# EDWARD GEORGE ANDERSON JR.

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## **EDUCATION**

Massachusetts Institute of Technology. Cambridge, Massachusetts. 1993-1997.

Ph. D. in Management, 1997. Major: Operations Management/System Dynamics.

- Dissertation: Managing the effects of Business Cycles on Capital Supplier Productivity and Technological Capability. The thesis examined via simulation and analysis the detrimental effects of demand volatility upon the capabilities of firms' supply chains. Committee: Charles Fine, Stephen Graves, and John Sterman.
- Completed coursework requirements for Masters of Science in Electrical Engineering.
- Won one of 50 National Defense Science and Engineering Graduate Fellowships awarded annually
  by the U.S. Department of Defense to outstanding students pursuing graduate technical studies in the
  United States.

Stanford University. Stanford, California. 1983-1988.

Bachelor of Arts and Sciences, 1988. Majors: Electrical Engineering and History.

Alfried Krupp von Bohlen und Halbach Engineering Fellow, 1987-1988, to study the German language in Berlin and later work as engineer in Germany. Fairclough Classical History Book Prize for the paper, "The Laffer Curve Applied to Roman Imperial Egypt." History courses included Islamic history as well as a course on military history taught by Prof. Peter Paret. Tau Beta Pi Engineering Honor Society.

### **ACADEMIC APPOINTMENTS**

The University of Texas McCombs School of Business. Austin, Texas. 1997-Present.

Professor of Management, Operations Management Group, (2014-present)

- Mr. & Mrs. William F. Wright Centennial Professor for Management of Innovative Technology (2016present)
- Director McCombs Healthcare Initiative (Healthcare@McCombs). See full description under "Academic and Teaching Experience."
- Associate Professor of Management, Operations Management Group, (2004-2014).
- Assistant Professor of Management, Operations Management Group, (1997-2004).
- IC<sup>2</sup> RKG Centennial Fellow (2004-2013).

### RESEARCH INTERESTS

- Innovation and knowledge management in supply chains including outsourcing and offshoring; staffing (manpower) planning; operations in startups;
- Healthcare industry: especially digital health and lean process improvement;

• System dynamics in operations management, dynamic programming and optimal control, computer simulation, case study research methods in operations management.

#### ACADEMIC AND TEACHING EXPERIENCE

## University of Texas McCombs School of Business. Austin, Texas.

- Professor of Information, Risk, & Operations Management, 2014-present.
- Associate Professor of Information, Risk, & Operations Management, 2004-2014.
- Assistant Professor of Management, 1997-2004.
- Academic Director, Supply Chain and Operations Management Programs, (2020-present).
- Past *Director, McCombs Healthcare Innovation Initiative*. See detailed accomplishments in the next section.
- Faculty advisor, healthcare related programs for MBAs (ongoing). Involved in starting two healthcare related MBA courses. Includes advising the MD-MBA students and Healthcare Innovation Fellows.
- Faculty Advisor, BBA Science & Technology Management Major, 1999-present.
- Chaired creation of the Business of Healthcare Certification (2016), which is the second largest certificate (transcriptable minor program in the Business School.
- Designing EdX course "Leading Digital Supply Chain Transformation in the Post-Covid-19 Era."
  Goals: Build leadership skills necessary to make strategic supply chain decisions amidst digital
  transformation, societal and political shifts, and business model innovations. Additional emphases
  include AI, social equity, and sustainability. Format is virtual asynchronous leveraging flight simulator
  technology developed by the instructors. Targeted for supply chain executives aspiring to c-suite
  positions.
- Focuses on trends initiated and accelerated by COVID-19. First course to be run beginning January 2021.
- Faculty advisor: BBA in Science and Technology Management Major. The goal of this program is to produce "technology-savvy" business managers by combining a typical BBA curriculum with a grounding in science and engineering for careers such as program managers, finance analysts, or consultants for technical firms. To provide this grounding, students take engineering science courses in physics and chemistry as well as four lower-division engineering classes. This program launched during 2012 as a redesign of the former "Engineering Route to Business" major.
- Co-designed and taught executive education course in **project management** at Shell Oil Company (2006-7).
- Created and teach executive course for physicians and healthcare administrators, **Healthcare Process Improvement.**
- Teach executive and day MBA (BA 380N) and undergraduate (OM 335) core operations management classes.
- Teach MBA **operations consulting group practicum class** with companies such as Dell, 3M, Factory Logic, Frito-Lay and Applied Materials.
- U. of Texas McCombs Masters of Business Administration Program Committee (2017-present).

## **COURSES TAUGHT**

## Undergraduate

 Healthcare Operations (UT: OM 334M). Created introductory operations management course for those interested in pursuing a career in healthcare. Students included BBAs, pre-medical, and nursing students.

• **Project Management** (UT: OM 337.5). Created course in project management for McCombs BBA class based on my MBA project management course based on my project research in supplier management, new techniques in scheduling, and the addition of topics such as agile project management, after-action reviews, and knowledge management systems.

#### **Masters**

- New Venture Design and Implementation (UT Code: STC 396). Course in the McCombs Executive Masters of Science and Technology Commercialization Program. The class teaches the frameworks and skills necessary to lead a new venture from the initial business plan to launch plus 12-18 months. It focuses on the development and ongoing pivoting of an integrated implementation strategy based on the lean business model canvas, risk management and contingency planning, project management (incl. timing and cost estimation), supply chain design, and initial hires.
- Managing Projects (UT Code: OM 386.5). Course in project management for MBAs based on my
  project research in supplier management as well as new techniques in scheduling. Other topics include
  new business models (e.g., platforms), agile project management, after-action reviews and knowledge
  management systems.
- Core Operations Management Course (UT Code BA 380N/280N). Taught process analysis, project management (in part based on my own research), and process improvement. Redesigned on emerging supply chain structures after Post-Covid-19 in 2020. Faculty Honor Roll for Working Professional Program Teaching (2016-2017).
- **Healthcare Technology Commercialization Practicum** (UT Code MAN 385). Co-instructor. Cocreated course to give MBA students the opportunity to validate marketing, develop business models, and estimate financial pro formas for healthcare technologies from the Dell Medical School Texas Healthcare Catalyst Program.

## PhD

System Dynamics Computer Simulation (UT Code 386) Instructed enterprise simulation modeling

#### **Executive**

- Leading Digital Supply Chain Transformation in the Post-Covid-19 Era (to be offered beginning January 2021). Designing McCombs/EdX course to build leadership skills necessary to make strategic supply chain decisions amidst digital transformation, societal and political shifts, and business model innovations. Additional emphases include AI, social equity, and sustainability. Format is virtual asynchronous leveraging flight simulator technology developed by the instructors. Targeted for supply chain executives aspiring to c-suite positions.
- Healthcare Process Improvement Executive Education Course. Course for McCombs Executive Education (2018). Created course in healthcare process improvement for novice physicians and healthcare administrators. Course covered the need for healthcare process improvement, process improvement philosophy, process design, as well as lean and six sigma process improvement tools and techniques. Several case study applications were also utilized.
- Supply Chain Strategy (2019). Course for McCombs Executive Education (2019). Includes frameworks and tools for managing supply chain design, sourcing, and bullwhip effect.

## Ph.D. STUDENTS SUPERVISED

- Susan Heath (2006, now at Naval Postgraduate School), committee member
- **Burcu Tan** (2010, Tulane University through 2017, now at University of New Mexico), committee chair
- Saurabh Bansal (2010, now at Pennsylvania State University), committee member
- Hiroki Sano (2015, Ritsumeikan University College of Business Administration), committee chair
- Shi Ying Lim (2017, National University of Singapore), committee member
- Gorkem Ozer (2017, University of Maryland—College Park), committee member
- Abhishek Roy (2018, Temple University), committee co-chair with S. Gilbert
- Sae Lee (2020), China Europe International Business School, committee member.

## University of Texas McCombs School of Business. Austin, Texas.

Director, McCombs Healthcare Initiative, 2014-2019.

- Chaired and co-founded McCombs Healthcare Advisory Council Meetings including development of content (2017-2018).
- Developed new partners (donors) for the McCombs Healthcare Innovation Advisory Committee (went from zero to approximately ten partners, 2016-18).
- Established "Business of Healthcare" certificate program of six courses emphasizing the business aspects of the healthcare industry for both BBA and non-business undergraduates. Program currently has in excess of 290 students six months after launch (November 2016).
- Established "Healthcare Technology Commercialization Practicum," which bridged the McCombs Business School with the Dell Medical School by assigning MBA's to help medical researchers in the Dell Medical School's Catalyst Innovation Program with marketing identification, financial and business planning, and licensing vs. startup decision.
- Co-developed redesign of MBA Healthcare Concentration Curriculum as well as participated in development of MD-MBA program.
- Chaired U. of Texas Healthcare Research Symposium Steering Committee and led the selection of keynote and research presentations. The annual symposium helped facilitate and "invisible college of healthcare delivery" at the University Texas (2014 2017).
- Enabled student establishment of MBA Healthcare Innovation Fellows, which are a group of elite MBAs who focus on healthcare.

**International Motor Vehicle Program, Massachusetts Institute of Technology.** Cambridge, Mass. *Research Assistant*, Technology Supply Chains Research Project. 1995-1997.

Developed models of how the concurrent design of supply chains along with product and process design can be accomplished in dynamically volatile environments. Performed case study of the technology supply chain linking the automotive and electronics industries.

## Massachusetts Institute of Technology. Cambridge, Massachusetts.

Teaching Assistant, "Technology Supply Chains Seminar," Course 15.795, 1995.

Participated in course design and teaching of seminar taught by Prof. Charles Fine. Seminar treated the design of product and process supply chains to support technology strategy.

### Ford Motor Company Truck Group. Dearborn, Michigan, 1993-1995.

Designed and delivered introductory workshops to Ford Motor Company executives in using system dynamics models to improve understanding of market globalization's effects on the automotive industry.

Accumulatorenwerke Hoppecke, GmbH. (Hoppecke Battery Works). Brilon, Germany, 1988.

Taught (in German) Lotus spreadsheet classes to Hoppecke engineers.

## SELECTED PROFESSIONAL EXPERIENCE

# Computer-Aided Business Strategies Management Consulting Group. Austin, Texas.

Principal Consultant, 1993-present (part-time).

Designed system dynamics simulation for "Seven Sisters" oil exploration firm to guide investment decisions. Led design of system dynamics simulation which modeled the success factors required by the globalization of the automotive industry for use by a "Big 3" Truck Group in business and product planning.

## Ford Motor Company Electronics Division. Dearborn, Michigan

Product Design Engineer, 1988-1991. Manufacturing Engineer, 1991-1993.

Coordinated 1992 Manufacturing Plan for the Electronics Division (\$4 billion annual sales volume). Performed discrete-event simulation analyses of electronic control module assembly lines. Designed, modeled, and implemented Kalman-Filter control algorithm for four-wheel steering embedded microcontroller system. Designed, modeled, and analyzed several real-time hardware and software strategies to detect engine knock. Modified and tested Ford Electronic Engine Controller circuitry for optimal practical engine knock-detection scheme.

**Accumulatorenwerke Hoppecke, GmbH**. (Hoppecke Battery Works.) Brilon, Germany. *Electrical Engineer*, 1988.

Designed and implemented control software for automated DIN battery lifetime testing project.

## General Motors Corporation, Chevrolet-Pontiac Engineering Group. Warren, Michigan.

Product Design Engineering Intern, Powertrain Electronics Department, 1985-1987.

Designed and implemented hardware and software for the OSCAR Idle Quality Detection System, which tested engine idle quality in an objective, repeatable manner via Fourier analyses of crankshaft velocity variations. Designed and coded real-time software solutions to faulty engine control algorithms for the Delco Electronic Engine Control Module.

## **GRANTS/FELLOWSHIPS**

**University of Texas Construction Industry Institute** (2020). Principal Investigator of approximately \$160,000 grant for *Operating System 2.0 Early Supplier Engagement* research project.

**U.S. Veterans Administration** (2014-2017). Grant (approximately \$1 million) on "Sensemaking in VHA Health Care Systems: A Focus on Readmissions." Co-recipients (E. Finley, L. Leykum, H. Lanham, R. McDaniel, J. Pugh, M. Agar.)

**National Science Foundation** (2009-13). \$703,950 grant (Award #0925004) on "Platform-Driven Innovation Within and Across Firms." Co-recipients: Geoffrey G. Parker and Marshall Van Alstyne.

**University of Texas Supply Chain Consortium Research Grant** (2008). \$5000 for studying the state of the art in project management practices in the videogame industry.

IC<sup>2</sup> RKG Centennial Fellow (2004-present). Endowed fellowship for researchers in new venture creation and management of innovation.

**National Science Foundation** (2003-7). \$245,000 grant (Award #0323227) over four years to investigate how firms should most effectively manage outsourced product and process development across the supply chain. Co-recipients: Alison Davis-Blake and Geoffrey G. Parker.

University of Texas at Austin Herb Kelleher Center for Entrepreneurship (2003). \$60,000 grant to model, simulate, and study operational issues that lead to start-up venture failures. Co-recipient: Mary Ann Anderson.

University of Texas at Austin Summer Research Assignment (2000). \$22,000 grant for research into the robust management of service supply chains.

**SAP** (1999). \$75,000 grant for the development of an enterprise simulation model based curriculum to teach students how best to utilize enterprise resource planning (ERP) systems in supply chains using the balanced scorecard methodology. Co-recipients: Douglas J. Morrice, James Ritchie-Dunham, and Judy Scott.

**Hewlett-Packard** (1999). \$25,000 grant for the integration of system dynamics models and real options theory to investigate the optimal structure for long-term high-technology supply-chain contracts.

## **HONORS**

**Jay Wright Forrester Award** (2018) for "A Dynamic Model of Individual and Group Learning Amid Disruption," co-authored with Kyle Lewis, which appeared in *Organization Science*, 25(2) 356-376. "The Jay Wright Forrester Award is presented as often as once annually for the best written contribution to the field of System Dynamics during the preceding five years." It has been awarded only six times over the period 2008 – 2018.

**Production and Operations Management Society Fellow** (2018). "Designation as a POMS Fellow is the most prestigious honor awarded by the Production and Operations Management Society, and is given for life. It is intended to recognize POMS members who have made exceptional intellectual contributions to our profession and Society through their research and teaching."

**Hawaii International Conference on Social Systems Best Paper Award Nominee** (2017) for "Are More Frequent Releases Always Better? Dynamics of Pivoting, Scaling, and the Minimum Viable Product," with Shi Ying Lim and Nitin Joglekar.

**Wickham Skinner Early-Career Research Accomplishments Award** (2002). Awarded by the Production and Operations Management Society for outstanding research by junior faculty during their entire probationary period.

**Frank L. Batten Young Scholar** (2000). Awarded by the Operations and Information Technology group at the College of William and Mary to identify junior faculty conducting outstanding exemplary research in the supply chain and technology areas.

Institute for Operations Research and the Management Sciences (1997). Meritorious Service Award.

### University of Texas McCombs School of Business Awards and Nominations

- Faculty Honor Roll for Outstanding Undergraduate Instruction (2018)
- Services for Students with Disabilities Faculty Appreciation Award (2018)
- Faculty Honor Roll for Outstanding Executive Education Instruction (2004, 2011, 2014, 2015, 2016, 2017)
- CBA Foundation Research Excellence Award for Assistant Professors (2003)
- Trammell/CBA Foundation Teaching Award for Assistant Professors (2003)
- Faculty Honor Roll for Outstanding Core Class Instruction (2001, 2002, 2003)
- MBA Core Course Teacher of the Year Nominee (2000, 2002, 2003)
- Trammell/CBA Foundation Teaching Award for Assistant Professors Nominee (2002)

## ADDITIONAL INFORMATION

#### PROFESSIONAL SERVICE

- **Special Issue Editor,** Special Issue Managing Pandemics: A Production and Operations Management Perspective for Production and Operations Management.
- Founding Department Editor, Industry Studies & Public Policy Department, *Production and Operations Management*, (2012-present).
- **Senior Editor,** New Business Models and Operations Innovation department of *Production and Operations Management*, (2019-present). Led (with G. Parker and Y. Tan) revision of mission from what was formerly the E-Business and Operations Management Department in 2020.
- **Associate Editor,** *System Dynamics Review,* (2016-present).
- Associate Editor for the Special Issue on Digital Infrastructure and Platforms, *Information Systems Research*, (2016-2017).
- **President**, Production and Operations Management Society (2016).
- **President,** System Dynamics Society (2014).
- Vice President Publications, Production and Operations Management Society (2006-9). Headed committee to study alternate publishing options with third-party vendors. The study resulted in an arrangement to have the POM journal published by Blackwell (2008). Led redesign of Website (2008-2009).
- Assistant Secretary, System Dynamics Society (2006-2011).
- **Nominations Committee,** System Dynamics Society (2010-present).
- **Publications Committee,** System Dynamics Society (2011-present).
- Production and Operations Management Society Board (2003-4, 2006-9).
- **Industry Studies Association Board** (2011-present).
- **Hawaii International Conference on System Sciences.** Chair for "Agile and Lean: Organizations, Products and Development" minitrack (2018-present).
- 2013 Industry Studies Association Conference, Program Co-Chair
- 2012 Industry Studies Association Conference, Program Chair
- 2009 International System Dynamics Conference, Program Chair.
- 2001 International System Dynamics Conference, Vice-Chair for Operations Management.
- **International System Dynamics Conference**, Thread Chair for Operations Management (2006-present).
- Industry Studies Association, Thread Chair for Energy and Sustainability (2009-2010).
- Organized the *first* **System Dynamics Winter Conference** (2000), which brought together the foremost fifty researchers and practitioners in system dynamics under the auspices of the University of Texas McCombs School. Speakers from the Harvard Business School, the MIT Sloan School, the University of Michigan, and the London Business School, among others, lectured on using computer simulation in Enterprise Management, Product and Technology Management, and Social Policy.
- System Dynamics Winter Conference 2003, 2009 Program Chair.
- System Dynamics Winter Conference 2005, 2007, 2011 Conference Chair.
- **Affiliate**, Alfred P. Sloan Industry Studies Program (2005-present).

• Ad-Hoc Reviewer: Information Systems Research, Management Science, Operations Research, Organization Science, Production and Operations Management, Manufacturing & Service Operations Management, System Dynamics Review.

### **OUTSIDE REVIEWER FOR PROMOTION**

- Boston University (2019)
- Arizona State University (2019)
- University of Alabama (2019)
- Syracuse University (2019)
- The Ohio State University (2018)
- George Washington University (2018)
- University of North Carolina (2017)
- Indiana University (2017)
- Columbia University (2016)
- Boston University (2016)
- Università della Svizzera italiana (2016)
- University of Texas Health Sciences Center, San Antonio (2016)
- University of Alabama (2016)
- A&M University (2015)
- George Mason University (2015)
- Brandeis University (2014)
- George Washington University (2013)
- Ohio State University (2012)
- Virginia Polytechnic University (2011)
- University of Minnesota (2011)

#### PROFESSIONAL SOCIETIES

Institute for Operations Research and the Management Sciences; The Production and Operations Management Society; Institute of Electrical and Electronics Engineers; The Systems Dynamics Society.

### **OTHER**

• Hobbies: Backpacking, political and military history.

## **MONOGRAPHS**

Anderson, Mary Ann, Edward G. Anderson Jr. and Geoffrey Parker (2013). *Operations Management for Dummies*. Wiley. Written as a BBA/MBA textbook for operations management. Rated 4.5 stars at Amazon.

Anderson, Edward G. and Nitin R. Joglekar (2012). *The Innovation Butterfly: Managing Emergent Opportunities and Risks during Distributed Innovation*. Springer-Verlag. Research monograph for the "**Springer Understanding Complex Systems**" series.

## PUBLICATIONS IN REFEREED JOURNALS

- 1. Tan, Burcu, Edward G. Anderson Jr, and Geoffrey G. Parker (2020). "Platform Pricing and Investment to Drive Third-Party Value Creation in Two-Sided Networks." *Information Systems Research* 31(1): 217-239.
- 2. Darden, M, Parker, G, Anderson, E, Buell, JF. (2020). "Persistent sex disparity in liver transplantation rates." Forthcoming in *Surgery*. (*Surgery* impact factor = 3.36.)
- 3. Anderson, Edward G., Xiaoyue Jiang, Geoffrey G. Parker, and Burcu Tan (2019). "Systems Integration and the Dynamics of Partial Outsourcing." *Production and Operations Management*, 28(2): 319-340.
- 4. Anderson, Edward G. and Kyle Lewis (2019). "Modeling Group and Individual Learning: Lessons for Integrating Disciplines and Agile Research." *System Dynamics Review*, 35(2), 112-139.
- 5. Anderson, Edward G. (2019). Commentary entitled "Letter to the Editor: Applying Sterman's Proposed Principles of Modeling Rigor to Hybrid Models Combining Multiple Simulation Methods." *System Dynamics Review 35 (1): 8-14.*
- 6. Anderson, Edward G., Kyle Lewis, G.T. Ozer (2018). "Combining stock-and-flow, agent-based, and social network methods to model team performance." *System Dynamics Review*, 34(4): 527-574.
- 7. Anderson, Edward G., Aravind Chandrasekaran, Alison Davis-Blake, and Geoffrey G. Parker (2017). "Managing the Distributed Knowledge Work: Integration Strategies for Language and Geographic Barriers." *Information Systems Research* 29(1): 42-69.
- 8. Davies, J., N.R. Joglekar, E.G. Anderson Jr. (2016). "The Role of Industry Studies and Public Policies in Production and Operations Management." *Production and Operations Management*, 25(12), 1977-2001.
- 9. Anderson, Edward G. Jr., Geoffrey G. Parker, and Burcu Tan (2014). "Platform Feature Investment in the Presence of 3<sup>rd</sup>-Party Developer and Consumer Externalities." *Information Systems Research*, 25(1): 152-172.
- 10. Anderson, Edward G. and Kyle Lewis (2014). "A Dynamic Model of Individual and Group Learning Amid Disruption." *Organization Science*, *25*(2) 356-376.

11. Anderson, Edward G., Jr. and Geoffrey G. Parker (2013). "Integration and Cospecialization of Emerging Complementary Technologies by Startups." *Production and Operations Management*, 22(6): 1356-73.

- 12. Joglekar, Nitin R., Edward G. Anderson, and Ganesan Shankaranarayanan (2013). "Accuracy of Data in Distributed Project Settings: Model, Analysis and Implications." *ACM Journal of Data and Information Quality*, 4(3): 13-34.
- 13. Anderson, Edward G. Jr. and Geoffrey G. Parker (2013). "Integration of Global Knowledge Networks." *Production and Operations Management*, 22(6): 1446-63.
- 14. Amaral, Jason, Anderson, Edward G. Jr. and Geoffrey G. Parker (2011). "Putting It Together: How to Succeed in Distributed Product Development." Sloan Management Review, 52 (2), 51-58.
- 15. Anderson, Edward G. Jr. (2011). "A Dynamic Model of Counterinsurgency Policy including Intelligence, Public Security, Popular Support, and Insurgent Experience." System Dynamics Review, 27 (2): 111-41.
- 16. Tan, Burcu, Edward G. Anderson Jr., James S. Dyer, and Geoffrey G. Parker (2010). "Evaluating System Dynamics Models of Risky Projects Using Decision Trees: Alternative Energy Projects as an Illustrative Example." System Dynamics Review, 26 (1): 1-17. **Most downloaded System Dynamics Review article of 2010 at 1400+ downloads.**
- 17. Ritchie-Dunham, James L., Douglas J. Morrice, Edward G. Anderson, Jr., and James S. Dyer (2007). "A Simulation Exercise to Illustrate the Impact of an Enterprise System on a Service Supply Chain." INFORMS Transactions on Education, 7(3): 201-222.
- 18. Anderson, Edward G. Jr. (2007). "A Proof-of-Concept Model for Evaluating Insurgency Management Policies Using the System Dynamics Methodology." Strategic Insights, 6 (5), e-journal, permanent web location: <a href="http://www.ccc.nps.navy.mil/si/">http://www.ccc.nps.navy.mil/si/</a>. Invited article.
- 19. Anderson, Edward G., and Douglas J. Morrice (2006). "Stochastic Optimal Control of Centralized Staffing and Backlog Policies in a Two-Stage Customized Service Supply Chain." *Production and Operations Management*, 15 (2): 263-278.
- 20. Anderson, Edward G. and Nitin Joglekar (2005). "A Hierarchical Modeling Framework for Product Development Planning." *Production and Operations Management*, 14 (3): 344-361.
- 21. Anderson, Edward G., Douglas J. Morrice, and Gary Lundeen (2005). "The 'Physics' of Service Supply Chains." *System Dynamics Review*, 21 (3): 217-247.
- 22. Fitzsimmons, James, Edward G. Anderson Jr., Douglas J. Morrice, and G. Edward Powell (2004). "Service Chain Management." *International Journal of Services Technology and Management* 5 (3): 221-232.
- 23. Anderson, Edward G., and Geoffrey G. Parker (2002). "The Effect of Learning on the Make/Buy Decision." Production and Operations Management 11 (3): 313-339.
- 24. Parker, Geoffrey G., and Edward G. Anderson Jr. (2002) "From Buyer to Integrator: The Transformation of the Supply Chain Manager in the Vertically Disintegrating Firm." Production and Operations Management 11 (1): 75-91.

25. Anderson, Edward G. (2001). "The Non-Stationary Staff Planning Problem with Business Cycle and Learning Effects." Management Science 47 (6): 817-832.

- 26. Anderson, Edward G. (2001). "Managing the Impact of High Market Growth and Learning on Knowledge Worker Productivity and Service Quality." *European Journal of Operational Research* 134 (3): 508-524.
- 27. Anderson, Edward G., and Douglas J. Morrice (2000). "A Simulation Game for Service-Oriented Supply Chain Management: Does Information Sharing Help Managers with Service Capacity Decisions?" *Production and Operations Management* 9 (1): 40-55.
- 28. Anderson, Edward G., Charles H. Fine, and Geoffrey G. Parker (2000). "Upstream Volatility in the Supply Chain: The Machine Tool Industry as a Case Study." *Production and Operations Management* 9 (3): 239-261.

## PUBLICATIONS IN REFEREED PROCEEDINGS

- 1. Tan, Burcu, Shi-Ying Lim, Edward Anderson, and Sungyong Um (2021). "A Dynamic Model of Platform Versioning and Its Impact on Third-Party Developers. Paper to be included in the Proceedings of the 2021 Hawaii International Conference on System Sciences.
- 2. Martin, Jeffrey A., Gorkem Turgut Ozer, and Edward Anderson (2020). "Competitive (dis) Advantage from Learning in Multisided Platforms: Opening Different Platform Side." *Academy of Management Proceedings*. Vol. 2020. No. 1. Briarcliff Manor, NY 10510: Academy of Management.
- 3. Sutherland, A, Saltz, J, Anderson, E. (2020). *Introduction to the minitrack on agile and lean: Organizations, products and development.* Proceedings of the 53rd Hawaii International Conference on System Sciences.
- 4. Anderson, E.G., Shi Ying Lim, Nitin Joglekar (2017). "Are More Frequent Releases Always Better? Dynamics of Pivoting, Scaling, and the Minimum Viable Product." 2017 Hawaii International Conference on System Sciences. Nominated by Agile and Lean Software Engineering Mintrack for Conference Best Paper Award.
- 5. Lim, S.Y., Edward Anderson (2016). "Institutional Barriers Against Innovation Diffusion: From the Perspective of Digital Health Startups." Proceedings of the 2016 Hawaii International Conference on System Sciences.
- 6. E. Anderson (2015). "The Effect of Increased Connectivity on Serial Regime Change, Proceedings of the 2015 Hawaii International Conference on System Sciences.
- 7. Anderson, Edward (2014). A Dynamic Model of Centralized vs. Decentralized Process Improvement: Explaining the Healthcare PI Paradox. Presented at International System Dynamics Conference (Cambridge, MA).
- 8. Anderson, Edward G. (2013). "Towards a Theory of Serial Insurgencies." *Proceedings of the 2013 International System Dynamics Conference*.

9. Anderson, Edward G. Jr. and Geoffrey G. Parker. (2011) "On the Integration and Cospecialization of Emerging Complementary Technologies: The Case of Renewable Power and Energy Storage." Proceedings of the 2011 International System Dynamics Conference (Washington, DC).

- 10. Anderson, Edward G. Jr. and Nitin R. Joglekar. (2011) "Innovation Projects & Portfolios: Admitting Change and Rework to Meet Escalating Expectations." Proceedings of the *2011 International System Dynamics Conference* (Washington, DC).
- 11. Anderson, Edward G. Jr. (2009). "Modeling Insurgencies and Counterinsurgencies." Proceedings of the 2009 International System Dynamics Conference (Albuquerque, NM).
- 12. Tan, Burcu, Edward G. Anderson Jr., James Dyer, and Geoffrey Parker (2009). "Using Binomial Decision Trees and Real Options Theory to Evaluate System Dynamics Models of Risky Projects." Proceedings of the *2009 International System Dynamics Conference* (Albuquerque, NM).
- 13. Joglekar, Nitin R. and Edward G. Anderson Jr. (2009). "Global Talent Management—Challenges of Attrition, Productivity and Non-Linear Growth Decision Sciences in Global Enterprise Management." Plenary presentation at *Decision Sciences in Global Enterprise Management*, Bombay, India.
- 14. Anderson, Edward G. (2007). "An Initial Simulation Model for Aiding Policy Analysis in Urban Insurgencies." In Proceedings of the *2007 Winter Simulation Conference* edited by S. G. Henderson, B. Biller, M.-H. Hsieh, J. Shortle, J. D. Tew, and R. R. Barton.
- 15. Anderson, Edward G., Jr. and Laura J. Black (2007). "Accumulations of Legitimacy: Exploring Insurgency and Counter-Insurgency Dynamics." Proceedings of the 2007 International System Dynamics Conference.
- 16. Tan, Burcu, Edward G. Anderson Jr., and Geoffrey G. Parker (2007). "Managing Risk in Alternative Energy Product Development." Proceedings of the 2007 International System Dynamics Conference.
- 17. Anderson, Edward G. (2006). "A Preliminary System Dynamics Model of Insurgency Management: The Anglo-Irish War of 1916-21 as a Case Study." Proceedings of the 2006 International System Dynamics Conference.
- 18. Morrice, Douglas J., Edward G. Anderson, and Saurav Bharadwaj (2004). "A Simulation Study to Assess the Efficacy of Linear Control Theory Models for the Coordination of a Two-Stage Customized Service Supply Chain." Proceedings of the *2002 Winter Simulation Conference*.
- 19. Anderson, Edward G. and Douglas J. Morrice. (2002). "Capacity and Backlog Management in Queuing-Based Supply Chains." In Proceedings of the *2002 Winter Simulation Conference* edited by Chun Hung Chen, Jane L. Snowden, and John M. Charnes, pp. 1302-1305.
- 20. Ritchie-Dunham, James, Edward G. Anderson, Douglas J. Morrice, and Judy Scott. (2000). "A Strategic Supply Chain Simulation Model." In Proceedings of the *2000 Winter Simulation Conference* edited by Jeffrey A. Joins, Russell Barton, Keebom Kang, and Paul A. Fishwick, pp. 1260-1264.
- 21. Anderson, Edward G., and Douglas J. Morrice (1999). "A Simulation Model to Study the Dynamics in a Service-Oriented Supply Chain." In *Proceedings of the 1999 Winter Simulation Conference* edited by Philip A. Farrington, Harriett B. Nembhard, David T. Sturrock, and Gerald W. Evans, pp. 742-748.

#### ACADEMIC BOOK CHAPTERS

1. Anderson, Edward G. Jr., Nitin Joglekar (2015). "Using Optimal Control Theory with Dynamic Models." *Analytical Methods for Dynamic Modelers* edited by N. Osgood, R. Oliva, and H. Rahmandad. MIT Press: Cambridge, MA.

- 2. Anderson, Edward G. Jr., Burcu Tan Erciyes (2015). "Using System Dynamics and Decision Trees to Value Managerial Options: Valuation of Capital Investment Projects as an Illustrative Example." *Methods for Dynamic Modelers* (tentative title), edited by N. Osgood, R. Oliva, and H. Rahmandad. MIT Press: Cambridge, MA.
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- 5. Parker, Geoffrey G., and Edward G. Anderson (2002). "Supply Chain Integration: Putting Humpty-Dumpty Back Together Again." In *Future Directions in Supply Chain and Technology Management*, edited by Tonya Boone and Ram Ganeshan, pp. 352-376. AMACOM Press.
- 6. Anderson, Edward G. and Charles H. Fine (1998). "Business Cycles and Productivity in Capital Equipment Supply Chains." In *Quantitative Models for Supply Chain Management*. Sridhar Tayur, Michael Magazine, and Ram Ganeshan (eds.), pp. 381-415. Kluwer Press.

### WORKING PAPERS

- 1. Anderson, Edward and Aravind Chandrasekaran (2020). "How to Sustain Process Improvement in the Frontline? Evidence from a Systems Dynamic Model." Under review at *Production and Operations Management*.
- 2. Anderson, Edward, Richard Freeman, Nitin Joglekar (2020). "Ramping up Elective Surgery after COVID-19 Disruption: Service Capacity Analysis." Under review at *Healthcare Management Review* (Impact factor = 2.36).
- 3. Ozer, Gorkem, Jeffrey Martin, Edward Anderson (2020). "Sensing and seizing opportunities in rival product markets without rivals' consent: Is resistance futile in digital multisided platform markets?" Revision under review at *Organization Science*.
- 4. Figge, Patrick, Edward Anderson, Kyle Lewis (2019). "A system dynamics model of top-down and bottom-up process improvement."

## PRACTITIONER ARTICLES AND NEWS VIDEO SEGMENTS FEATURING RESEARCH

1. Edward Anderson (2020). "Supermarket rationing is the best way to stop the cycle of hoarding that could lead to a crash." *Dallas Morning News: March 31, 2020.* 

- 2. Marcel Clark (2020). "Strain on Supplies Due to COVID-19 Pandemic." *Austin Fox 7 Nightly News*. Retrieved from <a href="https://www.youtube.com/watch?t=17s&v=eKTV-KhAyPQ">https://www.youtube.com/watch?t=17s&v=eKTV-KhAyPQ</a> on October 1, 2020.
- 3. Isobel Harkrider (2020). "Will On-site Health Care Help Texas' Economy Recover?" *RA News*, April 24, 2020.
- 4. Geoffrey Parker, Edward Anderson, and Nora Belcher (2020). "Will the coronavirus spark an overdue platform revolution in health care?" *MIT Sloan Ideas-Made-to-Matter*. https://mitsloan.mit.edu/ideas-made-to-matter/will-coronavirus-spark-overdue-platform-revolution-health-care.
- 5. Catenya McHenry (2020). Interview with Edward Anderson on Covid-19 Effect on Bullwhip Effect in Supply Chains. May 13, 2020. <a href="https://www.youtube.com/watch?t=1s&v=WHqx\_OOh0E">https://www.youtube.com/watch?t=1s&v=WHqx\_OOh0E</a> on October 1, 2020.
- 6. Anupam Agrawal (2018). "In Conversation with 2018 POMS Fellow Edward G. Anderson." *POMS Chronicle*, 25(2): 11-14.
- 7. "Aspiring to Lead in Health Care Innovation: Health Care Initiative's Director on Cutting Edge Work" (2018). *McCombs Today*.
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- 9. Meyers, Tiffany. "5 ways to turn your business plan into a revenue-generating company" (2017). Retrieved on February 21, 2019 from https://www.builtinaustin.com/2017/05/14/turn-your-business-plan-into-a-company
- 10. Anderson, Edward G. Jr. and Nitin R. Joglekar (2007). "Chasing the Innovation 'Butterfly' with Systems Thinking." *The Systems Thinker* 18 (9): 7-9.
- 7. Anderson, Edward G., and Mary Ann Anderson (2000). "Are Your Decisions Today Creating Your Future Competitors? Avoiding the Outsourcing Trap." *The Systems Thinker* (practitioner journal for system dynamics), September 2000: pp. 1-5.

#### **PATENTS**

U.S. Patents No. 5,066,919; 5,264,796; 5,268,644 and European Patents 450,806; 450,807; 450,808 All involve fault detection and isolation in automotive wiring harnesses by respectively: network analysis, time-domain reflectometry, and dedicated test lines.

# Presentations (since 2006)

"Engaged Scholarship." Presented at *Journal of Operations Management* Mini-Conference at Texas A&M University in February, 2020.

"New Business Models, Supply Chain Management, and Information Systems." Presented at Arizona State University in December, 2019.

"Future Trends in Supply Chain Management and Information Systems." Presented at Pennsylvania State University in September, 2019.

"A System Dynamics Model of Top-down and Bottom-up Process Improvement." Presented at INFORMS Healthcare Conference in July, 2019.

"Dynamic Performance of Platform Systems Under Delayed Investment Effects. Presented at the Production and Operations Management Society Annual Conference in May 2019 (Washington, DC).

"Platform Integration: Past, Present, and Future Models." Presented at the Massachusetts Institute of Technology in November 2018 (Cambridge, MA).

**Jay Wright Forrester Award Lecture** on "A Dynamic Model of Individual and Group Learning Amid Disruption" in August 2018 at the International System Dynamics Conference (Reykjavik, Iceland).

"Process Improvement in Healthcare Clinics Incorporating Heterogeneous Worker Professions." Presented at Boston University Questrom School of Management in May 2018 (Boston, MA).

"Fragmentation in Multisided Markets: Product Design Decisions on Platforms." Presented at the Production and Operations Management Society Annual Conference in May 2018 (Houston, TX).

"The Centre Cannot Hold: Fragmentation in Multisided Markets." Presented at the Institute for Operations Reasearch and Managment Sciences Annual Conference in October 2017. (Houston, TX).

"Are More Frequent Releases Always Better? Dynamics of Pivoting and the Minimum Viable Product" Presented at the Production and Operations Management Society Annual Conference in May 2017. (Seattle, WA).

"Lean and Six Sigma in Healthcare: The Imperfect Arbitrage." Presented at the Production and Operations Management Society Annual Conference in May 2017. (Seattle, WA).

"In the Company of Giants: Platform Strategies in The Presence of Super-Developers." Presented at the Production and Operations Management Society Annual Conference in May 2017. (Seattle, WA).

"Platform Integration Investment in the Age of 'The Internet of Things." Presented at Texas Christian University in October 2016 (Fort Worth, TX).

"Platform Integration Investment in the Age of 'The Internet of Things." Presented at the Texas A&M Mays Business School in September 2016 (College Station, TX).

"A Hybrid Approach Incorporating System Dynamics, Agent-Based Models, and Social Network Analysis with Applications for the Science of Teams." Presented at the Massachusetts Institute of Technology in March 2016 (Cambridge, MA).

"A Dynamic Model of Top-Down vs. Bottom-Up Process Improvement: Explaining the Healthcare PI Paradox." Presented at Production and Operations Management Annual Conference in May 2016 (Orlando, FL).

"Do Physicians Dream of Electric Beeps: Platform Shift and Reimagining Healthcare." Keynote presentation at the University of Texas Annual Healthcare Innovation Symposium in May 2016 (Austin, TX).

"Platform Integration in the Age of 'The Internet of Things." Presented at the Ohio State University Fisher College of Business in March 2016 (Columbus, OH).

"Institutional Barriers Against Innovation Diffusion: From the Perspective of Digital Health Startups." Presented at Institute for Operations Research and Management Science Conference in November 2014 (Philadelphia, PA).

"Platform Investment in 3<sup>rd</sup>-Party Content Development." Presented at Institute for Operations Research and Management Science Conference in November 2014 (San Francisco, CA).

"A Dynamic Model of Centralized vs. Decentralized Process Improvement: Explaining the Healthcare PI Paradox" Presented at 2014 International System Dynamics Conference (Delft, The Netherlands).

"Implementing Lean Operations in Healthcare: A Cautionary Tale." Presented at Industry Studies Annual Conference in May 2013 (Portland, OR).

"Managing Distributed Product Development Projects: Integration Strategies for Time Zone and Language Barriers." Presented at Production and Operations Management Conference in May 2013 (Atlanta, GA).

"Platform Investment in the Presence of Network Externalities." Presented at Production and Operations Management Conference in May 2013 (Atlanta, GA).

"Platform Feature Investment in the Presence of 3<sup>rd</sup>-Party Developer and Consumer Externalities." Presented at Haas School-University of California in October, 2013 (Berkeley, CA).

"Towards a Theory of Serial Insurgencies." Presented at 2013 International System Dynamics Conference (Cambridge, MA).

"Partial Outsourcing of Project Design." Presented at Industry Studies Annual Conference in May 2013 (Kansas City, MO).

"Partial Outsourcing of Project Design", "Managing Distributed Product Development: Integration Strategies for Language and Geographic Barriers" and "Editors Roundtable: Industry Studies and Public Policy." Presented at Production and Operations Management Conference in May 2013 (Denver, CO).

"On the Integration of Emerging Complementary Technologies: The Case of Storage & Renewable Power" and "The Innovation Butterfly: Managing Emergent Opportunity & Risk Under Distributed Innovation." Presented at Michigan State University in November 2012.

"A Preliminary Inquiry into Innovation Analytics for Managing Sequential Product Portfolios." Presented at the Institute for Operations Research and Management Science Conference in October 2012 (Phoenix, AZ).

"Managing Distributed Product Development: Integration Strategies for Language and Geographic Barriers." Presented at the Institute for Operations Research and Management Science Conference in October 2012 (Phoenix, AZ).

"On Innovation Analytics and the Innovation Butterfly." Presented at the Industry Studies Association Conference in June 2012 (Pittsburgh, PA).

"A Preliminary Inquiry into Innovation Analytics for Managing Sequential Product Portfolios." Presented at the Production and Operations Management Conference in April 2012 (Chicago, IL).

"On Innovation Analytics and the Innovation Butterfly." Presented at the POMS Product Innovation & Technology Management Workshop Prior to the Institute for Operations Research and Management Science Conference in October 2011 (Charlotte, NC).

"On the Integration of Emerging Complementary Technologies: The Case of Storage & Renewable Power." Presented at the Institute for Operations Research and Management Science Conference in October 2011 (Charlotte, NC).

"On Innovation Analytics and the Innovation Butterfly." Presented at the POMS Product Innovation & Technology Management Workshop Prior to the Institute for Operations Research and Management Science Conference in October 2011 (Charlotte, NC).

"On the Integration of Emerging Complementary Technologies: The Case of Storage & Renewable Power." Presented at the International System Dynamics Conference in July 2011 (Washington, DC).

"Innovation Projects & Portfolios: Admitting Change and Rework to Meet Escalating Expectations." Presented at the International System Dynamics Conference in July 2011 (Washington, DC).

"On the Integration of Emerging Complementary Technologies: The Case of Storage & Renewable Power." Presented at the Industry Studies Association Annual Conference in June 2011 (Pittsburgh).

"Integrating Emerging Complementary Technologies." Presented at the Production and Operations Management Conference in May 2011 (Reno, Nevada).

"Integrating Emerging Complementary Technologies." Presented at the Ohio State University in February 2011 (Columbus, Ohio).

"New Business Models to Enable Clean and Renewable Generation in the Electric Power Industry: A Preliminary Investigation." Presented at the Institute for Operations Research and Management Science Conference in November 2010 (Austin, Texas).

"New Business Models to Enable Clean and Renewable Generation in the Electric Power Industry: A Preliminary Investigation." Presented at the Production and Operations Management Conference in May 2010 (Vancouver, Canada).

"New Business Models to Enable Clean and Renewable Generation in the Electric Power Industry: A Preliminary Investigation." Presented at the Industrial Studies Association Conference in May 2010 (Chicago).

"Modeling Insurgencies and Counterinsurgencies." Presented at the International System Dynamics Conference in July 2009 (Albuquerque, NM).

"Using Binomial Decision Trees and Real Options Theory to Evaluate System Dynamics Models of Risky Projects." Presented at the International System Dynamics Conference in July 2009 (Albuquerque, NM).

"Preliminary Results: Current Practices in Videogame Project Management." Presented at the Production and Operations Society Conference in April 2009.

"Hedging New Product Development Contests." Presented at the Annual Production and Operations Management Conference in April 2009.

"Platform Feature Investment in the Presence of Network Externalities." Presented at the Annual Production and Operations Management Conference in April 2009.

"Platform Feature Investment in the Presence of Network Externalities." Presented at the Tulane University Freeman School of Business in April 2009.

"Managing Outsourced Product Design: The Effectiveness of Alternative Integration Mechanisms." Presented at the Legal Issues in the Governance of Supply Chains: Conference of the Vanderbilt Law and Business Program and the Regulatory Program in October 2008.

"Hedging New Product Development Contests." Presented at the Annual Institute for Management Science and Operations Research Conference in October 2008.

"Platform Feature Investment in the Presence of Network Externalities." Presented at the Annual Institute for Management Science and Operations Research Conference in October 2008.

"Teaching Modern Project Management—Strategic and Tactical Issues." Presented at the Annual Institute for Management Science and Operations Research Conference in October 2008.

"A Generic Simulation Model of Counterinsurgency." Presented at the U.S. Naval Postgraduate School in May 2008.

"Platform Feature Investment in the Videogame Industry." Presented at the Production and Operations Management Society Conference in May 2008.

"Mechanisms to Coordinate Outsourced Product Design: Preliminary Results." Presented at the Ohio State University in October 2007.

"Accumulations of Legitimacy." Presented at the International System Dynamics Conference in July 2009 (Albuquerque, NM).

"Mechanisms to Coordinate Outsourced Product Design: Preliminary Results." Presented at the College of William and Mary in April 2007.

"An Initial Simulation Model for Aiding Policy Analysis in Urban Insurgencies" to the U.S. Naval Postgraduate School in April 2007.

"National Science Foundation Outsourced Product Design and Contract Manufacturing Study: Preliminary Results." Presented at Sloan Industries Studies Annual Conference in April 2007.

"National Science Foundation Outsourced Product Design and Contract Manufacturing Study: Preliminary Results." Presented at Texas Christian University in December 2006.

"A Preliminary System Dynamics Model of Insurgency Management: The Anglo-Irish War of 1916-21 as a Case Study." Presented at the London School of Economics in October 2006.

"A Preliminary System Dynamics Model of Insurgency Management: The Anglo-Irish War of 1916-21 as a Case Study." Presented at the Naval Postgraduate School in April 2006.

"A Preliminary System Dynamics Model of Insurgency Management: The Anglo-Irish War of 1916-21 as a Case Study." Presented at Argonne National Laboratories in June 2006.

"Preliminary Results: National Science Foundation Outsourced Product and Manufacturing Development study" at the Production and Operations Management Society Conference in April 2006.