

CURRICULUM VITAE

TUCKER J. MARION

Education:

Ph.D.	2007	The Pennsylvania State University The Harold and Inge Marcus Department of Industrial and Manufacturing Engineering Ph.D. in Industrial Engineering Major Field: New Product Development Processes
M.S.	2002	University of Pennsylvania Penn Engineering and the Wharton School M.S. in Technology Management
B.S.	1996	Bucknell University College of Engineering B.S. Mechanical Engineering

Academic Positions:

2007 – Present	Associate Professor of Entrepreneurship & Innovation, D'Amore-McKim School of Business, Northeastern University, Boston, MA (2007 - present). Affiliate Appointment, Department of Mechanical & Industrial Engineering, College of Engineering. Partnership Innovation Director, (2021 – present) NASA Convergent Aeronautics Solutions Visiting Scholar, (2020-2021) Group Chair, Academic Programs, Entrepreneurship & Innovation Group (2017 – 2020). Faculty Director, Master of Science in Innovation programs, High Technology MBA (2013 – present). Co-Director, Institute for Global Innovation Management, (2012 – 2017).
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Industry Positions:

2004 – Present	Founder and Managing Partner, FlashPoint Development, Inc., Holliston, MA.
2000 – 2004	Co-founder and Chief Development Officer, Innovation Factory, Inc., Havertown, PA.

1997 – 2003 Lead Engineer, Visteon and Ford Motor Company, Lansdale, PA.

1996 – 1997 Ranger Quality Analyst/Engineer, Ford Motor Company, Edison, NJ.

Research Interests:

My research is centered on the new product development (NPD) process, for both startups and corporations. Specifically, I research on critical attributes that can influence improvements in efficiency and efficacy from a process and organizational standpoint. These factors include startup approaches to design, Information Technology (IT) and digital design tool usage in NPD, and the effect of sourcing and cost engineering on the development process. These factors represent a comprehensive depiction of the total innovation process, with implications for business theory and practice.

Books:

Marion, T. and Fixson, S. 2018. *The Innovation Navigator: Transforming Your Organization in the Era of Digital Design and Collaborative Culture*. University of Toronto Press, Scholarly Publishing Division, released November 2018. Research-based book for corporate executives.

Journal and Article Publications:

Marion, T.J., Fixson, S.K. The Transformation of the Innovation Process: How Digital Tools are Changing Work, Collaboration, and Organizations in New Product Development. *Journal of Product Innovation Management*, 38(1): 192-215.

Marion, T.J., Fixson, S.K and Brown, G. 2020. The Skills Tomorrow's Innovation Workforce Will Need. *MIT Sloan Management Review*. 61(2): 1-7.

Seidel, V.P., Marion, T.J., Fixson, S.K. 2020. Innovating How to Learn Design Thinking, Making, and Innovation: Incorporating Multiple Modes in Teaching the Innovation Process. *INFORMS Transactions On Education*. 20(2): 73-84.

Zeid, A., Sundaram, S., Moghaddam, M., Kamarthi, S., & Marion, T.J. 2019. Interoperability in Smart Manufacturing: Research Challenges. *Machines*, 7(2): 21.

Marion, T.J. and Meyer, M.H., 2018. Organizing to Achieve Modular Architecture Across Different Products. *IEEE Transactions on Engineering Management*, 65(3): 404-416.

Candi, M., Roberts, D.L., Marion, T. and Barczak, G., 2018. Social Strategy to Gain Knowledge for Innovation. *British Journal of Management*, 29(4): 731-749.

Fixson, S.K., Marion, T.J. 2016. A Case of Crowdsourcing Gone Wrong. *Harvard Business Review*, December 15, 2016, <https://hbr.org/2016/12/a-case-study-of-crowdsourcing-gone-wrong>.

Marion, T.J., and Fixson, S.K. 2016. The 4 Main Ways to Innovate in the Digital Economy. *Harvard Business Review*, June 2, 2016, <https://hbr.org/2016/06/the-4-main-ways-to-innovate-in-a-digital-economy>.

Marion, T.J. 2016. 4 Factors that Predict Startup Success, and One That Doesn't. *Harvard Business Review*, May 3, 2016, <https://hbr.org/2016/05/4-factors-that-predict-startup-success-and-one-that-doesnt>.

Marion, T.J., Roberts, D., Candi, M., and Barczak, G. 2016. Customizing Your Social Strategy to the Platform. *MIT Sloan Management Review*. Spring issue sidebar article.

Marion, T.J., Hultink, E.J., Reid, M., Barczak, G. 2016. The Influence of Collaborative IT Tools on NPD. *Research-Technology Management*, 59(2): 47-54.

Reid, M., Hultink, E.J., Marion, T.J., Barczak, G. 2015. The Impact of IT Tool Usage on the Predevelopment Phase of the NPD Process. *Information & Management*, 53(4): 422-434.

Marion, T.J., Eddleston, K.A., Friar, J.H. and Deeds, D. 2015. The evolution of interorganizational relationships in emerging ventures: An ethnographic study within the new product development process. *Journal of Business Venturing*, 30(1): 167-184.

Marion, T.J., Meyer, M.A. and Barczak, G. 2015. The Influence of Digital Design and IT on Modular Product Architecture. *Journal of Product Innovation Management*, 32(1): 98-110.

Marion, T.J., Barczak, G. and Hultink, E.J. 2014. Do Social Media Tools Impact the Development Phase? An Exploratory Study. *Journal of Product Innovation Management*, 31(1): 18-29.

Meyer, M.A. and Marion, T.J. 2013. Preserving the Integrity of Knowledge and Information in R&D. *Business Horizons*, 56(1): 51-61.

Marion, T.J., Dunlop, D. and Friar, J.H. 2012. The University Entrepreneur: A Census and Survey of Attributes and Outcomes. *R&D Management*, 42(5): 401-419.

Marion, T.J. and Friar, J.H. 2012. Managing Global Outsourcing to Enhance Lean Innovation. *Research-Technology Management*, 55(5): 44-50.

Marion, T.J., Fixson, S.K. and Meyer, M.H. 2012. The Problem with Digital Design. *MIT Sloan Management Review*, 53(4): 63-68.

Marion, T.J., Dunlap, D. and Friar, J.H. 2012. Instilling the Entrepreneurial Spirit in Your R&D Team: What Large Firms Can Learn from Successful Start-ups. *IEEE Transactions on Engineering Management*, 59(2): 323-337.

Fixson, S. and Marion, T.J. 2012. Back-loading: Unintended Consequences of Digital Design Tools in New Product Development. *Journal of Product Innovation Management*, 29(7): 140-156.

Marion, T.J., Friar, J.H. and Simpson, T.W. 2012. New Product Development and Early-Stage Firms: Two In-Depth Case Studies. *Journal of Product Innovation Management*, 29(4): 639-654.

Meyer, M.A., Marion, T.J. and Crane, F.G. 2010. Selling Innovation to the C-Suite. *Research-Technology Management*, 53(4): 15-20.

Meyer, M.A. and Marion, T.J. 2010. Innovating for Effectiveness: Lessons from Design Firms. *Research-Technology Management*, 53(5): 21-28.

Marion, T.J. and Meyer, M.A. 2011. Applying Industrial Design and Cost Engineering to New Product Development in Early-Stage Firms. *Journal of Product Innovation Management*, 28: 773-776.

Marion, T.J., Sipahi, R. and Delice, I.* 2009. Early-Stage Firms and Delay-Based Inventory Control Using Decision Making Tableau's. *International Journal of Production Research*, 48(18): 5497-5521.

Marion, T.J. and Simpson, T.W. 2009. New Product Development Practice Application to an Early-Stage Firm: The Case of the PaperPro® StackMaster™. *Design Studies*, 30(5): 561 - 587.

Marion, T.J., Thevenot, H. and Simpson, T.W. 2007. A Cost-Based Methodology for Evaluating Sourcing Decisions with Two Examples. *International Journal of Production Research*, 45(22): 5285-5308.

Alizon F., Khadke K., Thevenot H.J., Gershenson J.K., Marion T.J., Shooter S.B. and Simpson T.W. 2006. Frameworks for Product Family Design and Development. *Journal of Concurrent Engineering: Research & Applications*, 15(2): 187-200.

Book Chapters:

Reid, M., Marion, T., Erik-Jan, H., Barczak, G. 2017. The Influence of Open Innovation, IT Orientation and External Collaboration on the Use of New Media and Social Networking IT during the NPD Process. In Nambisan, S. (Eds.) *Open Innovation, Ecosystems and Entrepreneurship: Issues and Perspectives*. World Scientific Publishing.

Marion, T., Friar, J., Dunlap, D. 2017. Startups and TTOs: Fostering Entrepreneurship at a Large Research University. In *University Technology Transfer and Academic Entrepreneurship*. World Scientific Publishers.

Marion, T.J., Dunlap, D. and Friar, J.H. 2015. Northeastern University: A Study of Technology Transfer and Academic Entrepreneurship. In Link, A.N., Siegel, D.S., Wright, M., *The Chicago Handbook of University Technology Transfer and Academic Entrepreneurship*. Chicago: The University of Chicago Press.

Ayyamperumal, P., Vinu, R., Zeid, A., Karmarthi, S. and Marion, T.J. *Sustainable Design*. 2013. In Kamrani, A., Azimi, A., Al-Ahmari, A. (Eds.) *Methods in Product Design: New Strategies in Reengineering*. CRC Press: Taylor & Francis Group.

Marion, T.J. 2011. Product Modularity. In J.N. Sheth, N.K. Malhotra & B.L Bayus (Eds.) *Wiley International Encyclopedia of Marketing*, volume of *Product Innovation and Management*. West Sussex UK: John Wiley & Sons Ltd.

Meyer, M.A., de Weck, O. and Marion, T.J. 2011. Product Platforms. In J.N. Sheth, N.K. Malhotra & B.L Bayus (Eds.) *Wiley International Encyclopedia of Marketing*, volume of *Product Innovation and Management*. West Sussex UK: John Wiley & Sons Ltd.

* I. Delice was a graduate student in the College of Engineering.

Seiloff, S., Marion, T.J., Friar, J.H. and Kinnunen, R. 2010. Adnexus Corporation Case. In M.J. Ahn, M.A. Alvarez, A.D. Meyers & A.S. York (Eds.) *Making the Case for Building Biotechnology: A Case Book for Life Sciences Commercialization*. Washington DC: Logos Press.

Marion, T.J. and Simpson, T.W. 2005. Market Segmentation and Platform Leveraging Strategies. In T.W. Simpson, Z. Saddique & R.J. Jiao (Eds.) *Product Platform and Product Family Design: Methods and Applications*. New York: Springer.

Case Simulations:

Marion, T.J. and Fixson, S.K. 2017. *Innovation Simulation: Breaking News*. Harvard Business Publishing. Used by over 20,000 students worldwide (as of late 2020).

Invited Publications:

Marion, T.J. Implementing Design Thinking. *CIMS Newsletter*, May/June 2018.

Marion, T.J. The Importance of Lean Innovation. *CIMS Innovation Management Report*, January 2017.

Marion, T.J. and Friar, J.H. Think Small and Innovate Like a Start-up. *CIMS Innovation Management Report*, March/April 2014.

Meyer, M.H. and Marion, T.J. Stopping Knowledge Loss in R&D. *CIMS Innovation Management Report*, March/April 2013.

Talks and Seminars:

“The Innovation Navigator.” Book talk. Northeastern University, Toronto campus, 2019.

“The Innovation Navigator.” Book talk with Sebastian K. Fixson. Rotman School of Management, University of Toronto Lifelong Learning Conference, 2018.

“The Expanded Innovation Landscape.” Workshop with S. Fixson, ISPIM Toronto 2017 and Boston 2018.

“Marketing and Sales for Technology-Driven Companies.” Invited speaker, SBANE, 2016.

“Rapid Concept Development.” Invited speaker, Innovation Leader Teach-in at the Harvard iLab, 2016.

“New Venture Development.” Invited speaker, TU Delft, March 2015.

“Lean Innovation.” Invited speaker. PDMA Netherlands Masterclass, March 2014.

“Interorganizational Relationships and New Ventures.” Invited speaker. RMIT University, Melbourne, AU, February, 2014.

“Technology Entrepreneurship.” IEEE Society speaker, Northeastern University, October, 2013.

“Trends in Emerging Technology.” James F. Molloy speaker, Northeastern University, March 2012.

“Academic Research and Innovation.” Invited panelist at the 5th Annual EMC Innovation Conference, Franklin, MA, November, 2011.

“Design and Entrepreneurship.” Invited speaker, TransCultural Exchange International Conference, Boston, MA, April 2011.

“Technology Entrepreneurship.” Invited speaker, Institute of Industrial Engineers, Washington, DC, March 2011.

“New Product Development Practices and Early-Stage Firms.” Invited research presentation, Northeastern University, College of Engineering, October 2007.

“New Product Development in the 21st Century.” Invited research presentation, Penn State University, The Harold and Inge Marcus Department of Industrial and Manufacturing Engineering, February 2007.

“Design Optimization at a Start-Up: A Case Study at the Innovation Factory.” Invited presentation, Massachusetts Institute of Technology. Boston, MA, May 2006.

“Adopting Product Platform Methodology to a Start-Up: A Case Study at the Innovation Factory.” Invited presenter. 2005 Innovations in Product Development Conference - Product Families and Product Platforms: From Strategic Innovation to Implementation, Massachusetts Institute of Technology, Boston, MA, October 2005.

Grants and Awards:

Innovation Simulation: Breaking News, Harvard Business Publishing, 2018 Gold Medal Winner, 2018 International Serious Play Awards.

Shulze Publication Award for Applied and Practice Research, with John Friar, Kim Eddleston and David Deeds, Entrepreneurship and Innovation Exchange, 2015.

Nominated for University Excellence in Teaching Award, Northeastern University, 2013-2014.

Institute for Global Innovation Management (IGIM), “Collaborative Innovation Networks,” \$71,445.00, 2012, 1-year research initiative. Co-PIs with Gloria Barczak, Cuneyt Eroglu, Rosanna Garcia, Felicia Lassk and Yang Lee. I will be Co-PI with Gloria Barczak on one research product (out of four, totaling \$17,250).

Northeastern University Tier 1 Interdisciplinary Research Proof of Concept Grant, “Research Frontiers in Healthcare Mass Customization for Personalization of Diagnosis, Care and Cure,” \$50,000.00, 2012, 1-year development grant. Co-PIs with Abe Zeid and Sagar Kamarthi, College of Engineering.

Northeastern University 2011 CBA Strategic Research Award Recipient, 2011.

National Collegiate Inventors & Innovators Alliance (NCIIA) grant for “Accelerating Student E-Team New Venture Creation through the Application of Industrial Design and Structured Seed Funding,” \$9,000.00 1-year planning grant, 2010. PI.

National Collegiate Inventors & Innovators Alliance (NCIIA) grant for “Development of a Multi-Disciplinary New Product Development Course Curricula for the School of Technological Entrepreneurship,” \$29,000.00, 2008, 3-year program grant. PI. Co-PIs with John H. Friar, College of Business Administration, Sagar Karmarthi, College of Engineering.

Received North America Case Research Association (NACRA) grant for “Cases for a Multi-Disciplinary New Product Development Course,” \$10,000.00, 2008, 1-year case development program. PI, Co-PIs with John Friar, College of Business Administration, Sagar Karmarthi, College of Engineering.

Northeastern School of Technological Entrepreneurship (STE)/College of Business Administration (CBA) research grant for “Technology Transfer Investigation at Northeastern,” \$10,000.00, 2008, 1-year research project. PI.

Northeastern Research and Scholarship Development Fund grant for “New Product Development Practices at Early-Stage Firms,” \$7,500.00, 2008, 3-year program duration. PI.

Dell ReGeneration Design Educator Award, 2008.

Teaching Experience and Courses Taught:

Undergraduate

Northeastern University (2007 – 2015)

ENTR 3330 Introduction to Product Design for Entrepreneurs (2009 – 2013).

The Pennsylvania State University (2005 – 2006)

BA 497 Introduction to Entrepreneurship (2005 – 2006).

Graduate

ENTR 6217 Lean Innovation (2014 – present).

TECE 6222 Disruptive and Emerging Technologies (2007 – present).

TECE 6250 Technology-Based Product Development Processes (2009 – present).

TECE 6300 Managing a Technology-Based Business (2008 – 2013).

The Pennsylvania State University (2006 – 2007)

QMM 571 Product Design and Development (2006 – 2007).

Online Graduate

Northeastern University

ENTR 6217 Lean Innovation online MSI course (2016 – present).

ENTR 6212 New Venture Creation online MBA course (2009 – present).

Executive Education:

“Reinventing Your Innovation Engine.” Single or multi-day workshops based on *The Innovation Navigator*.

“Design Thinking.” Custom workshops and boot camps.

“Lean Innovation and Corporate Venturing.” Custom workshops, multi-day innovation boot camps, and long-term embedded engagements with R&D teams.

“Issues in International Expansion and Sourcing.” International growth and sourcing lectures and workshops.

Reviewing and Professional Service:

Editorial Board, *Journal of Product Innovation Management*.

Ad Hoc Journal Reviewer

MIT Sloan Management Review, Journal of Business Venturing, Journal of Product Innovation Management, IEEE Transactions on Engineering Management, Research-Technology Management, R&D Management, Design Studies, Academy of Management Perspectives, International Journal of Production Research, Journal of Engineering Design.