## Curriculum Vitae - Yi-Shan Tsai

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#### **Personal Statement**

I currently work as a research associate at the School of Informatics at the University of Edinburgh, with an affiliation to the Centre for Research in Digital Education. I hold a PhD and an MPhil degree in Education from the University of Cambridge. I am currently the principal investigator of two projects. The first explores the impacts of automation on feedback practices in higher education, in partnership with Universidade Federal Rural de Pernambuco (UFRPE), Recife, Brazil. The second investigates the needs of curriculum analytics to enhance the quality of academic programme curricula at the University of Edinburgh. In addition, I am a co-principle investigator of two large multinational research projects on institutional adoption of learning analytics and blended-learning, in collaboration with 11 different institutional partners in Europe and Latin America. Prior to this, I took the lead on an award winning project (SHEILA) involving 6 European institutional partners and investigated social and cultural factors that influence institutional adoption of learning analytics. My research informed the SHEILA framework (https://sheilaproject.eu/sheila-framework/), which has influenced policy and strategy formation in more than 200 higher education institutions in the world. I am an executive member at large of the Society for Learning Analytics Research (SoLAR), chairing the communication working group.

As an interdisciplinary researcher, my research interests range from learning analytics, feedback practice, and digital storytelling to reading cultures and multimodal texts. My teaching philosophy is informed by my research paradigm—constructivism. I believe that learning is constructed by what learners bring and how they interpret the world, and that teaching is a process of knowledge exchange between the educator and the learner. Prior to working in the higher education context, I worked extensively with children aged between 9 and 15. This includes three years of teaching at a primary school and three years investigating readers' engagement with comics books in literary, social, and cultural dimensions. In addition, I have worked as a freelance writer composing various written works, including articles to inform institutional and government policies, and a biography.

## Education

#### University of Cambridge

PhD Education (passed without correction)

• Thesis: Young British Readers' Engagement with Manga

• Supervisor: Professor Morag Styles and Mr David Whitley

#### University of Cambridge

MPhil. Education (1st Class)

Cambridge, United Kingdom 2006 - 2007

Cambridge, United Kingdom

• Thesis: Re-visioning the Wolf in Postmodern Picturebooks with Discussion of How Words and Pictures Bring out Humour, Tension and Sympathy

• Supervisor: Dr Eve Bearne

#### National Chung Hsing University

BA. Foreign Languages and Literatures

Taichung, Taiwan 2001 - 2005

2011 - 2015

## **Employment**

#### **School of Informatics**

Research Associate

University of Edinburgh, UK

June 2018-present

• Identifying institutional needs for learning analytics and the associated challenges, EU-funded project – LALA (Building Capacity to Use Learning Analytics to Improve Higher Education in Latin America)(November 2017- October 2020), € 945,717

- Piloted a leaning analytics-based feedback tool (On-Task) in three higher education institutions
- Developed a learning analytics adoption framework for the Latin American region
- Led the analysis of interviews and focus groups
- Managed a local team of 5 researchers
- Established a special interest group of learning analytics in Latin America, as part of the Society for Learning Analytics Research
- Exploring the state and affairs of blended learning practices in European higher education, EU-funded project-EMBED (European Maturity Model for Blended Education), ∼€447,920
  - Designed and carried out interviews
  - Led the design and development of a MOOC based on the research outputs
  - Coordinated with a multi-disciplinary team of 20 researchers and service providers

## Moray House School of Education and Sport

University of Edinburgh, UK

May 2016-May 2018

- Developing a policy framework for institutional adoption of learning analytics in Europe, EÜ-funded project-SHEILA (Supporting Higher Education to Integrate Learning Analytics), ~ €500,000.
  - Led a group of six institutional partners and professional bodies to carry out research activities including interviews, focus groups, and survey, in addition to developing a MOOC on learning analytics
  - Designed, conducted and analysed 29 interviews with 41 senior managers from UK and European higher education institutions
  - Designed, conducted and analysed an institutional survey for senior managers in European higher education institutions
  - Designed, conducted and analysed 6 student focus groups and 5 staff focus groups in a UK higher education institution
  - Developed a framework for learning analytics policy and strategy formation in higher education

Taiwan Church Press

Journalist and Writer

October 2015-March 2016

• Wrote a biography about British missionary, Revd John Whitehorn

- Conducted interviews to document John Whitehorn's contribution to the development of the Paiwanese writing system and the translation of the bible
- Collected and organised archive materials for the biography

Faculty of Education

Research Assistant

Research Associate

University of Cambridge, UK

July 2015 (10 days, .04 FTE)

• Conducted a systematic literature review to initiate a project on using videos for teacher's professional development

#### Taipei Private Huaxing Elementary School

Taiwan

Teacher

July 2008-July 2011

- Designed English curricula (course materials and evaluations)
- Taught and evaluated students (ages 9-12)

## Idealist Culture Tech. Group

Taiwan

 $English\ editor$ 

August 2005–July 2006

• Edited English language learning material, evaluations, and news articles

## **Awards and Achievements**

Learning Technology Research Project of the Year, Association for Learning Technology . . . . 2019 SHEILA project – Supporting Higher Education to Integrate Learning Analytics

Best Paper runner-up, the 8<sup>th</sup> International Learning Analytics & Knowledge Conference . . . 2018 SHEILA Policy Framework: Informing Institutional Strategies and Policy Processes of Learning Analytics

## Received grants

Research Mobility Grant $(\pounds 2,400)$
Principal's Teaching Award Scheme (PTAS) (£1,500)
ESRC Festival of Social Science (£400)
Travel Grant $(\pounds 2,000)$
Taiwan Cambridge Scholarship (£93,000)
College Student Research Fellowship $(\pounds 1,000)$

## Leadership

- Chairing a communication working group
- Responsible for the strategic planning of society communications including newsletters, webinars, podcast, and blog
- Produce and host a podcast on learning analytics related topics
- Liaise with institutional members to facilitate knowledge exchange

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- Learning Analytics Policy Task Group, the University of Edinburgh, UK
- Learning analytics strategy, The University of Strathclyde, UK
- Research informed policy, SURF, the Netherlands

## **Academic Experience**

## **Teaching**

- MOOC Making Blended Education Work (FutureLearn, May-June 2020)
- MOOC Learning Analytics in Higher Education (EdX, September 2018)
- Learning Analytics: Process and Theory, MSc in Digital Education, University of Edinburgh (2017/18 and 2018/19)

#### Supervision

- PhD students (co-supervision)
  - Oliver Fincham, University of Edinburgh, 2018-2020 (A Learning Analytics Approach to Modeling Student Engagement)
  - Wannisa Matcha, University of Edinburgh, 2018-2020 (Beyond Data Presentation: Using Learning Analytics to Uncover Learning Strategies and the Influences of Feedback)
  - Nora'Ayu Ahmad Uzir, University of Edinburgh, 2018-2020 (Detecting Time Management Strategies with Learning Analytics under Changing Feedback Conditions)
- MSc dissertations
  - Sai Dattathrani, University of Edinburgh, 2018-2019 (Multiple Attitudes towards Learning Analytics in a UK Higher Education Institutions: an Ethics of Care Perspective) (2018-2019)
- Wider Themes in Digital Education, MSc in Digital Education, University of Edinburgh (2016 to 2018)
  - Lisa Peel (Does anonymity lead to greater participation in online activities?)
  - Sai Dattathrani (A systematic literature review of non-empirical research papers in the area of ethical and privacy concerns of learning analytics)

#### Examining

- MSc dissertations
  - Charlotte von Essen, University of Edinburgh, December 2017 (Employing Learning Analytics to Evaluate Student Engagement with Educational Video: Developing a Critical Methodology)
- PhD progression reviews
  - Nora'ayu Ahmad Uzir, University of Edinburgh, August 2017 & 2018 (Exploring the Impact of Personalized Feedback on Time Management Behaviour: a Learning Analytics Approach)

#### Reviewing

- Journals
  - Computers in Human Behavior
  - British Journal of Educational Technology
  - Journal of Learning Analytics
  - Applied Computing and Informatics
  - Journal of Graphic Novels and Comics
- Conferences
  - The International Learning Analytics & Knowledge Conference (2018–2020)
  - European Conference on Technology Enhanced Learning (2019)
  - Pacific Asia Conference on Information Systems (2018)
  - Kaleidoscope Student Conference, Faculty of Education, University of Cambridge (2013)

## Editing

- Guest editor
  - Learning Analytics in Higher Education (special issue), The Internet and Higher Education
- Assistant editor
  - Journal of Trainee Teacher Education Research

## Conference & Symposium Organisation

- $\bullet$  The 11th International Learning Analytics & Knowledge Conference, California, USA (11-15 April, 2021)  $\sim$  Poster chair
- $\bullet$  The 10th International Learning Analytics & Knowledge Conference, Frankfurt, Germany (23-27 March, 2020)  $\sim Publicity\ chair$

- Conference on Supporting Higher Education to Integrate Learning Analytics, Brussels, Belgium (3 June, 2018)  $\sim Conference\ co-chair$

#### Panel of Judges

• Learning Technologist of the Year Awards, Association for Learning Technology, 2020

#### **Invited Talks**

- Making Blended Education Work, EADTU-EU Summit, online (30 April, 2020)
- Learning Analytics in Higher Education, Guest lecture PgCAP, University of Edinburgh, UK (5 March, 2020)
- Contextual Adoption of Educational Technology—Learning Analytics, *Guest lecture*, University of South Australia, Australia (20 January, 2020)
- Scaling personalised feedback, *LALA Symposium: Learning Analytics for Feedback at Scale*, Leuven, Belgium (1 July, 2019)
- A matter of trust: learning analytics from the perspectives of teachers and students, Digital Education & Information Technology Research Seminar Series, Monash University, Australia (26 August, 2019)
- Scaling personalised feedback, LALA Symposium: Learning Analytics for Feedback at Scale, Leuven, Belgium (1 July, 2019)
- Engaging students with learning analytics—fears and desires, AMOSSHE Winter Conference: Data-Driven, Technology-Enabled Services for Students, Cardiff, UK (8 February, 2019)
- Developing learning analytics policy across Europe: the SHEILA Project, EUNIS Learning Analytics Workshop: Using Data to Enhance Learning and Teaching, Helsinki, Finland (11 October 2018)
- Enhancing teaching with learning analytics?, Bioscience Education Summit, Edinburgh, UK (5 September 2018)
- Ontask: the power of personalised dialogue at scale, QAA Enhancement Theme Meeting-Using Evidence: Personalising the Student Experience, Glasgow, UK (8 June, 2018)
- Towards institutional adoption of learning analytics, Centre for Research on Learning and Innovation Seminar Series, University of Sydney, Australia (2 March 2018)
- Learning analytics at the University of Edinburgh
   – building institutional capacity and direction, Jisc Network
   Event, Edinburgh, UK (14 February 2018)
- Learning analytics policy in higher education—a European project (SHEILA), Artificial Intelligence Forum II—Smart Campus Smart Services, Taichung, Taiwan (20 December 2017)
- Using learning analytics to enhance learning, Artificial Intelligence Forum II-Smart Campus Smart Services, Taichung, Taiwan (19 December 2017)
- Learning analytics: research informed institutional practice, London School of Economics and Political Science Seminar Series, London, UK (06 December 2017)
- Where we are going with learning analytics-practice, challenges, and policy, EduTech-Post 16 Conference, Glasgow, UK (30 November 2017)
- SHEILA: supporting higher education to integrate learning analytics, EUNIS Workshop: A-Z of Learning Analytics, Manchester, UK (7 November 2017)
- Using learning analytics to support formative assessment, *Online Learning Network*, Edinburgh, UK (9 November 2017)
- Popular reading cultures at school, *MSc in Education–School and Classroom Cultures*, School of Education, University of Northampton, Northampton, UK (October 2015)

#### Invited workshops

- Scaling Learning Analytics A people-centred Approach, Learning Analytics Summer Institute (LASI), Society for Learning Analytics Research, USA (8-10 Juney, 2020)
- Epistemic Network Analysis, Scottish Graduate School of Social Science (funded by ESRC), University of Edinburgh, UK (28 February, 2019)
- Developing an evidence-based institutional learning analytics policy, EUNIS Learning Analytics Workshop: Using Data to Enhance Learning and Teaching, Helsinki, Finland (12 October 2018)
- Developing an evidence-based institutional learning analytics policy and strategy, Australian Learning Analytics Summer Institute, Monash University, Australia (24 November, 2018)

## **Public Engagement**

#### The 15th ESRC Festival of Social Science

University of Edinburgh, UK

Event title: Help! My Teacher is a Robot!

11 November, 2017

- A half day family event (140 participants) exploring critical ideas around teaching automation through interactive activities, such as storytelling, mind mapping, interviews, and dialogues with Alexa
- Led a team of 12 academics and Master's student volunteers to plan and implement the activities

## The 10th Festival of Ideas

University of Cambridge, UK

Event title: Superheroes in Manga

15 October, 2015

• Led a story corner to explore the concept of superheroes in Japanese comics books with young children

## World Book Day School Events

Ark Academy & Globe Academy, London, UK

Manga Workshops

2012-2014

• Facilitated workshops on manga artwork and narrative structure for children aged 12–15

# Homerton Research and Teaching Centre for Children's Literature Open Day

University of Cambridge, UK 26 October, 2013

• Showcased research projects and courses to prospective MPhil and PhD applicants

• Invited speakers and organised the programme

## **Professional Training**

## Postgraduate Certificate Academic Practice (PgCAP)

Institute for Academic Development

University of Edinburgh

2017 - 2020

## Research Methods and Statistics

School of Philosophy, Psychology and Language Sciences

University of Edinburgh

2016 - 2017

## Research Skills

- Qualitative data analysis: thematic analysis & discourse analysis
- Quantitative data analysis: Epistemic Network Analysis, descriptive & referential statistical analysis
- Tools/ Software: NVivo, SPSS, R, LATEX, Microsoft Office

## **Publications**

I frequently publish in the top ten Educational Technology\* and Higher Education\*\* publications (Google Scholar metrics).

#### Books and editorial works

- [1] Dragan Gašević, Yi-Shan Tsai, and Hendrik Drachsler, editors. Learning Analytics in Higher Education (Special Issue). The Internet and Higher Education, In press. \*h5-index: 50, IF: 5.284.
- [2] Yi-Shan Tsai. 《ti VUVU katua Vatu katua ngiaw 公公、狗和貓-懷約翰傳記》(Translation: Grandpa, Dog and Cat-the Biography of John Whitehorn). Taiwan Church Press, 2016. 296 pages.

#### Journal articles

- [1] Yi-Shan Tsai, Diego Rates, Pedro Manuel Moreno-Marcos, Pedro J. Muñoz-Merino, Ioana Jivet, Maren Scheffel, Hendrik Drachsler, Carlos Delgado Kloos, and Dragan Gaševic. Learning analytics in European higher education—trends and barriers. *Computers & Education*, *In press*. https://doi.org/10.1016/j.compedu.2020.103933, \*h5-index: 94, IF: 5.6.
- [2] Isabel Hilliger, Margarita Ortiz, Paola Pesántez, Eliana Scheihing, Yi-Shan Tsai, Pedro J. Muñoz-Merino, Tom Broos, Alexander Whitelock-Wainright, Dragan Gašević, and Mar Pérez Sanagustín. Towards learning analytics adoption: A mixed methods study of data-related practices and policies in Latin American universities. *British Journal of Educational Technology, In press.* https://doi.org/10.1111/bjet.12933, \*h5-index: 56, IF: 2.588.
- [3] Isabel Hilliger, Margarita Ortiz-Rojas, Paola Pesántez-Cabrera, Eliana Scheihing, Yi-Shan Tsai, Pedro J. Muñoz-Merino, Tom Broos, Alexander Whitelock-Wainright, and Mar Pérez Sanagustín. Identifying needs for learning analytics adoption in Latin American universities: A mixed-methods approach. *The Internet and Higher Education, In press.* https://doi.org/10.1016/j.iheduc.2020.100726, \*h5-index: 50, IF: 5.28.
- [4] Yi-Shan Tsai, Carlo Perrotta, and Dragan Gašević. Empowering learners with personalised learning approaches? agency, equity and transparency in the context of learning analytics. Assessment and Evaluation in Higher Education, 45(4):554–567, In press. https://doi.org/10.1080/02602938.2019.1676396, \*\*h5-index: 37, IF: 2.473.
- [5] Yi-Shan Tsai, Oleksandra Poquet, Shane Dawson, Abelardo Pardo, and Dragan Gašević. Complexity leadership in learning analytics: Drivers, challenges, and opportunities. *British Journal of Educational Technology*, 50(6):2839–2854, 2019. https://doi.org/10.1111/bjet.12846, \*h5-index: 56, IF: 2.588.
- [6] Alexander Whitelock-Wainwright, Dragan Gaševic, Yi-Shan Tsai, Hendrik Drachsler, Maren Scheffel, Pedro Muñoz-Merino, Kairit Tammets, and Carlos Delgado Kloos. Assessing the validity of a learning analytics expectation instrument: A multinational study. *Journal of Computer Assisted Learning*, 36(2):209–240, 2020. \*h5-index: 35, IF: 2.451.
- [7] Dragan Gaševic, Yi-Shan Tsai, Shane Dawson, and Abelardo Pardo. How do we start? directions for learning analytics adoption in higher education. *International Journal of Information and Learning Technology*, 36(4):342–353, 2019. https://doi.org/10.1108/IJILT-02-2019-0024, h5-index: 25, CiteScore: 1.45.
- [8] Alexander Whitelock-Wainwright, Dragan Gaševic, Ricardo Tejeiro, Yi-Shan Tsai, and Kate Bennett. The student expectations of learning analytics questionnaire (SELAQ). *Journal of Computer Assisted Learning*, 35(5):633-666, 2019. https://doi.org/10.1111/jcal.12366, \*h5-index: 35, IF: 2.451.
- [9] Yi-Shan Tsai, Pedro Manuel Moreno-Marcos, Ioana Jivet, Maren Scheffel, Kairit Tammets, Kaire Kollom, and Dragan Gaševic. The SHEILA framework: Informing institutional strategies and policy processes of learning analytics. *Journal of Learning Analytics*, 5(3):5–20, 2018. http://dx.doi.org/10.18608/jla.2018.53.2, h5-index: 27.
- [10] Yi-Shan Tsai. Close-ups: an emotive language in manga. *Journal of Graphic Novels and Comics*, 9(5):473–489, 2018. https://doi.org/10.1080/21504857.2016.1195759, h5-index: 8.
- [11] Yi-Shan Tsai. The characteristics of manga fan communities—preliminary observations of 16 teenage manga readers in the UK. *Journal of Graphic Novels and Comics*, 7(4):417–430, 2016. https://doi.org/10.1080/21504857.2018.1480502, h5-index: 8.

#### **Book chapters**

[1] Isabel Hilliger, Mar Pérez Sanagustín, Ronald Pérez, Valeria Henríquez, Julio Guerra, Miguel Ángel Zuñiga, Margarita Ortiz, Yi-Shan Tsai, Dragan Gašević, Pedro J. Muñoz-Merino, Tom Broos, and Tinne De Laet. Leadership and maturity: How do they affect learning analytics adoption in latin america. In Dirk Ifenthaler, editor, Adoption of Data Analytics in Higher Education Learning and Teaching. Springer, New York, In press.

#### Peer-reviewed proceedings

- [1] Yi-Shan Tsai, Alexander Whitelock-Wainwright, and Dragan Gašević. The privacy paradox and its implications for learning analytics. In *The 10th International Learning Analytics & Knowledge Conference*, page 10. ACM, 2020. https://dl.acm.org/doi/abs/10.1145/3375462.3375536, \*h5-index: 36.
- [2] Taciana Pontual, Rafael Ferreira Mello, Rodrigo Lins, Juliana Diniz, Yi-Shan Tsai, and Dragan Gašević. Perceptions and expectation about learning analyticsfrom a brazilian higher education institution. In *The 10th International Learning Analytics & Knowledge Conference*, page 10. ACM, 2020. https://dl.acm.org/doi/abs/10.1145/3375462.3375478, \*h5-index: 36.
- [3] Alexander Whitelock-Wainwright, Yi-Shan Tsai, Kayley Lyons, Svetlana Khalif, Mike Bryant, Kris Ryan, and Dragan Gašević. Disciplinary differences in blended learning design: A network analytic study. page 10, 2020. https://dl.acm.org/doi/abs/10.1145/3375462.3375488, \*h5-index: 36.
- [4] Maren Scheffel, Yi-Shan Tsai, Hendrik Drachsler, and Dragan Gašević. Policy matters: Expert recommendations for learning analytics policy. In *Transforming Learning with Meaningful Technologies*. *EC-TEL 2019.*, pages 510–524. Springer, Cham, 2019. https://doi.org/10.1007/978-3-030-29736-7\_38.
- [5] Yi-Shan Tsai, Pedro Manuel Moreno-Marcos, Kairit Tammets, Kaire Kollom, and Dragan Gašević. SHEILA policy framework: informing institutional strategies and policy processes of learning analytics. In *Proceedings of the 8th International Learning Analytics & Knowledge Conference*, pages 320–329. ACM, 2018. https://doi.org/10.1145/3170358.3170367, (Best paper runner-up), \*h5-index: 36.
- [6] Yi-Shan Tsai and Dragan Gašević. Learning analytics in higher education—challenges and policies: a review of eight learning analytics policies. In *Proceedings of the 7th International Learning Analytics & Knowledge Conference*, pages 233–242. ACM, 2017. https://doi.org/10.1145/3027385.3027400, \*h5-index: 36.
- [7] Yi-Shan Tsai. Looking through the enemy's eyes: point-of-view editing and character identification in manga Naruto. In Sequential Art: Interdisciplinary Approaches to the Graphic Novel. The 3rd Global Conference of The Graphic Novel, pages 55-63. Brill, 2016. https://doi.org/10.1163/9781848884472\_007.

## Research reports

[1] Yi-Shan Tsai, Dragan Gašević, Alexander Whitelock-Wainwright, Pedro J. Muñoz-Merino, Pedro Manuel Moreno-Marcos, Aarón Rubio Fernández, Carlos Delgado Kloos, Maren Scheffel, Ioana Jivet, Hendrik Drachsler, Kairit Tammets, Adolfo Ruiz Calleja, and Kaire Kollom. Supporting Higher Education to Integrate Learning Analytics: Research Report. 2018. 44 pages. https://sheilaproject.eu/2018/11/30/sheila-final-research-report/.

#### Conference posters and workshops

- [1] Yi-Shan Tsai, Vitomir Kovanović, and Dragan Gašević. Learning analytics adoption—approaches and maturity. In *Proceedings of the 9th International Learning Analytics & Knowledge Conference*, pages 147–148. ACM, 2019. Poster. http://solar.quadsimia.biz/wp-content/uploads/2019/08/LAK19\_Companion\_Proceedings.pdf.
- [2] Yi-Shan Tsai, Maren Scheffel, and Dragan Gašević. Developing an evidence-based institutional LA policy. In *Proceedings of the 8th International Learning Analytics & Knowledge Conference*, pages 455–458. ACM, 2018. Poster. http://bit.ly/lak18-companion-proceedings (*Best poster award*).
- [3] Yi-Shan Tsai, Maren Scheffel, and Dragan Gašević. Enabling systematic adoption of learning analytics through a policy framework. In *Proceedings of the 13th European Conference on Technology Enhanced Learning*, pages 556–560. Springer, Cham, 2018. Workshop, https://doi.org/10.1007/978-3-319-98572-5\_44.

[4] Yi-Shan Tsai, Dragan Gašević, Pedro J Muñoz-Merino, and Shane Dawson. LA policy: developing an institutional policy for learning analytics using the RAPID outcome mapping approach. In *Proceedings of the 7th International Learning Analytics & Knowledge Conference*, pages 494–495. ACM, 2017. Workshop. https://dl.acm.org/citation.cfm?id=3029424.