I study innovation as a learning process to resolve uncertainty and solve customer problems. In particular, I study the unknown and unmet needs of customers, how innovators find them, how they innovate to solve them, and how they compete with rivals once they enter. I address this process of innovating through learning through the lenses of learning curves, disruptive innovation, the social value of innovation, cognition in innovation, entry timing, competition, and trust as learning through repeated interaction.


**Publications — Books**


**Publications — Book Reviews**


**Publications — Technical Reports**


WORK IN PROGRESS

“Time Compression Diseconomies in Growth”

"Biased Specification of the Learning Curve and the Pursuit of Competitive Advantage”

“Blindness vs. Forgetfulness: Disentangling Learning, Forgetting, and the Biases of Unobserved History”

“Trust and Mistrust; Altruism and Spite: Understanding Interdependent Relationships through a Learning Lens”

“Competition and Competitive Advantage”

RESEARCH GRANTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Marriott School, grant of $5000 to study “Time Compression Diseconomies in Growth”</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-17</td>
<td></td>
</tr>
<tr>
<td>2015-16</td>
<td>Marriott School, grant of $5000 to study “The Learning Process of Trust”</td>
</tr>
<tr>
<td>2014-15</td>
<td>Marriott School, grant of $5000 to study “Demand Heterogeneity and Competitive Positioning: The Other Side of the Same Coin”</td>
</tr>
<tr>
<td>2012-13</td>
<td>Marriott School, grant of $5000 to study “Handout or Out-of-Pocket: Crafting the Growth Path through Revenues and Investments” Brigham Young University.</td>
</tr>
<tr>
<td>2011-12</td>
<td>Marriott School, grant of $5000 to study “Information Velocity as a Source of Competitive Advantage” Brigham Young University.</td>
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<tr>
<td>2008-09</td>
<td>Marriott School, grant of $5000 to study “Mapping the Growth Path through Controlled Burn” Brigham Young University.</td>
</tr>
<tr>
<td>2007-08</td>
<td>Marriott School, grant of $5000 to study “When Is Competitive Advantage a Social Good?” Brigham Young University.</td>
</tr>
<tr>
<td>2006-08</td>
<td>Mentoring Environment Grant from the Office of Research and Creative Activities (ORCA), grant of $20,000 to study “Measuring the Impact of Safety Training on Organizational Learning,” Brigham Young University.</td>
</tr>
</tbody>
</table>
### Research Grants

2005-06 Marriott School, grant of $5000 to study “Walking a Tightrope with Your Rivals: The Tenuous Advantage of Repeated Interactions with Rivals,” Brigham Young University.

2004-05 Marriott School, grant of $5000 to study “Making it Pay to be First: Determining the Choice of Entry Timing and First-mover Advantages,” Brigham Young University.

2003-04 Marriott School, grant of $5000 to study “Managing the Time to Market vs. Technology Characterization Tradeoff in New Technology Introductions,” Brigham Young University.

2002-03 Marriott School, grant of $5000 to study “The Role of Information Technology in Obtaining and Sustaining Competitive Advantage,” Brigham Young University.

2002 Rollins Center for eBusiness, grant of $3000 to study “The Role of Information Technology in Obtaining and Sustaining Competitive Advantage: Overcoming the Productivity Paradox,” Brigham Young University.

1999 Bureau of Economic and Business Research, Summer Research Grant of $5000, University of Illinois at Urbana-Champaign.

1996-99 Alfred P. Sloan Foundation grant for the study of “Competitive Semiconductor Manufacturing,” (faculty investigator).


### Research Presentations

“Innovations that Disrupt” (with James Ostler and Jacob Valentine),
- Strategic Management Society annual conference, Toronto, September 2021

“Misspecified Mental Models and Their Impact on Innovation Behaviors and Performance” (with James Ostler),
- Academy of Management annual conference, Boston, August 2019
- Strategy Science inaugural conference, June 2018
- Sm EC, April 2018
- Strategic Management Society annual conference, Houston, October 2017

RESEARCH PRESENTATIONS


“Information Velocity as a Source of Competitive Advantage” (with Michael Miles), Academy of Management annual conference, Boston, August 2012.


“Supplier Networks: Engines of Innovation and Growth,” presented at the Siemens Supplier Forum, Munich Germany, October 2010.


“Surgeon, Surgical Team, and Surgery-Recovery System Knowledge Generation and Learning in a Hospital,” (with David Moore)
  • INFORMS annual conference, Seattle, November 2007
  • POMS annual conference, Dallas, May 2007

“Mapping the Growth Path through Controlled Burn” presented at the INFORMS annual conference, Seattle, November 2007


“Building Healthy Communities of Practice: The Nurture of Open Source Communities,” (with Monte Shaffer) presented to INFORMS annual conference, Pittsburgh, November 2006.

“Governance for Growth: A Real-Options Perspective on Supplier Relations” (with Burke Jackson), presented at the Strategic Management Society annual conference, Vienna, October 2006.

“Integrating Game-Theoretic and Real Options Analysis in Strategic Decision-Making: Airbus, Boeing, and the Superjumbo Jet Market” (with Douglas Johnson)
- Real Options in Entrepreneurship and Strategy Conference, University of North Carolina, June 2006

“Corporate Social Responsibilities: Theory and Evidence” (with Paul Godfrey and Jared Hansen)
- Academy of Management annual conference, Honolulu Hawaii, August 2005
- International Association of Business and Society, Sonoma Valley California, April 2005
- BYU-University of Utah Winter Strategy Conference, Park City, UT, March 2005

“Prior Knowledge in the Learning Curve: An Exploration of Form and Function,” (with Stefan Reichelstein) presented at the INFORMS annual conference, San Francisco, November 2005

“Making it Pay to Be First: Determining the Choice of Entry Timing and First-Mover Advantages” (with Douglas Johnson)
- Academy of Management annual conference, Honolulu, Hawaii
- 21st European Group for Organizational Studies (EGOS) Colloquium, Berlin, July 2005
- Strategic Management Society annual conference, San Juan, Puerto Rico, November 2004
- INFORMS annual conference, Denver, October 2004
- Organizational Leadership and Strategy department seminar, Marriott School, BYU, September 2004

“Learning for Competitive Advantage”
- INACAP, Santiago Chile, July 2005
- Learning Economics Group, San Francisco
RESEARCH PRESENTATIONS

“Mitigating the Tradeoff between Time-to-Market and Manufacturing Performance: Knowledge Management in New Technologies” (with Jeffrey Macher)
  • Academy of Management annual conference, New Orleans, August 2004
  • BYU-University of Utah Winter Strategy Conference, Provo, UT, March 2002
  • Strategic Management Society, 19th annual international conference, Berlin Germany, October 1999

“Network-Specific Capabilities, Network Barriers to Knowledge Transfers, and Competitive Advantage” (with Jeffrey Dyer), presented at the Academy of Management annual conference, New Orleans, 2004


“Modular Stepping Stones along the Firm’s Technology Path”
  • Strategic Management Society 21st Annual International Conference, San Francisco, CA, October 2001
  • Danish Research Unit on Industrial Dynamics (DRUID) Conference in honor of Richard Nelson and Sidney Winter, Aalborg Denmark, June 2001

“Human Capital and Competitive Advantage through Learning by Doing: Effective Use of Strategic Resources,” presented at the Academy of Management, Toronto, CA, August 2000


“Vertical Disintegration in the Semiconductor Industry” (with Russell W. Wright), presented at the Portland International Conference on Management of Engineering and Technology (PICMET), Portland, OR, July 1999


“Investment in Learning Capital: Enhancing the Rate of Learning by Doing,” presented at Academy of Management, Boston, MA, August 12, 1997

RESEARCH PRESENTATIONS

“Why Moore’s Law Will End,” presented at Cyberfest, College of Commerce and Business Administration, University of Illinois at Urbana-Champaign, March 1997

“Policy for High-Technology Markets: The Case of Semiconductors,” presented at Brigham Young University, December 1995

“Learning Effects in Semiconductor Fabrication” (with Stefan Reichelstein) presented at the Econometrics Society Seventh World Conference, Tokyo Japan, August 1995


TEACHING EXPERIENCE

MBA 693R, “Entrepreneurial Innovation”, core course in the MBA program, BYU Marriott

ENT 402, “Entrepreneurship Analytics”, core course in the Entrepreneurial Management major, Marriott School, BYU

ENT 431 / ME EN 495R, “Innovation Practicum,” part one of the interdisciplinary Crocker Innovation Fellows program, BYU

ENT 432 / ME EN 497R, “Commercializing Innovation,” part two of the interdisciplinary Crocker Innovation Fellows program, BYU


BusM 313, “Startup Bootcamp,” core course in the Entrepreneurship emphasis in the Business Management major, Marriott School, BYU

BusM 475, “Financing New Ventures,” elective course in the Entrepreneurship emphasis in the Business Management major, Marriott School, BYU

BusM 474, “Managing New Ventures,” required course in the Entrepreneurship emphasis in the Business Management major, Marriott School, BYU

BusM 470, “Entrepreneurial Innovation,” core course in the Entrepreneurship emphasis in the Business Management major, Marriott School, BYU
TEACHING EXPERIENCE

MBA 670, “Innovation and Entrepreneurship,” core course in the Entrepreneurship major of the MBA program, Marriott School, BYU

EMBA 506, “Entrepreneurial Management,” core course in the EMBA program, Marriott School, BYU

EMBA 693CV, “Creating New Ventures,” elective course in the EMBA program, Marriott School, BYU

MBA 673, “Creating New Ventures,” core course in Entrepreneurship in the MBA program, Marriott School, BYU

BM 498, “Strategic Management,” required capstone course for seniors in the Business Management major, Marriott School, BYU

EMBA 580, “Introduction to Strategy,” (with David Bryce) Executive MBA core course, Marriott School, BYU

EMBA 680, “Competitive Strategy,” (with David Bryce and Jeff Dyer) Executive MBA core course, Marriott School, BYU

EMBA 693EB, “Essentials of e-Business,” (with Scott Sampson) Executive MBA elective course, Marriott School, BYU

ISys 499, “Strategic Management of Information Systems,” (with Doug Dean) required capstone course for seniors in the Information Systems major, Marriott School, BYU

ManEc 387, “Economics of Strategy,” undergraduate course that fills the College microeconomics core requirement, Marriott School, BYU

MBA 525, “Economics of Strategy,” MBA elective, Marriott School, BYU

MBA 580, “Introduction to Strategy and Economics,” MBA core course, Marriott School, BYU

MBA 581, “Strategic Management,” required course for Masters of Accounting and Masters of Information Systems, Marriott School, BYU

MBA 676, “Strategic Management of Innovation and Technology,” MBA elective course, Marriott School, BYU

“MBA Refresher Course on Microeconomics,” introductory microeconomics course during the MBA Orientation period
**TEACHING EXPERIENCE**

“Business Policy/Strategic Management,” required capstone course for seniors in the College of Commerce and Business Administration, University of Illinois at Urbana-Champaign

“Technology Strategy,” MBA elective course in the College of Commerce and Business Administration, University of Illinois at Urbana-Champaign

“Strategic Management of Innovation and Technology,” core course in the “Technology and Management Program” (an undergraduate program in Engineering and Management), University of Illinois at Urbana-Champaign

“Management of Technology Development and Transfer,” a module of the U.C. Berkeley, 1995 summer course, *Success Factors in High Technology Manufacturing*, taught to a group of visiting graduate students from Chalmers University, Sweden

**HONORS AND AWARDS**

Faculty Citizenship Award, Marriott School, Brigham Young University, 2019

Teaching Excellence Award, Marriott School, Brigham Young University, 2007

Outstanding Reviewer Award of the Business Policy and Strategy (BPS) division of the Academy of Management, 2006

2004 Sumantra Ghoshal Research and Practice Award, Business Policy and Strategy Division of the Academy of Management, 2004 (with Jeff Dyer)

Alumni Research Fellowship, Marriott School, Brigham Young University, 2001-present

“Incomplete List of Teachers Ranked as Excellent by Their Students,” University of Illinois at Urbana-Champaign, Spring 1999

Best Paper Award Runner-up, Technology and Innovation Management Division of the Academy of Management, 1997

University of California Club Fellowship, 1991 – 92

USDA National Needs Fellowship, 1989 – 92

Edwin S. Hinckley Scholar, Brigham Young University, 1988

Academic Achievement and Outstanding Senior Awards, Department of Agricultural Economics, Brigham Young University, 1988.

Member, National Golden Key Honor Society and Phi Kappa Phi
**Professional Activities**

**Memberships**  
Academy of Management • American Economics Association • Institute for Operations Research and Management Science (INFORMS) • Strategic Management Society

**Service in Professional Societies**  
Vice Chair of Programs of TMS, INFORMS, 2009—2010 • Vice Chair of Membership and Communication of TMS, INFORMS, 2008—2009 • Teaching Committee of the Business Policy & Strategy division of the Academy of Management, 2003—2005

**Editorial Boards**  
International Journal of Strategic Change Management, 2006—present

**Ad-Hoc Reviewer**  

**Administration**  
Group leader of the Entrepreneurship Group, Business Management Department, Marriott School, Brigham Young University, 2007—present

**Faculty Adviser**  

**College Committee Service**  

**Department Committee Service**  

**Other Service**  
Co-founder of the Learning Economics Group, 2004—present • Co-founder of the Knowledge, Learning, and Intellectual Capital (KLIC) group of INFORMS, 2004—present • BYU—University of Utah case competition judge, 2005 • Member, Governor's Technology Transfer Task Group, 2001-2003 • Team leader, “Publish, Don't Perish” Writing Workshop, Winter 2002
Thesis Committees


Mentored Research (undergraduate students)


Consulting/Field Work


Executive Training

Training on human resources and corporate training on behalf of INACAP, Santiago Chile, 2005

Corporate Board Service

Member of Board of Directors, Reassure America Life Insurance Company, 1998—2000 • Member of Board of Directors, American Merchants Life Insurance Company, 1998—2000