

## **ELLIOT B. SLOANE, PHD, CCE, FHIMSS**

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**Education** **Ph.D.** 1999 Drexel University, College of Information Science and Technology  
**M.S.** 1982 Drexel University, College of Electrical Engineering  
**B.S.** 1975 Cornell University, School of Engineering

**Career** **Drexel University, Philadelphia, PA** **November 2009-present**

**Health Systems Engineering Program Director and Professor of Health Systems Engineering,** Drexel University School of Biomedical Engineering, Science and Health Systems. The mission of Health Systems Engineering (HSE) is to leverage the data-informed healthcare environment of the 21<sup>st</sup> Century. HSE strives to improve personalized care and the underlying metrics of quality, outcomes, efficiency, cost-effectiveness, and satisfaction. HSE benefits are achieved in many ways, including: accelerating the translation of research into products for mobile, point-of-care, and highly patient-specific clinical diagnosis and treatment; facilitating innovative public-private partnerships to achieve sustainable healthcare business applications of the technologies necessary to achieve HSE's benefits for patients and society; fostering and accelerating the interoperability of technologies and information systems to improve real-time "in the moment of care" clinical decision support and activities; empowering patients so they can direct and manage their healthcare more effectively; enhancing the underlying System of Systems Engineering research to understand and manage the complex and interdependent information systems and devices needed for modern healthcare; informing patients, society, and policy makers with timely research about these technologies' benefits, interactions and trade-offs; empowering much more timely and effective population health planning and management for healthier living and active longevity; and educating a new generation of researchers, clinicians, engineers, and scientists to properly design and implement the appropriate healthcare tools and systems effectively. Lastly, HSE helps analyze, interpret, and operationalize the newly-integrated and interoperable Electronic Health Records and Health Information Exchanges data streams as well as the myriad new sources of personal health data that goes all the way from the molecular level to people's societal and environmental interactions.

**Center for Healthcare Information Research and Policy, Blue Bell, PA** **June 2009 - present**

**Executive Director, CEO, Co-founder** A non-profit, 501(c)(3) business focused on Health Informatics, and advanced Health Technology Management. Topic areas include Electronic Health Records, Health Information Exchanges (HIE's), Privacy, and Security, and Telemedicine. Also provides a public policy focus on empowering patients and their families to make the most effective use of Personal Health Records and manage critical privacy and security risks. *Selected current project highlights include:* Writer for the Office of the US National Coordinator of Health IT (ONCHIT) US EHR Privacy and Security standards; Design and development of a new Global Health Technology database and a health technology asset and resource planning and management system for the World Health Organization; Design review and planning for the Cleveland Clinic Abu Dhabi Digital Hospital construction project; Health informatics education and workforce development curriculum planning; Design and development of a Health Systems Engineering academic and research program for the Drexel University School of Biomedical and Health Systems Engineering; and Development of a Health Information Exchange for the Philadelphia/Tri-state Southeastern PA region.

**Villanova University Villanova School of Business, Villanova, PA** **May, 2000 – May, 2009**

**Assistant Professor, Management Information Systems** 11<sup>th</sup> ranked Business School in the Nation by Business Week in 2009. Developed and presented courses in eBusiness, Databases, Telecommunications, Healthcare Information Systems, Health Administration, and Business Ethics for Executive MBA, MBA, and undergraduates. Completed research and publications in the Biomedical Informatics, Health Systems Engineering, Clinical Decision Support, and Healthcare Technology Management fields.

**present**

**Founder, CEO** Providing Information Systems and Clinical Engineering Education, Research, and Consulting. Perform healthcare and information technology assessments, technology-management engineering services, strategic planning, board/executive/staff/team training, patient safety research and consulting, medical informatics R&D, technical standards development, systems engineering consulting, intellectual property review, construction project review and oversight, and provide independent expert audit services for select hospital, management, non-profit, government, and private industry clients.

**MEDIQ/PRN Life Support Services, Inc. Pennsauken, NJ.**

**Jan, 1990 – Feb, 2000**

**Vice President, Operations, Quality/Regulatory Assurance, and Clinical Engineering (COO/CTO)**

Largest US life-support technology distribution, rental, and repair company. Publically traded, \$300 Million revenue, 20% EBITDA, with offices in over 100 cities in US. 1500 employees provided 365 day/24-hour services to 11,000 hospital, nursing, and home care customers. FDA-registered medical device manufacturer, licensed for nationwide pharmaceuticals and surgical supply sales and distribution.

**ECRI Institute Plymouth Meeting, PA**

**May, 1975 – Jan, 1990**

**Vice President, Operations (COO) and Vice President, Information Systems (CIO)** World-renowned medical device research, testing, database, publishing, education, and international consulting agency. Biomedical engineering, computer software and hardware development. The World Health Organization's designated Collaborating Center of Excellence for Technology Assessment and Patient Safety. Was ECRI's principle liaison to the Australian Ministry of Health, and Latin America and the Caribbean through the Pan American Health Organization (PAHO).

**President of NST**, ECRI's for-profit healthcare test equipment design and manufacturing subsidiary.

**Awards & Honors**

**2009 – Elevated to Fellow status, Healthcare Information Management Systems Society (HIMSS)**

**2007 - ACCE-HIMSS “Excellence in Clinical Engineering and Information Technology Synergies Award,”** HIMSS Annual Conference, New Orleans

**2007 - Certified Clinical Engineer (CCE)** Professional credential earned by 3-hr written and 2-hr oral examinations under the oversight of the Healthcare Technology Certification Board

**2006 - ACCE Thomas O’Dea Clinical Engineering Advocacy Award,** ACCE Annual Conference

**2004 – Promoted to Senior Member, IEEE,** by nomination and international committee review

**Industry Highlights**

**In the decades prior to entering academia (1975-2000), built and led successful business units providing strategic global biomedical engineering and healthcare information systems. Ran reliable and efficient business operations, product/services delivery, and new product development for in-house and outside customers through teamwork, mentoring, and innovation.**

- Managed 200+ person staff at east- and west-coast corporate facilities plus small teams in dozens of other US cities, with an departmental budget responsibility of \$25-45 million;
- Managed smaller, 5-20 person subsidiaries such as joint ventures and R&D, service, & Q/A programs;
- Designed, developed and implemented information systems for biomedical /clinical engineering, research, management, finance, administration, manufacturing, publishing, and quality;
- Introduced and implemented leading-edge information technologies, including PC/LAN business applications, SQL databases, CD-ROM/WORM document scanning, OCR and archiving, working-group productivity systems, Internet services, bar-coded asset tracking, and maintenance management;
- Developed and ran technology acquisition, implementation, and management programs for information systems, databases, telecommunications, plant/facility ops, and most health technologies;
- Managed R&D and product design, manufacturing and distribution for FDA-regulated medical devices and drugs (GMP, cGMP, CE, CSA, and UL compliance; ISO 9000 programs);
- Developed new business programs, and managed major national mergers and acquisitions
- Ran successful sales, marketing, and presentation projects, including US and international education, training, professional writing, and multi-channel communication services.

- Diverse business executive experiences, including publically-traded corporations, non-profit organizations, government agencies, academic institutions, and international/multi-national programs;
- Extensive Board/Director experience, including corporate, non-profit, and charitable organizations.

**Academia Highlights** **Since entering academia in 2000, developed a strong, multi-faceted role in teaching, research, publishing, funded-consultation, and both industry, community, and academic service, including:**

- Developed and implemented of dozens of successful undergraduate, MBA, and Executive MBA courses spanning business, engineering, technology management, and healthcare information systems;
- Published over 100 papers on innovative research in both refereed- and industry-journals and conferences spanning important new areas in informatics, biomedical engineering and business;
- Over 70 conference presentations delivered worldwide, including growing number of keynotes at major international meetings;
- Conference, track, theme, and session organizer and chair for numerous international engineering and business conferences and symposia;
- A very active funded-research portfolio for clients from industry, government, military, and law..
- Active leadership role in many academic, non-profit, and industry association programs. Officer, Board, and Committee Chair roles in international academic societies and professional organizations

**Editorial Boards** *Biomedical Instrumentation Technology Journal*, since 1990.  
*Information Systems Management*, since 2007.  
*International Journal of Networks and Virtual Organizations*, since 2006.  
*International Journal of Biomedical Engineering and Technology*, since 2006.

**Director & Board Roles** **ACCE** (American College of Clinical Engineering) member since 1996.

- President, 2001/2002; Vice President 1999/2001; Board of Directors, 1999-2005
- Chair of Integrating the Healthcare Enterprise and Patient Safety Task Forces

**ACCE Healthcare Technology Foundation** A 501(c)(3) patient safety educational foundation.

- Founding Board Member, 2004 – 2008; Chair of Finance and Budget Committee

**ANSI** (American National Standards Institute) Healthcare Information Technology Standards (HITSP) 2005-‘09, Board of Directors, 2007-‘08

**AITP** (Association for Information Technology Professionals, formerly DPMA), Montgomery County, PA Chapter, since 1982.

- President, 1993 and 1997/98; Executive Vice President 2000-2002

**HIMSS** (Healthcare Information Management Systems Society) since 2001

- Elevated to Fellow status in 2009
- Author, Annual Conference Session Chair, and Presenter since 2001
- Co-chair of IHE International as the HIMSS delegate since 2006; Board member since 2003
- Chair of the HIMSS Security and Privacy Steering Committee, 2008/2009, member 2007-2009
- Member of the Annual Conference Education Committee, 2009-2011
- Board of Directors, Delaware Valley Chapter (DVHIMSS) 2009-2012

**IEEE** (Institute of Electrical and Electronic Engineers) member since 1976

- Elevated to Senior Member in 2004
- Board of Directors, IEEE Engineering in Medicine and Biology Society, 2003-‘06, and 2007-‘09
- IEEE Standards Association Technical Sponsor for IEEE 11073x Medical Device Informatics Standards, since 2004; Standards Education Committee, 2009-2011
- Geographic Earth Observation Systems (GEOS) Health Systems Coordinator, since 2008
- Healthcare Committee Chair, IEEE Systems Council (2008-2009)

**IHE International** (Integrating the Healthcare Enterprise), a 501(c)(3) non-profit HIT interoperability standards agency that governs and supports global domains in 12 nations/regions, and most major medical specialties to ensure effective, reliable, and safe healthcare information system

interoperability, and supporting the evolution of telemedicine and the seamless, safe, and reliable integration of medical device data from, in, and between hospitals, physicians, and the home.

- Co-Chair of the Board (2006-2011); Member of Board of Directors since 2002

**IHE USA** (Integrating the Healthcare Enterprise USA), a separate 501(c)(3) non-profit USA-centric deployment of IHE standards that develops US and North American Electronic Health Record and Nationwide Health Information Network deployment, Connectathon testing and Showcase demonstration projects with industry and US government agencies (AHRQ, DoD, HHS, NIST, VA)

- Board of Directors (2009-2011)

**Performance Controls, Inc. (now a division of Hitachi Electronics)** Privately held electronics and DC power-amplifier company with leading-edge products in the aviation, locomotion, manufacturing, medical device, military, radiology, and robotics fields.

- Board of Directors (1994-1997), until sold to MTS Automation and then to Hitachi

## **Other Affiliations**

**AAMI** (Association for the Advancement of Medical Instrumentation)

- Co-Chair, Biomedical Engineering Management and Productivity Committee since 1988
- Nominating Committee, 1995/1996, Conference Committee 1999, 2000, 2001.

**Ben Franklin Technology Center of Philadelphia** - Biomedical Investments Reviewer since 1999

**Carelift International** Non-profit 501(c)(3) medical relief, healthcare technology, and clinical/technical training for developing countries; Board of Directors, 1994-2005

**National Institutes of Health** Grant Reviewer, Developmental/Biomedical Technologies, 2004-09

**San Jose Medical School, Tecnológico de Monterrey (TEC), Mexico** 2006-present

- Workshop Leader, Health Informatics Curriculum Development for Faculty, Summer 2007
- Clinical Engineering Senior Capstone Course, visiting professor Summer 2006

## **Other Affiliations (cont'd)**

**WHO** (World Health Organization), Geneva, Switzerland, and

**PAHO** (Pan American Health Organization), Washington, DC

- Clinical Engineering and Health Information Systems Advisor, 1988-present
- Global Health Technology Management Task Force Advisor. Geneva, Switzerland (2009)
- International Medical Error and Patient Safety Taxonomy Taskforce. Geneva, Switzerland (2003)
- Medical Device Nomenclature Task Force, Linköping, Sweden (1988)
- Advanced Clinical Engineering Workshops. Workshop leader, faculty, and program facilitator for Health and Information Technology Management. Locations: Nepal & Havana (2001), Dominica & Cancun (2003), Bahamas (2004), Barbados (2008), China (2008 & 2009)

## **NOTES:**

- 1. Citizen of USA; no hiring restrictions.**
- 2. Selected full-text publications and presentations are available at [www.ebsloane.org](http://www.ebsloane.org).**
- 3. Personal and professional references are available upon request.**