

Christophe Pennetier

ASSISTANT PROFESSOR · TENURE TRACK

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"I conduct research on the dynamics of innovation, in particular on very specific moments in the life of companies: transitions."

Presentations at INFORMS

R&D spending: Dynamic or persistent?

342A

MSOM IFORM 003. FINTECH: THE INTERFACE OF TECHNOLOGY AND FINANCE

October 22, 2017, 1:30PM

Business model innovation feature extraction and application to the Lean Startup framework

342B

TIMES SC. COMPUTATIONAL RESEARCH METHODS AND APPLICATIONS IN TIMES

October 23, 2017, 11:00AM

When to innovate and when to grow? Empirical analysis of startup operation

330A

TC09. BIG DATA AND INNOVATION

October 24, 2017, 12:15PM

Research and Teaching Interests

Research: Start-ups, entrepreneurship, business model innovation, innovation, design

Teaching: Operations management, business model innovation, design thinking, lean startup

Education

The Wharton School

Philadelphia, USA

PHD VISIT @ THE OPERATIONS, INFORMATION AND DECISIONS DEPARTMENT

Sep. 2017 - PRESENT

- Dynamics of Innovation: Work on Startups and Business Model Innovation

INSEAD

Singapore, Singapore

PHD IN TECHNOLOGY AND OPERATIONS MANAGEMENT

Sep. 2012 - PRESENT

- Thesis: Dynamics of Innovation
- Director: Prof. Serguei Netessine
- Committee: Prof. Karan Girotra, Jürgen Mihm & Manuel Sosa

Stanford Graduate School of Business

Stanford, USA

MBA

Sep. 2007 - Jun. 2009

- Global Management Program Certificate

Sorbonne University

Paris, France

MS IN FINANCE

Sep. 2003 - Mar. 2004

- Major: Finance | Minor: Marketing

ENSTA Bretagne

Brest, France

MS IN ENGINEERING

Sep. 1999 - Sep. 2002

- Major 1: Mathematics & Applied Mathematics
- Major 2: Computer Science

Working Papers

R&D spending: Dynamic or persistent?

INSEAD Working Paper Series

2015/77/TOM

PENNETIER C., MIHM J., GIROTRA K.

2016

- Invited to 2nd round review at Manufacturing and Service Operations Management
- We study how a given amount of R&D spending is best allocated over time to optimize R&D performance
- Keywords: R&D strategy; R&D spending; variability in R&D spending; innovation; Arellano–Bond GMM estimation

Research in Progress

When to innovate and when to grow? Empirical analysis of startup operation

INSEAD

PENNETIER C., NETESSINE S., GIROTRA K.

2017

- Research question: “Does pivoting through business model innovation result in higher performance (e.g., higher probability to raise money or an exit)?”
- Keywords: data, mining sequential patterns with constraints, CrunchBase, entrepreneurship

Return on design

INSEAD

PENNETIER C., SOSA M., MIHM J.

2017

- We study a sample of U.S. public firms that produce utility patents and/or design patents to measure the impact that design has on the performance of firms
- Keywords: data, Arellano-Bond, design patents, Compustat

Teaching Experience

SPSD: Creative Thinking

INSEAD, Singapore

TEACHING ASSISTANT

Jan. 2015 - May 2016

- I coached MBAs and designers on user-centric innovation processes: observations and ethnographies, prototyping, tests.
- I assisted on building the best classroom experience to innovate.

Excel Workshop for MBAs

INSEAD, Singapore

LECTURER

Aug. 2013 - Jan. 2015

- I created and taught the course.

Schoolab (ESSEC, Centrale Paris, Strate College, Berkeley)

Paris, France

ASSOCIATE CONSULTING PROFESSOR + INDUSTRY COACH

Jan. 2010 - Jun. 2012

- I taught innovation methodologies: design thinking, lean startup, ethnographies, prototyping/test.
- I wrote a textbook on user-centric innovation with original frameworks.
- I managed projects and co-developed the program: raised \$2 Mn/yr from corporations.

Experience

Schoolab

Paris, France & Singapore

PARTNER + ASSOCIATE CONSULTING PROFESSOR

Jan. 2010 - PRESENT

- Schoolab is an Innovation Studio headquartered in Paris and with branches in the US, Singapore and South America.
- Schoolab is the perfect complement to traditional business, engineering and design education.
- We experiment and go fast. No red tape. We work like the best startups with flexibility and a lean approach. We beta-test all our ideas and try to be steps ahead in terms of education and innovation.
- Outstanding ecosystem to design and deliver great innovations to market.
- We make people, from students to CEOs, more innovative and entrepreneurial.
- We make organizations, from startups to large companies, build great products and services faster and better.

Pennetier Design Factory

London, UK

FOUNDER + CEO

Jul. 2009 - Jun. 2012

- I founded my firm to use design thinking and human-centered design processes to solve strategic and growth issues.
- I favored end users and tried to enhance their lives.
- I built simple and pure solutions at the right cost.
- I made my clients gain time.
- My motto: "Fail early and often, to succeed sooner and better."

Left Bank

San Francisco, USA

BUSINESS DEVELOPMENT INTERN + ASSISTANT TO THE CEO

Jun. 2008 - Sep. 2008

- Major skills: management consulting, strategic planning, business development, user experience, brand strategy, consumer insights.
- I developed the business plan of a new Left Bank brasserie in Walnut Creek (\$1.5m of equity, \$5m projected sales).
- I assisted the CEO on his strategic work.

KPDP Consulting

Paris, France

CONSULTANT

Apr. 2005 - Jun. 2007

- Major skills: management consulting, finance, financial modeling, project management.
- I had three main roles: consultant, rep and head of communication.
- I recruited and trained many outstanding consultants.
- I helped the firm build a culture and teams by selling \$800,000 worth projects to important clients.

Natixis (Aircraft Finance)

Paris, France

JUNIOR BANKING ANALYST

Mar. 2004 - Mar. 2005

- Major skills: finance, financial modeling, project management, analysis, data mining, strategic planning, business development, board-level decisions.
- I used my analytical and quantitative skills to develop the IT systems.
- I built financial models and tools.
- I set up commercial deals.
- I prepared the business plan to transform the department into a subsidiary.

World Health Organization

Geneva, Switzerland

ASSISTANT TO THE DIRECTOR OF GOVERNANCE

Sep. 2002 - Dec. 2003

- Major skills: project management, cross-functional leadership, interdisciplinary teams, board-level decisions.
- I assisted the Director of Governance at that time to organize 10 big events.

Jet Propulsion Laboratory

Pasadena, USA

SYSTEMS ENGINEER

Jun. 2001 - Sep. 2002

- Major skills: spacecraft design, software design, project management.
- I analyzed the financial feasibility of new technologies on missions to collect rock samples on Mars, The Moon, Venus and Mercury.
- I led and designed the Technology Mass Sensitivity (T-MaS) project in order to develop a model estimating effects of technology improvements on spacecraft total mass.

Presentations

SIG Conference

Chapel Hill, USA

PRESENTER FOR <R&D SPENDING: DYNAMIC OR PERSISTENT?> | DISCUSSANT: NICOS SAWVA (LBS)

Jun. 2017

- Introduced how a given amount of R&D spending is best allocated over time to optimize R&D performance.
- Introduced the notion of "direction of R&D spending."
- Introduced whether R&D spending variability is particularly harmful (or not) if the firm engages in highly original (novel) work.
- Introduced how the search distance of the novel research to the existing firm technology base influences the relation between R&D spending variability and R&D productivity.

MSOM Conference

Chapel Hill, USA

PRESENTER FOR <WHEN TO INNOVATE AND WHEN TO GROW? EMPIRICAL ANALYSIS OF STARTUP OPERATION>

Jun. 2017

- Introduced the research question: "Does pivoting through business model innovation result in higher performance (e.g., higher probability to raise money or an exit)?"
- Introduced the Bayesian updating process behind the Lean Startup framework.
- Introduced sequential pattern mining under constraints and its application to identify and characterize BMI.

InnoVEX

Taipei, Taiwan

VIP SPEAKER AND JURY FOR <ASIA PACIFIC ACCELERATOR NETWORK FORUM AND PITCH CONTEST>

May 2017

- Debated on Startup success, accelerators and global networks.
- Debated on the Lean Startup approach and its execution.

POMS Annual Conference

Seattle, USA

PRESENTER FOR <BUSINESS MODEL INNOVATION FEATURE EXTRACTION AND APPLICATION TO THE LEAN STARTUP

May 2017

FRAMEWORK>

- Introduced sequential pattern mining under constraints and its application to identify and characterize BMI.
- Introduced the Bayesian updating process behind the Lean Startup framework.

POMS Annual Conference

Seattle, USA

PRESENTER FOR <R&D SPENDING: DYNAMIC OR PERSISTENT?>

May 2017

- Introduced how a given amount of R&D spending is best allocated over time to optimize R&D performance.
- Introduced the notion of “direction of R&D spending”.

INFORMS Annual Meeting

Nashville, USA

PRESENTER FOR <BUSINESS MODEL INNOVATION FEATURE EXTRACTION AND APPLICATION TO THE LEAN STARTUP

Nov. 2016

FRAMEWORK>

- Introduced sequential pattern mining under constraints and its application to identify and characterize BMI.
- Introduced the Bayesian updating process behind the Lean Startup framework.

POMS Annual Conference

Orlando, USA

PRESENTER FOR <R&D SPENDING: DYNAMIC OR PERSISTENT?>

May 2016

- Introduced how a given amount of R&D spending is best allocated over time to optimize R&D performance.

INFORMS Annual Meeting

Philadelphia, USA

PRESENTER FOR <STARTUP AS A PROCESS AND BUSINESS MODEL INNOVATION>

Nov. 2015

- Introduced the Bayesian updating process behind the Lean Startup framework.
- Introduced the competing risks survival process for startups towards exits.

INFORMS Annual Meeting

San Francisco, USA

PRESENTER FOR <STARTUP AS A PROCESS AND BUSINESS MODEL INNOVATION>

Nov. 2014

- Introduced the Bayesian updating process behind the Lean Startup framework.
- Introduced the competing risks survival process for startups towards exits.

INFORMS Annual Meeting

San Francisco, USA

PRESENTER FOR <R&D SPENDING: DYNAMIC OR PERSISTENT?>

Nov. 2014

- Introduced how a given amount of R&D spending is best allocated over time to optimize R&D performance.

INFORMS Annual Meeting

Minneapolis, USA

PRESENTER FOR <R&D SPENDING: DYNAMIC OR PERSISTENT?>

Nov. 2013

- Introduced how a given amount of R&D spending is best allocated over time to optimize R&D performance.

Skills

Computer **Programming**, R, VBA, Python, C, C++, Java, HTML5, CSS

Expert

Computer **Econometrics**, R, Stata

Expert

Computer **Database**, SQL, Google BigQuery, Neo4j, MongoDB

Expert

Computer **Maths**, R, Mathematica, Matlab

Expert

Computer **Others**, \LaTeX

Expert

Languages **Business**, English (fluent), French (native), German (basic)

References

Prof Serguei Netessine

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