Lachlan Deer

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FORTHCOMING EMPLOYMENT

Booth School of Business, University of Chicago, Postdoctoral Fellow. 08/2019 - 10/2020

EDUCATION

University of Zurich, Ph.D. in Economics. 2013-07/2019 (exp.)

University College London, M.Sc in Economics (with Distinction). 2013

University of Adelaide, M.Phil in Economics. 2012

University of Adelaide, Bachelor's Degree in Economics (with First Class Honours). 2009

PROFESSIONAL AFFILIATIONS

CRS Fellow, Centre for Reproducible Science, University of Zurich. 2019

RESEARCH INTERESTS

Quantitative Marketing, Digital Marketing, Text as Data, Applied Econometrics, Media Economics.

RESEARCH PAPERS

JOB MARKET PAPER

L. Deer, P.K. Chintagunta and G.S. Crawford, "*Online Word of Mouth and the Performance of New Products*."

WORK IN PROGRESS

L. Deer, P.K. Chintagunta and G.S. Crawford, "*How does Advertising Influence Online Word of Mouth? Evidence from Twitter*." (Slides with preliminary results)

F. Javier Barreda, **L. Deer**, CS. Hsieh, M. Koenig, G. Korkmaz and F. Vega Redondo, "*Endogenous Riot Networks*." (Slides with preliminary results)

L. Deer, "*Quantifying Product Buzz*."

L. Deer, "*Trendy Topics: The Evolution of Research Topics and Methods in Leading Economics Journals*."

WORKING PAPERS

G.S. Crawford, **L. Deer**, J. Smith and P. Sturgeon, 2017, "*The Regulation of Public Service Broadcasters: Should there be more advertising on television?*," CEPR Discussion Paper 12428 (Revise and Resubmit at IJIO).

R. Bouchouicha, **L. Deer**, A. Eid, P. McGee, D. Schoch and H. Stojic, Y. Ygosse-Battisti and F. Vieider, 2018, "*Gender Effects and Loss Aversion: Yes, No, Maybe?*," Working Paper (Revise and Resubmit at Journal of Risk & Uncertainty).

PUBLICATION

L. Deer and R-C. Bayer, 2016, "*Pledges of Commitment and Cooperation in Partnerships*," Games 7(1) Art. No. 4.

ACADEMIC PRESENTATIONS

2019: EMAC, Marketing Dynamics, Marketing Science.

2018: U Adelaide, Bocconi, Swiss IO Day, Marketing Science, EEA-ESEM, EARIE, Mallen20.

2017: UCSD Rady Marketing Lunch.

2016: Econometric Society - Australasian Meeting, Australian Conference of Economists.

2015: Zurich Workshop in Economics, ESA European Meeting.

2012: Econometric Society - Australasian Meeting.

2011: Econometric Society - Australasian Meeting, Australian Conference of Economists, Australia and New Zealand Workshop on Experimental Economics.

AWARDS & RESEARCH GRANTS

EXTERNAL

SNF Early PostDoc.Mobility Grant (Host Institute - Chicago Booth School of Business). 07/2019 - 12/2020

SNF Doc.Mobility Grant (Host Institution - Stanford GSB). 09/2016 - 05/2017

Econometric Society Travel Grant. 2012

Australian Postgraduate Award. 2010-2012

INTERNAL

Dissertation Fellowship, University of Zurich. 2018-2019

Department Scholarship for PhD Students, University of Zurich. 2013-2018

Excellence in Masters Thesis Research, University of Adelaide. 2012

Certificate of Teaching Excellence, University of Adelaide. 2010

Legg Mason Asset Management Scholarship, University of Adelaide. 2008

School of Economics Merit List, University of Adelaide. 2005-2007

Summer Research Scholarship, University of Adelaide. 2006

TEACHING EXPERIENCE

Instructor, University of Zurich 2016-2019

Programming Practices for Research in Economics: Foundations (4 day intensive course, Winter 2019).

Programming Practices for Research in Economics (3 week intensive course, Summer 2016 & Summer 2017).

Instructor, Software Carpentry and Data Carpentry 2016-2019

2-day programming workshops at U Zurich (February 2019), University of Trento (November 2018), University of Geneva (March 2018), Karolinska Institute (October 2017), Stanford (June 2017), Federal Reserve Board of Governors (May 2017) and Federal Reserve in Kansas City (Feb 2017).

Teaching Assistant, University of Zurich 2014-2019

Cross Section and Panel Data Econometrics (×2), Empirical Analysis of Asymmetric Information in Banking and Insurance Markets.

Thesis Supervision: 8 × Bachelor's Theses, 4 × Master's Theses.

Teaching Assistant, School of Economics, University of Adelaide 2008-2012

Business and Economic Statistics (×2), Intermediate Mathematical Economics, Intermediate Microeconomics (×4), International Financial Institutions and Markets, Macroeconomic Theory and Policy, Managerial Economics (×2), Money Banking and Financial Markets, Public Finance, Principles of Economics (×2), Principles of Macroeconomics (×2), Principles of Microeconomics I.

Instructor, School of Economics, University of Adelaide 2010

Principles of Macroeconomics (Summer).

Instructor, Bradford College, University of Adelaide 2008 & 2010

International Financial Institutions and Markets, Principles of Macroeconomics.

Teaching Assistant, Flinders Business School, Flinders University 2008

Principles of Macroeconomics.

PROFESSIONAL ACTIVITIES

Ad-hoc Refereeing

Games, Information Economics and Policy, Journal of Economic Psychology, Journal of Economics and Statistics.

Workshops and Working Groups Organized

Zurich Empirical Industrial Organization Group (2017, 2018, Lead Organizer), PhD Breakfast (2017, 2018, co-organized), Computational Economics Working Group (2016, 2018, co-organized), Zurich Workshop in Economics (2015, Lead Organizer).

Community Engagement

Lesson Maintainer for Data Carpentry - Introduction to R for Geospatial Data

Lesson Contributions to Software Carpentry and Data Carpentry: Data Organization in Spreadsheets for Social Scientists, Data Cleaning with OpenRefine for Social Scientists, Introduction to Geospatial Data with R, Data Analysis and Visualization in R (Ecology), Data Management with SQL for Ecologists, R for Reproducible Scientific Analysis.

REFERENCES

Professor Gregory S. Crawford
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Department of Economics,
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Professor Pradeep K. Chintagunta
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RESEARCH ABSTRACTS

JOB MARKET PAPER

Online Word of Mouth and the Performance of New Products

Abstract: We investigate the effects of online word of mouth on the demand for new products using Twitter data. Twitter can both generate buzz & awareness as well as provide information on product quality that can readily diffuse through the population. Leveraging comprehensive data from the US movie industry and Twitter, we estimate a structural model of consumer demand for attending theatrical releases in 2014-2015 that incorporates both information channels. The results show that both channels are important, but differ across types of movies. We find pre-release tweet volume is the most important channel for large franchise movies, generating buzz that influences box office earnings on the opening weekend. In contrast, the sentiment expressed in online WoM after a movie's release influences box office demand in subsequent weekends for smaller movies. Demand for mid tier movies responds to increasing awareness driven by the volume of tweets posted after a movie is released.

IN PROGRESS

How does Advertising Influence Online Word of Mouth? Evidence from Twitter (Slides with preliminary results)

Abstract: This paper investigates whether firms' advertising influences online consumer word of mouth in new product markets. The increasing importance of online WoM in consumer decision making paired with the rise of 'second screening' by consumers means that firms are increasingly seeking to understanding how TV advertising impacts online behaviour. We utilize a large, granular data set on minute-by-minute tweeting behaviour for all wide release movies in the United States over 2014/2015 and match it with data on individual advertisements on national television to study whether TV ads lead to short-run spikes (i.e in the following 5 minutes) in online WoM. Our econometric approach utilizes a high dimensional fixed effects strategy to control for the quantity of consumer tweets that are not driven by advertising. Preliminary results show that TV ads cause short term increases in online WoM with an extra TV ad leading to 3.5 extra tweets, the equivalent of 1.5 additional minutes of tweeting. We also show that the effect of ads on tweeting only exists pre-release, and is larger the further away an ad is from the release date.

Endogenous Riot Networks (Slides with preliminary results)

Abstract: We analyze binary choice models in communication networks, in which both the formation of links in the network as well as the action choices are endogenous. In particular we study the situation where an individual's payoffs are influenced by their own ideology, decisions of peers and beliefs about the actions of the entire population. We provide a complete characterization of the equilibrium action choices and networks, where agents choose their strategies - actions and links - according to a perturbed best response update rule. We show that a threshold exists in the cost of forming a new connection and an individual's relative preference to coordinate an action with their peers, giving rise to either a sparse or a densely connected communication network. Moreover, we show how the theoretical model can be efficiently estimated using data on agents' choices and their network of interactions. We then structurally estimate the model using datasets of Twitter users that allows us to construct their social networks during the popular uprisings in Latin America (2011 and 2012) and the Arab Spring (2011). Preliminary results emphasize the importance of the actions made by both peers (local effects) and the wider network (global effects).

Quantifying Product Buzz

Abstract: Building product buzz, defined as emotion, energy, excitement, or anticipation expressed by consumers about a product, has become an essential part of modern marketing practice surrounding the launch of new products. Despite its perceived importance, there is limited work that has tried to quantify product buzz around a product's impending release. This paper develops a machine learning algorithm to quantify product buzz and track its evolution over time using social media data about new release movies from Twitter. The proposed algorithm proceeds in three steps: First, the algorithm classifies a tweet into one of three categories, consumer buzz, consumer review or firm generated content, based on a tweet's text and author. Second, the text of tweets that are classified as consumer buzz is analysed to measure emotion and anticipation. Third, the algorithm combines the volume of tweets, the emotions expressed within them and their dynamic properties to compute a measure of product buzz that updates daily. The results are among the first to provide a quantitative assessment of product buzz using the volume and content of social media data.

Trendy Topics: The Evolution of Research Topics and Methods in Leading Economics Journals

Abstract: This study investigates the content of the published scientific literature in 30 leading economics journals over 2000 to 2017. I develop a structural topic model to reveal the temporal dynamics of published papers across journals. Preliminary results show that topics initially penetrate "top 5" journals before being picked up by field journals, confirming their role as as the leading journals in the profession. The analysis also reveals the specificities of each journal and identifies groups of journals with similar content – the results of which are not always consistent with prevailing wisdom. For example, the results show that treatment effect estimates dominate empirical papers in the *Quarterly Journal of Economics*, and that articles published in the *Review of Economics & Statistics* and the *Review of Economic Studies* are relatively fast at publshing new trends.

WORKING PAPERS

The Regulation of Public Service Broadcasters: Should there be more advertising on television?

Status: *R&R at the International Journal of Industrial Organization*

Abstract: Increased competition for viewers' time is threatening the viability of public-service broadcasters (PSBs) around the world. Changing regulations regarding advertising minutes might increase revenues, but little is known about the structure of advertising demand. To address this problem, we collect a unique dataset on monthly impacts (quantities) and prices of UK television channels between 2002 and 2009 to estimate the (inverse) demand for advertising on both public and commercial broadcasters. We find that increasing PSB advertising minutes to the level permitted for non-PSBs would increase PSB and industry revenue by 10.5% and 6.7%.

Gender Effects and Loss Aversion: Yes, No, Maybe?

Status: *R&R at the Journal of Risk and Uncertainty*

Abstract: Gender effects in risk taking have attracted signficant attention by economists, and remain widely debated. Loss aversion — the stylized finding that a given loss carries substantially greater weight for decisions than a monetarily equivalent gain — is a fundamental driver of risk aversion. We deploy four definitions of loss aversion commonly used in the literature to investigate gender effects. Even though the definitions only differ in subtle ways, we find women to be more loss averse than men according to one definition, while another definition results in no gender differences, and the remaining two definitions point to women being less loss averse than men. Conceptually, these contradictory effects can be organized by systematic measurement error resulting from model mis-specifications relative to the true underlying decision process.

PUBLICATION

Pledges of Commitment and Cooperation in Partnerships

Status: *Published in Games, Volume 7, Issue 1, Article Number 4, "Special Issue on Experimental Studies of Social Dilemma Games"*

Abstract: We use experimental methods to investigate whether pledges of commitment can improve cooperation in endogenously formed partnerships facing a social dilemma. Treatments vary in terms of the individual's: (1) opportunity to commit to their partner; (2) the cost of dissolving committed partnerships; and (3) the distribution of these dissolution costs between partners. Our findings show that pledges of commitment alone can increase cooperation and welfare in committed partnerships. The introduction of relatively large and equally split costs yields similar gains. In contrast, when costs to dissolve committed partnerships fall solely on the individual choosing to break up, pledges of commitment fail to improve cooperation and welfare

PHD COURSEWORK

COURSEWORK AT UNIVERSITY OF ZURICH

Microeconomics for Research Students I	F. Kubler
Microeconomics for Research Students II	C. Ewerhart
Econometrics for Research Students I	M. Wolff
Econometrics for Research Students II	R. Winkelmann
Macroeconomics for Research Students I	F. Zilibotti & C. Winter
Macroeconomics for Research Students II	C. Winter, M.Rendall & F. Brutti
Empirical Industrial Organization	G. Crawford & M. Sovinsky
Structural Econometrics for Applied Microeconomics	G. Crawford
Computational Economics (ETH Zurich)	D. Harenberg
Effective Programming Practices for Economists	H.M. von Gaudecker

COURSES AUDITED

Industrial Organization I (Stanford Econ)	B. Larsen & L. Einav
Industrial Organization IIA (Stanford Econ)	B. Larsen & M. Gentzkow
Bayesian Inference: Methods & Applications (Stanford GSB)	S. Naranyan
Quantitative Methods for Empirical Research (Stanford GSB)	G. Imbens
Statistical Learning Theory (ETH Zurich, Computer Science)	J.M. Buhmann

SHORT COURSES & SUMMER SCHOOLS

Markets with Asymmetric Information (Tinbergen Institute)	L. Einav & J. Levin
Barcelona GSE Summer School in Microeconometrics (BGSE)	B. Baltagi, S. Litschig & S. Jiménez-Martín
Zurich Initiative For Computational Economics (U Zurich Business)	K. Judd, C.L. Su, H. Paarsch
Structural Econometrics and Market Responses in Imperfectly Competitive Industries (CEMFI)	A. Pakes
The Econometrics of Models with Simultaneous Interactions: Theory and Applications to IO (CEMFI)	E.Tamer
Panel Data Econometrics (CEMFI)	J. Wooldridge
Causality & Machine Learning (UCL)	S. Athey & G. Imbens
Machine Learning for Treatment Effects and Structural Equation Models (UCL)	V. Chernozhukov
Empirical Models of Differentiated Products (UCL)	S. Berry
Dynamic Programming Theory, Computation and Empirical Applications (UCL)	J. Rust, F. Ishakov, B. Scherning
Applied Nonparametric Econometrics (UCL)	J. Racine
Fixed Effects Treatment of Panel Data (UCL)	B. Honore