Last edited: 3/8/2013

Curriculum Vitae

CHRISTIAN TERWIESCH

EDUCATIONAL BACKGROUND & PROFESSIONAL INFORMATION

Education

PhD in Management, INSEAD, France, 1997
Diplom in Business Information Technology, University of Mannheim, Germany, 1993

Academic Positions

1997-1998	Project Scientist / Postdoctoral Researcher at UC San Diego, Graduate School of International Relations and Pacific Studies
1998-2004	Assistant Professor of Operations and Information Management, University of Pennsylvania, The Wharton School
2004-2005	Visiting Professor of Technology and Operations Management, INSEAD
2004-2009	Associate Professor of Operations and Information Management (with tenure), University of Pennsylvania, The Wharton School
2008-	Senior Fellow Leonard Davis Institute for Health Economics
2009-	Professor of Operations and Information Management University of Pennsylvania, The Wharton School
2010-	Named Andrew M. Heller Professor at the Wharton School

Professional Address:
The Wharton School
Department of Operations and Information Management
573 Jon M. Huntsman Hall
Philadelphia, PA19104, USA
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RESEARCH ACCOMPLISHMENTS

Books

Terwiesch, Christian, Karl T. Ulrich, *Innovation Tournaments: Creating and Selecting Exceptional Opportunities*, Harvard Business School Press, 2009 (ISBN 978-1422152225, 304 pages); named "one of the best innovation and design books in 2009" by Business Week.

Cachon, Gerard, Christian Terwiesch, *Matching Supply with Demand: An Introduction to Operations Management*, 3rd edition, Irwin - McGraw Hill, 2012 (ISBN 978-0073525204, 507 pages) – translated into Chinese and Korean

Publications in Refereed Journals

Fieldston, Evan, Jun Li, Christian Terwiesch, M. Helfaer, J. Verger, S. Pati, D. Surrey, K. Patel, J. Ebberson, R. Lin, J. Metlay, "Direct Observation of Bed Utilization in the Pediatric Intensive Care Unit", *Journal of Hospital Medicine*, Vol. 7, No. 4, 2012 (pp. 318-324), a summary of the research appeared in *The British Journal of Hospital Medicine*

KC, Diwas, Christian Terwiesch, "An Econometric Analysis of Patient Flow in the Cardiac ICU", *Manufacturing and Service Operations Management*, Vol. 14, No. 1, 2012 (pp. 50-65)

McCarthy, Melissa, R. Ding, J. Pines, C. Terwiesch, M. Sattarian, J. Hilton, J. Lee, S. Zeger, "Provider Variation in Fast Track Treatment Time", *Medical Care*, Vol.50, No. 1, 2012 (pp. 43-49)

KC, Diwas, Christian Terwiesch, "The Effects of Focus in Operational Performance: Evidence from California Hospitals", *Management Science,* Vol. 57, No. 11, 2011 (pp. 1897-1912)

Ho, Teck-Hua, Sergei Savin, Christian Terwiesch, "Note: A Reply to New Product Diffusion Decisions Under Supply Constraints", *Management Science,* Vol. 57, No. 10, 2012 (pp. 1811-1812)

Terwiesch, Christian, Diwas KC, Jeremy Kahn, "Working with Capacity Limitations: Operations Management in Critical Care", *Critical Care*, Vol. 15, No. 4, 2011 (pp. 308-314)

Pines, Jesse, Robert Batt, Joshua Hilton, Christian Terwiesch, "The Financial Consequences of Lost Demand and Reducing Boarding in Hospital Emergency Departments", *Annals of Emergency Medicine*, Vol. 58, No. 4, 2011 (pp. 331-340)

Musalem, Andres, Marcelo Olivares, Eric Bradlow, Christian Terwiesch, Daniel Corsten, "Structural Estimation of the Effect of Out-of-Stocks", *Management Science,* Vol. 56, No. 7, 2010 (pp. 1180-1197)

Girotra, Karan, Christian Terwiesch, Karl Ulrich, "Idea Generation and the Quality of the Best Idea", *Management Science,* Vol. 56, No. 4, 2010 (pp. 591-605); a 2-page summary of the research appeared in *Sloan Management Review*

Ren, Justin, Morris Cohen, Teck Ho, Christian Terwiesch, "Sharing Forecast Information in a Long-Term Supply Chain Relationship", *Operations Research,* Vol. 58, No. 1, 2010 (pp. 81-93)

Diwas, KC, Christian Terwiesch, "Impact of Workload on Productivity: An Econometric Study of Hospital Operations", *Management Science*, Vol. 55, No. 9, 2009 (pp. 1486-1498)

Terwiesch, Christan, Yi Xu, "Innovation Contests, Open Innovation, and Multiagent Problem Solving", *Management Science*, Vol. 54, No. 9, 2008 (pp. 1529-1543)

Cachon, Gerard, Christian Terwiesch, Yi Xu, "On the Effects of Consumer Search and Market Entry in a Multi-product Competitive Market", *Marketing Science*, Vol. 27, No. 3, 2008 (pp. 461-473)

Olivares, Marcelo, Christian Terwiesch, Lydia Cassorla, "Structural Estimation of the Newsvendor Model: An Application to Reserving Operating Room Time", *Management Science*, Vol. 54, No. 1, 2008 (pp. 41-55)

Girotra, Karan, Christian Terwiesch, Karl Ulrich, "Valuing R&D Projects in a Portfolio: Evidence from the Pharmaceutical Industry", *Management Science*, Vol 53, No. 9, 2007 (pp. 1452-1466)

Randall, Taylor, Christian Terwiesch, Karl. T. Ulrich, "User Design of Customized Products", *Marketing Science,* Vol. 26, No. 2, 2007 (pp. 268-280)

Loch, Christoph H., Christian Terwiesch, "Decisions under Preliminary Information: Rush and Be Wrong or Wait and Be Late?", *Production and Operations Management*, Vol. 14, No. 3, 2005 (pp. 331-343)

Cachon, Gerard, Christian Terwiesch, Yi Xu, "Retail Assortment Planning in the Presence of Consumer Search", *Manufacturing and Service Operations Management*, Vol. 7, No. 4, 2005 (pp. 330-346)

Randall, Taylor, Christian Terwiesch, Karl Ulrich, "Principles of User Design", *California Management Review*, Vol. 7, No. 4, 2005 (pp. 68-85)

Terwiesch, Christian, Justin Z. Ren, Teck H. Ho, Cohen, Morris, "An Empirical Analysis of Forecast Sharing in the Semiconductor Equipment Supply Chain", *Management Science*, Vol. 51, No. 2, 2005 (pp. 208-220)

Savin, Sergei, Christian Terwiesch, "Optimal Product Launch Time in a Duopoly: Balancing Lifecycle Revenues with Product Cost", *Operations Research*, Vol. 53, No. 1, 2005 (pp. 26-47)

Terwiesch, Christian, Il-Horn Hann, Sergei Savin, "Online Haggling in a Name-Your-Own-Price Retailer: Theory and Application", *Management Science,* Vol. 51, No. 3, 2005 (pp. 339-351)

Terwiesch, Christian, Christoph H. Loch, "Collaborative Prototyping and the Pricing of Custom-Designed Products", *Management Science,* Vol. 50, No. 2, 2004, (pp. 145-158)

Terwiesch, Christian, Yi Xu, "The Copy-Exactly Ramp-up Strategy: Trading-off Learning with Process Change", *IEEE Transactions on Engineering Management*, Vol. 51, No. 1, 2004 (pp. 70-84)

Cohen, Morris, Teck H. Ho, Justin Z. Ren, Christian Terwiesch, "Measuring Imputed Costs in the Semiconductor Equipment Supply Chain", *Management Science,* Vol. 49, No. 12, 2003, (pp. 1653-1670)

Hann, Il-Horn, Christian Terwiesch, “Measuring the Frictional Costs of Online Transactions: The Case of a Name-Your-Own-Price Channel”, *Management Science*, Vol. 49, No. 11, 2003, (pp. 1563-1579)

Terwiesch, Christian, Arnoud De Meyer, Christoph H. Loch, “Exchanging Preliminary Information in Concurrent Engineering: Alternative Coordination Strategies”, *Organization Science*, Vol. 13, No. 4, 2002, (pp. 402-419); a 2-page summary of the initial working paper appeared in *Harvard Business Review*

Ho, Teck-Hua, Sergei Savin, Christian Terwiesch, “Managing Demand and Sales Dynamics in New Product Diffusion under Supply Constraint”, *Management Science,* Vol. 48, No. 2, 2002 (pp. 187-206)

Terwiesch, Christian, Roger E. Bohn, K.C. Chea, “International Product Transfer and Production Ramp-up: A Case Study from the Data Storage Industry”, *R&D Management*, Vol. 31, No. 4, 2001 (pp. 435-451)

Loch, Christoph. H., Christian Terwiesch, Stefan Thomke, "Parallel and Sequential Testing of Design Alternatives", *Management Science,* Vol. 47, No. 5, 2001 (pp. 663-678)

Loch, Christoph H., Michael T. Pich, Christian Terwiesch, Michael Urbschat, “Selecting R&D Projects at BMW: A Case Study of Adopting Mathematical Programming Models”, *IEEE Transactions on Engineering Management*, Vol. 48, No. 1, 2001 (pp. 70-80)

Terwiesch, Christian, Roger E. Bohn, “Learning and Process Improvement during Production Ramp-up”, *International Journal of Production Economics*, Vol. 70, No. 1, 2001 (pp. 1-19)

Bohn, Roger E., Christian Terwiesch, “The Economics of Yield-Driven Processes”, *Journal of Operations Management,* Vol. 18, No. 1, 1999 (pp. 41-59)

Terwiesch, Christian, Christoph H. Loch, “Measuring the Effectiveness of Overlapping Development Activities”, *Management Science,* Vol. 45, No. 4, 1999 (pp. 455-465); reprinted in Readings in Technology Management by Brockhoff et al

Terwiesch, Christian, Christoph H. Loch, “Managing the Process of Engineering Change Orders: The Case of the Climate Control System in Automobile Development”, *Journal of Product Innovation Management*, Vol. 16, No. 2, 1999 (pp. 160-172)

Loch, Christoph H., Christian Terwiesch, “Accelerating the Process of Engineering Change Orders: Capacity and Congestion Effects”, *Journal of Product Innovation Management*, Vol. 16, No. 2, 1999 (pp. 145-159)

Loch, Christoph H., Christian Terwiesch, “Communication and Uncertainty in Concurrent Engineering”, *Management Science*, Vol. 44, No. 8, 1998 (pp. 1032-1048)

Terwiesch, Christian, Christoph H. Loch, Martin Niederkofler, "When Product Development Performance Makes a Difference: A Statistical Analysis in the Electronics Industry", *Journal of Product Innovation Management,* Vol. 15, No. 1, 1998 (pp. 3-15)

Loch, Christoph. H., Lothar Stein, Christian Terwiesch, "Measuring Development Performance in the Electronics Industry", *Journal of Product Innovation Management*, Vol. 13, No. 1, 1996 (pp. 3-20)

Manuscripts under Review / Working Papers

Christian Terwiesch, Yi Xu, "Pro-Social Innovation", to be revised for *Production and Operations Management*

Antonio Moreno, Christian Terwiesch, "Pricing and Production Flexibility: An Empirical Analysis of the US Automotive Industry", to be revised for *Manufacturing and Service Operations Management (MSOM)*

Antonio Moreno, Christian Terwiesch, Elena Krasnokutskaya, "An Empirical Analysis of Reputation in Online Service Market Places", Working Paper

Robert Batt, Christian Terwiesch, "The Behavior of Doctors Under Load: An Empirical Analysis of Emergency Care", to be revised for *Management Science*

Robert Batt, Christian Terwiesch, "Transparency in Waiting Lines: An Empirical Analysis of Patient Abandonment Behavior in the Emergency Department", Working paper

Rachel M. Werner, Christian Terwiesch, Steve Marcus, Anne Canamucio, "The Relationship between Primary Care Access and ER Use", to be revised for *Annals of Internal Medicine*

Rachel M. Werner, Christian Terwiesch, Steve Marcus, Jennifer Gutierrez, "A Time-and-Motion Study of Primary Care Provider", Working Paper

Antonio Moreno, Christian Terwiesch, "Product Line Decisions as a Hedge Against Uncertainty: An Empirical Analysis in the US Automotive Industry", Working Paper

Hessam Bavafa, Sergei Savin, Christian Terwiesch, "Service Delivery Models in Primary Care", Working Paper

Terwiesch, Christian, Shivan Mehta, Kevin Volpp, "Innovation in Health Care: the UPHS Innovation Tournament", under review at *Healthcare: The Journal of Delivery Science and Innovation*

Kevin Volpp, Christian Terwiesch, Andrea Troxel, Shivan Mehta, David Asch, "Evidence-based Evolutionary Design of Clinical Trials", under review at *Healthcare: The Journal of Delivery Science and Innovation*

Book Chapters

Terwiesch, Christian, "Product Development as a Problem Solving Process", in *Blackwell Handbook on Technology and Innovation Management* (ed. by S. Shane), Wiley-Blackwell 2008

Loch, Christoph H., Christian Terwiesch, "Coordination in Product Development", in *Handbook on Product Development* (ed. by S. Kavadias and C. Loch), Butterworth-Heinemann 2007

Loch, Christoph H., Christian Terwiesch, "Product Development and Concurrent Engineering", in *Encyclopedia of Production and Manufacturing Management* (ed. by P. M. Swamidass), Kluwer Publication 2000

Case Studies / Pedagogical Material

Girotra, Karan, Christian Terwiesch, "hypios: Seeking a Business Model for Open Innovation", Case of the Wharton-INSEAD Alliance

Immaneni, Aravind, Christian Terwiesch, "Loan Processing at Capital One", Case at The Wharton School

Terwiesch, Christian, David Rogers, "GreenPoint Mortgage: In Search of Operational Performance", Case at The Wharton School

Gouze, Antoine, Christian Terwiesch, "Forecasting and Procurement at Le Club Francais des Vins", Case at The Wharton School

Girotra, Karan, Christian Terwiesch, Karl Ulrich, "New Drug Development at Merck & Co.", Case at The Wharton School

Ulrich, Karl, Christian Terwiesch, "X-Pult Instructions", design and production of a catapult (the "xpult") and teaching materials to support classes on experimental design and process capability. The Xpult has been used at over 50 universities, 100 corporations, the US Army and the US Air Force. It also has been featured at science fairs of about 2,000 K12 institutions.

Terwiesch, Christian, Christoph H. Loch, "Pumping Iron at Cliffs & Associates", Case of the Wharton-INSEAD Alliance

Loch, Christoph H., Christian Terwiesch, "The Circored Project", Case of the Wharton-INSEAD Alliance

Lehmbeck, Chris, Kamalini Ramdas, Christian Terwiesch, "Macromedia Inc. - Weaving the Dreams of Global Markets and Technologies", Case at the Darden School

Ellison, David, Christian Terwiesch, "PayMyBills.com", Case at The Wharton School

Loch, Christoph H., Christian Terwiesch, "The Development of Nopane", INSEAD Case

Terwiesch, Christian, Christoph H. Loch, "Jalopy Sports Car Development: Managing Concurrent Engineering Projects", INSEAD Case

Terwiesch, Christian, Sumittra Dutta, Enver Yücesan, "Automobiles Citroen (A): Transforming the Factory", "Automobiles Citroen (B): Supplier Integration ECIA", "Automobiles Citroen (C): The Logistics -Charter at Rennes-La Janais", INSEAD Case

Doctoral Students

Dissertation advisor, Robert Batt (starting on tenure track, two competing offers still open)

Member of Dissertation committee of Santiago Gallino (starting on tenure track at Dartmouth) and Joel Wooten (starting on tenure track at University of South Carolina)

Dissertation advisor, Toni Moreno (now a tenure track at Northwestern University)

Dissertation advisor, Diwas KC (now a tenure track assistant professor at Emory University)

Dissertation co-advisor, Marcelo Olivares (now a tenure track assistant professor at Columbia University)

Dissertation co-advisor, Karan Girotra (now a tenure track assistant professor at INSEAD)

Dissertation advisor, Yi Xu (now a tenure track assistant professor at the University of Maryland)

Dissertation co-advisor, Justin Z. Ren (now a tenured associate professor at Boston University)

Member of Dissertation committee and co-author, Sergei Savin (now an associate professor at The Wharton School)

Research Grants

Merck research grant (with Karl Ulrich and Karan Girotra) to support research on portfolio management, $60k (2004), $258k (2007)

Research Grant from Wharton e-business Initiative for analysis of Name-Your-Own-Price Retailing; $17.7k (2001), $7k (2002)

INTEL research grant (together with Morris Cohen and Teck Ho) to support research on supply chain coordination: total of $224K over three years

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TEACHING ACCOMPLISHMENTS

Courses taught

Coursera: An Introduction to Operations Management. Designed and Taught a massive open online course (MOOC) on Operations Management with a 90,000 student enrollment, the largest enrollment course in the history of UPenn.

OPIM631 (now OPIM611) "Quality and Productivity": offered this core course to full-time and Executive MBA program; course head 2006-2011

OPIM654 "Product Design and Development": offered this elective to full-time and Executive MBA program; the course is built around the product development process, students take a project from idea to prototype

OPIM650 "Operational Performance Analysis": developed this elective (including several teaching cases, see above); offered this course to full-time and Executive MBA program;

OPIM651 "Innovation, Problem Solving, and Design": offered this course to full-time and Executive MBA program; the course is built around the innovation tournament framework (see book reference above); experimented with new delivery models

OPIM920 "Empirical Research in Operations Management": developed this doctoral course with a focus on econometric models and their applications to Operations Management

Program Director for *Strategic R&D Management*, a one week open-enrollment program for R&D executives offered through the Wharton-Insead alliance; designed the program together with Christoph Loch from Insead (including several teaching cases, see above)

Teaching Awards

2012 Winner of the Helen Kardon Moss Anvil Award
MBA Core Curriculum Award "Goes above and beyond the Call of duty"
MBA Core Curriculum Award "Tough, but we will thank you in five years"
MBA Excellence in Teaching Award

2011 Finalist in the Helen Kardon Moss Anvil Award
MBA Core Curriculum Award "Goes above and beyond the Call of duty"
MBA Core Curriculum Award "Tough, but we will thank you in five years"

2010 Finalist in the Helen Kardon Moss Anvil Award
MBA Excellence in Teaching Award

2009 MBA Core Curriculum Award "Goes above and beyond the Call of duty"
MBA Core Curriculum Award "Tough, but we will thank you in five years"

2008 Finalist in the Helen Kardon Moss Anvil Award
MBA Core Teaching Award

2007 Miller-Sherrerd MBA Core Teaching Award

2006 MBA Core Curriculum Award "Goes above and beyond the Call of duty"

2003 MBA Core Curriculum Award "Goes above and beyond the Call of duty"

2002 Finalist in the Helen Kardon Moss Anvil Award
Executive MBA Teaching Award for best Core Course
Miller-Sherrerd MBA Core Teaching Award
Teaching Excellence Award

2001 Finalist in the Helen Kardon Moss Anvil Award
Miller-Sherrerd MBA Core Teaching Award
Teaching Excellence Award

2000 Finalist in the Helen Kardon Moss Anvil Award
Teaching Excellence Award

1999 Teaching Excellence Award

Other Teaching Engagements

The Wharton School, "Operations Management in Hospitals", created a four-session work-shop on patient flow management designed for emergency room physicians (in collaboration with Jesse Pines from the Department of Emergency Medicine at Hospital of the University of Pennsylvania, HUP); work-shop attracted over 20 physicians, nurses, and administrators from HUP and The Children's Hospital of Philadelphia (CHOP)

INFORMS, designed and presented the INFORMS tutorial session on "Empirical Research in Operations Management" at the INFORMS conference in Seattle (2007)

Insead, Fontainebleau, "Production and Operations Management Core Course" for the Executive MBA Program

Insead, Fontainebleau, modules on Product Development and Innovation in various executive programs

University of California at San Diego, Graduate School of International Relations and Pacific Studies, "Product and Process Development" (IRP 444) co-taught with Roger E. Bohn, Spring 1998

University of California at San Diego, Guest-lecturer in the Program for Advanced Manufacturing 1998

Wissenschaftliche Hochschule für Unternehmensführung (WHU), Koblenz, Germany: Visiting Professor (since 1998-1999) / Co-lecturer (1995-1997), "New Product Development"

Teaching assistant at the University of Mannheim for Professor Christoph Schneeweiß 1992/1993

PROFESSIONAL ACTIVITIES

Services to The Wharton School
Service on the Wharton Personnel Committee (2011-present)

Course head for the MBA core course OPIM631 ("Quality and Productivity") (2006-present)

Service on the Marketing Q-Review (2007/2008)

Service on the MBA Education and Engagement Team (2006/2007) (later Committee on MBA Experience and Engagement 2007/2008)

Service on the MBA Curriculum Committee (2005/2006 and 2007/2008) and the MBA Executive Committee (2006/2007)

Co-founder and Co-organizer of the Annual Wharton Technology Mini Conference sponsored by the Mack center (in each spring since 2001, the conference brought together junior faculty from the top academic institutions around the globe as well as senior faculty, who are thought leaders in this field); conference is now in its 7th offering

Co-founder and Co-organizer of the Annual Wharton Workshop on Empirical Research in Operations Management (in the fall of 2006 and 2007 the conference brought together about 40 faculty from the top academic institutions around the globe); conference is now in its 3rd offering

Speaker in the Wharton Alumni Club Northern California (2005)

Service on Task Force on Alliances and Partnerships (2003/2004)

Editorial Activities
Department Editor
Management Science (2009-2012)
Production and Operations Management (2009-2011)

Senior Editor
Production and Operations Management (2007-2009)

Associate Editor
Management Science (since 2004-2008)
Decision Sciences (2005-2007)

Production and Operations Management (2005-2007)
Manufacturing and Service Operations Management (2006-2008)

Ad-hoc Reviewer for
Management Science, *Operations Research*, *Marketing Science, Manufacturing and Service Operations Management, Research Policy, ORSA Journal on Computing*, *Production and Operations Management, Journal of Operations Management, IEEE Transactions on Engineering Management, IIE Transactions, R&D Management, International Journal of Production Economics, Journal of Product Innovation Management, Sloan Management Review*

Reviewer for The Alfred P. Sloan foundation, Member of the Jury for the 2002 Wickham Skinner Award, Member of the Jury for the 2003 MSOM Dissertation Award

OTHER INFORMATION

Fellowships and Awards
Former Vice President and Board Member of the Production and Operations Management Society (POMS) in charge of communications (since June 2008)

Former President of the POMS college of Product Innovation and Technology Management (2006-2008)

Honorable Mention, Roman Weil Prize 2002
European Case Writing Award (EFMD) for "The Development of Nopane"
INSEAD PhD Scholarship 1993-1997
Diplom in Business Information Technology, University of Mannheim, with "sehr gut"

Personal
Citizenship: German
Visa Status: US resident ("Green card")
Family Status: Married, three children
Languages: fluent in German, English, and French
Personal Interests: long distance running, triathlon