

Richard M. Crowley

Assistant Professor of Accountancy
Singapore Management University (2016.07–)

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Education

University of Illinois Urbana-Champaign, Urbana, IL

2012–16 PhD Accountancy

2008–12 B.S. Accountancy, *High Honors*

2008–12 B.S. Finance, *High Honors*

2008–12 B.S. Liberal Arts and Sciences, *High Distinction* in Mathematics (Theoretical Mathematics)

Interests

Research

Disclosure and information, Social media and new media, Stock market frictions

Methods: Archival (machine learning/AI, text analysis/NLP, econometrics), Analytical

Teaching

Data Science/Analytics, Economics theory, Financial Accounting, Control Systems

Publications

2020 **What Are You Saying? Using Topic to Detect Financial Misreporting** (with Nerissa Brown (UIUC) and W. Brooke Elliott (UIUC)), *Journal of Accounting Research*. Examines the textual content of 10-K filings to detect intentional misreporting, using AAERs and intentional misapplication of GAAP. Classification is done using Latent Dirichlet Allocation. Strong evidence is found that disclosure content predicts intentional misreporting beyond financial and textual style characteristics. Available at <https://ssrn.com/abstract=2803733>

Working Papers

2020 **Discretionary Dissemination on Twitter** (with Wenli Huang (Hong Kong PolyU) and Hai Lu (Univ. of Toronto)). *Second round revise and resubmit at Contemporary Accounting Research*. Examines a complete set of Tweets by S&P 1500 firms from 2012 through 2016 focusing on firms' strategic use of Twitter for voluntary disclosure around mandatory reporting events. We document an increase in financial tweet usage, as well as hyperlink usage, following a symmetric U-shaped relation with the materiality of accounting information events. Available at <https://ssrn.com/abstract=3105847>

Presented at:

University of Toronto; Boston University; Brock University; Peking University; Queen's University; University of California at Riverside; Washington University St. Louis; SMU-NTU-NUS Accounting Research Joint Conference, NTU; Journal of Accounting Auditing and Finance Conference, Jeju, South Korea; European Accounting Association Conference, Milan; Hawai'i Accounting Research Conference; Carnegie Mellon Accounting Mini-Conference; CUHK Conference on Text Analysis

- 2019 **Do Firms Manage Their CSR Reputation? Evidence from Twitter** (with Wenli Huang (Hong Kong PolyU), Hai Lu (Univ. of Toronto), and Wei Luo (Peking Univ.)). Examines a set of nearly 11 million tweets by S&P 1500 corporations to examine how firms discuss socially responsible actions on Twitter. We find evidence consistent with greenwashing; i.e., firms that are less socially responsible tweet more about such actions, whereas firms that exhibit more prosocial behavior do not. We document a number of market effects related to this phenomenon. Available at <https://ssrn.com/abstract=3472473>
Presented at:
Humboldt University, IRTG 1792; Hong Kong University; Nanyang Technological University; Tsinghua University; Hong Kong University; University of Toronto; Conference on Intelligent Information Retrieval in Accounting and Finance, Peking University; SJTU-SMU Joint Conference, Shanghai; Conference on Convergence of Financial and Managerial Accounting Research; Financial Accounting and Reporting AAA Midyear Meeting; Conference on the Effect of Social Norms on Organizational and Market Risk at Georgia State University
- 2020 **Executive Tweets** (with Wenli Huang (Hong Kong PolyU), Hai Lu (Univ. of Toronto)). *Revise and resubmit at The Accounting Review*. Examines the behavior of executives on Twitter. We find that the 2013 SEC report on social media usage leads to a decline in joining Twitter by executives at high litigation risk firms. We document that executives tweet financial information around major financial and non-financial events, and that the stock market responds to executive tweets in addition to firm tweets. Using an innovative machine learning technique, we show that this market reaction is consistent with investors trusting similar information from executives more than from firms.
Presented at:
University of Central Florida; University of Washington; Iowa State University; Singapore Management University, Summer Camp; Humboldt University, IRTG 1792, Summer Camp; Carnegie Mellon University; Rutgers University; University of Chicago; AAA Annual meeting
- 2018 **Voluntary Disclosure with Multiple Channels and Investor Sophistication**. An analytical model of voluntary disclosure in which a manager can disclose through two channels with different ease of processing, and with two types of investors. The model shows that in the presence of a second channel, managers have an incentive to decrease disclosures that will be quickly processed by unsophisticated investors and to increase the disclosures that will be quickly processed by sophisticated investors.
Presented at:
American Accounting Association Annual Meeting, Washington, D.C., USA; Journal of Accounting, Auditing and Finance Symposium, IIM Ahmedabad
- 2018 **Market Reaction to Shifting of Voluntary Disclosures across Disclosure Channels**. An archival paper that documents a new disclosure manipulation strategy that managers appear to employ, termed disclosure channel manipulation. Managers release similar information across multiple channels, but release more positive information in an easier channel. The paper examines voluntary disclosures across SEC filings and firm websites. This strategy leads to predictably positive abnormal returns around SEC filing announcement dates, and predictably negative abnormal returns subsequently. This strategy is found to be constrained by the presence of negative media reports on the firm.
Presented at:

Hong Kong University of Science and Technology; Hong Kong Polytechnic University; Singapore Management University; Cornell University; University of Florida Gainesville; University of Illinois; American Accounting Association Annual Meeting, San Diego, CA, USA; University of Illinois, Doctoral Student Presentation Mini-Conference

2020 **The Effect of Regulating Audit Quality on Audit Market Competition and Social Welfare** (with Romana Autrey (Willamette Univ.) and Anne Thompson (UIUC)). A theoretical examination of the audit market analyzing the differing impact of auditing standards on Big 4 and non-Big 4 firms. The results suggest that increasing minimum audit quality leads to intensified competition and lower billing rates. We also examine the social welfare implications of imposing minimum auditing standarupds and derive a socially optimal level of auditing standards.

Presented at:

Purdue University, University of Illinois; The Accounting Research Workshop, University of Basel, Switzerland

2017 **Split-Day Trading On Shanghai Stock Exchange** (with A. Rashad Abdel-Khalik (UIUC) and Xiang Li (Nanjing University)). Examines the impact of the lunch break in the Shanghai stock exchange on returns. Results show significantly different trading patterns between the morning and afternoon sessions, documenting a return reversal from morning to afternoon as well a difference in risk aversion. These return patterns are significantly different from US stock markets and the overnight break.

Presented at:

Peking University; University of Florida Gainesville; University of Illinois Urbana-Champaign; IAS Midyear Meeting, Long Beach, CA; Haskell & White Corporate Reporting & Governance Academic Conference, Irvine, CA

Work in Progress

2020 **The Effect of Space Commercialization Exposure on Firm Policies** (with Yun Lou (SMU)).

Presented at:

Early Insights in Accounting Webinar

2020 **#Reopen: Reopening Decisions, Local Sentiment, and Economic Consequences** (with Hai Lu (Univ. of Toronto) and Jee-Eun Shin (Univ. of Toronto)).

2020 **Corporate Disclosures and Intelligent Information Retrieval** (with Hai Lu (Univ. of Toronto)).

2020 **Anti-fake News Regulation and Capital Market Quality** (with Yun Lou (SMU), Samuel Tan (SMU), and Liandong Zhang (SMU)).

Grants and Fellowships

2020–21 Singapore Ministry of Education (MOE) Academic Research Fund (AcRF) Tier 1 grant (20-C206-SMU-002). “#Reopen: Reopening Decisions, Local Sentiment, and Economic Consequences,” Principal investigator. With Hai Lu (Collaborator) and Jee-Eun Shin (Collaborator). \$37,590 SGD (\$27,612.70 USD on receipt).

2020–23 Singapore Ministry of Education (MOE) Academic Research Fund (AcRF) Tier 2 grant (MOE2019-T2-2-174). “Anti-fake News Regulation and Capital Market Quality,” Collaborator. With Yun Lou (PI), Samuel Tan (Co-I), and Liandong Zhang (Co-I). \$304,740 SGD (pending receipt).

- 2019–22 Social Sciences and Humanities Research Council of Canada Insight Grant (435-2019-0292). “Corporate Disclosures and Intelligent Information Retrieval,” Collaborator. With Hai Lu (PI). \$124,674 CAD (\$93,505.50 USD on receipt).
- 2019–20 Hong Kong General Research Fund grant (15502618). “Executive Disclosures on Twitter,” Co-Investigator. With Wenli Huang (PI) and Hai Lu (Co-I). 601,537 HKD (\$76,780.23 USD on receipt).
- 2017–20 Singapore Ministry of Education (MOE) Academic Research Fund (AcRF) Tier 1 grant (16-C206-SMU-09). “Corporate and Executive Disclosures on Social Media,” Principal investigator. With Hai Lu (Collaborator). \$57,488.99 SGD (\$41,121.41 USD on receipt).
- 2015–16 University Fellowship (UIUC)
- 2014–15 University Fellowship (UIUC)
- 2014 Aug Dennis Fellowship (UIUC)
- 2014 Aug Fellow of the Foundation Lindau Nobel Laureate Meetings
- 2013–14 Departmental Fellowship (UIUC)

Awards and Honors

- 2020 Jul **Singapore Management University, School of Accountancy**
Teaching Excellence Award: Dean’s List for Teaching Excellence
- 2020 Jun **Financial Accounting and Reporting Section of the AAA**
Excellence in Reviewing Award
- 2019 Jun **Financial Accounting and Reporting Section of the AAA**
Excellence in Reviewing Award
- 2018 Jul **Singapore Management University, School of Accountancy**
Teaching Excellence Award: Dean’s List for Teaching Excellence
- 2018 Jul **Singapore Management University, School of Accountancy**
Teaching Excellence Award: Most Improved Teacher
- 2014 Aug **Lindau Nobel Meeting on Economic Sciences, Lindau, Germany**
Selected as one of the top 500 young economists worldwide to attend 19 Noble laureates’ lectures

Research Presentations

- 2020 Oct Early Insights in Accounting Webinar, Workshop
- 2020 Aug American Accounting Association Annual Meeting, Virtual
- 2020 Feb University of Chicago, Workshop
- 2020 Feb Rutgers University, Workshop
- 2020 Feb Carnegie Mellon University, Workshop
- 2019 Jul Conference on Intelligent Information Retrieval in Accounting and Finance, Peking U.
- 2019 Jun Humboldt University, IRTG 1792, Summer Camp
- 2019 Jun Humboldt University, IRTG 1792, Workshop
- 2019 Jun Singapore Management University, Summer Camp
- 2019 Mar Hong Kong University, Workshop
- 2018 Oct SJTU-SMU Joint Conference, Shanghai, China

- 2018 Aug American Accounting Association Annual Meeting, Washington, D.C., USA
- 2018 Aug Junior Accounting Theory Conference (Early ideas session), Washington, D.C., USA
- 2017 Nov Peking University, Workshop
- 2017 Oct University of Toronto, Workshop
- 2017 Apr SMU-NTU-NUS Accounting Research Joint Conference, NTU
- 2017 Aug American Accounting Association Annual Meeting, San Diego, CA, USA
- 2017 Jan Journal of Accounting, Auditing and Finance Symposium, IIM Ahmedabad
- 2016 Mar Hong Kong University of Science and Technology, Workshop
- 2016 Mar Hong Kong Polytechnic University, Workshop
- 2016 Mar Singapore Management University, Workshop
- 2016 Feb Cornell University, Workshop
- 2016 Feb University of Florida Gainesville, Workshop
- 2015 Nov University of Illinois, Doctoral Student Presentation Mini-Conference
- 2015 May University of Illinois, Brown Bag
- 2014 Oct Purdue University, Workshop – with Romana Autrey
- 2013 Apr University of Illinois, Brown bag

Service

Departmental Positions

- 2020– Financial Accounting (ACCT 101) course coordinator

Doctoral Student Advising

- 2019– **Amanda Aw Yong**
SMU School of Accountancy

Reviewer: Journals

- 2019–20 Contemporary Accounting Review, Ad hoc reviewer (2)
- 2020 Review of Accounting Studies, Ad hoc reviewer (1)
- 2020–21 Accounting, Organizations, and Society, Ad hoc reviewer (1)
- 2019 Journal of Accounting, Auditing & Finance, Ad hoc reviewer (2)
- 2020 China Accounting and Finance Review, Ad hoc reviewer (1)
- 2020 Journal of Contemporary Accounting & Economics, Ad hoc reviewer (1)
- 2020 Journal of Forecasting, Ad hoc reviewer (2)
- 2019 Asia-Pacific Journal of Accounting & Economics, Ad hoc reviewer (1)
- 2019 Corporate Governance: An International Review, Ad hoc reviewer (1)

Reviewer: Grants

- 2019–20 Hong Kong Research Grants Council, Hong Kong, Ad hoc reviewer, HKGRF grant (3)
- 2018–19 National Science Center, Poland, Ad hoc reviewer, PRELUDIUM (1) and OPUS (1) grants

Reviewer: Conferences

- 2014–19 Financial Accounting and Reporting AAA Midyear Meeting, 12 papers
- 2016–20 SMU Accounting Symposium, 8 papers
- 2019 Conference on Financial Economics and Accounting, 1 paper
- 2015–20 AAA Annual Meeting, 12 papers

- 2015 Illinois International Journal of Accounting Symposium, 2 papers
 2014 University of Illinois Symposium on Audit Research, 1 paper

Discussant and Panelist: Conferences

- 2021 Jan Journal of Accounting, Auditing, and Finance Symposium, IIMC, India, Discussant
 2020 Aug AAA Annual Meeting, Discussant
 2020 Jan Journal of Accounting, Auditing, and Finance Symposium, IIMB, India, Discussant
 2019 Jul CICF, Guangzhou, China, Discussant (2)
 2019 Jan Journal of Accounting, Auditing, and Finance Symposium, ISB, India, Discussant
 2018 Aug AAA Annual Meeting, Discussant (2)
 2018 Jul NTU Finance Conference, Discussant
 2017 Dec SMU Accounting Symposium Doctoral Consortium, Panelist
 2017 Aug AAA Annual Meeting, Discussant (2)
 2016 Aug AAA Annual Meeting, Discussant (2)
 2014 Feb International Accounting Section Midyear Meeting, Discussant
 2013 May Illinois International Journal of Accounting Symposium, Panelist

External Advising

- 2019– **Fraud Factors**, *Advisor*
 Providing expertise on misreporting data and fraud detection algorithms.
- 2019 Sp **Singapore Institute for Adult Learning (An Institute of SkillsFutureSG)**, *The Future of Jobs and Skills: the Impact of Automation in Singapore (2018–19)*
 Provided expertise on how AI and machine learning are expected to impact the accounting profession over the next 5 years, with an emphasis on identifying needs for retraining and job shifts.
- 2018 Sp **SMU Academy**, *Recognition of Prior Learning Proof of Concept Project*
 Developed examination to identify employees with knowledge of digital governance for fintech.

Published Media

As an author

- 2020 May **How executives use social media to build trust with investors**. Discusses how executives' social media usage plays a role in informing investors. Available at [this link](#) (alternative [permalink](#))
 Published in *Business Times*
- 2019 Apr **The accounting profession: On the cusp of a technological revolution** (with Jiwei Wang (SMU)). Discusses the expected impact of AI and related technologies on the accounting profession. Available at [this link](#) (alternative [permalink](#))
 Published in *Business Times*; Also distributed by SMU's website and by Wolters Kluwer Malaysia
- 2019 Jul **Scrutinising Financial Information on Twitter and Detecting Misreporting (Podcast)**. Discussed "What are you saying? Using topic to detect financial misreporting" and "Discretionary Dissemination on Twitter" on air at SMU Podcast. Available at [this link](#) (alternative [permalink](#))

Coverage

- 2020 Jun **Does anti-fake news regulation improve the quality of capital markets.** ([Link](#)) ([Alternative Permalink](#))
Press release
- 2020 Mar **Predicting intentional accounting misreporting.** ([Link](#)) ([Alternative permalink](#))
Press release
- 2020 Mar **Uncovering financial misinformation.** Available at [this link](#) ([alternative permalink](#)).
Published in *Business Times*
- 2019 Dec **Topic Analysis a Strong Predictor of Financial Misreporting, According to University of Illinois Study.** ([Link](#)) ([Alternative Permalink](#))
Press release, covered by 11 other news outlets including Business Insider

Research Visits

- 2020 Feb **University of Toronto, Rotman School of Management, Toronto, ON, Canada**
2 week visits including research idea generation, 2 grant submissions, and discussion with faculty and PhD students.
- 2019 Jun **Humboldt University, IRTG 1792 “Nonstationary Timeseries...”, Berlin, Germany**
1.5 week visit including 1 workshop, a summer camp (gave a lecture on “Executive Tweets”), and discussion with PhD students about their work on machine learning based text analysis.
- 2017 Oct **Carnegie Mellon University, Tepper School of Business, Pittsburgh, PA, USA**
3 week visit including 1 workshop and a discussion for PhD students on blockchain ([slides](#)).

Public Lectures

- 2019 Mar **Corporate Fraud, LDA, and Econometrics, For Data Science Singapore, > 200 in attendance, ([Slides](#), [Video](#)).**

University Lectures

- 2020 Nov **Text Analytics, NLP, and Accounting Research, 2020, At SMU, PhD level ([Slides](#))**
- 2020 Sept **Twitter Analytics on Companies, Executives, and COVID-19, For prospective PhD students for SMU. ([Slides](#))**
- 2020 Apr **Text Analytics, NLP, and Accounting Research, 2020, At Peking University, PhD level ([Slides](#))**
- 2019 Nov **Text Analytics, NLP, and Accounting Research, 2019, At SMU, PhD level ([Slides](#))**
- 2019 Jul **Text analytics and accounting: Social media and fraud detection, For prospective PhD students across all SMU schools. ([Slides](#))**
- 2019 Mar **Detecting Misreporting in 2019, At SMU, Undergraduate level, Presented 3 times as a guest lecture ([Slides](#)).**
- 2018 Nov **Text Analytics, NLP, and Accounting, At SMU, PhD level ([Slides](#))**
- 2018 Apr **Market Reaction to Shifting of Voluntary Disclosures across Disclosure Channels (And related theory), At NUS, PhD level.**
- 2017 Oct **Bitcoin in Accounting, At Carnegie Mellon University, PhD level ([Slides](#))**

Conferences Attended

(Excluding presented and discussed, above)

- 2020 Dec SMU Accounting Symposium, Singapore
- 2020 Dec Singapore Symposium on Natural Language Processing, Virtual
- 2020 Dec Review of Accounting Studies Conference, Virtual
- 2020 Nov China Accounting and Finance Review Fundamental Analysis Symposium, Virtual
- 2020 Nov Contemporary Accounting Research (CAR) Conference, Virtual
- 2020 Jul India Institute of Management Bangalore Symposium, Virtual
- 2020 Jun Lindau Nobel Laureate Meetings, Online Science Days 2020, Virtual
- 2020 Jun Immersive Learning Research Network (iLRN 2020), Virtual Reality
- 2020 May QEP-IBM Quantum Workshop, Virtual
- 2020 May IBM Think & IBM Quantum Challenge, Virtual
- 2019 Dec RAST 2019 Conference, SMU, Singapore
- 2019 Oct Singapore Symposium on Natural Language Processing, Singapore
- 2019 Jun Accounting Research Workshop, Zurich, Switzerland
- 2019 May Asia Bureau of Finance and Economics Research, Singapore
- 2019 Apr SMU-NTU-NUS Accounting Research Joint Conference, SMU, Singapore
- 2018 Dec SMU Accounting Symposium, Singapore
- 2018 Jul Singapore Symposium on Natural Language Processing, Singapore
- 2018 May Asia Bureau of Finance and Economics Research, Singapore
- 2018 Apr SMU-NTU-NUS Accounting Research Joint Conference, NUS, Singapore
- 2017 Dec SMU Accounting Symposium, Singapore
- 2017 Oct SMU-NCCU Joint Accounting Conference, Taipei, Taiwan
- 2017 Aug Carnegie Mellon Accounting Mini Conference, Pittsburgh, PA, USA
- 2017 Aug Junior Accounting Theory Conference, San Diego, CA, USA
- 2017 May Asia Bureau of Finance and Economics Research, Singapore
- 2016 Dec SMU Accounting Symposium, Singapore
- 2016 Oct SMU, UTS, & UNSW Accounting Conference, Sydney, NSW, Australia
- 2016 Aug SKBI Conference 2016: Fintech and Financial Inclusion, Singapore
- 2016 Aug Junior Accounting Theory Conference, New York, NY, USA
- 2016 Jan Financial Accounting and Reporting AAA Midyear Meeting, Newport Beach, CA, USA
- 2015 Jun 2015 Midwest Summer Research Conference, Champaign, IL, USA
- 2015 Jun Illinois International Journal of Accounting Symposium, Xiamen, China
- 2015 Apr PwC Young Scholars Research Symposium II, Champaign, IL, USA
- 2014 Sep University of Illinois Symposium on Audit Research, Champaign, IL, USA
- 2014 Aug Lindau Nobel Meeting on Economic Sciences, Lindau, Germany
- 2014 Apr PwC Young Scholars Research Symposium I, Champaign, IL, USA
- 2014 Feb International Accounting Section Midyear Meeting, San Antonio, TX, USA
- 2014 Jan Financial Accounting and Reporting AAA Midyear Meeting, Houston, TX, USA
- 2013 May Illinois International Journal of Accounting Symposium, Wuhan, China
- 2012 Sep University of Illinois Symposium on Audit Research, Champaign, IL, USA

Courses Taught

Professor, *Singapore Management University*

- 2020 Sp [PhD] ACCT 703, Analytical and Empirical Methods in Accounting
Designed and taught a 6 week theory seminar course; half in person, half online & in VR
- 2019 Fa [Undergrad] ACCT 420, Forecasting and Forensic Analytics (Materials)
- 2019 Fa [Undergrad] ACCT 101, Financial Accounting (Materials)
- 2019 Su [PhD] Doctoral Mini-Theory Seminar (4 week course)
Designed and taught a 4 week theory seminar course
- 2018 Fa [Undergrad] ACCT 420, Forecasting and Forensic Analytics (Materials)
Designed course from the ground up to be taught at both undergrad and Master's level.
- 2018 Sp [Undergrad] ACCT 101, Financial Accounting
- 2017 Sp [Undergrad] ACCT 101, Financial Accounting

Instructor, *University of Illinois*

- 2014 Su [Undergrad] ACCY 304, Accounting Control Systems
- 2013 Su [Undergrad] ACCY 304, Accounting Control Systems

Professional Experience

- 2011–13 **Tallecap**, *Urbana, IL, USA*
Co-founder: Venture capital software startup providing software to determine capitalization and hypothetical payoffs for venture capital deals. It has since been turned into a tool for teaching valuation.
- 2011 Su **JPMorgan Chase**, *Chicago, IL, USA*
Intern for Treasury & Financial Services: Analyzed worldwide forex revenues to improve predictability, costed out a credit card payment platform, automated monthly forex reporting for Asia.
- 2011 Sp **DN Partners**, *Chicago, IL, USA*
Prepared comparables sets for an audit of a small private equity fund.

Technical Skills

Programming languages: Python, R, Mathematica (certified), Qiskit (quantum computing), C

Markup languages: \LaTeX , HTML, R Markdown

Statistics packages: Stata, R, Pandas/Statsmodels/scikit-learn, SAS

Machine learning & NLP Tensorflow, Keras, gensim, STM, Theano, NLTK, spaCy, XGBoost

Expertise: Machine learning, text parsing, automation, web crawling, econometrics, mathematics