Johnathan R. Cromwell

Doctoral Candidate, Management
Harvard Business School | Boston, MA 02163
jcromwell@hbs.edu | (661) 644-3383

Curriculum Vitae

EDUCATION

DBA Management, Harvard Business School, Exp. May 2018
Dissertation: *Collaborative problem solving for breakthrough innovation: The case of a social robot*
Dissertation Committee: Teresa Amabile (co-chair), Heidi Gardner (co-chair; Harvard Law School), Michael Tushman, Spencer Harrison (INSEAD)

B.S. Chemical-Biological Engineering, Massachusetts Institute of Technology, 2009
Minor in Management
Minor in Economics

RESEARCH INTERESTS

Collaborative Creativity, Innovation, and Problem Solving: I study how people collaborate with each other as they define, change, and solve problems for creativity and innovation projects in organizations. My research helps advance a nascent theoretical framework of *collaborative problem solving*, which complements existing theories of collaborative creativity and innovation.

Cognitive Foundations of Collaboration: Collaboration is becoming increasingly important for creativity and innovation in organizations. Because, in the academic literature, these processes are primarily built on a cognitive model of individual problem solving, I endeavor to understand collaboration processes through the lens of a cognitive problem-solving framework. To that end, I have co-developed a problem-solving theory that explains the effects of constraint on creativity.

MANUSCRIPTS UNDER REVIEW

Cromwell, J. R. & Gardner, H. K. When great minds think alike: The value of familiarity for collaborative creativity as the stakes become higher. (Under review at *Organization Science*.)

***Cromwell, J. R.** & Amabile, T. M. (2017). A problem-space theory of creativity and constraint. (Under review at *Academy of Management Review*.)

CONFERENCE PROCEEDINGS

Cromwell, J. R. & Gardner, H. K. (2017). High-stakes innovation: When collaboration undermines (and sometimes enhances) innovation. In Guclu Atinc (Ed.), *Proceedings for the Seventy-Seventh Annual Meeting of the Academy of Management*. ISSN: 2151-6561.

WORKS IN PROGRESS

Cromwell, J. R., Amabile, T. M., & Harvey, J.F. Creativity, constraints, and dynamic problem solving in organizations. (Preparing for submission as an invited book chapter.)

***Cromwell J. R.** Novel, useful, and coherent: The transfer of meaning through product mental models. (Job market paper.)

***Cromwell J. R.** The social processes of developing a social robot: An inductive study on collaborative problem solving for a breakthrough innovation. (Working paper.)

Cromwell J. R. & Harvey, J.F. When organizations run internal innovation contests: How the pursuit of excellence affects commitment to the organization. (Data analysis.)

Cromwell, J. R., Harvey, J.F. & Sanchez-Burks, J. Creators as curators: Exploring the process and consequences of idea curation in organizations. (Data analysis.)

Cromwell, J. R., Harvey, J.F., Gregóire, D., & Reyt, J.N. Great minds think alike or fools seldom differ? The influence of construal-level fit on assessing innovation ideas. (Data analysis.)

Harvey, J.F. & **Cromwell, J. R.** Learning and the problem space in innovation project teams. (Data analysis.)

***Included in dissertation: Collaborative problem solving for breakthrough innovation: The case of a social robot. (Expected to defend in April 2018.)

Abstract: Breakthrough innovations deliver significant benefits to organizations and society, but they are particularly difficult to create because people must collaborate with each other while working on open (i.e., vague and undefined) problems. Under these conditions, people must spend much of their time defining and changing problems—in addition to solving them. Although prior research has developed extensive theory for individuals working on open problems and for collaborators working on closed (i.e., clear and defined) problems, which both show that constraints are fundamental to creative problem solving, there is sparse theoretical or empirical work explaining how people collaborate with each other when working on open problems. To address this gap, I conducted a two-year field study in an organization that was building one of the world's first social robots for the home. In chapter one, I develop a theoretical framework that guides my empirical research in chapters two and three. In it, I explain when and why constraints can have a positive, negative, or curvilinear effect on creative problem solving. In chapter two, I build directly off this theoretical framework, exploring how people collaborate with each other as they experience a dynamically changing set of external constraints (i.e., external to the task) over time. In chapter three, I elaborate on this theme by exploring how people collaborate with each other when dealing with a dynamically changing set of internal constraints (i.e., internal to the task) over time. Together, my dissertation advances a nascent theory of collaborative problem solving, which includes collaboration processes for both open and closed problems as people work on an innovation project in an organization.

REFEREED CONFERENCE PRESENTATIONS

Cromwell, J. R. & Gardner, H. K. (2017). *High-stakes innovation: When collaboration undermines (and sometimes enhances) innovation*. Paper presented at the annual meeting of the Academy of Management, Atlanta, GA.
* Best Paper Proceedings

Cromwell, J. R. & Amabile, T. M. (2017). *Toward resolving the paradox of creativity and constraints in organizations: A taxonomic approach*. Paper presented at the annual meeting of the Academy of Management, Atlanta, GA.

Cromwell, J. R. & Sanchez-Burks, J. (2016). *Recombination in teams*. Organized symposium at the annual meeting of the Academy of Management, Anaheim, California.

Cromwell, J. R., Harvey, J.F. & Sanchez-Burks, J. (2016). *Creators as curators: Exploring the process and consequences of idea curation in organizations*. Paper presented at the annual meeting of the Academy of Management, Anaheim, California.

Cromwell, J. R. & Gardner, H. K. (2015). *High-stakes legal innovation: When new partners fail and familiarity flourishes*. Paper presented at the INGRoup Conference, Pittsburgh, PA.

OTHER INVITED SPEAKING

2017 *Problem-solving or problem-finding? When choosing the best strategy unlocks radical innovation.* Presented at MIT Consulting Group Speaker Series, MIT, Cambridge, MA.

2016 *Creativity and constraints: A theory of dynamic problem solving in organizations.* Presented at the BC Creativity Collaboratorium, Boston College, Boston, MA.

2015 *Why your brilliant idea might fail: Demystifying the social side of innovation.* Presented at MIT Consulting Group Speaker Series, MIT, Cambridge, MA.

2014 *What you learn at Harvard that you don't learn at MIT: Comparing the cultures of MIT and HBS*. Presented at MIT Consulting Group Speaker Series, MIT, Cambridge, MA.

2009 Honorary alum at opening event for the MIT Community Catalyst Leadership Program, MIT, Cambridge, MA.

2008 Student speaker at annual Dean's Breakfast, MIT, Cambridge, MA.

Reflective properties of cholestic liquid crystal displays with modifications to film filters and conductive materials. Presented to vice president of research and technology commercialization, 3M, St. Paul, MN.

2007 *Characteristics of scattering patterns from electron beam emitters and possibilities for future research*. Presented to CEO, Advanced Electron Beams, Wilmington, MA.

AWARDS AND RECOGNITION

Outstanding Reviewer, OB Division, AOM 2016, 2017

Best Reviewer Award, TIM Division, AOM 2016, 2017

Above and Beyond the Call of Duty Reviewer, OMT Division, AOM 2015

William L. Stewart Institute Award, MIT 2009

Larry Benedict Leadership Award, MIT 2009

Senior Legacy Award, MIT 2009

Order of Omega Honor Society, MIT 2009

TEACHING EXPERIENCE

Teaching interests: Organizational behavior, leadership, entrepreneurship, technology and innovation, technology management, creativity, strategy.

Harvard Extension School

May – Aug 2013 *Introduction to Organizational Behavior*: Teaching assistant for a course with 44 graduate-level students at Harvard Extension School.

Massachusetts Institute of Technology

Aug – Dec 2015 *Engineering, Innovation, and Design*: Teaching assistant for a course with more than 100 undergraduate engineering students that teaches them the theory and practice of design-driven innovation.

Aug ’08 – May ’09 *Gordon Engineering Leadership Program*: Co-led and designed 12 Engineering Leadership Labs to a class of 25 students throughout the academic year. The purpose of the course was to help students develop 15 leadership qualities through practice and reflection.

SERVICE

2015–2017 Co-organizer for *The ASQ Blog*.

WORK EXPERIENCE

Research Associate, Harvard Business School, Boston, MA

Oct ’09 – Jun ’12 Worked with professors Ranjay Gulati, Nitin Nohria, and Tony Mayo.

Displays and Graphics Research Lab Intern, 3M, St. Paul, MN

May – Aug 2008 Conducted experiments to test cholestic LCD technology. Developed and executed an independent research study on engineering leadership.

Application Development Engineering Intern, Advanced Electron Beams, Wilmington, MA
May – Aug 2007 Conducted experiments to discover new commercial applications for electron beam emitters.

REFERENCES

Teresa M. Amabile (co-chair of dissertation committee)
Edsel Bryant Ford Professor of Business Administration
Entrepreneurial Management Unit
Harvard Business School
Soldiers Field Rd.
Boston MA, 02163
(617) 495–6871 | tamabile@hbs.edu

Heidi K. Gardner (co-chair of dissertation committee)
Distinguished Fellow
Harvard Law School
Pound Hall, 2nd Fl.
1563 Massachusetts Ave.
Cambridge MA, 02138
(617) 495–3356 | hgardner@law.harvard.edu

Michael L. Tushman (member of dissertation committee)
Paul R. Lawrence MBA Class of 1942 Professor of Business Administration
Organizational Behavior Unit
Harvard Business School
Soldiers Field Rd.
Boston MA, 02163
(617) 495–5442 | mtushman@hbs.edu

Spencer Harrison (member of dissertation committee)
Associate Professor
Organisational Behaviour
INSEAD
Boulevard de Constance
77305 Fontainebleau
+33 1 60 72 40 00 | spencer.harrison@insead.edu