

ISABEL HILLIGER, PHD

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EDUCATION

PhD	Pontificia Universidad Católica de Chile, Engineering Sciences Dissertation: Framework for Promoting Continuous Curriculum Improvement in Higher Education using Learning Analytics: https://repositorio.uc.cl/handle/11534/48003 Advisor: Dr. Mar Pérez-Sanagustín	2020
MA	Stanford University, Graduate School of Education Program: Policy, Organizations, and Leadership Studies (POLS)	2014
BEng	Pontificia Universidad Católica de Chile, Biological Engineering Graduated Summa Cum Laude Majored in Biotechnology	2010

HONORS AND AWARDS

Award for Doctoral Thesis Excellence	2020 Recognition given by Pontificia Universidad Católica de Chile for graduate students whose theses represent an outstanding contribution.
GSE Alumni Excellence in Education	2020 Nominated for recognition given by Stanford Graduate School of Education for alumni across a wide range of education sectors (schools, districts, non-profits, technology, academia, or research).
National Doctorate Scholarship	2017 Grant given by Chilean governmental agency (ANID) to doctorate students who are pursuing a PhD degree in a Chilean university.
Master's Scholarship Abroad (<i>Becas Chile</i>)	2013 Grant given by Chilean governmental agency (ANID) to Chilean students who are pursuing a master's degree in a foreign prestigious university.
Fulbright Master's Scholarship	2013 Grant given by Fulbright Commission to Chilean students who are pursuing a master's degree in university in the U.S.

WORK AND RESEARCH EXPERIENCE

School of Engineering , Pontificia Universidad Católica de Chile Assistant Professor of Practice , Engineering Design Unit	2022 to present
<ul style="list-style-type: none">Teaches core courses in engineering design and innovation.Conducts research in engineering education, education technology, and learning analytics.	
School of Engineering , Pontificia Universidad Católica de Chile Associate Director for Assessment and Evaluation , Engineering Education Unit	2014 to present
<ul style="list-style-type: none">Leads processes for continuous curriculum improvement based on student outcome assessment.Conducts research in engineering education, education technology, and entrepreneurial mindset.	
Faculty of Education , Pontificia Universidad Católica de Chile Associate Researcher , CEPPE UC	2018 to present
<ul style="list-style-type: none">Develops indicators to monitor and evaluate educational policies at a national level.	

- Laspau**, Harvard University 2018
Research Fellow, University Innovation Program
- Conducted research about the adoption of Learning Analytics in Higher Education.
- LALA Project**, <https://www.lalaproject.org/> 2017 to 2020
Researcher, Dr. Pedro J. MuñozMerino
- Developed institutional framework to facilitate Learning Analytics adoption in Higher Education in Latin America
- World Bank**, Education Group 2015
Short-term Consultant, Dr. Violeta Arancibia
- Coordinated meetings between authorities from the Secretaries of Education in Moldova and Georgia and leaders of key educational institutions in Chile.
 - Developed a brief report about teacher policies in Chile with a focus on the improvement of initial training.
- John Gardner Center**, Stanford Graduate School of Education 2014
Research Assistant, Dr. Jorge Ruiz de Velasco
- Developed report to present the baseline results of new indicators for the school accountability system developed by the CORE districts in California.
 - Organized, cleaned, and analyzed data to develop academic index based on standardized results of 1.000 schools of the largest districts in California.
- Policy Analysis for California Education**, Stanford Graduate School of Education 2013
Research Intern, Dr. Milbrey McLaughlin
- Published a report about the implementation of a federal policy at a state level, having conducted semi-structured interviews with 10 County Offices of Education and 20 district administrators.
- Ministry for Education**, Chile 2011 to 2013
Associate Coordinator for Technical Assistance, General Education Division
- Led a team of 20 professionals responsible for coordinating school support programs across Chile.
 - Supervised the technical assistance offered by the Ministry of Education to 66% of public schools (municipal and privately subsidized).

TEACHING EXPERIENCE

- Pontificia Universidad Católica de Chile**, Santiago de Chile March 2020 to Present
<https://dilab-uc.cl/>
- Teaching 'Anthro-Design', an undergraduate core course for the Major in Engineering, Design, and Innovation.
 - Applied qualitative research to address a stakeholder challenge in a real-life setting.
 - Use of educational videos and readings for a flipped classroom approach.
 - Coordinated grading of project presentations with a team of 2 undergraduate teaching assistants
- Pontificia Universidad Católica de Chile**, Santiago de Chile August 2021 to Present
 Innovation and Research Unit
- Teaching 'Research, Innovation, and Entrepreneurship', an undergraduate core course averaging 60 third-year engineering students per semester, covering problem finding and teamwork.
 - Developed learning materials and activities for a hybrid format.
 - Assessment of pre-post self-efficacy gains.
 - Coordinated grading with a team of 3 undergraduate teaching assistants and an entrepreneur.
- Pontificia Universidad Católica de Chile**, Santiago de Chile March 2020 to Present
<https://dilab-uc.cl/>
- Teaching 'Engineering Challenges', an undergraduate core course averaging 80 first-year engineering students per semester, covering user-centered design and teamwork.
 - Developed educational videos and quizzes for a flipped classroom approach.
 - Revised the syllabus to adapt course for online delivery (<https://www.ceeda.org/>)
 - Coordinated grading of project presentations with a team of 5 undergraduate teaching assistants.

Pontificia Universidad Católica del Perú, Lima
Instituto para la Calidad

Nov 2020 to Jan 2021

- Taught 'Assessment and Evaluation Strategies using Learning Analytics', a continuous education course averaging 10 adult students per semester, covering the following topics: learning analytics adoption and dashboard design.

Laspau, Harvard University
<https://colab.laspau.org/es/>

May 2019 to 2020

- Taught 'Authentic Evaluation of Online Student Learning', a continuous education course that was offered to 160 higher education lectures in Chile and about 1,000 in Perú, covering the following topics: principles of assessment, assessment purposes, and the use of education technologies for assessment.
- Taught 'Learning Analytics and Artificial Intelligence to improve Quality in Higher Education', a continuous education course that was offered to 200 higher education lectures in Costa Rica, covering the following topics: learning analytics and artificial intelligence in higher education.

UTEM, Santiago de Chile

Dec 2020

'Theory, Practice and Didactics for Innovating in the Classroom'

- Teaching 'Digital Learning Technologies and Learning Analytics', a continuous education course for 27 program chairs in higher education, covering the following topics: online learning, hybrid learning, and learning analytics adoption.
- Developed active learning activities for synchronous face-to-face sessions.

Pontificia Universidad Católica de Chile, Santiago de Chile

Dec 2018

'Theory, Practice and Didactics for Innovating in the Classroom'

- Teaching 'Assessment and Evaluation of Innovation Skills', a professional development course for 80 school teachers, covering the following topics: principles of assessment, outcome assessment, and the use of assessment plans.
- Developed active learning activities for synchronous face-to-face sessions.

PUBLICATIONS

Journal Publications in Web of Science

Hilliger, I., Ceballos, H. G., Maldonado-Mahauad, J., & Ferreira, R. (2024). Applications of Learning Analytics in Latin America. *Journal of Learning Analytics*, 11(1), 1-5. <https://doi.org/10.18608/jla.2024.8409>

Díaz, E. V., **Hilliger, I.**, Gonzalez, C., Celis, S., Pérez-Sanagustín, M., & Broisin, J. (2024). The Mediating Role of Learning Analytics: Insights into Student Approaches to Learning and Academic Achievement in Latin America. *Journal of Learning Analytics*, 11(1), 6-20. <https://doi.org/10.18608/jla.2024.8149>

Hilliger, I., Miranda, C., Celis, S. & Pérez-Sanagustín, J. (2023). Curriculum analytics adoption in higher education: A multiple case study engaging stakeholders in different phases of design. *British Journal of Educational Technology*. <https://doi.org/10.1111/bjet.13374>

Hilliger, I., Astudillo, G., & Baier, J. (2023). Lacking time: A case study of student and faculty perceptions of academic workload in the COVID-19 pandemic. *Journal of Engineering Education*. <https://doi.org/10.1002/jee.20525>

Barahona, C., Nussbaum, M., Martin, V., Meneses, A., Arriagada, S., Di Serio A., & **Hilliger, I.** (2022). Technology-scaffolded peer assessment for developing critical thinking in pre-service teacher training: the importance of giving feedback. *Education Technology Research & Development*. <https://doi.org/10.1007/s11423-022-10173-1>

Hilliger, I., RUIPÉREZ-VALIENTE, J. A., Alexandron, G., & Gašević, D. (2022). Trustworthy remote assessments: A typology of pedagogical and technological strategies. *Journal of Computer Assisted Learning*, 38(6), 1507-1520. <https://doi.org/10.1111/jcal.12755>

Hilliger, I., Aguirre, C., Miranda, C., Celis, S., & Pérez-Sanagustín, M. (2022). Lessons learned from designing a curriculum analytics tool for improving student learning and program quality. *Journal of computing in higher education*, 1-25. <https://doi.org/10.1007/s12528-022-09315-4>

Ramírez, L., Pérez-Sanagustín, M., Neyem, A., Alario-Hoyos, C., **Hilliger, I.**, & Rojo, F. (2021). Fostering the use of online learning resources: results of using a mobile collaboration tool based on gamification in a blended course. *Interactive Learning Environments*. <https://doi.org/10.1080/10494820.2020.1855202>

Pérez-Sanagustín, M., Sapunar-Opazo, D., Pérez-Álvarez, R., **Hilliger, I.**, Bey, A., Maldonado-Mahauad, J., & Baier, J. (2020). A MOOC-based flipped experience: Scaffolding SRL strategies improves learners' time management and engagement. *Computer Applications in Engineering Education*. <https://doi.org/10.1002/cae.22337>

Hilliger, I., Ortiz-Rojas, M., Pesántez-Cabrera, P., Scheihing, E., Tsai, Y. S., Muñoz-Merino, P. J., ... & Pérez-Sanagustín, M. (2020). Identifying needs for learning analytics adoption in Latin American universities: A mixed-methods approach. *The Internet and Higher Education*, 45, 100726. <https://doi.org/10.1016/j.iheduc.2020.100726>

Hilliger, I., Celis, S., & Pérez-Sanagustín, M. (2020). Engaged Versus Disengaged Teaching Staff: A Case Study of Continuous Curriculum Improvement in Higher Education. *Higher Education Policy*. <https://rdu.be/b4vDf>

Broos, T., **Hilliger, I.**, Pérez-Sanagustín, M., Htun, N. N., Millecamp, M., Pesántez-Cabrera, P., ... & De Laet, T. (2020). Coordinating learning analytics policymaking and implementation at scale. *British Journal of Educational Technology*, 51(4), 938-954. <https://doi.org/10.1111/bjet.12934>

Hilliger, I., Ortiz-Rojas, M., Pesántez-Cabrera, P., Scheihing, E., Tsai, Y. S., Muñoz-Merino, P. J., ... & Pérez-Sanagustín, M. (2020). Towards learning analytics adoption: A mixed methods study of data-related practices and policies in Latin American universities. *British Journal of Educational Technology*, 51(4), 915-937. <https://doi.org/10.1111/bjet.12933>

Miranda, C., Goñi, J. I., & **Hilliger, I.** (2020). Orchestrating conflict in teams with the use of boundary objects and trading zones in innovation-driven engineering design projects. *International Journal of Technology and Design Education*, 31(2), 339-355. <https://doi.org/10.1007/s10798-019-09552-2>

Miranda, C., Goñi, J. I., **Hilliger, I.**, & Lugo, J. (2020). Assessing the work of geographically distributed teams in engineering design: time allocation in the design process as a form of in-class analytics. *International Journal of Engineering Education*, 36(1), 399-410. <https://www.ijee.ie/contents/c360120B.html>

Hilliger, I., Gelmi, C., Cifuentes, L., Bennet, M., & De la llera, J.C. (2018). Design and implementation of an alternative admission program to engineering: Talent and Inclusion. *Studies in Higher Education*, 43 (8), 1454-1467. <http://dx.doi.org/10.1080/03075079.2016.1263291>

Hernández-Correa, J., Rodríguez, F., **Hilliger, I.** & Pérez-Sanagustín, M. (2018). MOOC as a Remedial Complement: Students' Adoption and Learning Outcomes. *IEEE Transactions on Learning Technologies*, 12(1), 133-141. <http://doi:10.1109/TLT.2018.2830373>

Perez-San Agustín, M., **Hilliger, I.**, Alario-Hoyos, C., Kloos, C. D., & Rayyan, S. (2017). H-MOOC framework: Reusing MOOCs for Hybrid Education. *Journal of Computing in Higher Education*, 29(1), 47-64. <http://doi:10.1007/s12528-017-9133-5>

Perez-San Agustín, M., Nussbaum, M., **Hilliger, I.**, Alario-Hoyos, C., Heller, R. S., Twining, P. & Tsai, C.C. (2016). Research on ICT in K-12 schools-A review of experimental and survey-based studies in Computers & Education 2011 to 2015. *Computers & Education*, 104, A1-A15. <http://dx.doi.org/10.1016/j.compedu.2016.09.006>

Book Chapters

Villalobos, E., **Hilliger, I.**, Pérez-Sanagustín, M., González, C., Celis, S., & Brosin, J. (2023). Analyzing Learners' Perception of Indicators in Student-Facing Analytics: A Card Sorting Approach. In: Viberg, O., Jivet, I., Muñoz-Merino, P., Perifanou, M., Papathoma, T. (eds) *Responsive and Sustainable Educational Futures*. EC-TEL 2023. Lecture Notes in Computer Science, vol 14200. Springer, Cham. https://doi.org/10.1007/978-3-031-42682-7_29

Hilliger, I., & Sanagustín, M. P. (2023). LALA Canvas: A model for guiding group discussions in early stages of learning analytics adoption. En: Viberg, O. & Grönlund, Å. (eds) *Practicable Learning Analytics: Advances in Analytics for Learning and Teaching* (pp. 95-114). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-27646-0_6

Hilliger, I. & Pérez-Sanagustín, M. (2022) Beneficiar y proteger al estudiante: Consideraciones éticas para la investigación en analíticas del aprendizaje en educación superior. In: Santana, A. & Varela, L. (eds) *Ética y seguridad: Aprendizajes y desafíos*. Ediciones UC. ISBN 9789561430518

Hilliger, I. (2022). ANALÍTICAS DEL APRENDIZAJE Y EVALUACIÓN: OPORTUNIDADES PARA LA MEJORA CONTINUA CURRICULAR EN EDUCACIÓN SUPERIOR. In: Sánchez Mendiola, M. & Martínez González, A. (eds)

Evaluación y aprendizaje en educación universitaria: estrategias e instrumentos (pp. 719-734). CUAIEED. ISBN Digital PDF 978-607-30-6071-4

Astudillo, G., **Hilliger, I.**, Rodríguez, F., Baier, J. (2022). Towards Effective Blended Learning Through the Eyes of Students: A Survey Study in Transition into Face-to-Face Education. In: Hilliger, I., Muñoz-Merino, P.J., De Laet, T., Ortega-Arranz, A., Farrell, T. (eds) *Educating for a New Future: Making Sense of Technology-Enhanced Learning Adoption*. EC-TEL 2022. Lecture Notes in Computer Science, vol 13450. Springer, Cham. https://doi.org/10.1007/978-3-031-16290-9_41

Villagrán, I., Hernández, R., Fuentes, J., Torres, G., Silva, D., Araya, N., Delgado, M., Miranda, C., Neyem, A., Varas, J. & **Hilliger, I.** (2022, September). What Kind and How Many?: Exploring Feedback in Remote Training of Procedural Skills in Physiotherapy. In: Hilliger, I., Muñoz-Merino, P.J., De Laet, T., Ortega-Arranz, A., Farrell, T. (eds) *Educating for a New Future: Making Sense of Technology-Enhanced Learning Adoption*. EC-TEL 2022. Lecture Notes in Computer Science, vol 13450. Springer, Cham. https://doi.org/10.1007/978-3-031-16290-9_60

Barahona, C., Lippi, L., Rodríguez, M. F., Astudillo, G., & **Hilliger, I.** (2022). Teacher Adoption of a Hybrid Learning Model in Vulnerable Secondary Schools. In *Technology-Enabled Innovations in Education: Select Proceedings of CIIE 2020* (pp. 481-492). Singapore: Springer Nature. https://doi.org/10.1007/978-981-19-3383-7_39

Hilliger, I., & Pérez-Sanagustín, M. (2022). Facing the change beyond COVID-19: continuous curriculum improvement in higher education using learning analytics. In *A Research Agenda for Global Higher Education* (pp. 193-209). Edward Elgar Publishing. <https://doi.org/10.4337/9781800376069.00016>

Hilliger I. et al. (2020) For Learners, with Learners: Identifying Indicators for an Academic Advising Dashboard for Students. In: Alario-Hoyos C., Rodríguez-Triana M., Scheffel M., Arnedillo-Sánchez I., Dennerlein S. (eds) *Addressing Global Challenges and Quality Education*. EC-TEL 2020. Lecture Notes in Computer Science, vol 12315. Springer, Cham. https://doi.org/10.1007/978-3-030-57717-9_9

Hilliger, I., Ortiz-Rojas, M., Pesántez-Cabrera, P., Scheihing, E., Tsai, Y. S., Muñoz-Merino, P. J., ... & Pérez-Sanagustín, M. (2020). Hilliger I. et al. (2020) Leadership and Maturity: How Do They Affect Learning Analytics Adoption in Latin America? In: Ifenthaler D., Gibson D. (eds) *Adoption of Data Analytics in Higher Education Learning and Teaching*. Advances in Analytics for Learning and Teaching. Springer, Cham. https://doi.org/10.1007/978-3-030-47392-1_16

Conference Papers and Other Publications

Astudillo, G., **Hilliger, I.**, & Baier, J. (2023, June), *Social ties, mental well-being and academic self-regulation. Exploring effects through Structural Equation Modeling*. Paper presented at 2023 ASEE Annual Conference & Exposition, Baltimore, Maryland. <https://peer.asee.org/44232>

Cortazar, C., **Hilliger, I.**, & Astudillo, G. (2023, June), *Redesigning a Cornerstone Course, Lessons Learned from a Pandemic*. Paper presented at 2023 ASEE Annual Conference & Exposition, Baltimore, Maryland. <https://peer.asee.org/44048>

Baier, J. A., **Hilliger, I.**, & Hidalgo, X., & Piña, M. A., & Astudillo, G. (2023, June), *The Well-being Teaching Assistant: A Proactive Approach to Caring for Students with Academic and Personal Difficulties in Massive Courses*. Paper presented at 2023 ASEE Annual Conference & Exposition, Baltimore, Maryland. <https://peer.asee.org/44496>

Hilliger, I., Khosravi, H., Rienties, B. & Dawson, S. (2023). LAK23 conference proceedings towards trustworthy learning analytics. ACM International Conference Proceeding Series, iii-iv. <https://doi.org/10.1145/3576050>

Pérez-Sanagustín, M., **Hilliger, I.**, Maldonado-Mahauad, J., & Pérez-Álvarez, R. (2022). Building institutional capacity for learning analytics: Top-down & bottom-up initiatives. *IEEE Revista Iberoamericana de Tecnologías del Aprendizaje*, 17(3), 281-289. <https://doi.org/10.1109/RITA.2022.3191413>

Hilliger, I., Astudillo, G., & Baier, J. (2022, August). WIP: Exploring differences in student sense of belonging inside and outside the engineering classroom. In *2022 ASEE Annual Conference & Exposition*.

Wise, A. F., Martínez-Maldonado, R., & Hilliger, I. (2022). LAK22 Program Chairs' Welcome. ACM International Conference Proceeding Series, III. Proceedings of the 12th International Conference on Learning Analytics & Knowledge.

Hilliger, I., Fleet, C., Melian, C., Baier, J. & Pérez-Sanagustín, M. (2021). Offering an entrepreneurship course to all engineering students: Lessons learned from ING2030 in PUC-Chile. *Advances in Engineering Education*. https://advances.asee.org/7069-2/?utm_source=rss&utm_medium=rss&utm_campaign=7069-2

Frank, S., Gütl, C., Pérez-Sanagustín, M., & **Hilliger, I.** (2021, November). Insights in Learners' Behaviour and Early Dropout Detection based on Coursera MOOCs. In 2021 *19th International Conference on Information Technology Based Higher Education and Training (ITHET)* (pp. 01-06). IEEE. <https://doi.org/10.1109/ITHET50392.2021.9759784>

Perez-Sanagustín, M., Pérez-Álvarez, R., Maldonado-Mahauad, J., Villalobos, E., **Hilliger, I.**, Hernández, J., Sapunar, D., Moreno-Marcos, P. M., Muñoz-Merino, P. J., Delgado Kloos, C., & Imaz, J. (2021) Can Feedback based on Predictive Data Improve Learners' Passing Rates in MOOCs? A Preliminary Analysis. *Proceedings of the 8th ACM Conference on Learning @ Scale*. ACM (pp. 339-342) <https://doi.org/10.1145/3430895.3460991>

Hilliger, I., Miranda, C., Schuit, G., Duarte, F., Anselmo, M. & Parra, D. (2021) Evaluating a Learning Analytics Dashboard to Visualize Student Self-Reports of Time-on-task: A Case Study in a Latin American University. *Proceedings of the 11th International Conference on Learning Analytics & Knowledge*. ACM (pp. 592-598) <https://doi.org/10.1145/3448139.3448203>

Wagner, K., **Hilliger, I.**, Merceron, A., & Sauer, P. (2021). Eliciting Students' Needs and Concerns about a Novel Course Enrollment Support System. *Companion Proceedings of the 11th International Learning Analytics & Knowledge Conference*. ACM.

Piña, M. A., & **Hilliger, I.**, & Baier, J. A., & Melian, C., & Ruz, C., & González, T. A. (2021, July), A Protocol to Follow-up with Students in Large-enrollment Courses Paper presented at 2021 *ASEE Virtual Annual Conference*. <https://doi.org/10.18260/1-2--36603>

Hilliger, I., & Melian, C., & Meza, J. F., & Cortés, G., & Baier, J. A. (2021, July), Work in Progress: A Cross-sectional Survey Study for Understanding and Addressing the Needs of Engineering Students During COVID-19 Paper presented at 2021 *ASEE Virtual Annual Conference*. <https://peer.asee.org/38115>

Hilliger, I., Fleet, C., Melian, C., Baier, J., & Pérez-Sanagustín, M. (2020, October). Offering an Entrepreneurship Course to All Engineering Students: Self-efficacy Gains and Learning Benefits. In 2020 IEEE Frontiers in Education Conference (FIE) (pp. 1-5). IEEE. <https://doi.org/10.1109/FIE44824.2020.9274020>

Baier, J. A., & **Hilliger, I.**, & Hidalgo, X., & Melian, C. (2020, June), What is Care in Engineering Teaching? *ASEE Virtual Annual Conference*. <https://cms.jee.org/35499>

Hilliger, I., & Melian, C., & Meza, J., & Cortés, G., & Baier, J. A. (2020, June), Work in Progress: What Makes Courses Demanding in Engineering Education? A Combination of Mixed Methods and Grounded Theory Research. *ASEE Virtual Annual Conference*. <https://peer.asee.org/35704>

Hilliger, I., Aguirre, C., Miranda, C., Celis, S. & Pérez-Sanagustín, M. (2020) Design of a curriculum analytics tool to support continuous improvement processes in higher education. *Proceedings of the Tenth International Conference on Learning Analytics & Knowledge*, pp. 181-186. <https://doi.org/10.1145/3375462.3375489>

Ortiz-Rojas, M., Maya, R., Jimenez, A., **Hilliger, I.**, & Chiluita, K. (2019, October). A step-by-step methodology for software design of a learning analytics tool in Latin America: A case study in Ecuador. *XIV Latin American Conference on Learning Technologies (LACLO)* (pp. 116-122). IEEE.

Hilliger, I., Miranda, C., Celis, S., & Pérez-SanAgustín, M. (2019). Evaluating Usage of an Analytics Tool to Support Continuous Curriculum Improvement. *EC-TEL Practitioner Proceedings*. <http://ceur-ws.org/Vol-2437/paper5.pdf>

Hilliger, I., & Celis, S., & Pérez-Sanagustín, M., & Baier, J. (2019), Work in Progress: Engaging Engineering Teaching Staff in Continuous Improvement Process. *ASEE Annual Conference & Exposition*, Tampa, Florida. <https://peer.asee.org/33612>

Cortázar, C., & **Hilliger, I.** (2019), Work in Progress: Minority Bias in Peer Evaluations at a Freshman-level Engineering Cornerstone Course. *ASEE Annual Conference & Exposition*, Tampa, Florida. <https://www.jee.org/33638>

Maldonado-Mahauad, J., **Hilliger, I.**, Pérez-Sanagustín, M., Millecamp, M., Verbert, K., & Ochoa, X. (2018). The LALA project: Building capacity to use learning analytics to improve higher education in Latin America. *Companion Proceedings of the 8th International Learning Analytics & Knowledge Conference*. (pp. 630-637). ACM.

Hilliger, I., Strello, A., Castro, F., & Pérez-Sanagustín, M. (2017), Are All Engineering Students Capable of Recognizing Ethical and Professional Issues? An Assessment Approach to Engineering Ethics. *ASEE Annual Conference & Exposition*, Columbus, Ohio. <https://peer.asee.org/27610>

Hilliger, I., Miranda C., Perez-Sanagustín, M., & De la Vega, M. (2017), Does the Revision of ABET Student Outcomes Include the Competencies Required to Succeed in Startups and Entrepreneurial Companies? *ASEE Annual Conference & Exposition*, Columbus, Ohio. <https://peer.asee.org/28191>

Celis, S., & Hilliger, I. (2016), Redesigning Engineering Education in Chile: How Selective Institutions Respond to an Ambitious National Reform *ASEE Annual Conference & Exposition*, New Orleans, Louisiana. <https://peer.asee.org/26066>

Miranda, C. & Hilliger, I. (2016, June). Team Negotiation Strategies in Entrepreneurship Education: Patterns Found in Engineering Students from Northern California and Santiago de Chile. *ASEE Annual Conference & Exposition*, New Orleans, Louisiana. <https://peer.asee.org/26067>

Policy Briefs

Hilliger, I., Castro, M., Huerta, E., y Buzeta, S. (2023). *Balancear la carga y la exigencia académica: Recomendaciones desde la perspectiva de estudiantes y docentes universitarios* (Policy Briefs, N° 16). Santiago: Núcleo Milenio Experiencia Estudiantil en Educación Superior. Disponible en <https://nmedsup.cl/wp-content/uploads/2023/12/Policy-Brief-16.pdf>

Cabezas, V., Hilliger, I., Carrasco, A., Villalobos, C., Straub, C., Díaz, B., Figueroa, C., Pereira, S., y Solar, H. (2021). *DISEÑO DE UN SISTEMA DE EVALUACIÓN Y MONITOREO DEL SISTEMA DE DESARROLLO PROFESIONAL DOCENTE (LEY 20.903). RESUMEN EJECUTIVO*. Santiago: Mineduc en Educación. Disponible en <https://bibliotecadigital.mineduc.cl/handle/20.500.12365/17458>

Carrasco, A., Cabezas, V., Hilliger, I., Díaz, B., y Figueroa, C. (2020). *El futuro de la Formación Inicial Docente en Chile: propuesta de un sistema de indicadores para monitorear su calidad* (CEPPE Policy Briefs, N° 25). Santiago: Centro UC de Estudios de Políticas y Prácticas en Educación. Disponible en <http://ceppe.uc.cl/images/contenido/policy-briefs/ceppe-policy-brief-n25.pdf>

McLaughlin, M., Glaab, L., & Hilliger, I. (2014). *Implementing Common Core State Standards in California: A Report from the Field*. Policy Analysis for California Education, PACE. <https://edpolicyinca.org/publications/implementing-common-core-state-standards-california-report-field>.

RESEARCH PROJECTS

Principal researcher. *Understanding student workload in higher education programs using learning analytics*. FONDECYT, Chilean governmental agency for research and development (ANID), 2023-2026.

Project coordinator South America C. Learning Analytics solutions to support On time Feedback. STIC AMSUD Program, Funded partly by Chilean governmental agency for research and development (ANID), 2023-2026.

Co- researcher. Mapping the boundaries of science and engineering PhD Education in the global south. FONDECYT, Chilean governmental agency for research and development (ANID), 2022-2026.

Associate researcher. Millennium Nucleus for Higher Education. Chilean governmental agency for research and development (ANID), 2022-2026.

Co-principal researcher. Predictive learning analytics to provide socioeconomically disadvantaged students with timely support. Google Award for Inclusion Research, 2021-2022.

Principal researcher. “*Construcción de Marco Teórico Sobre Formación Técnica de Adultos* [Construction of Theoretical Framework on Adult Education].” Financed by the Chilean Association of Chilean Entrepreneurs (ASECH), 2021.

Associate researcher. “*Diseño de un sistema de evaluación y monitoreo del desarrollo profesional docente* [Design of an evaluation and monitoring system for teacher professional development].” Financed by Organization of Ibero-American States (OEI), 2019-2020.

Associate researcher, “*Diseño de indicadores del proceso de formación inicial docente en las universidades chilenas y elaboración de una propuesta de sistema o procedimiento de monitoreo de esos indicadores* [Design of indicators for the initial teacher training process in Chilean universities and preparation of a proposal for a system or procedure for monitoring these indicators].” Financed by the Ministry for Education in Chile, 2018-2019.

Associate researcher, LALA Project-*Building capacity to use learning analytics to improve higher education in Latin America*. Financed by Erasmus + Program, European Commission, 2017-2020.

Associate researcher. “*Servicio de análisis del sistema de administración delegada creado por el D.K. N°3.166 de 1980*, [Analysis service of the delegated administration system created by D.K. N ° 3,166 of 1980].” Financed by the Ministry for Education in Chile, 2016-2017.

Associate researcher. MOOC Maker — Construction of Management Capacities of MOOCs in Higher Education. Financed by the Erasmus + Program, European Commission, 2015-2017.

Graduate student. Self-regulated learning (SRL) strategies in MOOCs. Financed by FONDECYT, ANID (Ex-CONICYT), 2015-2018.

PRESENTATIONS AND INVITED LECTURES

Keynote, “El poder de los Datos: Analíticas del Aprendizaje para Mejorar la Educación en Ciencias de la Salud”, Congreso Internacional de Educación en Ciencias de la Salud (CIECS 2024), Santiago, Chile, January, 2024.

Panelista, “¿Estamos preparados para incorporar las nuevas tecnologías y enfoques basados en datos en educación en ciencias de la salud”, Congreso Internacional de Educación en Ciencias de la Salud (CIECS 2024), Santiago, Chile, January,

Panelista, Towards the Adoption of Learning Analytics in Mexico, ELAI Global Conference 2023, Arizona, United States (Online Event), October 2023.

Panelista, Applications of AI in Education (LatAm), ELAI Global Conference 2023, Arizona, Estados Unidos (Online Event), October 2023.

Keynote, “Oferecendo um curso de empreendedorismo para todos estudantes de engenharia: ganhos de autoeficácia e benefícios de aprendizagem [Offering an entrepreneurship course for all engineering students: self-efficacy and learning gains],” IV Seminário Internacional, Teoria Social Cognitiva Em Debate, Sao Paulo, Brazil (Online event), November 18th, 2021.

Keynote, “Análisis del aprendizaje y su adopción en Latinoamérica [Learning analytics and its adoption in Latin America],” 12^o Coloquio Nacional de Educación Media Superior a Distancia, Guadalajara, México (Online event), October 12th, 2021.

Panelist, “La evaluación en contextos de enseñanza remota o combinada [Assessment in remote or hybrid learning contexts],” Office for Undergraduate Studies, Universidad de Chile, Chile June 24th, 2021.

Keynote Presentation, “Engaging or Disengaging: Mechanisms for involving engineering teaching staff in continuous curriculum improvement,” 4th International Conference of the Portuguese Society for Engineering Education, IST Lisbon, Portugal (Virtual Event), June 22nd, 2021.

Keynote Presentation, “Experiencias de sostenibilidad de procesos de mejora continua de la Pontificia Universidad Católica de Chile [Sustainability of continuous improvement processes at Pontificia Universidad Católica de Chile],” Seminario Internacional de Calidad Educativa y Acreditación ICACIT, Perú (Virtual Event), July 25th, 2020.

Keynote Presentation, “Profesores que aprenden: Involucrando al equipo docente en la mejora continua curricular [Teachers who learn: Involving the teaching team in continuous curricular improvement],” Jornada de Educación en Ingeniería, Universidad de Concepción, Chile, July 31th, 2019.

Workshop, “Learning Analytics and Artificial Intelligence to improve Quality in Higher Education,” Innovation Education Program, Monterrey, México, July 5th, 2019.

Workshop, “Student Success Informed by Learning Analytics and Artificial Intelligence,” STHEM Brazil Consortium, Lorena, Sao Paulo, Brazil, May 28th, 2019.

Keynote Presentation, “Engaging Teaching Staff with Continuous Curriculum Improvement in Engineering Education,” Engineering Education for the Future, Instituto Tecnológico de Aeronáutica (ITA), San José de Campos, Sao Paulo, Brazil, May 24th, 2019.

Invited Lecture, “When data meets decision-making: Data-based strategies for engineering education,” Graduate Seminar, Engineering Education Department, Virginia Tech, November 2nd, 2018.

PROFESSIONAL TRAINING

Diplomado de Docencia Universitaria (University Teaching Certificate)

Pontificia Universidad Católica de Chile, 2022

Description: Professional development program focused on pedagogical skill attainment according to principles of quality teaching in Pontificia Universidad Católica de Chile.

Symposium for Entrepreneurship Educators (SEE)

Babson College, 2021

Description: Professional development program of two weeks focused on Babson’s framework for teaching and learning entrepreneurship.

Institute for the Development of Excellence in Assessment Leadership (IDEAL)

Accreditation Board for Engineering Education, 2017

Description: Professional development program of one week focused on developing skills and knowledge on assessment and evaluation of student outcomes.

PROFESSIONAL AFFILIATIONS

Society for Learning Analytics Research (SoLAR), 2020-Present
Member at Large

Chilean Society for Engineering Education (SOCHEDI), 2020-Present
Member at large

Engineers Without Borders Chile, 2017-Present
Ethical Committee Member

American Society for Engineering Education (ASEE), 2016-Present
Member at large

PROFESSIONAL SERVICE

Program Chair

International Conference on Learning Analytics & Knowledge ([LAK23](#)), Society for Learning Analytics Research, 2023

Program Chair

European Conference on Technology Enhanced Learning ([ECTEL2022](#)), EATEL, 2022

Program Chair

International Conference on Learning Analytics & Knowledge ([LAK22](#)), Society for Learning Analytics Research, 2022

Poster & Demo Track Chair

European Conference on Technology Enhanced Learning ([ECTEL2021](#)), EATEL, 2021

LASI21 Organizing Committee

Learning Analytics Summer Institute ([LASI21](#)), Society for Learning Analytics Research, 2021

Workshop Organizing Committee

HybridEd Workshop ([HybridEd19](#)), Paris, 2019

Workshop Organizing Committee

HybridEd Workshop ([HybridEd18](#)), Cambridge Massachusetts, 2021

LANGUAGES

Spanish: Native speaker (Common European Framework C2)

English: Independent user (Common European Framework B2)

COMPUTER SKILLS

Programming: Python, C#

Applications: STATA, R, NVivo

Platforms: Canvas, Moodle, Blackboard