (CIFI), January 2005
- International Information Systems Security Certification Consortium [(ISC)²] Certified Information Systems Security Professional (CISSP), March 2005 (current)
- The International Society of Forensic Computer Examiners (ISFCE) Certified Computer Examiner (CCE), June 2007 (current)
- Digital Forensics Certification Board (DFCB) Digital Forensic Certified Practitioner (DFCP), July 2009
- International Information Systems Security Certification Consortium [(ISC)²] Certified Cyber Forensics Professional (CCFP), August 2013 (current)

Security clearance information provided upon request.

SCUBA and Mariner Certifications:

- Basic SCUBA, Los Angeles County Department of Parks and Recreation, 1967
- Open Water Diver, Professional Association of Diving Instructors (PADI), 1991
- Advanced Open Water Diver, PADI, 1992
- Rescue Diver, PADI, 1992
- Nitrox Diver, National Association of Underwater Instructors (NAUI), 2008
- Divemaster, PADI, 2009
- Open Water SCUBA Instructor, PADI, 2009
- Master SCUBA Diver Trainer, PADI, 2011
- U.S. Coast Guard Captain's license, 2012

WORK EXPERIENCE:

August 2012-present DEPARTMENT CHAIR & PROFESSOR
(7/2015-present)
SECURITY STUDIES & INTERNATIONAL
AFFAIRS DEPARTMENT
Embry-Riddle Aeronautical University
Daytona Beach, Florida

Oversee day-to-day operations of the SSIA Dept., including more than a dozen full-time faculty, two B.S. and two M.S. programs, budget, and several adjunct faculty and student workers. Provide mentoring for faculty and staff, lead strategic planning efforts, and oversee staffing and curriculum. teach cybersecurity and provide student advising.

August 2012-present PROFESSOR (7/2014-7/2015)
ASSOCIATE PROFESSOR (8/2012-6/2014)
HOMELAND SECURITY PROGRAM
Embry-Riddle Aeronautical University
Daytona Beach, Florida

Teach courses in the Homeland Security undergraduate program. Responsible for curriculum design and development of a cybersecurity minor within the program, as well as ght be chair the graduate cybersecurity program. Provide student advising and public outreach services.

March 2011- INTERIM ASSOCIATE PROGRAM DIRECTOR

June 2012 (ACADEMICS) (3/2011-8/2011)
PROGRAM DIRECTOR/ASSOCIATE
PROFESSOR (9/2011-6/2012)
MASTER OF SCIENCE IN INFORMATION
ASSURANCE (MSIA) PROGRAM
Norwich University
Northfield, Vermont

Responsible for curriculum design and development, recruitment and retention of faculty, and student admissions for the graduate program. Initial task was to lead redesign of the program curricula to meet the evolving needs of the students, potential employers, and the marketplace.

July 2010-
present PRESIDENT
Gary Kessler Associates
Burlington, Vermont

Provide consulting, training, and practitioner services related to computer forensics, mobile device forensics, and information security. Also work with U.S. Department of State, Diplomatic Security Service, Anti-Terrorism Assistance Cybertraining program instructor, Vermont Internet Crimes Against Children (ICAC) Task Force, Teel Technologies, and Champlain College Center for Workforce Development.

July 2000-
June 2010 ASSOCIATE PROFESSOR (2000-2010)
PROGRAM DIRECTOR, COMPUTER
NETWORKING (2000-2007)
PROGRAM DIRECTOR, COMPUTER &
DIGITAL FORENSICS (2003-2007)
PROGRAM DIRECTOR, INFORMATION
SECURITY (2005-2007)
DIRECTOR, CENTER FOR DIGITAL
INVESTIGATION (2006-2009)
PROGRAM DIRECTOR, M.S. IN DIGITAL
INVESTIGATION MANAGEMENT (2009-2010)
Champlain College
Burlington, Vermont

Initial primary role was to manage courses in the Computer Networking A.S. degree and professional certificate programs, and coordinate curriculum with other programs within the department, particularly Telecommunications. Responsible for staffing, and the hiring and management of full-time and adjunct faculty. Updated the curriculum to address information assurance and other up-to-date industry requirements, including the design of a 4-year B.S. Computer Networking degree

commencing in 2002. Course development in the areas of Internet and Web architecture, TCP/IP, routers, computer and network security, and computer forensics. Primary developer of the Computer & Digital Forensics curriculum leading to a B.S. degree, commencing in 2003 (and becoming an online program in 2004); principal investigator on Dept. of Justice (DOJ) grant to design and coordinate e-crime curriculum in cooperation with the National Institute of Justice (NIJ) Electronic Crime Partnership Initiative (ECPI). Led effort to develop Information Security B.S. degree program, commencing in 2005, and teamwork leading to designation as a National Center of Academic Excellence in Information Assurance Education (CAEIAE) in 2007. Work with various industry groups to identify educational requirements for future workers in all of these fields. Led proposal for M.S. program in Digital Investigation Management (2005-07), participated in application for initial program approval by regional accreditation board (2007-08), was named program director (2009), managed and coordinated course development (2009-10), and led efforts for final accreditation of the program (2010). In 2006, assumed role of director of Champlain College Center for Digital Investigation (C3DI), a DOJ-funded grant project and partnership between the college, Vermont Internet Crimes Against Children (ICAC) Task Force, and several law enforcement training organizations. Additional work within the college community includes the development of college-wide educational competencies for undergraduates, member and co-chair of the Curriculum Committee (2002-2005), and information security instructor in college's Managing Innovation in Information Technology M.S. program. Also spearhead information security projects for the Vermont Information Technology Center (VITC), a collaboration between the Vermont Technology Council and Champlain College.

July 1999- SENIOR NETWORK SECURITY ANALYST
 June 2000 SymQuest Group, Inc.
 South Burlington, Vermont

Primary role is to help build and manage SymQuest's consulting practice in the network security, Internet access, and WAN arena. Network security business role is to define Internet, intranet, and other network security services, including design and implementation of firewalls, routers, virtual private networks (VPNs), secure Internet communications, remote access, host security, security policies, and security auditing. Internet access and WAN business role is to meet with customers to match their business needs to available types of Internet access and WAN technologies and services, to advise and assist in the selection of service providers, and design and implement Internet access and WAN solutions using a variety of available backbone and access technologies (e.g., frame relay, ATM, xDSL, and DDS), as well as implement premises equipment (e.g., FRADs, DSU/CSU, and routers). Responsible for many aspects of the business, including pre-sales, recruitment, internal and external training, RFP response, report

writing, and implementation. Cisco Certified Network Associate (CCNA).

March 1997- DIRECTOR, INFORMATION TECHNOLOGY
July 1999 SENIOR MEMBER OF TECHNICAL STAFF
Hill Associates
Colchester, Vermont

Defined role of "Director of Information Technology (IT)," being the first in the position; job reports to the CFO (originally to the CEO) and has company-wide responsibility. Manage the IT staff, overseeing day-to-day activities and responsible for integrating information systems as they relate to business strategies and tactics. Led project team that acquired new document management system, database, and publishing tools. Provided first corporate framework for acquisition of computer equipment and formalizing a budget process whereby individual departments shared responsibility for IT costs. Responsible for computer, local and wide area network, Web, and other corporate network systems; network and system security; IT policies, planning, and budgeting; and acting as focal point for all information-related activities. Primarily responsible for company's strategies with respect to wide-area networking for inter-office communication (using frame relay), Internet connectivity, support of remote offices and mobile users, and virtual private networking. Company employs a variety of hardware and software platforms, including PCs, Macs, Windows 95/98, Windows NT, NetWare, MacOS, and Linux. Continued course development and delivery activities as described below, with a particular emphasis on Internet-, security-, and electronic commerce-related courses. Also involved in first efforts at delivering on-line distance learning courses via the Internet and World Wide Web.

September 1996- SENIOR CONSULTANT
January 1997 BBN Systems and Technologies
Professional Services Group
Cambridge, Massachusetts/Colchester, Vermont

Supported BBN's role with CommerceNet, acting as program manager for the Electronic Data Interchange (EDI) and Public Key Infrastructure (PKI) Task Forces, both focused on operational and procedural guidelines for electronic commerce over the Internet. Responsible for ensuring that task forces' commitments (such as white papers and pilot projects) were achieved, negotiating with subcontractors, and overseeing combined budget of \$300,000, as well as managing administrative support for meetings, a Web site, and Internet discussion lists.

April 1993- SENIOR MEMBER OF TECHNICAL STAFF

September 1996 Hill Associates
 Colchester, Vermont

Leading development effort for consulting and education in the area of broadband and emerging networking and telecommunications technology, with particular emphasis on the Internet, computer and network security, and fast packet switching services and technologies, such as frame relay, SMDS, and ATM. Customers in this environment include leading telecommunications service providers and equipment vendors, including ADC, Ameritech, Bell Atlantic, BellSouth, Motorola, Pacific Bell, SNET, Southwestern Bell, Sprint, and WiTel/LDDS WorldCom. Participant in many industry activities, including conferences and standards committees. Led team that acquired e-mail software for internal company LAN and determined corporate Internet access. Project leader for Internet access and information servers, including Web and FTP servers. Also had responsibility to raise company's profile within the industry by attending conferences, writing papers, and mentoring other staff members for these activities. Member of Board of Directors (1994-95).

July 1988- PRESIDENT
 March 1993 Gary Kessler Associates
 Colchester, Vermont

October 1991- VICE PRESIDENT, TECHNOLOGY
 March 1993 MAN Technology Corporation
 Burlington, Vermont

Provide data communications and computer networking technical education and consulting, with particular emphasis on packet and fast packet switching technologies, X.25, ISDN, local area networks (LANs), metropolitan area networks (MANs), frame and cell relay, FDDI, communications standards, and protocols. Customers include AT&T Bell Laboratories, Bell Atlantic Corporation, Bellcore, BellSouth, Contel, Digital Equipment Corporation (DEC), Fujitsu Networks Industry, Hill Associates, International Computers Ltd. (ICL) ISDN Systems Group (North America and United Kingdom), and Ricoh Corporation. Participate in many industry activities, including standards committees and conferences.

February 1984- MEMBER OF TECHNICAL STAFF
 June 1988 Hill Associates
 Winooski, Vermont

Responsible for developing and teaching 1-5 day courses to audiences at AT&T Bell Laboratories, Information Systems, and Business Services, as

well as Bell Atlantic, Ameritech, United Telecommunications, and other operating telephone companies. Courses dealt with data communications, computer network architecture, data link protocols, packet switching and X.25, ISDN, LANs, and microprocessors. Project leader on task to analyze current and future educational training needs of a large R&D organization, and suggested several alternatives for them to meet their anticipated needs. Major consulting projects dealt with packet switching and X.25, X.75 conformance testing, and Central Office LANs. Representative to ANSI task group developing U.S. national standards for data network access.

November 1981- SOFTWARE ENGINEER
January 1984 Lawrence Livermore National Laboratory
 Electronics Engineering Department
 Livermore, California

Coordinator for computer-aided engineering (CAE) in my division. Lead role in the implementation of CAE and other software tools on Division's VAX-11/750, including writing system specifications, implementation plans, and acting as system manager. Project Engineer for Image Data Processing network of VAX computers in support of the Computational Physics group, including specifying the hardware configuration and purchasing the systems. CAE and Imaging networks used VAXen employing DECnet and Ethernet; involved in many local activities related to VAX/VMS security. Other major project was the design and implementation of the DDCMP data link protocol in both Intel assembler language and Pascal. Held Department of Energy "Q" Security Clearance.

July 1979- COORDINATOR OF ACADEMIC COMPUTING
October 1981 St. Michael's College
 Colchester, Vermont

Responsible for implementing the College's first academic computer center. Selected, purchased, and implemented computer programs for computer-aided instruction (CAI) on IBM System/34 (shared with college administration). Conducted short courses to train faculty and academic staff in use of the computer. Primary designer of college's first Computer Science curriculum. Advised on various hardware and software acquisitions for academic use, developed necessary software to support academic applications, and installed DEC PDP-11/44 for solely academic purposes. Wrote documentation, user guides, and manuals for the systems. Taught introductory and advanced programming courses. Supervised student operators and consultants.

September 1978- GRADUATE RESEARCH FELLOW

May 1979 University of Vermont
 Burlington, Vermont

Support provided for M.S. thesis research building a computer model of the effects of high altitude on man. Designed computer programs to mathematically model the physiologic changes and adaptations man undergoes in response to the impaired oxygen supply at high altitudes and to provide a clinical tool with which to aid in the treatment of hypoxic illnesses.

November 1977- COMPUTER PROGRAMMER
August 1978 Vermont State Health Department
 Statistics Division
 Burlington, Vermont

Responsible for two computerized information storage and retrieval systems. The first supported the Public Water Supply Division, maintaining a current database describing water systems throughout the state. The database was used to generate reports listing violations of federal and state water quality standards. Second project supported the Medical Services Division and involved evaluation, generation of federal reports, and time studies for the Supplemental Food Programs for Women, Infants and Children (WIC). Programs, documentation, and training were provided for personnel using these systems. Other smaller programs were written as needs within the department arose, along with necessary documentation and training.

August 1976- APPLICATIONS PROGRAMMER
October 1977 Cedars-Sinai Medical Center
 Cardiology Department
 Los Angeles, California

Designed and implemented a computer system to quantify left ventricular wall movement, as observed from frames of a cineangiogram film. Included the development of software interface to hardware to allow input of frame images. Developed programs to mathematically calculate the movement of various sections of the heart wall during a complete heart cycle and to plot the movement. Provided documentation on the method and trained operators of the system. Provided other programs, documentation, training, and assistance as needs within the department arose.

CONFERENCE ACTIVITIES:

- Primary speaker at *Conference on the Academic Uses of the IBM*

System/34, Cloud County Community College, Concordia, Kansas, April 27-28, 1981.

- Referee for papers submitted to the *National Education Computing Conference (NECC)*, 1981-1987.
- Member of Technical Committee, *Department of Energy (DOE) Computer Use by Engineers (CUBE) Symposium*, October 1982.
- Presented papers on "DDCMP" at *DEC Users Society (DECUS) Symposia*, December 1982, May 1983, and October 1983.
- Member of Program Committee, *1991 International Phoenix Conference on Computers and Communications (IPCCC-91)*.
- Presented "ISDN" tutorial at *Networks for the 90s Conference*, Boston University Wang Institute, May 1991.
- Presented "ISDN Protocols" tutorial at *ISDN '89*, April 1989 and *ISDN '91*, June 1991.
- Presented "LAN Technologies Overview" at *ICA Annual Conference*, June 1991.
- Presented "DQDB/MAN" tutorial at *16th IEEE Local Computer Networks Conference*, October 1991.
- Presented "MAN Technologies Overview" at *ICA Annual Conference*, May 1992.
- Presented "MAN Technologies Overview" and "DQDB/FDDI Comparison" at *ICA Summer Program*, June 1992.
- Tutorial co-chair and session chair for *17th IEEE Local Computer Networks Conference*, September 1992.
- Presented "ISDN Protocols" and "Broadband Technologies" tutorials at *ISDN and Broadband '92*, November 1992.
- Presented "MAN Technology Overview" and "Broadband Technology" tutorial at *LATINET '92*, December 1992.
- Presented "Frame Relay" and "SMDS" tutorials, and chaired panel on "DECnet and SNA Open Systems Migration" at *ComNet '93*, February 1993.
- Presented "MAN Technology Overview" and "Broadband Services" tutorial at *ICA/ComNet Dallas '93*, May 1993.
- Presented "Broadband Services Overview" and "Bridge/router Overview" at *ICA Summer Program*, June 1993.
- Co-Program Chair, *18th IEEE Local Computer Networks Conference*, September 1993.
- Presented "Broadband Services Overview" tutorial at *Comnet '94*, January 1994.
- Presented "Broadband Services Overview" and "Bridge/router Overview" tutorials at *LATINET '94*, March 1994.
- Presented "Broadband Services Overview" tutorial and talks on "ATM Technology" and "WAN Alternatives" at *ICA Dallas '94*, May 1994.
- Presented "Fast Packet Overview" and "ATM vs. Frame Relay" at *ICA Summer Program*, June 1994.
- Program Chair, *19th IEEE Local Computer Networks Conference*, October 1994.

- Presented "Case Study: Connecting to the Internet" talk, chaired "Internet Business Applications" panel session, and member of organizing committee, *The Internet in Vermont*, November 1994.
- Presented "TCP/IP: Tools and Utilities for the Internet" tutorials at *ComNet '95*, January 1995; *LATINET '95*, March 1995; *Canadian Business Telecommunications Alliance (CBTA) Meeting*, September 1995; *ComNet '96*, January 1996; *ICA Annual Conference/SUPERCOMM*, June 1996; *ComNet '97*, February 1997; *22nd Local Computer Networks Conference*, November 1997; *ComNet '98*, January 1998; and *Internet Commerce Expo*, March 1998 and September 1998.
- Gave talks about the Internet and fast packet services, *ICA Annual Conference/SUPERCOMM*, May 1995.
- Prepared presentations on "Internet 101" and Internet information server strategies, *ICA Summer Session*, June 1995.
- Gave talks about the Internet, fast packet technologies, and future telecommunications trends, *ICA Summer Session*, June 1995.
- General Conference Chair, *20th IEEE Local Computer Networks Conference*, October 1995.
- Gave talks about commercial uses of the Internet and fast packet services, *ICA Annual Conference/SUPERCOMM*, June 1996.
- Co-Program Chair and Webmaster, *21st IEEE Local Computer Networks Conference*, October 1996.
- Have presented multiple talks on network security at such venues as St. Michael's College, *ICA Summer Session*, and *Computer User Vermont* conferences.
- Presented "An Overview of Electronic Commerce" at *ICA Annual Conference/SUPERCOMM*, June 1997.
- Tutorial Chair and Webmaster, *22nd-25th IEEE Local Computer Networks Conference*, November 1997, October 1998, November 1999, and November 2000.
- Presented "An Overview of the Internet" and "ATM vs. Internet Services Architecture" at *Comdex*, November 1997.
- Presented "An Overview of the Internet and TCP/IP for Electronic Commerce" at the *Internet Commerce Expo*, March 1998 and September 1998.
- Presented talks and tutorials on "Security Tips and Techniques" and "Next Generation Security" tutorial/talk at the *Internet Commerce Expo*, March 1999; *ICA Annual Conference/SUPERCOMM*, June 1999; *ICA Networking Technology Institute*, August 1999; *IEEE Local Computer Networks Conference*, October 1999; and *COMNET D.C. 2000*, January 2000.
- Presented "Advanced VPN Implementation" tutorial at *COMNET D.C. 2000*, January 2000 and *ICA Annual Conference/SUPERCOMM*, June 2000.
- Presented "An Introduction to Cryptography, Certificates, and PKI" at *SANS 2000, Monterey*, October 2000.
- Presented "Introduction to TCP/IP for Intrusion Detection" tutorial at

SANS D.C., December 2000.

- Presented "An Introduction to TCP/IP" tutorial at *COMNET D.C. 2001*, January 2001.
- Presented an "Overview of Telecommunications Technologies" to the Vermont Legislature, January 2001.
- Presented "Security and ISPs" talk at New York State Telecom Association and Telecommunications Association of New England (NYSTA/TANE) Annual Meeting, February 2001, Albany, NY.
- Co-presented "The Future of Infosec" at The 2001 e-protectIT Conference offered by Norwich University and the Vermont Army National Guard, March 2001, Northfield, VT.
- **Webmaster** and member of organizing committee, *26th IEEE Local Computer Networks Conference*, November 2001.
- Presented updated "Security and ISPs" talk at Telecommunications Association of New England (TANE) Meeting, September 2001, Albany, NY.
- Presented "Recommended Security Practices" and "Ethics, the Internet, and Teenagers" at VITA-Learn, November 2001, Killington, VT.
- Presented "An Overview of the Global Analysis and Response Initiative at incidents.org" at The 4th e-protectIT Conference, Norwich University, March 2002, Northfield, VT.
- Presented "Recommended Security Practices" and "Ethics, the Internet, and Teenagers" at Dynamic Landscapes Symposium, May 2002, Burlington, VT.
- Presented "Recommended Security Practices" and "Ethics, the Internet, and Teenagers" at Vermont Library Conference, May 2002, Burlington, VT.
- Presented "Introduction to Computers and the Internet" at *SAFETY NET: Multidisciplinary Approach to Investigating and Prosecuting Computer-Facilitated Crimes Against Children*, sponsored by the National District Attorneys Association, June 2002, Burlington, VT. Hosted and organized this event on behalf of Champlain College.
- Presented cryptography sessions at the Information Technology Institute, Champlain College, part of the Governor's Institutes of Vermont, June 2002, Burlington, VT.
- Presented "Ethics, the Internet, and Teenagers" at *VITA-Learn*, November 2002, Killington, VT.
- Presented "Introduction to Computers and the Internet" and "Cryptography and Steganography" at Computer Crimes Basic Investigative Techniques courses, sponsored by the Vermont Internet Crimes Against Children Task Force and Vermont State Police, August 2002 and January 2003, Burlington, VT.
- **Webmaster** and member of organizing committee, *27th IEEE Local Computer Networks Conference*, November 2002.
- Presented "Cyber Forensics" talk at ESCC/Internet2 Techs Workshop, February 2003.
- Presented "Computer Forensics: An Investigative Overview" to the

- annual meeting of the Vermont Chapter of the FBI National Academy Associates, March 2003, Rutland, VT.
- Presented "Cyberethics and K-12 Education" and "Applying Computer & Network Security to the K-12 Environment" at Dynamic Landscapes Symposium, May 2002, Castleton, VT.
 - **Webmaster** and member of organizing and program committees, *28th IEEE Local Computer Networks Conference*, October 2003.
 - Presented "Cyberethics and K-12 Education" and "Computer Forensics" at *VITA-Learn*, November 2003, Killington, VT.
 - Presented lectures on cryptography, steganography, and TCP/IP at *HTCIA Annual Conference*, September 2004.
 - Keynote speaker on computer forensics education at *Computer Forensics Symposium 2004*, Metropolitan State University, St. Paul, MN, October 2004.
 - **Webmaster** and member of organizing and program committees, *29th-32nd IEEE Local Computer Networks Conference*, November 2004, November 2005, November 2006, and October 2007.
 - Presented lectures on TCP/IP at *Southeast Cybercrime Summit*, March 2005.
 - Presented lectures on cryptography, steganography, and TCP/IP at *HTCIA Annual Conference*, August 2005.
 - Taught portions of Internet technology and investigations as part of *CyberSleuth* course for National District Attorneys Association, January 2006 and January 2007.
 - Presented lectures on cryptography and TCP/IP at *DoD Cyber Crime Conference*, January 2006.
 - Presented lectures on steganography and TCP/IP at *Southeast Cybercrime Summit*, March 2006.
 - Participated in panel session on The Future of Digital Forensics, representing the academic perspective, at the *Colloquium for Information Systems Security Education*, June 2006.
 - Presented lecture on online computer forensics training and education at the *International Association of Directors of Law Enforcement Standards and Training (IADLEST) Annual Conference*, June 2006.
 - Presented lecture on academia's role in information security and digital forensics at the *Cyber Security Summit*, October 2006.
 - Presented lectures on cell phone forensics and TCP/IP at the *HTCIA Annual Conference*, October 2006.
 - Presented paper on online undergraduate digital forensics education and pedagogy at the *40th Hawaii International Conference on System Sciences (HICSS-40)*, January 2007.
 - Presented lecture on cell phone forensics at *DoD Cyber Crime Summit*, January 2007.
 - Presented lectures on cryptography and TCP/IP at the *Southeast Cybercrime Summit*, March 2007.
 - Presented paper on network forensics and member of program committee, *Conference on Digital Forensics, Security and Law*, April 2007.

- Presented lectures on cell phone forensics, cryptography, TCP/IP protocol analysis, and Internet tools at the *HTCIA Annual Conference*, August 2007.
- Gave paper on experience with hands-on exercises in online computer forensics courses and participated on panel session, at *CFET 2007: 1st International Conference on Cybercrime Forensics Education & Training*, September 2007.
- Gave talk on the role of digital forensics at the *Vermont Association of Investigative & Security Services Annual Meeting*, October 2007.
- Presented keynote address ("The Acceptability of Digital Evidence") and paper on anti-forensics at the *5th Australian Digital Forensics Conference*, December 2007.
- Presented paper on the pedagogy and design of an M.S. degree program in digital investigation management at the Digital Forensics Mini-Track, *41st Hawaii International Conference on System Sciences (HICSS-41)*, January 2008. *Best Paper nominee*.
- Gave talk on network forensics at *The Computer Forensics Show*, February 2008.
- Gave talk on the role of digital forensics at the *Vermont Paralegal Association Annual Meeting*, April 2008.
- Led workshop titled "Computer Forensics Examiners as Private Investigators: The Role of Academia in the Debate" at the *Conference on Digital Forensics, Security and Law*, April 2008.
- Gave talk on cell phone forensics at *Mobile Forensics World*, May 2008.
- Presented paper on hands-on digital forensics exercises and chaired paper session at *Colloquium for Information Systems Security Education*, June 2008. *Received Best Paper award*.
- Presented paper on mock trials in undergraduate digital forensics education and participated on panel session, at *CFET 2008: 2nd International Conference on Cybercrime Forensics Education & Training*, September 2008.
- Presented talk on TCP/IP investigative tools and led lab on TCP/IP protocol analysis and packet sniffing at the *HTCIA Annual Conference*, October 2008.
- Presented talk on computer forensics at *Dartmouth College's Securing the eCampus 2.0* conference, November 2008.
- Led tutorial on computer forensics at the *42nd Hawaii International Conference on System Sciences (HICSS-42)* (January 2009).
- Presented talk on the value and effectiveness of digital forensic evidence at the meeting of the New England chapter of the HTCIA, March 2009.
- Host and conference chair, *Conference on Digital Forensics, Security and Law*, Burlington, VT (May 2009)
- Presented talk on the process of mobile device forensics and participated in panel on standardization and certification of the mobile forensics process at *Mobile Forensics World*, May 2009.
- Presented talk on challenges of digital forensic evidence at

TechnoSecurity, June 2009.

- Presented talk on future issues for digital forensics at the *Annual Meeting of the New England Chapter of the FBI National Academy Associates*, June 2009.
- Participate in panel session on Forensic Challenges in the Court Room at *SANS Forensics & Incident Response Summit*, July 2009.
- Presented talks on the challenges of digital evidence and the relationship between training, education, certification, and PI licensure at the *HTCIA Annual Conference*, August 2009.
- Led Webinar about Tracing IP Addresses on behalf of Vere Software, October 2009.
- Presented talk about cryptography and steganography to the Vermont Anti-Terrorism/Law Enforcement Coordination Committee, November 2009.
- Presented talks about cryptography, TCP/IP protocol analysis, and a jihadist cryptosystem at the DoD Cybercrime Conference, January 2010.
- Presented talk on steganography at Victim's Rights: Emerging Issues in the Criminal Justice System Conference, April 2010.
- Presented talk on mobile device forensics process at Mobile Forensics World, May 2010.
- Member of the "Curriculum Design and Implementation in Computer Forensics Education" panel at the Conference of Digital Forensics, Security and Law, May 2010.
- Presented talk on cryptography at TechnoSecurity, June 2010.
- Presented talk on "Computer Forensics for Judges" at Vermont Judicial College, June 2010.
- Presented talk on challenges to digital evidence at the 4th International Conference on Cyberlaw, August 2010.
- Presented talks on TCP/IP protocol analysis and cryptography at the 2010 HTCIA Annual Conference, September 2010.
- Presented keynote speech about information security and talks on cell phone analysis and TCP/IP investigative tools at the 2010 Wisconsin Association of Computer Crime Investigators (WACCI) Conference, October 2010.
- Presented talks on TCP/IP protocol analysis and tracing IP addresses tools at the 2011 Computer and Enterprise Investigations Conference (CEIC), May 2011.
- Presented talks on the process of mobile device forensics and Cryptography and Steganography Apps on the iPhone at the TechnoSecurity/Mobile Forensics Conference, June 2011.
- Presented talk on cryptography at the DoD Cyber Crime Conference, January 2012.
- Presented talks on the process of mobile device forensics and cryptography at the National Cyber Crime Conference, April/May 2012.
- Presented talk on challenges to digital forensic evidence at The Evidence Conference, October 2012.

- Presented talks on on tracing IP address and report writing, and moderated judges panel at the National Cyber Crime Conference, April 2013.

OTHER PROFESSIONAL ACTIVITIES:

- Part-time Computer Science instructor at the University of Vermont, 7/79-5/81; and Chabot Community College, Livermore and Hayward, California, 1/83-1/84.
- Hold California Community College Instructor Credential in Computer Science.
- Member of IEEE P610.7, Computer Dictionary Project Working Group 7 (Computer Networking), 1987-1992.
- Member of ANSI X3S3.7 (Public Digital Network Access) Task Group, 1985-1989; observer, 1990-1991.
- Adjunct member of graduate faculty in the Master's of Business Administration (MSA) program in the Prevel School of Business at St. Michael's College, Colchester, VT, 1988-2001. Have taught "An Overview of Data Communications for Managers," "An Overview of the Internet for Managers," and "Digital Futures."
- Affiliate of IEEE 802.6 (MAN) subcommittee, 1988-1995.
- Observer on ANSI X3T12 (FDDI) Task Group, 1990-1996.
- Member of Board of Directors (and Webmaster) for Vermont's Telecommunications Resource Center, 1995-1997. Have given several talks and presentations about the role of the Internet, electronic commerce, and computer crime.
- Advisor (and Webmaster) for Vermont ISP eXchange (VIX), 1997-2000.
- Internet Crimes Against Children (ICAC)
 - Technical adviser to Vermont ICAC (1999-2012). Have helped to organize and deliver computer and network first responder training to police officers in the region, and hosted courses from other organizations
 - Participated in computer and network investigations. Lead mobile device examiner for the Vermont ICAC (2006-2012).
 - Public awareness outreach coordinator, Vermont ICAC (2008-2012).
 - Mobile device examiner for the North Florida ICAC (2012).
- Originated the Vermont Information Security Coordination Center at Champlain College (2000) leading to the formation of the [Vermont InfraGard chapter](#), (2001). Chapter Chair, (2000-2005), Webmaster (2000-2012), Secretary (2006-2012).
- Board member of Vermont Telecom Advancement Center (<http://www.vtac.org>), 2001-2004.
- Member of SANS faculty, 2000-2002. Primary focus on TCP/IP, security essentials, and cryptography.
- Teach about cryptography and steganography for the Information

- Operations training taught to U.S. National Guard units by the Vermont National Guard, 2001-2011.
- Security Technology chair for the IEEE Technical Committee on Computer Communications (TCCC), 2002-2005.
 - Adjunct member of graduate faculty in the Master of Science in Information Assurance (MSIA) program at Norwich University, Northfield, VT, 2002-2003.
 - Taught computer forensics course for educators, Boston Area Advanced Technological Education Center (BATEC), July 2005 and July 2006.
 - Editorial board member (2005-2006) and Associate Editor (2007-2010), *Journal of Digital Forensic Practice*.
 - Editorial board member (2005-2009), Associate Editor (2009-2010), Book Review Editor (2006-2010), Editor-in-Chief (2011-2013), and Section Editor (2013-present), *Journal of Digital Forensics, Security and Law*.
 - International Board of Referees (2006-present), *Digital Investigation*.
 - Certified Computer Examiner (CCE) Bootcamp® instructor (2007-2013).
 - Member of Forensic Education Program Accreditation Committee (FEPAC) (2008-2010).
 - U.S. Department of State, Diplomatic Security Service, Anti-Terrorism Assistance Cybertraining program instructor (2008-present).
 - Member of the Digital Forensics Certification Board (DFCB), Certification and Testing Committee (2008-2010).
 - Editorial review board, *International Journal of Digital Crime and Forensics* (2008-present).
 - Member of program committee, Symposium on Applied Computing (SAC), Computer Forensics track (2008-present).
 - Board member, Consortium of Digital Forensic Specialists (CDFS) (2010-present); Treasurer (2011-present).
 - Member of program committee, The 4th International Conference on Cyberlaw (2010).
 - Member of program committee, The 5th International Conference on Digital Forensics & Cyber Crime, Moscow, September 2013 (Sponsored by European Alliance for Innovation).
 - Member of program committee, Conference on Digital Forensics, Security and Law, June 2013.
 - Co-chair of Information Systems Education and Training mini-track for the Hawaii International Conference on System Sciences, January 2014.
 - International Society for Forensic Computing Examiners (ISFCE) Certified Computer Examiner (CCE) Appeals Committee (July 2013-present).
 - Courses taken:
 - *SAFETY NET: Multidisciplinary Approach to Investigating and*

- Prosecuting Computer-Facilitated Crimes Against Children*, National District Attorney's Association, Burlington, VT, June 2002.
- *Steganography Investigator Training Course*, WetStone Technologies, Cortland, NY, April, 2003.
 - *Computer Fraud & Financial Crime Investigation*, Internet Crimes, Inc., Burlington, VT, May 2003.
 - *Cybercop 101 - Basic Data Recovery & Analysis (BDRA)*, National White Collar Crime Center (NW3C), Burlington, VT, August 2003.
 - *Forensics ToolKit Boot Camp*, AccessData, Burlington, VT, October 2003.
 - Criminal Law I (Criminal Statutes; CRJ 120), Champlain College, Fall 2003.
 - Criminal Law II (Criminal Procedures; CRJ 121), Champlain College, Spring 2004.
 - *The Investigation of Computer Crime*, SEARCH, Burlington, VT, June 2005.
 - *Advanced Responders - Search and Seizure of SOHO Networks*, SEARCH, Burlington, VT, January 2006.
 - *Cellular Telephone Investigations for ICAC Investigators*, SEARCH, Sacramento, CA, March 2006.
 - *Cybercop 302 - Advanced Data Recovery & Analysis -- Internet Trace Evidence (INET)*, National White Collar Crime Center (NW3C), Burlington, VT, April 2006.
 - *LiveWire Investigator Training Course*, WetStone Technologies, Burlington, VT, June, 2007.
 - *Cold Cases and Serial Homicides: A Victimology and Behavioral Approach to Investigations*, Burlington Police Department, Burlington, VT, October 2007.
 - *Windows Forensics (Registry)*, AccessData, Burlington, VT, December 2008.
 - *Mac Forensics I*, Purdue University, Burlington, VT, July 2009.
 - Investigative Interviewing (CRJ 310), Champlain College, Fall 2009.
 - Examining iOS Devices, viaForensics, Burlington, VT, April 2011.
 - FEMA *Introduction to Incident Command System (IS-100.b)*, July 2012.
 - FEMA *National Incident Management System (NIMS): An Introduction (IS-700a)*, July 2012.
 - FEMA *Resilient Accord - Exercising Continuity Plans for Cyber Incidents (IS-523)*, August 2013.

PUBLICATIONS:

- *A Computer Model of Hypoxic Man*. M.S. Thesis, University of Vermont, 1980.

- "Daniel Pickrell: Recollections of the Early Days of Machine Tabulating." *Annals of the History of Computing*, October/December 1980, Vol. 2, No., 4, pp. 373-374.
- "Want a Date? A Collection of Date Manipulation Algorithms." *Creative Computing*, December 1981.
- "The DDCMP Protocol on a DMA Serial-Line Board." In *Proc. of the Digital Equipment Corp. Users Society*, Vol. 9, No. 2, Fall 1982. (D.N. Hunt & GCK).
- "Apple II's Executive Editor." *SOFTALK*, August 1983.
- "RT-11 and VAX/VMS Command Equivalent Reference Guide." Lawrence Livermore National Laboratory Electronics Engineering Report, LER 83-1007-01 (9/23/1983).
- "DDCMP Internals Tutorial." In *Proc. of the Digital Equipment Corp. Users Society*, Vol. 10, No. 2, Fall 1983. (GCK & D.N. Hunt).
- "Mail Call." *DEC Professional*, March 1985.
- "Ethernet vs. IEEE 802.3." *LAN Magazine*, July 1987.
- "Logical Link Control: The IEEE 802.2 Standard." *LAN Magazine*, January 1988.
- "Ring on a Bus: The IEEE 802.4 Token Bus Standard." *LAN Magazine*, February 1988.
- "A Comparison Between CCITT Recommendation X.25 and International Standards 8208 and 7776." *IEEE Transactions on Communications*, April 1988, 36(4), 492-498.
- "Unraveling RS-232: An Introduction to the New EIA-232-D Specification." *LAN Magazine*, August 1988 and reprinted in Stallings, W. (editor), *COMPUTER COMMUNICATIONS: Architectures, Protocols, and Standards* (3rd. ed.). Los Alamitos (CA): IEEE Press, 1992.
- "Tokenism: The IEEE 802.5 Token Ring Standard." *LAN Magazine*, September 1988.
- "Before ISDN: Central Office LANs." *LAN Magazine*, February 1989. (GCK & R.K. Gojanovich).
- "Datakit VCS." *LAN Magazine*, February 1989.
- "10BASE-T." *LAN Magazine*, July 1989.
- "Inside TCP/IP." *LAN Magazine*, July 1989.
- "FDDI." *LAN Magazine*, August 1989.
- "Statistics in EMS: A Case Study." *Newsletter of the National Assoc. of EMTs*, September/October, 1989.
- "A Brief Introduction to Modems." *PC Magazine*, February 1990 and *Rainbow Magazine*, November 1990.
- "IEEE 802.6 MAN." *LAN Magazine*, April 1990 and reprinted in Stallings, W. (Ed.). *COMPUTER COMMUNICATIONS: Architectures, Protocols, and Standards* (3rd ed.). Los Alamitos (CA): IEEE Press, 1992.
- *ISDN: Concepts, Facilities, and Services*. New York: McGraw-Hill, 1990.
- "ISDNs & LANs Unite: The IEEE 802.9 Integrated Voice and Data LAN Standard." *LAN Magazine*, October 1990 and reprinted in

- Brambert, D. (Ed.). *The LAN Magazine Guide to Internetworking*. San Francisco: Miller Freeman, 1993.
- "Inside FDDI-II." *LAN Magazine*, March 1991.
 - "Serial Asynchronous Communication and the Tandy 1000." *PC Magazine*, March 1991.
 - "Simplifying SONET." *LAN Magazine*, July 1991 and reprinted in Brambert, D. (Ed.). *The LAN Magazine Guide to Internetworking*. San Francisco: Miller Freeman, 1993.
 - "Service for Your MAN: The Switched Multi-megabit Data Service." *LAN Magazine*, October 1991.
 - *METROPOLITAN AREA NETWORKS: Concepts, Standards, and Services*. New York: McGraw-Hill, 1992. (GCK & D.A. Train).
 - "A Technical Overview of SMDS". *SMDS Interest Group Newsletter*, Part I: January 28, 1992 (Vol. 1, No. 3) and Part II: May 19, 1992 (Vol. 2, No. 1).
 - "That's LAT: DEC's Local Area Transport Protocol." *LAN Magazine*, July 1992.
 - "Digital Frontier: ISDN." *Corporate Computing*, August 1992. (GCK & E.K. Longsworth).
 - "An Introduction to the IEEE 802.4 Token-Passing Bus Standard." In McClain, G.R. (Ed.). *The Handbook of International Connectivity Standards*. New York: Van Nostrand Reinhold, 1992.
 - "An Introduction to the IEEE 802.5 Token Ring Standard." In McClain, G.R. (Ed.). *The Handbook of International Connectivity Standards*. New York: Van Nostrand Reinhold, 1992.
 - *ISDN: Concepts, Facilities, and Services*, 2nd ed. New York: McGraw-Hill, 1993.
 - "PPP: Getting to the Point." *LAN Magazine*, July 1993.
 - "Changing Channels: An Overview of Fibre Channel." *LAN Magazine*, December 1993.
 - "A Happy Union: The IEEE 802.9 Standard." *LAN Magazine*, May 1994.
 - "An Overview of the Switched Multimegabit Data Service (SMDS)." In McClain, G.R. (editor). *The Handbook of Networking and Connectivity*. New York: Academic Press, 1994.
 - "An Overview of the Synchronous Optical Network (SONET)." In McClain, G.R. (editor). *The Handbook of Networking and Connectivity*. New York: Academic Press, 1994. (GCK & T.A. Maufer).
 - "An Overview of TCP/IP Protocols and the Internet." Originally written and posted on the Internet, August 1994; continuously updated. URL: <http://www.garykessler.net/library/tcpip.html>.
 - "A Primer on Internet and TCP/IP Tools." Request for Comments (RFC) 1739, December 1994. (GCK & S.D. Shepard).
 - "Fast Packet Telecommunications Services." *Association for Telemessaging Services Newsletter*, October 1994.
 - "Case Study: Bonding With the Internet." *LAN Magazine*, December 1994. (GCK & C.A. Monaghan).

- "Point of Departure: Using the File Transfer Protocol (FTP) and Telnet." *LAN Magazine*, February 1995.
- "Laying the Foundation of ATM." *Stacks*, May 1995.
- "Build Great Firewalls." *Network VAR*, June 1995.
- "Frame Relay: CIR and Billing Issues." *Network VAR*, December 1995.
- "Changing Channels: Fibre Channel Revisited." *Interoperability*, a supplement to *Network VAR*, April 1996 and *LAN Magazine*, May 1996. (W.J. Goralski & GCK)
- "Running Your Own DNS." *Network VAR*, July 1996.
- *ISDN: The Complete Guide to ISDN Architecture, Products, and Implementation*. Charleston (SC): Computer Technology Research Corp., 1996. (W.J. Goralski & GCK)
- "Serving the Internet: Some Guidelines for Setting up Internet Information Servers." *LAN Magazine*, September 1996.
- "Building a World Wide Web Site." *Network VAR*, December 1996.
- "The Need for Computer Crime Legislation in Vermont." A *Telecommunication Resource Center* Position Paper, December 1996. Available on the Internet at <http://www.garykessler.net/library/crimeleg.html>.
- *ISDN: Concepts, Facilities, and Services*, 3rd ed. New York: McGraw-Hill, 1997. (GCK & P.V. Southwick)
- "IPv6: The Next Generation Internet Protocol." *Network VAR*, February 1997.
- "A Primer on Internet and TCP/IP Tools." Request for Comments (RFC) 2151/For Your Information (FYI) 30, March 1997. (GCK & S.D. Shepard). Available on the Internet at <ftp://ftp.isi.edu/in-notes/rfc2151.txt> and <http://www.garykessler.net/library/rfc2151.html>.
- "An Overview of Public Key Infrastructure Technology." A *CommerceNet* White Paper, April 1997.
- "Is 56Kbps in Your Customer's Future?" *Interoperability*, a supplement to *Network VAR* and *LAN Magazine*, June 1997. (GCK & W. Goralski)
- "ADSL: What to Expect." *Interoperability*, a supplement to *Network VAR* and *LAN Magazine*, June 1997. (W. Goralski & GCK)
- "Passwords - Strengths and Weaknesses." In Cavanagh, J. (Ed.). *Internet and Internetwork Security*. Boston: Auerbach, 1997.
- "The Portrayal of the Network in the Popular Media, or What the Non-Techie Person-on-the-Street Must Think of Us!" *IEEE Communications Magazine*, Special Issue on the Global Internet, May 1997, 35(5), 114-118. (GCK & S.D. Shepard)
- "Time to Spend Electronic Money." *Network VAR*, August 1997. (GCK & S.D. Shepard)
- "IPv6: The Next Generation Internet Protocol." In Brogo, K. (Ed.). *Handbook of Local Area Networks*, 4th ed. Boston: Auerbach, 1997.
- "Considerations for LAN and Internet Security." In Brogo, K. (ed.). *Handbook of Local Area Networks*, 4th ed. Boston: Auerbach, 1997. (GCK & C.A. Monaghan).

- "Universal Fax and E-mail." *Network VAR*, November 1997. (C. Monaghan & GCK)
- "How to Improve Windows NT Security." *Network VAR*, February 1998.
- *Minting Cybermoney*, a monograph published by Hill Associates and the Vermont Business Roundtable, March 1998. (S.D. Shepard & GCK)
- Electronic Payment Options. *Network VAR*, June 1998. (S.D. Shepard & GCK)
- *ISDN: Concepts, Facilities, and Services*, 4th ed. New York: McGraw-Hill, 1998. (GCK & P.V. Southwick)
- "Mobile IP: Harbinger of Untethered Networking." *Telephony*, September 21, 1998.
- "Overview of Cryptography." In Sloan, J. (Ed.). *Handbook of Local Area Networks*. Boston: Auerbach, 1999.
- "Why the Web Can Be Suitable for Learning." *IEEE Computer Magazine*, February 1999, 32(2), 114-115. (GCK, K. Rosenblad, & S.D. Shepard)
- "The Dynamic Host Configuration Protocol (DHCP) and Windows NT." *Windows NT Magazine*, May 1999. (GCK & C.A. Monaghan)
- "Modeling Trust With PGP 6.5.1." *Information Security*, August 1999.
- "Routing, NT, & RIP." *Windows NT Magazine Online*, August 23, 1999. (GCK & C.A. Monaghan)
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- "Add Fuel to Your Firewall: Security Tools for Windows NT." *Windows NT Magazine*, October 1999.
- "Deciphering Cryptography." *Windows NT Magazine*, December 1999.
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- Kessler, G.C. (2000, February). Roaming PKI. *Information Security Magazine*.
- Kessler, G.C. (2000, April). Web of Worries. *Information Security Magazine*.
- Hamilton, A., & Kessler, G.C. (2000). Real-World Routing: Advice from the Field. In C. Brenton, *Mastering Cisco Routers*. San Francisco: SYBEX.
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- Kessler, G.C. (2000, July). *Securing Cable Modems*. *Information Security Magazine*.
- Kessler, G.C., & Pritsky, N.T. (2000, October). Cache on Demand: An Update on SSL, SET, and IOTP. *Information Security Magazine*.
- Kessler, G.C. (2000, November). *Security at the Speed of Thought*. *Information Security Magazine*.

- Kessler, G.C. (2001, January). [Binary Numbers and Subnet Masks](#). *Windows 2000 Magazine*.
- Kessler, G.C. (2001, March/April). [Some Non-Technical Hurdles to Implementing Effective Security Policies](#). *IEEE ITPro Magazine*, 3(2), 49-52.
- Kessler, G.C. (2001, April). Norton Internet Security Provides a Total Solution for the Home. *Information Security Magazine*.
- Kessler, G.C. (2001, June). [Plugging Leaky Holes](#). *Information Security Magazine*.
- Kessler, G.C. (2001, August). IDS-in-Depth. *Information Security Magazine*.
- Kessler, G.C. (2001, September). [Sam Spade, Systems Detective](#). *Information Security Magazine*.
- Kessler, G.C. (2002, February). Security Expressions. *Information Security Magazine*.
- Kessler, G.C. (2002, April). [Steganography: Hiding Data in Data](#). *Windows & .NET Magazine*.
- Kessler, G.C., & Schirling, M.E. (2002, April). [Cracking the Books, Cracking the Case: A Review of Computer Forensics Texts](#). *Information Security Magazine*.
- Levine, D.E., & Kessler, G.C. (2002). Denial of Service Attacks. In M. Kabay, & S. Bosworth (Eds.). *Computer Security Handbook*, 4th ed. New York: John Wiley & Sons.
- Kessler, G.C., & Pritsky, N.T. (2002). Local Area Network Security. In M. Kabay, & S. Bosworth (Eds.). *Computer Security Handbook*, 4th ed. New York: John Wiley & Sons.
- Kessler, G.C., & Pritsky, N.T. (2002). Local Area Network Topologies and Design. In M. Kabay, & S. Bosworth (Eds.). *Computer Security Handbook*, 4th ed. New York: John Wiley & Sons.
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- Kessler, G.C. (2004, January). [Book Review: Guide to Computer Forensics and Investigations \(Nelson et al.\)](#). *FBI Forensic Science Communications*, 6(1).
- Kessler, G.C. (2004, July). [An Overview of Steganography for the Computer Forensics Examiner](#). *FBI Forensic Science Communications*, 6(3).
- Kessler, G.C. (2004, Summer). [Steganography: Implications for the Prosecutor and Computer Forensics Examiner](#). American Prosecutors Research Institute *Child Sexual Exploitation Program UPDATE*, I(1).
- Kessler, G.C. (2006, January 31). [The Role of Computer Forensics in Law Enforcement](#). OFFICERS.com Web site.
- Kessler, G.C. (2006). Special Feature: Computer Forensics. In G.B. Shelly, T.J. Cashman, & M.E. Vermaat, *Discovering Computers 2006: A Gateway to Information*. Boston: Thomson Course

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- Kessler, G.C. (2006, First quarter). Book Review: *Cognition, Education, and Communication Technology* (Gardenfors & Johansson). *The Internet and Higher Education*, 9(1).
- Beebe, N., Kessler, G.C., & Rogers, M. (2006, March). [Book Review: *Computer Evidence: Collection & Preservation* \(Brown\)](#). *Journal of Digital Forensic Practice*, 1(1), 71-72.
- Kessler, G.C., & Schirling, M.E. (2006). [The Design of an Undergraduate Degree Program in Computer & Digital Forensics](#). *Journal of Digital Forensics, Security and Law*, 1(3), 37-50.
- Beebe, N., & Kessler, G.C. (2006, December). Book Review: *Real Digital Forensics: Computer Security and Incident Response* (Jones, Bejtlich, & Rose). *Journal of Digital Forensic Practice*, 1(4), 325-326.
- Kessler, G.C. (2006). [Book Review: *Digital Crime and Forensic Science in Cyberspace* \(Kanellis, Kiountouzis, Kolokotronis, & Martakos\)](#). *Journal of Digital Forensics, Security and Law*, 1(4), 67-69.
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- Kessler, G.C. (2007, January). [Online Education in Computer and Digital Forensics: A Case Study](#). In R. Sprauge (ed.), *Proceedings of the 40th Hawaii International Conference on System Sciences (HICSS-40)*, IEEE Computer Society.
- Kessler, G.C. (2007). [Book Review: *No Place to Hide* \(O'Harrow\)](#). *Journal of Digital Forensics, Security and Law*, 2(1), 93-95.
- Kessler, G.C., & Fasulo, M. (2007, April). [The Case for Teaching Network Protocols to Computer Forensics Examiners](#). In G. Dardick (Ed.), *Proceedings of the Conference on Digital Forensics, Security and Law*, pp. 115-137.
- Kessler, G.C. (2007, August/September). The Role of Computer Forensics for the Paralegal Community. *Paralegal Focus (Newsletter of the Vermont Paralegal Organization)*, 4(3), 8-11.
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- Kessler, G.C. (2007). [Book Review: *Conquest in Cyberspace: National Security and Information Warfare* \(Libicki\)](#). *Journal of Digital Forensics, Security and Law*, 2(2), 67-70.
- Kessler, G.C. (2007, December). [Anti-Forensics and the Digital Investigator](#). In C. Valli & A. Woodward (Ed.), *Proceedings of the 5th*

Australian Digital Forensics Conference. Mt. Lawley, Western Australia: Edith Cowan University.

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- Kessler, G.C. (2008, March). [On Teaching TCP/IP Protocol Analysis to Computer Forensics Examiners](#). *Journal of Digital Forensic Practice*, 2(1), 43-53.
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- In addition, several of my presentations are posted at [Webtorials.com](http://www.webtorials.com) including:
 - Network Security Overview, August, 1999
 - Denial of Services (DoS) Attacks, February 2000
 - Special Report: "Love Letter" and Related E-mail Viruses, May 2000
 - An Update on Code Red, August 2001
 - The Nimda Worm, September 2001

DISSERTATION COMMITTEES:

- Bob Altiero, *Digital Forensics Tool Interface Visualization*, Nova Southeastern University, in progress.
- Stephen R. Coston, *Awareness of Open Source Intelligence Gathering Tools Being Used With Social Media*, Capitol College, in progress.
- Tanya MacNeil, *Legal Standings of Digital Forensics Qualifications*, Nova Southeastern University, 2015.
- Richard P. Mislán, *An Analysis of Mobile Phone Forensic Reports as Triage Tools for Gathering On-Scene Intelligence*, Nova Southeastern University, 2013.

Examinations

- Richard Adams, *The Advanced Data Acquisition Model (ADAM): A Process Model for Digital Forensic Practice*, Murdoch University, 2012.
- David Irwin, *The Extraction of Electronic Evidence from the Voice over Internet Protocol (VoIP)*, University of South Australia, in progress.

COMMUNITY ACTIVITIES:

- Volusia County Reef Research Dive Team, 2013-present.
- Volusia County Sheriff's Office/N. Florida ICAC, 2012-present.
- Southwind Condominium Association Board, 2005-2012; Board President, 2009-2012.
- American Heart Association Cardiopulmonary Resuscitation (CPR) instructor, 1999-2002.
- Member of Green Mountain Critical Incident Stress Management Team, 1997-2012.
- Have advised various schools and libraries about the use of computers and the Internet since 1991. Have given multiple presentations to community groups about the use of the Internet in education, safe use of the Internet, the role of information security and privacy, and computer forensics.
- Medical Officer, Disaster Action Team and Chairman of Safety Services, American Red Cross, Livermore, California, 1982-1983.
- Vermont Emergency Medical Technician (EMT), 1979-2006.
- Malletts Bay Fire Department, Colchester, Vermont, 1979-1981, 1984-1986.
- [Colchester Rescue Squad](#), Colchester, Vermont, 1978-1981, 1984-1999, 2002-2005. Positions held include Chief (1987-1994, 1995-1996) and Assistant Chief (1986-1987, 1995). Also statistician (1979-1999) and Webmaster (1996-2005). Elected Life Member, 1999.
- Los Angeles Sheriff's Department, Malibu Mountain Rescue Team, Malibu, California, 1976-1977.

- American Red Cross Cardiopulmonary Resuscitation (CPR) instructor, 1976-1988.

PROFESSIONAL ORGANIZATIONS:

- American Academy of Forensic Sciences, Digital and Multimedia Sciences Section
- ASIS International
- Consortium of Digital Forensic Specialists (CDFS)
- High Tech Crime Consortium (HTCC)
- High Technology Crime Investigation Association (HTCIA)
- IEEE Computer Society
- IEEE Communications Society
- International Society for Preparedness, Resilience, and Security (INSPRS)
- International Society of Forensic Computer Examiners (ISFCE)

- Divers Alert Network (DAN)
- Professional Association of Diving Instructors (PADI)