Curriculum Vitae
Timothy W. Cook

Education:
9/2014 - Introduction to Data Science, University of Washington
4/2014 - R Programming, Johns Hopkins Bloomberg- School Of Public Health
3/2013 – Certificate (w/Distinction) Introduction to Digital Sound Design, Emory University
6/2006 – Master of Science (w/Merit) in Health Informatics
1/2005 – Letter of Attendance in Research Methods Course (audit)
6/1995 – Certified Total Quality Management Coach
1/1995 – Bachelor of Science in Engineering Technology
2/1994 – Certificate in Government Contract Negotiations
6/1992 – Certificate in Professional Communications
9/1991 – Certificate in Tactical Communications
4/1991 – Certificate in Advanced Administration
5/1990 – Certificate in Cryptographic Materials Management
2/1990 – Certificate in US History and USMC Customs
11/1989 – Certificate in Physical Training Management
1/1988 – Certificate in Information Systems Management
2/1986 – Certificate in Advanced Air Traffic Controls Systems Management
3/1979 – Certificate in Advanced Communications Systems Management
7/1977 – Certificate in Aviation Communications Systems Repair
6/1976 – High School Diploma – Industrial Electrical and Control Systems

Awards:
2001 Linux Medical News Open Source Achievement Award
Navy and Marine Corps Commendation Medal
Marine Corps Good Conduct Award (3 Awards)
Organized Marine Corps Reserve Medal (2 Awards)
National Defense Medal
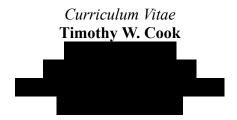Navy Meritorious Unit Citation (2 Awards)

Research Experience:
11/2009 – 8/2019 – National Institute of Science and Technology – Medicine Assisted bt Scientific
Computing (INCT-MACC). International Collaborator at the INCT-MACC 'Multilevel Healthcare
Information Modeling' Laboratory. Activities Developed:

10/2009 – 5/2015 - Multi-Level Health Information Management (MLHIM) – MLHIM is a set of
specifications and software implementations for constraint based, semantically inter-operable health
information systems.

2012 - Epidemiological Surveillance Support System - Project manager for a decision support system
to
improve treatment and reporting of public health issues. Based on the MLHIM specifications for

semantic interoperability.

2010 - Pre-Hospital Infomation Support System - Project manager for a decision support system to improve pre-hospital care. Based on the MLHIM specifications for semantic interoperability.

2014 - Open Source Health Information Platform (OSHIP) – Project manager and lead developer to create a
Python language-based implementation of the MLHIM specifications in conjunction with a well-established application server. This project is ongoing and designed to provide an easy entry point for application developers basing their health information systems on MLHIM.

Informatics: Enhancing the Clinical Experience – consulted on project design.
http://www.pathgroup.ca/Research_Studies/Current/ICE/

Canadian College of Health Informatics – consulted on the design and performed the research to develop the final report. http://www.pathgroup.ca/Research_Studies/Completed/CANCHI/

Evidence-based Guidelines And Decision Support System (EGADSS) – provided the open source development leadership and initial design architecture for the project (http://www.egadss.org/) and consulted on the methodology for research study design (http://www.pathgroup.ca/Research_Studies/ Completed/EGADSS).

Purpose-Driven Facilities – Provided environmental scan and qualitative analysis of international comparisons of generalized vs. specialized hospitals. The final report was used, in part to determine the economic and health benefits of converting one or more generalized hospitals to a group of specialized hospitals within a regional health authority. Fraser Health Authority, British Columbia, Canada.
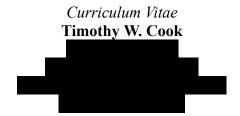
EMR Toolkit – provided qualitative analysis using ATLAS.ti of transcripts during development. The EMR Toolkit was developed by Grey Martin & Assoc. under contract with Health Canada. (http://www.emrtoolkit.ca/)

iKnow – I provided technical assistance in design of iKnow. iKnow is the decision support system of eVent which is a patient monitoring system for anesthesiologists. (http://tech.groups.yahoo.com/group/iKnowExpertSystem/files/)

Industry Experience:
2014 – 2018- Rio de Janeiro State University, UERJ, Brazil – Grant for transition MLHIM to S3Model

9/2014 – 10/2016 - Carlos Chagas Filho Foundation for Research Support of the State of RJ, FAPERJ, Brazil – Grant for development of the Multi-Level Health Information Model

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4/2011 – Present – Collaborator, International Health Terminology Standards Development Organization (IHTSDO); Information Model Task Force and Machine & Human Readable Concept Model Project.

2/2009 – 12/2009 - Certification Commission for Healthcare Information Technology, CCHIT, Member of The Advanced Interoperability Working Group

3/2009 – 12/2009 - American National Standards Institute, ANSI. Member of The Health Information Technology Working Group

6/2009 – 7/2019 – International Collaborator, National Institute of Science and Technology - Medicine Assisted by Scientific Computing (INCT-MACC)

3/2008 – 3/2011 – Visiting Researcher, Health Informatics Decision Support, Department of Epidemiology and Biostatistics, Institute of Community Health, Fluminense Federal University, Brazil

12/2007 – 12/2010 – Honorary Research Assistant, University College London, Centre for Health Informatics and Multi-professional Education, London, England, UK

8/2006 – 1/2009 – Timothy Cook Research & Consulting,LLC.

6/2005 – 8/2006 – COO, CHASE Health Informatics, Inc. Edmonton, AB

1/2005 – 6/2005 - Independent health informatics consultant, Richmond, BC

1/2005 – 10/2005 – PATH Group, University of Victoria, Victoria, BC – Expert Consultant for Healthcare Decision Support

6/2005 – 11/2005 – Consultant, Frayser Health Authority, BC

1/2005 – 10/2005 – Consultant, Health Canada – Healthcare data modeling.
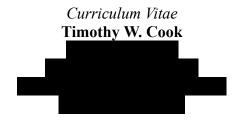
4/2004 – 4/2009 – openEHR Foundation, Member of the Architecture Review Board

1/2004 – 1/2008 - Consultant, Gerson Lehrman Council of Advisors

6/2002 to 12/2004 – President, Open Paradigms, LLC, South Fulton, TN

1/2000 to 6/2002 – President & CTO, Free Practice Management, Inc. Miami, FL

11/1997 to 1/2000 – Information Systems Operations Manager – Union City, Baptist Hospitals Memphis, TN

Curriculum Vitae
Timothy W. Cook

4/1997 to 11/1997 – Information & Control Systems Manager, SGL Carbon, Hickman, KY

11/1975 to 4/1997 – U.S. Marine Corps, Master Sergeant, (Retired)
(in parallel to this career, I had several businesses and part-time positions)

6/1990 to 1/2000 – operated as an independent Information Systems consultant to a variety of industries and small businesses.

5/1988 to 6/1990 – President, ClipCASE, Inc. San Francisco, CA.

6/1980 to 6/1983 – President, Sigma Technologies, Virginia Beach, VA.

12/1983 – 9/1984 – Engineering Tech – Gould Defense Engineering Labs, Baltimore, MD.

11/1979 to 6/1980 – hardware technical consultant to midrange computer companies in the Washington, DC area

4/1976 to 11/1979 – audio/video technician (various TV/Stereo shops in; 29 Palms, CA, Dale City, VA, Virginia Beach, VA)
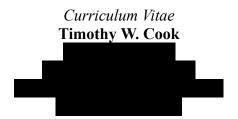
Peer-Reviewed Publications:
Dias RDM, Cook TW, Freire SM (2011) Modeling healthcare authorization and claim submissions using the openEHR dual-model approach. **BMC Medical Informatics and Decision Making** 11:60. doi:10.1186/1472-6947-11-60

Cavalini LT, Cook TW (2011) Health informatics: the relevance of open source and multilevel modeling. **IFIP Advances in Information and Communication Technology** 365: 338 – 347.

Ferreira MMV, Cook TW, Cavalini LT (2011) Modeling dementia clinical and psychological concepts for computer-aided diagnosis. In: Annals of the XI Workshop of Medical Informatics at the XXXI Congress of the Brazilian Society of Computer Science.

Nogueira JRM, Cook TW, Cavalini LT (2011) Modeling methodology of interoperable information systems for nursing care. In: Abstracts of the 5th Brazilian and International Congress on Telemedicine e Telehealth.

Cavalini LT, Freire SM, Cook TW (2010) Forward chaining inference vs. binary decision support in an electronic health record application based on archetyped data In: **Studies in Health Technology and Informatics**. Amsterdam: IOS Press, v.160. p.1469 – 1469

Ratamero EM, Cavalini LT, Cook TW, Saade DCM (2010) Modeling magnetic resonance clinical reports of the lumbar spine using openEHR archetypes In: Annals of the XII Brazilian Congress on Health Informatics.

"Where the Context Lies" (2009) is a point paper on why standard data modeling approaches do not work in complex domains such as healthcare information systems design.
http://timothywayne.cook.googlepages.com/context-lies.pdf

"Contextual Persistence in Complex Information Systems: An analysis of storing and retrieving information in an electronic health record." (2006) Cook, T.W., M.Sc. Thesis, University of Central Lancashire, Lancashire School of Health and Medicine, Supervisor – Dr. Jean Roberts.

"Open Source", Cook T.W., Book Chapter in "Computerization And Going Paperless in Canadian Primary Care" (2005) Shaw, N.T. Radcliffe Medical Press; ISBN: 1857756231

"Open Source & International Health Informatics: Placebo or Panacea?" (2001) N T Ellis, D R Pepper, T W Cook, P Houwink, N Jain and M Bainbridge, Informatics in Primary Care, Volume 10 Number 1

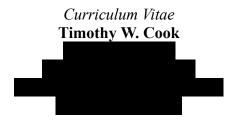**Conference/Workshop Presentations:**
FREIRE, S. M., COOK, T. W., CAVALINI, L. T. Short Course on openEHR, 2010. At the 1st Workshop of Scientific Computing on Health Applications, Petrópolis, Brazil.

Healthcare Knowledge Modelling Projects for Multilevel-Based Information Systems. 2010. CAVALINI, L. T., COOK, T. W. VII Latino-American Open Source Conference; Itaipu Technological Park; Iguassu Falls, Brazil

Implications of Multi-Level Modelling in Interoperability of Healthcare IT Systems. 11/2009. World Health Organization, SDMX-HD Workshop, Geneva, Switzerland

Healthcare Information Models & Applications COOK, T. W.. 2009. 10o. Fórum Internacional de Software Livre; http://fisl.softwarelivre.org/10/papers/pub/programacao/670; Porto Alegre, Brazil

Developer and leader of the openEHR/OSHIP workshop (1.5 days) at the International Epidemiological Association World Congress, Porto Alegre, Brazil. (20 September – 21 September, 2008) http://www.epi2008.com.br/ingles/index.php

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Workshop developer and leader on healthcare information interoperability at the National Laboratory for Scientific Computing (LNCC), Petropolis RJ Brazil. (21 July – 1 August, 2008)
http://www.openehr.org/wiki/display/dev/LNCC-UFF+Workshop

Interoperability with Health Information Systems (2008) Universidade Federal Fluminense, Instituto de Computação, Niterói, RJ, Brasil as part of the "Circle of Seminars" series.

Vocabulary Management in openEHR Archetypes (2007) WHO Global Health Data Standards Workshop, Nairobi, Kenya

"Contextual Persistence in Complex Information Systems: An analysis of storing and retrieving information in an electronic health record." (2006) Master's Thesis Presentation, University of Alberta, Edmonton, AB Canada

"Economic Sustainability of Open Source in Healthcare Applications" (2005) Invited Presentation, University of British Columbia and Children and Women's Hospital Business Development Group, Vancouver, BC Canada

"Does Free and Open Source Software Really Mean Free for General Practice Computerization?" (2004) Refereed Presentation, World Organization of Family Doctors (WONCA), Orlando, FL USA

"Open Source Application Success in Healthcare" (2004) Panel Moderator, 11th World Congress on Medical Informatics (MEDINFO), San Francisco, CA, USA

"Promoting Open Source Application Use in Primary Care" (2004) Presentation, 11th World Congress on Medical Informatics (MEDINFO), San Francisco, CA, USA
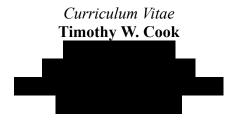
"Using an Open Source EMR" (2004) CPD Accredited Tutorial, American College of Physicians, New Orleans, LA, USA

"Introduction to an Open Source EMR" (2004) Refereed Presentation, American College of Physicians, New Orleans, LA USA

"Using RFID to Track Patients and Equipment in a Primary Care Clinic" (2002) Invited Presentation, Bedrock Clinical Investors Conference, Houston, TX USA

"The Dangers of Relational Database Vocabularies in Long Term EMR Usage" (2002) Invited Presentation, Fresno III Open Source Retreat, Fresno, CA, USA

"Integrating Relational Data Vocabulary in an Object Database EMR" (2001) Invited Presentation, Fresno II Open Source Retreat, Fresno, CA, USA

"Open Source Software in Healthcare" (2001) Panel Member, American Medical Informatics Assn., Washington, D.C. USA

"Using Web Protocols to Exchange Health Record Data" (2000) Invited Presentation, Fresno I Open Source Retreat, Fresno, CA USA

"Using Object Databases in Healthcare Applications" (2000) Invited Presentation, Fresno I Open Source Retreat, Fresno, CA USA

"Web-based EMR Demonstration" (2000) Tutorial, American Medical Informatics Assn., Los Angles, CA USA

"Using Scripting Languages for Rapid, Web-based EMR Development", (1999) Invited Presentation, Minoru Development Corporation Open Source Retreat, Toronto, ON, Canada

Volunteer Affiliations:

Court-appointed member – Citizens Foster Care Review Board.

Chair, City of ███████, Planning & Zoning Commission

Member, City of ███████, Board of Adjustments

Member, City of ███████, City (aka. "Banana") Ambassadors

Former Member, Certification Commission for Healthcare Information Technology (CCHIT) Advanced Interoperability Working Group

Member, United Kingdom Council for Health Informatics Professions (UKCHIP) Registrant #466
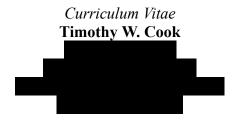
Former Member and Co-Founder, Professional Assessment of Technology in Health (PATH) Research Group

Former Member, British Columbia Health Informatics Management Professionals Society

Former Member, Canada's Health Informatics Association (COACH)

Former Member, Architecture Review Board, openEHR Foundation

Member & Organizing Chair, American Medical Informatics Assn. Open Source Working Group

Curriculum Vitae
Timothy W. Cook

Co-founder and Former Board Member of the Open Source Health Care Alliance (OSHCA)

Member, International Medical Informatics Assn. Open Source Working Group

Former – Obion County, Tennessee Red Cross Chapter Chairman

Former – Red Cross Emergency Response Volunteer (Certified)

Former – Boy Scouts of America (various leadership posts Cub Leader to Chartered Organization Representative)

Former – Girls Scouts of America volunteer

Former – Certified Youth Sports Coach (baseball, soccer)