CV for Mark Gaynor

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EDUCATION

INSTITUTE	SUBJECT	DEGREE	YEAR
Pitzer College	Mathematics	BA	1980
Claremont Graduate School	Applied Mathematics	MA	1980
University of Colorado	Telecommunications	ME	1995
Harvard University	Computer Science	MS	1998
Harvard University	Computer Science	Ph.D.	2001
MBL/NLM - Marine Biological Laboratory	BioMedical Informatics	Course Fellow	20011 Fall

PROFESSIONAL EXPERIENCE

ORGANIZATION	JOB DESCRIPTION	LOCATION	YEAR
Hewlett Packard	Software Engineer	Silicon Valley, Calif.	1980-1981
Vitel International	Software Engineer, Network Designer, Network Manager	Boulder CO.	1981 - 1995
Harvard University	Research & Teaching Assistant	Cambridge, MA.	1995 - 2001
Boston University	Assistant Professor of Information Systems	Boston, MA.	2001 - 2009
10 Blade	CTO	Boston, MA.	2003 - 2011
Saint Louis University	Associate Professor of Health Management and Policy	St. Louis, MO.	2009 -
CAHIIM	Peer Reviewer for Health Informatics	Chicago, IL	2017-

PUBLICATIONS

Books:

1. Gaynor, M. (2003). *Network Service Investment Guild: Maximizing ROI in uncertainty markets*: Wiley).

2. Sarnikar, S., Bennett, D., Gaynor, M. (2012). *Cases on Healthcare Information Technology for Patient Care Management*: IGI Global.

Blogs:
1. Gaynor, M., Lenert, L., Wilson, K., and Bradner S. (2014). Its hard to be neutral about network neutrality for health care, Health Affairs Blog.
2. Gaynor, M., Lenert, L., Wilson, K., and Bradner S. (2017). Telecommunication Policies May Have Unintended Health Care Consequences, Health Affairs Blog.

Papers by Grad Student Birkinesh Yohanness in 2021 – more details on publication details later.
    1. Lagebo, Birkinesh; Gaynor, Mark Prof.; and Assefa, Temtim dr, "IT Governance for Balancing Evolveability and Standardization in Health Information System Implementation in Ethiopian Context" (2021). African Conference on Information Systems and Technology. 12
    2. Lagebo, Birkinesh; Gayor, Mark Prof.; and Assefa, Temtim, 2021. "Top Management Lead Entrepreneurship in Handling Competing Institutional Logics for DHIS-2 Adoption in Ethiopian Public Health Care, MENACIS 2021 - Middle East & North Africa Conference for Information Systems; Morocco, Agader

Journal Papers:

1. Gaynor, M., BeLue, R., Tuttle-Newhall, J., Martin, M., Patejdl F., Vogt, C., Blockchain in Population Health, Oxford Journal of Public Health – under revision with minor changes.

2. Gaynor, M., Schneider, D., Seltzer, M., Crannage, E., Barron, M. L., Waterman, J., & Oberle, A. (2020). A user-centered, learning asthma smartphone application for patients and providers. *Learn Health Syst, 4*(3), e10217. doi:10.1002/lrh2.10217

3. Gaynor, M., Newhall, J., Parker, J., Patel, A., & Tang, C. (2020). Adoption of Blockchain in Health Care. *J Med Internet Res, 22*(9), e17423. doi:10.2196/17423

4. Gaynor, M., Omer, T., and Turner, J., Teaching Security and Encryption with Simulation for Non-Technical Healthcare Professionals, (Accepted Summer 2016), International Journal of Privacy and Health Information Management (IJPHIM), IGI Global.

5. Gaynor, M., Waterman, J., Design framework for sensors and RFID tags with healthcare applications, *Health Policy and Technology, (2016)*

6. Gaynor, M, Omer, T, and Turner, J. (Accepted Aug. 2015). Teaching Technical Data Security with Simulation for Healthcare Professionals, *Journal of Healthcare Protection Management*, Accepted Aug, 2015.

7. Gaynor, M., Bass C., and Duepner, B. (2014). A Tale of Two Standards. *Health Systems*.

8. Gaynor, M., Lenert, L., Wilson, K. D., & Bradner, S. (2014). Why common carrier and network neutrality principles apply to the Nationwide Health Information Network (NWHIN). *Journal of the American Medical Informatics Association : JAMIA, 21*(1), 2-7. doi: 10.1136/amiajnl-2013-001719

9. Gaynor, M., Yu, F., Andrus, C., Bradner, S., Rawn, J. (2013). A General Framework for Interoperability with Applications to Healthcare. *Health Policy and Technology, 3*(1), 3-12.

10. Herzlinger, Regina, Seltzer, Margo, and Gaynor, Mark. (2013). Applying KISS to Health Care Information Technology. *IEEE Computer, 46*(11), 72-74.

11. Andrus, C., and Gaynor, M. (2013). Successful HIT Requires Inter-team Communications. *Journal of Cases on Information Technology (JCIT), 15*(4).

12. Gaynor, M. and LeRouge C. (2011). Persuasive Smart Phone Applications of Healthcare. *HiHealth Connectioins*.

13. Gaynor, M., LeRouge, C., and Jiao, M. (2011). A China-secified Multi-level technical Infrastructure for Diabetes. *Journal of Next Generation Information Technology, 2*(3.1).

14. Gaynor, M., Myung, Dan, Restuccia, Joe, and Moulton, S. (2010). Designing Infrastructure to Exchange Electronic Patient Care Records with Web Services,. *International Journal of Biomedical Engineering and Technology, 5*(2).

15. Gaynor, M., A. Pearce, S. Bradner, and K. Post. (2009). Open infrastructure for a nationwide emergency service network. *International Journal of Information Systems for Crisis Response Management (IJISCRAM)*.

16. Gaynor, M., Myung, D., Gupta, A., & Moulton, S. (2009). A standardised pre-hospital electronic patient care system. [Research Support, N.I.H., Extramural Research Support, U.S. Gov't, Non-P.H.S.]. *International journal of electronic healthcare, 5*(2), 102-136.

17. Gaynor, M., and G. Shankaranarayanan. (2008). Implications of sensors and sensor-networks for data quality management. *International Journal of Information Quality*.

18. Gaynor, M., and S. Bradner. (2008). Statistical framework to value network neutrality. *Media Law & Policy, New York Law School*.

19. Gaynor, M., Myung, D., Hashmi, N., & Shankaranarayanan, G. (2007). An intelligent pre-hospital patient care system. [Research Support, N.I.H., Extramural Research Support, Non-U.S. Gov't Research Support, U.S. Gov't, Non-P.H.S.]. *International journal of electronic healthcare, 3*(1), 107-122.

20. Gaynor, Mark. (2004). A Real Options Metric to Evaluate Network , Protocol, and Service Architecture. *Computer Communications Review*.

21. Gaynor, M., M. Welsh, S. Moulton, A. Rowan, E. LaCombe, and J. Wynne. (2004). Integrating wireless sensor networks with the grid. *IEEE Internet Computing*.

22. Tollefsen, Will, M. Pepe, D. Myung, M. Gaynor, M. Welsh, and S. Moulton. (2004). iRevive, a pre-hospital mobile database for emergency medical services. *International Journal of Healthcare Technology Management (IJHTM)* (Summer).

23. Gaynor, M. (2003). A real options approach to value voice-over-IP services. *IEEE Internet Computing*, 16.

24. Bala, Iver, M. Gaynor, G. Wyner, and J. Freedman. (2002). Enabling dynamic business networks using web services. [Web-based]. *CAIS*.

25. Gaynor, M., and S. Bradner. (2001). Using real options to value modularity in standards. *Journal of Knowledge Technology & Policy, 14*(2).

Book Chapters:

1. Gaynor, M., Noblin,A.Rusnak, M. (University of Rusnakova, T. and Yu, P. (2018) The Global Healthcare Manager: Competencies, Concepts, and Skills, HAP Press
2. Andrus, C., and Gaynor, M. (2013). Good IT Requires Good Communications. In S. Surendar, Bennett, D., and Gaynor, M. (Ed.), *Cases on Healthcare Information Technology for Patient Care Management, *. Hershey, PA: IGI Global.

3. Gaynor, M., Friedec, S., Pearce, A., Bradner, S., and Post, K. (2011). Open Infrastructure for a Nationwide Emergency Service Network. In M. Jennex (Ed.), *Crisis Response and Management and Emerging Information Systems: Critical Applications*. Hershey, PA.: IGI Global.

4. Gaynor, M., Seltzer, M. and Moulton, S. (2005). A dynamic data-driven, decision support system for emergency medical services. In VS Sunderam (Ed.), *Lecture notes in computer science* (Vol. 3515): Computational Scence – ICCS

5. Hashmi N., D. Myung, M. Gaynor, M. Pepe, M. Welsh, and S. Moulton. (2005). iRevive, a Pre-hospital Mobile Database for Emergency Medical Services. In S. Barnes, and E. Scornavacca (Ed.), *Unwired Business: Cases in Mobile Business*

6. Gaynor, M., V. Sethaput, and H. T. Kung. (1999). Experiences with Using a High Quality MPEG Video Server to Aid Classroom Teaching. In D. Brown (Ed.), *Interactive Learning*: Anker Publishing.

Conference Papers:

1. *Birkinesh Woldeyohannes, Mark Gaynor, Temtim Assefa,* IT Governance for Balancing Evolveability and Standardization in Health Information System Design and Implementation in Ethiopian Context*,* The African Conference on Information Systems and Technology (ACIST) 2020

2. Qin, J., Zhu, B., Gaynor, M., Bradner, S. (2009). *Communication Clique Evolution Graph: A Tool to Monitor Conflicts in Virtual Teams*. Paper presented at the of 8th Workshop on e-Business (WeB'09), Phoenix, AZ.

3. Zhu, B., Gaynor, M., and Bradner, S. (2009). *Monitoring Team Conflicts through the Visualization of Social Networks*. Paper presented at the Fifth Winter Information Systems (IS), David Eccles School of Business, University of Utah.

4. Gaynor, M., A. Pearce, and S. Bradner. (2008, May). *Open Infrastructure for a Nationwide Emergency Service Network.* Paper presented at the Proceedings of the 5th International ISCRAM Conference, Washington DC.

5. Gaynor, M., S. Moulton, J. Rawn, and D. Myung. (2008). *Human Computer Interoperability of Medical Applications and Devices*. Paper presented at the HICSS.

6. Zhu, B., Gaynor, M., and Bradner, S. (2008). *Monitoring Team Conflicts through the Visualization of Social Networks*. Paper presented at the of 7th Workshop on e-Business (WeB'08), Paris, France.

7. Gaynor, M., D. Myung, and S. Moulton. (2007). *Integrating Vital Sign Data into Pre-hospital Patient Care Records*. Paper presented at the AMCIS.

8. Gaynor, M., D. Myung, J. Restuccia, and S. Moulton. (2007). *Exchanging Electronic Patient Care Records with Web Services*. Paper presented at the AMCIS.

9. Gaynor, M., S. Moulton, and D. Myung. (2007). *Human Computer Interaction in the Pre-Hospital Setting*. Paper presented at the HICSS.

10. Manjanatha, Sowmya, A. Bestavros, M. Gaynor, and S. Moulton. (2007). *A Rule-based decision framework for Medical Sensor Networks*. Paper presented at the Workshop on High Confidence Medical Device Software and Systems (HCMDSS).

11. Gaynor, M., S. Moulton, and R. Messer. (2006, May). *Applications for Emergency Medical Services.* Paper presented at the Proceedings of the third International ISCRAM Conference, NJ.

12. Baird, S., S. Dawson, D. Myung, M. Gaynor, M. Welsh, and S. Moulton. (2006). *Communicating Data from Wireless Sensor Networks using the HL7v3 Standard*. Paper presented at the IEEE Workshop on Body Sensor Networks.

13. Hashmi, N., D. Myung, M. Gaynor, V. Kudesia, W. Tollefsen, D. Winkler, S. Ganesan, D. Corwin, and S. Moulton. (2006). *Embedding Rules in a Mobile Database.* Paper presented at the Proceedings of AICCSA.

14. Gaynor, M., M. Seltzer, S. Moulton, and J. Freedman. (2005, June). *A Dynamic, Data-Driven, Decision Support System for Emergency Medical Services.* Paper presented at the Proceedings of the International Conference on Computational Science.

15. Hashmi, N., D. Myung, M. Gaynor, and S. Moulton. (2005). *A Sensor-based, Web Service-enabled, Emergency Medical Response System.* Paper presented at the Proceedings of the Mobile Systems, Applications, and Services.

16. Gaynor, M., S. Moulton, M. Welsh, A. Rowan, E. LaCombe, and J. Wynne. (2004). *Wireless Sensor Network Applications*. Paper presented at the AMCIS

17. Shankar, Ganesan, and M. Gaynor. (2004). *Sensor Data and Managing Data Quality in Sensory Network Applications*. Paper presented at the AMCIS

18. Tollefsen, W., D. Myung, M. Gaynor, and S. Moulton. (2004). *iRevive, a Pre-hospital Mobile Database*. Paper presented at the AMCIS

19. Gaynor, M., L. McKnight, J. Hwang, and J. Freedman. (2003). *Wireless Grid Networks and Virtual Markets (Best paper in session)*. Paper presented at the Computer, Communication and Control Technologies (CCCT03), Orlando, FL.

20. Gaynor, M., B. Iver, G. Wyner, and J. Freedman. (2003). *Web Services Tutorial*. Paper presented at the AMCIS Tampa, FL.

21. McKnight, L., and Gaynor, M. (2003b). *Wireless grids, Draft for Grid High Performance Networking Work group.* Paper presented at the Global Grid Forum (GGF8).

22. Gaynor, M., and S. Bradner. (2001). *The Real Options Approach to Standardization*. Paper presented at the Proc. of HICSS

23. Gaynor, M., S. Bradner, M. Iansiti, and H. T. Kung. (2001). *The Real Options Approach to Standards for Building Network-based Services*. Paper presented at the Proc. 2nd IEEE conference on Standardization and Innovation, Boulder, CO.

24. Gaynor, M., B. Karp,. and H. T. Kung. (1998). *A PC-Based ATM Link Delay, Simulator*. Paper presented at the Summer Computer Simulation Conference.

Industry working drafts:

1. McKnight, L., and Gaynor, M. (2003). Implications for inter-system mobility management of wireless grid networks and virtual markets for sharing resources in dynamic ad-hoc environments. In ITU-T Special Study Group (SSG) Working Group Q.2/SSG (Ed.).

2. Sander, V., and Gaynor, M. (2003). Draft for Grid High Performance Networking Work group.

3. Gaynor, M. and Bradner, S. (2001). Firewall Enhancement protocol (FEP), IETF RFC 3093. In Internet Engineering Task Force (Ed.).

White Papers:

1. Lippis, Nickolas, and M. Gaynor. (2004). IP Telephony Cost of Ownership: Sponsored by 3Com Corporation

Posters:

1. Gaynor, M., Seltzer, M. and Schneider, D. (2013). *Asthma Infrastructure Research (AIR).* Paper presented at the AMIA, Washington DC.

2. Gaynor, M. and Wyner, G. (2010). *Security, Confidentiality, Authentication, and Integrity of Electronic Medical Records (Best Instructional Technology Award Winer)* Paper presented at the 20th Workshop on Information Technology and Systems, (WITS 2010), Saint Louis.

3. Gaynor, M. (2010a). *Emergency Care in Space.* Paper presented at the 20th Workshop on Information Technology and Systems, (WITS 2010).

4. Gaynor, M. (2010b). *Teaching Electronic Medical Records.* Paper presented at the 20th Workshop on Information Technology and Systems, (WITS 2010), St. Louis.

5. Gaynor, M., Buskirk, T. (2010). *A App a Day Keeps the Doctor Away.* Paper presented at the American Medical Informatics Assoc., Washington DC.

6. Gaynor, M. , C. LeRouge, and M. J. Ma. (2009). Architecture for Telemedicine Applications for Management of Chronic Conditions: American Telemedicine Association.

7. LeRouge, C., M. J. Ma, M. Gaynor, and G. DeLeo. (2009). Prototyping a Smart Phone Application for Chinese Elderly Diabetics (pp. Poster): American Telemedicine Association.

8. Gaynor, M. , LeRouge C. , Jiao, M., and Gianluca D. (2009). *Prototyping a Smart Phone Application for Chinese Elderly Diabetics.* Paper presented at the American Telemedicine Assoc.

9. Gaynor, Mark. (2009). *Integration of iRevive with the Lightweight Trauma Module.* Paper presented at the National Space Biomedical Research Institute/NASA.

10. Moulton, S., D. Myung, N. Hashmi, T. Fulford, S. Jain, R. Zambre, and M. Gaynor. (2005). A Pre-hospital Patient Care System with Wireless Sensors for Centralized Vital Sign Monitoring and Patient Location Tracking (pp. Poster). Boston, MA: Working Together: Research & Development Partnerships in Homeland Security.

11. Myung, D., B. Duncan, D. Malan, M. Welsh, M. Gaynor, and S. Moulton. (2003). *Vital Dust: Wireless sensors and a sensor network for real-time patient monitoring* (pp. Poster). Burlington, MA: 8th Annual New England Regional Trauma Conference.

12. Welsh, M., D. Myung, M. Gaynor, and S. Moulton. (2003). *Resuscitation monitoring with a wireless sensor network* (pp. Poster, Abstract): American Heart Association, Resuscitation Science Symposium

Workshops, Panels and Talks:

1. Gaynor, M (2018) Future of Software in Healthcare, Becker's IT and Revenue Cycle Conference, Gaynor, M. (2013a).

2. M, Gaynor (2018) Panel Chair for Technology in Healthcare, GENiE conference

3. *Asthma Infrastructure Research (AIR).* Paper presented at the AUPHA, New Orleans, LA.

4. Gaynor, M. (2013b). *Asthma Infrastructure Research (AIR)* Paper presented at the Bio-IT World, Boston.

5. Gaynor, M. (2011a). *Privacy and Security of Medical Information.* Paper presented at the AUPHA undergrad workshop in teaching.

6. Gaynor, M. (2011b). *Workshop in Privacy and Security of Medical Information.* Paper presented at the AMIA, Washington DC.

7. Gaynor, Mark. (2005). *Sensors for Medical and Triage Applications.* Paper presented at the International workshop for medical sensors - sponsored by Reed Business Group,, Paris, France.

8. Gaynor, M., and S. Bradner. (2004). A real options metric to evaluate network, protocol, and service architecture. *ACM SIGCOMM Computer Communication Review (CCR).*

9. Gaynor, Mark. Opensig - Programming the Internet. In http://www.developer.intel.com/design/ixa/opensig (Ed.), (pp. Presented talk on panel about End2end Argument & Programming the Internet). Napa Valley, CA.

10. Gaynor, Mark. (2000). The Policy Implications of End-to-End. In
http://www.law.stanford.edu/e2e (Ed.), (pp. Presented in Panel on open access for Cable).
Stanford Law School.

11. Gaynor, Mark. (2000). International Conference on Complex Systems. In
http://www.eecs.harvard.edu/~gaynor/complexity.ppt (Ed.), (pp. Presented talk in Business
Track). Nashua, NH

Research Grants for Mark Gaynor

1. Big Idea Grant Group – Gaynor, M. (PI) $50,000
2. Gaynor, M. (PI). (2011b). Presidential Award for Asthma project (Vol. 25,000).

3. Gaynor, M. (PI). (2011). Health Information Techology course development for
Privacy/Security, Technology, and Standards (Vol. 15,000): AUPHA.

4. Crossin, J. (PI) and Gaynor, M. (Co-PI). (2009). Integration of iRevive with the Lightweight
Trauma Module (Vol. 600,000): National Space Biomedical Research Institute/NASA.

5. Buskirk, T. (PI) and Gaynor, M. (Co-PI). (2009). Presidential Award for Smart Phone
Application Research (Vol. 25,000): Saint Louis University.

6. Gaynor, M. , (PI). (2005). SGER: The CapWIN project - Deployment of Dynamic Collaborative
Sensor Networks (Vol. 50,000): NSF IIS-0529798.

7. Moulton, S. (PI) and Gaynor, M. (Co-PI). (2004a). GPS-based Tracking System for Trauma
Patients (Vol. 100,000): US Army W81XWH-04-C-0113.

8. Moulton, S. (PI) and Gaynor, M. (Co-PI). (2004b). Research on Multi-organizational
Knowledge-based Approach (Vol. 658,000): NIH 1 R41 RR018698-01A1

9. Gaynor, Mark. (2003). Hourglass: An Infrastructure for Sensor Networks (Vol. 800,000): NSF
ACI-0330244.

10. McKnight, L. (PI), and Gaynor, M. (Co-PI). (2003). Virtual Markets in the Wireless
communications & Computation Grid (Vol. 600,000): NSF PFI-0227879.