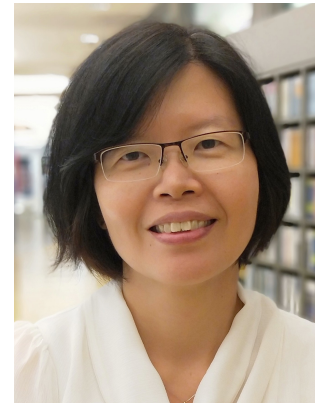**LO Siaw Ling**

School of Computing and Information Systems
Singapore Management University (SMU)
80 Stamford Road
Singapore 178902

Email: sllo@smu.edu.sg

Education

PhD, University of Newcastle, Australia, 2017

Master of Science, National University of Singapore, Singapore, 2005

Bachelor of Computer, University of Western Australia, Australia, 1995

Skill Set

applied text analytics, machine learning

Academic Appointments

Associate Professor of Information Systems (Education), School of Computing and Information Systems, SMU, Jan 2024 - Present

Assistant Professor of Information Systems (Education), School of Computing and Information Systems, SMU, Dec 2020 - Dec 2023

Senior Lecturer of Information Systems, School of Computing and Information Systems, SMU, Dec 2018 - Nov 2020

Academic Administrative Positions

Mentor, SCIS Pedagogy Course, School of Computing and Information Systems, SMU, Jul 2022 - Present

RESEARCH

Research Interests

Research Statement:
Leverage and apply practical research methods to solve real-world problems

Research Interest:
Develop practical approaches to uncover knowledge and insights from data. The ability to create and realise values from under-utilised resources such as textual data (be it social media, company reports, patient records or feedback systems) can potentially be transformative for an organisation.

My current research projects are,
- Actionable situational intelligence for urban events using social media
- Enhancing students learning through Generative AI
- Social analytics on impact of AI assisted agent

Research and Project Areas

Data Science & Engineering
- Knowledge Discovery & Data Mining
- Machine Learning & Deep Learning
- Natural Language Processing & Text Mining
Information Systems & Management
- Social Media Marketing & Digital Strategies
Learning & Pedagogy
- Learning & Curriculum Analytics
Active Citizenry & Communities
- Urban & Social Analytics

Publications

Journal Articles [Refereed]

Automated doubt identification from informal reflections through hybrid sentic patterns and machine learning approach, by LO, Siaw Ling; TAN, Kar Way; OUH, Eng Lieh. (2021). *Research and Practice in Technology Enhanced Learning, 16* (1), 1-24. https://doi.org/10.1186/s41039-021-00149-9 (Published)

An unsupervised multilingual approach for online social media topic identification, by LO, Siaw Ling; CHIONG, Raymond; CORNFORTH, David. (2017). *Expert Systems with Applications, 81* 282-298. https://doi.org/10.1016/j.eswa.2017.03.029 (Published)

Multilingual sentiment analysis: from formal to informal and scarce resource languages, by LO, Siaw Ling; CAMBRIA, Erik; CHIONG, Raymond; CORNFORTH, David. (2017). *Artificial Intelligence Review, 48* (4), 499-527. https://doi.org/10.1007/s10462-016-9508-4 (Published)

A multilingual semi-supervised approach in deriving Singlish sentic patterns for polarity detection, by LO, Siaw Ling; CAMBRIA, Erik; CHIONG, Raymond; CORNFORTH, David. (2016). *Knowledge-Based Systems, 105* 236-247. https://doi.org/10.1016/j.knosys.2016.04.024 (Published)

Ranking of high-value social audiences on Twitter, by LO, Siaw Ling; CHIONG, Raymond; CORNFORTH, David. (2016). *Decision Support Systems, 85* 34-48. http://dx.doi.org/10.1016/j.dss.2016.02.010 (Published)

Using Support Vector Machine Ensembles for Target Audience Classification on Twitter, by LO, Siaw Ling; CHIONG, Raymond; CORNFORTH, David. (2015). *PLoS ONE, 10* (4), 1-20.

https://doi.org/10.1371/journal.pone.0122855 (Published)

SPLASH: Systematic proteomics laboratory analysis and storage hub, by LO, Siaw Ling; TAO, You; LIN, Qingsong; JOSHI, Shashikant B.; CHUNG, Maxey; HEW, Choy Leong. (2006). *Proteomics, 6* (6), 1758-1769. https://doi.org/10.1002/pmic.200500378 (Published)

Effect of training datasets on support vector machine prediction of protein-protein interactions, by LO, Siaw Ling; CAI, Cong Zhong; CHUNG, Maxey; CHEN, Yu Zong. (2005). *Proteomics, 5* (4), 876-884. https://doi.org/10.1002/pmic.200401118 (Published)

Prediction of RNA-binding proteins from primary sequence by a support vector machine approach, by HAN, Lian Yi; CAI, Cong Zhong; LO, Siaw Ling; CHUNG, Maxey; CHEN, Yu Zong. (2004). *RNA, 10* (3), 355-368. https://doi.org/10.1261/rna.5890304 (Published)

Proteome database of hepatocellular carcinoma, by LIANG, Cynthia; NEO, Jason; LO, Siaw Ling; TAN, Gek San; SEOW, Teck Keong; CHUNG, Maxey. (2002). *Journal of Chromatography B, 771* (1-2), 303-328. https://doi.org/10.1016/s1570-0232(02)00041-7 (Published)

Conference Proceedings

Transformer-based Multi-Task Learning for crisis actionability extraction , by ZHANG, Yuhao; LO, Siaw Ling; WIN MYINT, Phyo Yi. (2023.0). *Proceedings of International Conference on Information Systems 2023, Hyderabad, India, December 10-13,* Atlanta, GA, United States of America: Association for Information Systems. (Published)

Machine-learning approach to automated doubt identification on stack overflow comments to guide programming learners, by CHEN, Tianhao; OUH, Eng Lieh; TAN, Kar Way; LO, Siaw Ling. (2023.0). *Proceedings of 2023 Pacific Asia Conference on Information Systems, Nanchang, China, July 8-12,* (pp. 1-16) Nanchang, China: PACIS. (Published)

Impact of difficult negatives on Twitter crisis detection, by ZHANG, Yuhao; LO, Siaw Ling; WIN MYINT, Phyo Yi. (2023.0). *Proceedings of Pacific Asia Conference on Information Systems 2023, Nanchang, China, July 8-12,* (pp. 1-15) Nanchang, China: https://aisel.aisnet.org/pacis2023/156 (Published)

Is a pretrained model the answer to situational awareness detection on social media?, by LO, Siaw Ling; LEE, Kahhe; ZHANG, Yuhao. (2023.0). *2023 56th Hawaii International Conference on System Sciences: Hawaii, January 3-6: Proceedings,* (pp. 2110-2119) Hawaii: IEEE Computer Society. https://hdl.handle.net/10125/102894 (Published)

Reflection as an agile course evaluation tool, by LO, Siaw Ling; CHER, Pei Hua; BELLO, Fernando. (2022.0). *Proceeding of 23rd International Conference, Durham, UK, 2022 July 27-31,* (pp. 293-297) Durham University, UK: Springer. http://doi.org/10.1007/978-3-031-11647-6_55 (Published)

AI-enabled adaptive learning using automated topic alignment and doubt detection, by TAN, Kar Way; LO, Siaw Ling; OUH, Eng Lieh; NEO, Wei Leng. (2022.0). *Proceedings of the 2022 Annual Pacific Asia Conference on Information Systems, Virtual Conference, July 5-9,* (pp. 1-16) US: Association for Information Systems (AIS). https://aisel.aisnet.org/pacis2022/110/ (Published)

Do sequels outperform or disappoint? Insights from an analysis of Amazon echo consumer reviews, by SHIM, Kyong Jin; LO, Siaw Ling; LIEW, Su Yee. (2022.0). *2022 55th Hawaii International Conference on System Sciences HICSS: Virtual, January 4-7: Proceedings,* (pp. 2950-2959) Los Alamitos, CA: IEEE Computer Society. https://doi.org/10.24251/HICSS.2022.364 (Published)

Mining informal and short student self-reflections for detecting challenging topics: A learning outcomes insight dashboard, by LIN, Ong De; GOTTIPATI, Swapna; LO, Siaw Ling; SHANKARARAMAN, Venky. (2021.0). *2021 IEEE Frontiers in Education Conference (FIE): Lincoln, NE, October 13-16: Proceedings,* (pp. 1-9) Piscataway, NJ: IEEE. https://doi.org/10.1109/FIE49875.2021.9637181 (Published)

Rethinking work study programs: A data analytics work study program for undergraduates, by LO, Siaw Ling; GOTTIPATI, Swapna; SHANKARARAMAN, Venky. (2021.0). *Proceedings of 27th Americas Conference on Information Systems, AMCIS 2021, Online Conference, August 9-13,* Montreal: AIS. (Published)

Do my students understand? Automated identification of doubts from informal reflections, by LO, Siaw Ling; TAN, Kar Way; OUH, Eng Lieh. (2019.0). *Proceedings of the 27th International Conference on Computers in Education, Kenting, Taiwan, December 2-6,* (pp. 1-10) Kenting, Taiwan: Asia-Pacific Society

for Computers in Education. (Published)

Use of a high-value social audience index for target audience identification on Twitter, by LO, Siaw Ling; CORNFORTH, David; CHIONG, Raymond.. (2015.0). *Proceedings of the1st Australasian Conference on Artificial Life and Computational Intelligence, ACALCI 2015, Newcastle, Australia, February 5-7, 2015,* (pp. 323-336) Switzerland: Springer. https://doi.org/10.1007/978-3-319-14803-8_25 (Published)

Effects of training datasets on both the extreme learning machine and support vector machine for target audience identification on twitter, by LO, Siaw Ling; CORNFORTH, David; CHIONG, Raymond. (2014.0). *Proceedings of the 5th International Conference on Extreme Learning Machines, Singapore, 2014 December 10-12,* (pp. 417-434) Singapore: Springer Link. https://doi.org/10.1007/978-3-319-14063-6_35 (Published)

Identifying the high-value social audience from Twitter through text-mining methods, by LO, Siaw Ling; CORNFORTH, David; CHIONG, Raymond. (2014.0). *Proceedings of the 18th Asia Pacific Symposium on Intelligent and Evolutionary Systems, Singapore, 2014 November 10-12,* (pp. 325-339) Singapore: Springer Link. https://doi.org/10.1007/978-3-319-13359-1_26 (Published)

Research Grants

Singapore Management University

Actionable Situational Intelligence for Urban Events using Social Media, 0.0, ST Engineering Mission Software & Services Pte Ltd , PI (Project Level): LO Siaw Ling, 2021, S$865,569

Other Institutions

DE.AI: Debunking misconceptions for Enhanced Student Learning with the Power of Generative AI, Education Research Fellowship, Center of Teaching Excellence PI (Project Level): LO Siaw Ling, 2023

Adaptive Learning with Automated Doubt Mining and Topic Alignment, Technology-Enabled Learning Grant, Centre of Teaching Excellence PI (Project Level): TAN Kar Way, Co-PI (Project Level): LO Siaw Ling, OUH Eng Lieh, 2020

Content-based Frailty Classification System, NYP-TTSH Grant Call, Nanyang Polytechnic and Tan Tock Seng Hospital PI (Project Level): LO Siaw Ling, 2018, SGD29,000

Content-based Target Audience Profiling, MOE Translation and Innovation Fund, Ministry of Education PI (Project Level): LO Siaw Ling, 2012, SGD233,125

Mining Opinions from Social Media, Tote Fund Model Project, Tote Board PI (Project Level): LO Siaw Ling, 2010, SGD85,000

TEACHING

Teaching Areas

Digital Business - Technology and Transformation
Digital Analytics Technology
Analytics Foundation
Business Process Analysis & Solutioning

Courses Taught

<u>Singapore Management University</u>

Undergraduate Programmes :

    Analytics and Cloud Technology Work-Study Elective

    Analytics Foundation

    Business Process Analysis & Solutioning

    Data Analytics and Technology Guided External Course

    Digital Analytics Technology

    Digital Business - Technologies and Transformation

    Google Analytics Work-Study Elective

    IS Project Experience (Applications)

    IS/SMT/C&L Project Experience (Research)

Postgraduate Professional Programmes :

    Project

Teaching Publications

<u>Cases</u>

Blazing a trail in the charity sector: Singapore's Metta Welfare Association raises funds by selling NFTs, by LO, Siaw Ling; NG, Graham; LIM, Thomas. (2023). SMU-23-0017. https://cmp.smu.edu.sg/case/5866 (Published)

Going digital? Mission possible: Hawkers United – Dabao 2020's takeaway from the pandemic fallout, by LAU, Yi Meng; LO, Siaw Ling; LIM, Thomas. (2020). SMU-20-0034. https://cmp.smu.edu.sg/case/4636 (Published)

When the customer Is not queen: The cautionary tale of Sasa Singapore, by LO, Siaw Ling; LAU, Yi Meng; LIM, Thomas. (2020). SMU-20-0013. https://cmp.smu.edu.sg/case/4396 (Published)

<u>Teaching Notes</u>

Blazing a trail in the charity sector: Singapore's Metta Welfare Association raises funds by selling NFTs, by LO, Siaw Ling; NG, Graham; LIM, Thomas. (2023). SMU-23-0017. https://cmp.smu.edu.sg/case/5866 (Published)

Going digital? Mission possible: Hawkers United – Dabao 2020's takeaway from the pandemic fallout, by LAU, Yi Meng; LO, Siaw Ling. (2020). SMU-20-0034. https://cmp.smu.edu.sg/case/4636 (Published)

When the customer Is not queen: The cautionary tale of Sasa Singapore, by LO, Siaw Ling; LAU, Yi Meng. (2020). SMU-20-0013. https://cmp.smu.edu.sg/case/4396 (Published)