

CURRICULUM VITAE & bio

Martin Hilbert

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Popular audience bio: Martin Hilbert is Professor at the University of California, Davis, where he chairs the campus-wide emphasis in Computational Social Sciences. He studies the societal implications of digitalization in complex social systems. He holds doctorates in Economic and Social Sciences (2006), and in Communication (2012). His work is recognized in academia for the first study that assessed how much information there is in the world; in public policy for having designed the first digital action plan with the governments of Latin America and the Caribbean at the United Nations; and in the popular media for having alerted about the intervention of Cambridge Analytica a year before the scandal broke. Before he joined academia, he served as Economic Affairs Officer of the United Nations Secretariat for 15 years, where he created the Information Society Program for Latin America and the Caribbean. Prof. Hilbert provided technical assistance in the field of digital development to more than 20 countries and dozens of publicly traded companies as digital strategist. His work has been published in recognized academic journals, such as *Science*, *Psychological Bulletin*, *Trends in Ecology and Evolution*, and *World Development*, and regularly appears in popular magazines, including *The Wall Street Journal*, *Washington Post*, *The Economist*, *NPR*, *BBC*, *Die Welt*, among others. More: www.martinhilbert.net & www.youtube.com/@Prof.MartinHilbert

EDUCATION:

- 2012 **PhD in Communication**, (incl. M.A. Communication); University of Southern California (USC), Annenberg School of Communication, advisor: [Manuel Castells](#), USA
- 2006 **Doctor of Economics and Social Science** (Dr. rer. pol. *Doktor der Wirtschafts- und Sozialwissenschaften*); Friedrich-Alexander University Erlangen-Nuremberg, School of Economic and Social Sciences (WISO), advisor: [Karl A. Schachtschneider](#), Germany
- 2003 **Diplom Univ. in Business Administration** (Dipl.-Kfm. *Diplom-Kaufmann Univ.*; similar to M.B.A.); Friedrich-Alexander University Erlangen-Nuremberg (WISO), Germany
University exchange, 2000-2001, University of Chile, FACEA.
- 2002 **Diploma Strategic Knowledge Management** (*Diploma en Gestión Estratégica del Conocimiento*); Institute of Public Affairs (INAP), University of Chile.

EMPLOYMENT HISTORY:

- 2019 – today **Full Professor**; University of California, Davis, **Dpt. Communication; GG Computer Science; DataLab; Chair DE Computational Social Science**
- 2017 – 2019 **Associate Professor**; University of California, Davis, **Dpt. of Communication**
- 2014 – 2016 **Assistant Professor**; University of California, Davis, **Dpt. of Communication**

- 2016 – 2018 **Distinguished Scholar**; U.S. Library of Congress, Kluge Center.
- 2013 – 2016 **External Professor**
Adolfo Ibáñez University, **Complex Systems Engineering**
- 2013 – 2014 **External Professor**
Pontifical Catholic University of Chile, **School of Communications**
- 2005 – 2014 **Economic Affairs Officer United Nations**, permanent appointment.
[on academic leave 08/2008-12/2012] United Nations Economic Commission for Latin America and the Caribbean ECLAC
Coordinator of the Information Society Programme: cepal.org/en/subtopics/information-and-communications-technologies-icts
- 2008 – 2011 **Provost Research Fellow**; University of Southern California (USC)
- 2001 – 2005 **Lead Researcher on ICT for Development**; United Nations Economic Commission for Latin America and the Caribbean, UN ECLAC; Division of Production, Productivity and Management.

Consultancies: Expert on Algorithms for Social Media Victims Law Center (2022-now); Chief Digital Strategist of Collahuasi Mining Company (2020-now); Conference Agent Hi Cue Speakers (2023-now); U.S. State Department (2024); United Nations Development Programme Human Development Report Office (2019, 2021); ChileTec (2018, 2020); United Nations ECLAC (2018-2020); Inter-American Development Bank (2017); United Nations Commission on Science & Technology (2016); World Bank (2015); SciDev.net (2015); International Development Research Centre, Canada (IDRC) (2012); International Telecommunications Union (ITU) (2001 & 2011); United Nations Industrial Development Organization (UNIDO) (2001); German-Israelite-Association, Haifa (1998).

PUBLICATIONS (underlined text is hyperlink enabled):

Over 9,750 citations, h-index 35, i10-index 62 in [Google Scholar](#)

Journal Articles (and competitive peer-reviewed Conference Proceedings)

- MH (2024). [Societal Algorithmification and its Computational Measurement](#). In *Handbook of Computational Social Science*. Edward Elgar Publishing (EEP), forthcoming.
- MH, Cingel, D. P., Zhang, J., Vigil, S. L., Shawcroft, J., Xue, H., Thakur, A., & Shafiq, Z. (2024). [#BigTech @Minors: Social media algorithms quickly personalize minors' content, lacking equally quick protection](#). (SSRN Scholarly 4674573) (under peer review).
- Flores, P. M. & MH (2024). [Examining the Impact of Affective States and Emotional Responses on Misinformation Video Spreading](#). Open Science Framework (under peer review).
- Bulat, B. & MH (2024). [A Dynamical Systems Approach to Bots and Online Political Communication](#) (arXiv:2405.18652). arXiv (under peer review).
- MH, Thakur, A., Flores, P. M., Zhang, X., Bhan, J. Y., Bernhard, P., & Ji, F. (2024). [8%—10% of algorithmic recommendations are 'bad', but... an exploratory risk-utility meta-analysis and its regulatory implications](#) *International Journal of Information Management*, 75, 102743.
- Sun, Q., & MH (2023). [Will You Become the Next Troll? A Computational Mechanics Approach to the Contagion of Trolling Behavior](#). Research Square (under peer review).
- Flores, P. M., & MH (2023). [Temporal communication dynamics in the aftermath of large-scale upheavals: Do digital footprints reveal a stage model?](#) *Journal of Computational Social Science*, 6(2), 973–999.

- Flores, P. M., & MH (2023). [Lean-back and lean-forward online behaviors: The role of emotions in passive versus proactive information diffusion of social media content.](#) *Computers in Human Behavior*, 147, 107841.
- Zhong, Q., MH & Frey, S. (2023). [Breaking the Structural Reinforcement: An Agent-Based Model on Cultural Consumption and Social Relations.](#) *Social Science Computer Review*, 41(3), 848–870.
- Zhong, Q., Frey, S., & MH (2022). [Quantifying the selective, stochastic, and complementary drivers of institutional evolution in online communities.](#) *Entropy*, 24(9), 1185.
- Waldherr, A., MH, González-Bailón S. (2021). [Worlds of Agents: Prospects of Agent-Based Modeling for Communication Research.](#) *Communication Methods and Measures*, 15(4), 243-254. An Editor's Introduction to the Special Issue.
- MH (2021). [Information Theory for Human and Social Processes.](#) *Entropy*, 23(1), 9. An Editor's Introduction to the Special Issue.
- MH & Darmon, D. (2020). [Largescale Communication Is More Complex and Unpredictable with Automated Bots.](#) *Journal of Communication*, 70(5), 670–692.
- MH & Darmon, D. (2020). [How Complexity and Uncertainty Grew with Algorithmic Trading.](#) *Entropy*, 22(5), 499.
- MH (2020). [Digital Technology and Social Change: The digital transformation of society from a historical perspective.](#) *Dialogues in Clinical Neuroscience*, 22(2), 189–194.
- Cho, J., Ahmed, S., MH, Liu, B., & Luu, J. (2020). [Do Search Algorithms Endanger Democracy? An Experimental Investigation of Algorithm Effects on Political Polarization.](#) *Journal of Broadcasting & Electronic Media*, 64(2), 150–172.
- Mann, S., & MH (2020). [AI4D: Artificial Intelligence for Development.](#) *International Journal of Communication*, 14(0), 21.
- MH, Barnett G., Blumenstock J., Contractor N., Diesner J., Frey S., González-Bailón S., Lamberson PJ, Pan J., Peng T-Q., Shen C., Smaldino P.E., van Atteveldt W., Waldherr A., Zhan J., Zhu J.H. (2019). [Computational Communication Science: A Methodological Catalyzer for a Maturing Discipline.](#) *International Journal of Communication*, 13(2019), 3912–3934.
- MH, Liu, B., Luu, J., Fishbein, J. (2019). [Behavioral Experiments with Social Algorithms: an information theoretic approach to input-output conversions.](#) *Communication Methods and Measures*, 13 (4), 267-286.
- MH, James R. G., Gil-Lopez, T., Jiang, K., Zhou, Y. (2018). [The Complementary Importance of Static Structure and Temporal Dynamics in Teamwork Communication.](#) *Human Communication Research*.
- MH, Ahmed, S., Cho, J., Liu, B., Luu, J. (2018). [Communicating with algorithms: A transfer entropy analysis of emotions-based escapes from online echo chambers.](#) *Communication Methods and Measures*.
- MH & Aravindakshan, A. (2018). [What Characterizes the Polymodal Media of the Mobile Phone? The Multiple Media within the World's Most Popular Medium.](#) *Multimodal Technologies and Interaction*, 2(3), 37.

- Jaidka, K., Ahmed, S., Skoric, M., & MH (2018). [Predicting elections from social media: a three-country, three-method comparative study](#). *Asian Journal of Communication*, 0, 1–21.
- MH (2017). [Complementary Variety: When Can Cooperation in Uncertain Environments Outperform Competitive Selection?](#) *Complexity*, 5052071.
- MH (2017). [The More You Know, the More You Can Grow: An Information Theoretic Approach to Growth in the Information Age](#). *Entropy*, 19(2), 82.
- Abeliansky, A. L., & MH (2017). [Digital technology and international trade: Is it the quantity of subscriptions or the quality of data speed that matters?](#) *Telecommunications Policy*, 41(1), 35–48.
- MH, Oh, P., & Monge, P. (2016). [Evolution of what? A network approach for the detection of evolutionary forces](#). *Social Networks*, 47, 38–46.
- MH (2016). [The bad news is that the digital access divide is here to stay: Domestically installed bandwidths among 172 countries for 1986–2014](#). *Telecommunications Policy*. 40(6), 567-581.
- Madsen, A.K, Flyverbom, M., MH and Ruppert, E. (2016). [Big data: Issues for an international political sociology of the datafication of worlds](#). *International Political Sociology*.
- MH, Vasquez, J., Halpern, D., Valenzuela, S., & Arriagada, E. (2016). [One Step, Two Step, Network Step? Complementary Perspectives on Communication Flows in Twittered Citizen Protests](#). *Social Science Computer Review*. April, 0894439316639561.
- MH (2016). [Formal definitions of information and knowledge and their role in growth through structural change](#). *Structural Change and Economic Dynamics*. 38, 69-82.
- M. Gillings, MH, D. Kemp (2016). [Information in the Biosphere: Biological and Digital Worlds](#). *Trends in Ecology and Evolution*. 31(3), 180-189.
- MH (2015). [Big Data for Development: A Review of Promises and Challenges](#). *Development Policy Review*. 34(1), 135-174.
- MH (2015). [A review of large-scale ‘how much information’ inventories: variations, achievements and challenges](#). *Information Research*. 20(4), paper 688.
- MH (2015). [Toward a Theory of Knowledge Economics: An Information Systems Approach](#). *IEEE Computer Society*, 48th Annual Hawaii Int. Conf. on System Sciences HICSS
- MH (2015) [ICT4ICTD: Computational Social Science for Digital Development](#). *IEEE Computer Society*, 48th Annual Hawaii Int. Conf. on System Sciences HICSS
- MH (2014). [What is the content of the world’s technologically mediated information and communication capacity: how much text, image, audio and video?](#) *The Information Society: an international journal*. 30(2), 127–143.
- MH (2014). [How much of the global information and communication explosion is driven by more, and how much by better technology?](#) *Journal of the American Society for Information Science and Technology*; 65(4); 856-861.

- MH (2014). [Technological Information Inequality as an Incessantly Moving Target: The Redistribution of Information and Communication Capacities btw 1986-2010.](#) *Journal of the American Society for Information Science and Technology*, 65 (4), 821–835
- MH (2013). [Scale-free power-laws as interaction between progress and diffusion.](#) *Complexity*. 19(4), 56–65
- MH (2012). [Toward a Conceptual Framework for ICT for Development: Lessons Learned from the Latin American “Cube Framework”.](#) *Information Technologies and International Development (ITID)*, 8(4), 243-259 (with Spanish translated version: 261-280);
- MH (2012). [How much information is there in the “Information Society”?](#) *Significance*, Royal Statistical Society and the American Statistical Association, 9(4); p.8-12.
- MH (2012). [How to Measure “How Much Information”?](#) Theoretical, methodological, and statistical challenges for the social sciences. *International Journal of Communication*, 6, 1042–1055.
- MH, P. López (2012). How to Measure the World’s Technological Capacity to Communicate, Store and Compute Information? [Part I: results and scope.](#) [Part II: measurement unit and conclusions.](#) *International Journal of Communication*, vol. 6, 936–955, 956–979.
- MH (2012). [Toward a synthesis of cognitive biases: How noisy information processing can bias human decision making.](#) *Psychological Bulletin*, 138, 211–237.
- MH (2011). [Digital gender-divide or technologically empowered women in developing countries? A typical case of lies, damned lies, and statistics.](#) *Women’s Studies International Forum* 34(6), 479-489
- MH (2011). [The end justifies the definition: The manifold outlooks on the digital divide and their practical usefulness for policy-making.](#) *Telecommunications Policy*, 35(8), 715-736.
- MH, P. López (2011). [The world’s technological capacity to store, communicate and compute information.](#) *Science*, 332(6025), 60-65
- MH, P. López, C. Vasquez (2010). [Information Societies or “ICT equipment societies”?](#) [Measuring the digital information processing capacity of a society in bits and bytes.](#) *The Information Society: an international journal*, 26(3), pp.157-178
- MH (2010). [When is cheap, cheap enough to bridge the digital divide? Modeling Income Related Structural Challenges of Technology Diffusion in Latin America](#) *World Development*, 38(5) 756-770.
- MH; I. Miles; J. Othmer (2009). [Foresight tools for participative policy-making in inter-governmental processes in developing countries: Lessons learned from the eLAC Policy Priorities Delphi.](#) *Technological Forecasting & Social Change*, 76(7), pp.157-178.
- MH (2009). [The Maturing Concept of e-democracy: From e-Voting and Online Consultations, to Democratic Value Out of Jumbled Online Chatter.](#) *Journal of Information Technology & Politics (JITP)*, American Political Science Association, 6(2); 87-110.
- MH (2004). [Comment on the Financing Aspect of the Information Society for Developing Countries.](#) *Information Technologies and International Development (ITID)*, 1(3-4), 79-80.

Books

- Peres, W. and MH (2010). "[Information Societies in Latin America and the Caribbean: Development of Technologies and Technologies for Development](#)", (350 pages); editor and author. 19 co-authors. Spanish version (2009): "[La sociedad de la información en América Latina y el Caribe: Desarrollo de las tecnologías y tecnologías para el desarrollo](#)". both *ECLAC books*, 98, ECLAC Secretariat; LC/G. 2363-P.
- MH & O. Cairó (2009). "[¿Quo vadis Tecnología de la información y de las comunicaciones? Conceptos fundamentales, trayectorias tecnológicas y el Estado del Arte de los sistemas digitales](#)"; (372 pages), editor & main author. 17 co-authors; *Mayol Ediciones*, with ECLAC, United Nations, ISBN: 978-958-8307-589
- MH (2007). "[Digital processes and democratic theory: Risks and opportunities of applying information and communication technologies to democratic institutions](#)"; *Google Books*, Online publication.
- MH (2007). "[Digitalisierung demokratischer Prozesse. Gefahren und Chancen der Informations- und Kommunikationstechnologie in der demokratischen Willensbildung der Informationsgesellschaft](#)"; (303 pages). *Duncker & Humblot*, Beiträge zur Politischen Wissenschaft, Band 144, Berlin, Politikwissenschaften, ISBN 978-3-428-12423-7.
- Katz, J. & MH (2003). "[Road Maps towards an information society in Latin America and the Caribbean](#)"; (130 pages); Spanish version (2003): "[Los Caminos hacia una sociedad de la información en América Latina y el Caribe](#)"; (129 pages) both *ECLAC books*, 72, ECLAC Secretariat; English: LC/G.2195/Rev.1-P/I, Spanish: LC/G.2195/Rev.1-P/E; Also published by *Alfaomega, Economía América Latina, ISBN 958-682-479-9*
- MH & J. Katz (2003). "[Building an Information Society: a Latin American and Caribbean perspective](#)"; (336 pages); ECLAC UN, LC/L.1845/I.

Book Chapters

- MH & S. Mann (2018). [Artificial Intelligence for Development](#). Ch. VII in *Data, algorithms and policies: Redefining the digital world*. ECLAC books, United Nations.
- MH (2018). [Communication Quantity](#). In *Encyclopedia of Big Data* (pp. 1–6). Springer, Cham.
- MH (2017). [Information Quantity](#). In *Encyclopedia of Big Data* (pp. 1–4). Springer, Cham.
- MH (2017). [Big Data sin teoría puede convertirse en algo peligroso porque nos encasilla en nuestro pasado](#), Ch. 8.II in *Poder Ciudadano*. Editorial Univ. de Buenos Aires.
- MH (2015). [Digital Divide\(s\)](#). *Encyclopedia of Digital Communication and Society*; edited by A. P. Hwa, R. Mansell, D. Kleine, D. J. Grimshaw. John Wiley Inc.

Book Reviews

- MH (2013). [Eric Schmidt & Jared Cohen, The New Digital Age: Reshaping the Future of People, Nations and Business. \(2013\) John Murray. International Journal of Communication, 7\(0\), 5. 1571-1575.](#)
- MH (2012). [Brian Castellani, Frederick William Hafferty. Sociology and Complexity Science \(2009\) Springer. Automatica, Vol. 48, issue 12, 3187–3188.](#)

United Nations reports, Magazine-, & Proceedings (selected)

- MH & Lu, K. (2020). [The online job market trace in Latin America and the Caribbean](#) (LC/TS.2020/83; p. 79). United Nations Economic Commission for Latin America and the Caribbean.
- MH, Vilgis V., Ho Y-C., Jin, X., Lu, K., Rascon-Garcia, K. & Reese, M. (2020). "[Tracking the digital footprint in Latin America and the Caribbean: Lessons learned from using big data to assess the digital economy](#)", United Nations ECLAC, LC/TS.2020/12, [PDF](#).
- M. Santillán Vásquez & MH (2018). "[La etapa de evolución social en la que actualmente estamos ya está fusionada con la inteligencia artificial, mucho más allá de cualquier punto de retorno](#)". Revista Contratexto, Facultad de Comunicación de la Universidad de Lima.
- MH, Khai Bach, J., Bomactao, R., Dou, J., Duong, J., Escobar, J., ... Zhang, H. P. (2018). [Digital Footprints from Latin America and the Caribbean](#) (SSRN Scholarly Paper No. ID 3162864). Rochester, NY: Social Science Research Network.
- MH, Cheng, S., Wang, S. (Wilburn), & Bell, B. (2017). [Digital tools for foresight](#) (UNCTAD Research Paper No. 10 No). United Nations Commission on Science and Technology for Development.
- MH (2015) [e-Science for Digital Development: "ICT4ICT4D"](#). Development Informatics, Working Paper Series, Paper 60, The University of Manchester.
- MH (2013) [Big Data for Development: From Information - to Knowledge Societies](#). [Social Science Research Network](#). SSRN Scholarly Paper 2205145. Rochester, NY.
- MH (2011) [Mapping the dimensions and characteristics of the world's technological communication capacity during the period of digitization](#). [9th World Telecomm./ICT Indicators Meeting](#), Mauritius: International Telecommunication Union (ITU).
- MH (2008) [Estrategias nacionales para el desarrollo digital en los países de América Latina y el Caribe. Política digital: edición especial sobre estrategias nacionales para la Sociedad de la Información](#), Number 42, Feb-Mar 2008, 18-26.
- MH & J. Othmer (2007) [eLAC Policy Priorities Delphi: Latin American and Caribbean multi-stakeholder consultation for ICT policy priorities for the year 2010](#); Information Society Programme ECLAC working document, [PDF](#); Spanish version: "[Delphi de prioridades de políticas eLAC: Consulta multisectorial sobre prioridades de políticas TIC para...](#)", [PDF](#)
- O. Maeso & MH (2006) [Centros de acceso público a las tecnologías de información y comunicación en América Latina: características y desafíos](#); Information Society Series No. 11, United Nations ECLAC, LC/W.88, [PDF](#)
- MH (2005) [Municipios digitales: la influencia de los proveedores](#). *Política digital* (26), 56-58.
- MH (2005) [Development Trends and Challenges For Local e-Governments: Evidence From Municipalities in Chile and Peru](#). Info. Soc. No. 6, United Nations ECLAC, LC/W.31, [PDF](#)
- MH, S. Bustos & J.C. Ferraz (2005) [Estrategias Nacionales para la Sociedad de la Información en América Latina y el Caribe](#). Info. Soc. Series No. 2, United Nations ECLAC, LC/W.17, [PDF](#)
- MH & D. Olaya (2005) [Benchmarking the Plan of Action of the World Summit on the Information Society \(WSIS\) in Latin America and the Caribbean](#); Information Society Series No. 1, United Nations ECLAC, LC/W.15, [PDF](#)
- MH & J. Katz (2002) [Toward a Conceptual Framework and Public Policy agenda for the Information Society in Latin America and the Caribbean](#); Productive Development Series ECLAC, No. 133, LC/L.1801-P/I, ISBN: 92-1-121374-6; [PDF](#)
- B. Petrazzini & MH (2001) [3G Mobile Policy: The Cases of Chile and Venezuela](#); ITU (International Telecommunication Union) [Series of Telecommunication Case Studies](#)
- MH (2001) [Latin America on its path into the digital age: where are we?](#) Productive Development Series ECLAC, No. 104, LC/L.1555-P/I, ISBN: 92-1-121309-6; [PDF](#)
- MH (2001) [From Industrial Economics to Digital Economics: An Introduction to the Transition](#). Productive Development Series ECLAC, No. 100, LC/L.1497-P/I, ISBN: 92-1-121297-9; [PDF](#)
- MH (2000) [In the Midst of the Transition: Challenges and Chances for Latin American Economies; Connect-World and Telecom Magazine](#), Latin America Fourth Quarter Issue IV 2000.

Multimedia publications

- 09/2020 [Online Dashboard of Big Data Observatory of United Nations ECLAC](#).
- 09/2015 [Digital Divide Data Interactive](#); SciDev.net. Finalist for '[Information is Beautiful](#)' award.
- 07/2015 [Humanity from Space: our interconnected planet / going viral](#); PBS, NatGeo, Discovery Channel, Handel Productions.
- 06/2011 [World's Information Capacity Animation](#); Produced by The Economist & USC, The Cavalry FX
- 04/2011 [How much information can the world store, communicate & compute?](#) University of Southern California

Extensive interviews (selected, [more here](#))

- 04/2024 ['Hay que entender que el futuro ya está aquí': Martin Hilbert sobre la Inteligencia Artificial y sus avances](#); *El Tiempo, Colombia, Ricardo Avila*.
- 05/2023 [Martin Hilbert y el efecto de las nuevas tecnologías en las democracias: «Cambiaron mucho cómo manejamos la información»](#); *La Tercera, Chile, Pedro Henríquez*.
- 08/2021 [En diálogo con Longobardi](#); *CNN Marcelo Longobardi*.
- 02/2021 [Information Theory, Algorithms, and Political Polarization, with Prof. Martin Hilbert](#); *Social Media and Politics podcast, Michael Bossetta*.
- 04/2018 [Martin Hilbert y el escándalo de Facebook: "Estamos atacando los síntomas, pero no la enfermedad"](#); *The Clinic*; Daniel Hopenhayn.
- 11/2017 [El gurú del 'big data': "Facebook sabe más de ti con 250 likes que tú mismo"](#); *El Mundo*; Emilia Landaluze.
- 04/2017 [Martin Hilbert, gurú del Big Data: "La democracia no está preparada para la era digital y está siendo destruida"](#); *BBC Mundo*; Gerardo Lissardy ([Portuguese](#) here).
- 03/2017 ["La tecnología no es determinista, hay que construirla socialmente"](#); *La Capital, de Mar del Plata*; Nicolás Martínez Sáez.
- 01/2017 [Martin Hilbert, experto en redes digitales: "Obama y Trump usaron el Big Data para lavar cerebros"](#); *The Clinic*; Daniel Hopenhayn (winner of Chilean Journalism of Excellence award).
- 11/2014 [How data will revolutionise global governance](#); *SciDevNet*; Imogen Mathers.
- 04/2014 [Martin Hilbert on the world's information capacity](#); *Machine Intelligence Research Institute*; Luke Muehlhauser.
- 09/2011 [ICT might be the most tangible tool we have right now to fight gender discrimination](#); *United Nations, eLACNewsletter*; Laura Palacios.
- 02/2011 [Defining A Data Deluge](#); *Science Friday, Talk of the Nation*; Ira Flatow.
- 02/2011 [Information Overload](#); *BBC World Service*; Jack Stewart.
- 02/2011 [Down in the Data Dumps: Researchers Inventory a World of Information](#); *Scientific American*; Larry Greenemeier.
- 12/2010 [Barreras para el desarrollo de la banda ancha en América Latina](#); *Inst. Estudios Peruanos*.
- 07/2006 ["La brecha digital nos afecta a todos"](#); *El Comercio, Ecuador*.
- 04/2005 [Sugiere emplear tecnología para mejorar sector público](#); *Listin Diario*, Wanda Mendez.

TEACHING (underlined text is hyperlink enabled):

Student evaluations average: 4.0 - 4.5 (on a scale from 1 - 5)

- 2024-today Coursera MOOC (Massive-Open-Online-Course) [Specialization on Digital Technology & Social Change](#); 5 course specialization.
- 2020-today Coursera MOOC (Massive-Open-Online-Course) [Specialization on Computational Social Science](#); 5 course specialization. 50,000 learners.
- 2018-today Computational Social Science (CMN150V), undergraduate upper division; *University of California wide online course, Davis, USA.*
- 2015-today [Digital Technology & Social Change \(CMN170 & fully online CMN170V\)](#); undergraduate upper division; *University of California wide online course, Davis, USA.*
- 2022 [Algoritmificación para Tod@s](#); Talk Series for the Mining Industry, *Collahuasi, Chile.*
- 2013-'15 [Complex Social Systems: a guided exploration of concepts and methods](#); graduate; *University of California, Davis (UCD), Davis, USA.*
University of Southern California (USC), Los Angeles, USA.
Adolfo Ibáñez University, [Complex Systems Engineering](#), Santiago, Chile
- 2013 - ... Online Massive Open Online Course (MOOC) in Spanish: [CEPAL Charlas Sobre Sistemas Complejos Sociales \(CCSSCS\)](#). Latin American branch of UNESCO Complex Systems Digital campus UniTwin.
- 2013 Social Network Analysis. *Pontifical Catholic University of Chile, Santiago, Chile.*
- 2010-'12 [Communication for International Development \(CMGT 582\)](#); graduate; *University of Southern California (USC), Los Angeles, USA.*
- 2001-'08 [Lectures on Information Society development in Latin America: theory, stylized facts and policies](#); United Nations ECLAC Summer School.

AWARDS & HONORS:

- 2018 Chile's most prestigious [Journalism award: Journalism of Excellence for best written interview](#), was given to an extensive interview given at The Clinic.
- 2016 Offer of the Harissios Papamarkou Chair in Education & Technology of the U.S. Library of Congress, Big data strategies for a Library of Congress in the digital age
- 2015 Finalist of '[Information is Beautiful](#)' award for digital divide animation, SciDev.
- 2015 Top-3 most cited paper in [Telecommunications Policy](#) (5-y impact factor 1.7)
- 2013 PhD Achievement Award of the University of Southern California,
- 2008 –2012 University of Southern California (USC) Provost's Ph.D. Fellowship

LANGUAGES:

- German:** Native
- English:** Fluent; GRE (top-96% of all students in 2007), United Nations Language Proficiency: certified 2006
- Spanish:** Fluent; United Nations Language Proficiency: certified 01/2006
- Portuguese:** Excellent;
- Latin:** Medium; Latinum magnum (five years)

SERVICE TO PROFESSION:

Journal Peer Review: *Acta Psychologica; Art History; Cognitive Psychology; Big Data & Society; Communication Methods & Measures; Communication Theory; Complexity; Entropy; Government Information Quarterly; Information Resource Management Journal; Information Society; International J. of Communication; J. of Business Research; J. of Communication; J. of Computer-Mediated Communication; J. of Cyber Policy; J. of the Association for Info. Science and Tech; Mathematics; Physics Letters A; PLOS One; Policy & Internet; Political Behavior; Political Studies Review; Political Studies Review; SCIENCE; Scientific Reports; Social Science Computer Review; Structural Change and Economic Dynamics; Sustainability; Technological Forecasting and Social Change; Tecnovation; Telecommunications Policy; World Development.*

Guest Editor:

Special issue on "[Worlds of Agents: Prospects of Agent-Based Modeling for Communication Research](#)", *Communication Methods and Measures*, Vol 15, Issue 4, 2021

Special issue on "[Information Theory for Human and Social Processes](#)", *Entropy* (Journal), 2019

Special issue on "How to measure 'How-Much-Information'?", *International Journal of Communication* (2012).; [How to Measure "How Much Information"?](#), *IJoC*, (6), 1042–1055.

Event & workshop organizer:

Academic events:

- 2018 Library of Congress, "[Big Data and its impact on Democracy](#)", Washington D.C. USA.
- 2015 Satellite event at Conference on Complex Systems 2015, "[The Industrial Age and Thermodynamics; the Information Age and... What?](#)"; with J. Crutchfield, Phoenix, Arizona,
- 2006 Third regional conference on ICT, regulation and equality in Latin America, Regional Dialogue on the Information Society in Latin America (DIRSI & OSILAC), Chile.

Training and educational workshops:

- 2004-8 Four annual workshops of the Observatory on the Information Society in Latin America and the Caribbean (OSILAC), with representatives from 17 National Statistics Offices; in Chile (2004); Dom. Rep (2005); Panama (2006); El Salvador (2008).

Political Conferences:

- 2008 [Ministerial Conference on the Information Society in Latin America and the Caribbean](#); UN ECLAC & Government of El Salvador; San Salvador.
- 2005 [Ministerial Conference of Latin American and the Caribbean](#) for the World Summit on Information Society (phase II), UN ECLAC & Government of Brazil; Rio de Janeiro.
- 2003 [Ministerial Conference of Latin American and the Caribbean](#) for the World Summit on Information Society (phase I), UN ECLAC & Government of Dom. Rep.; Bávaro.

RESEARCH GRANTS & COOPERATION PROJECTS:

03/2016 – 08/2019 **University of California Office of the President's Innovative Learning Technology Initiative (ILTI)**

Resources: US\$ 110,000 for online course development "Computational Social Science".

03/2015 – 08/2023 **University of California Office of the President's Innovative Learning Technology Initiative (ILTI)**

Resources: US\$ 80,000 for online course "Digital Technology & Social Change".

01/2008 – 08/2008 **European and Latin American Alliance for the Information Society (@LIS2): Inclusive policy dialogue and exchange of experiences**

Job description: Main negotiator of grant, project design and related terms and conditions. After the project was set up, voluntarily declined PI position and left the UN to join USC.

Joint resources: US\$ 17,000,000: European Commission and United Nations ECLAC.

11/2004 – 12/2007 **Policy and Regulatory Dialogue of the European and Latin American Alliance for the Information Society (@LIS)**

Job description: Principal Investigator: Executive Coordinator and Lead Researcher

Joint resources: US\$ 5,500,000: European Commission and United Nations ECLAC.

Project results: 8 books; 30 publications; 2 Regional Ministerial Conferences and 12 seminars; capacity-building for 320 policy makers; 4 cooperation projects with over 60 weeks technical assistance, 2 Regional Plans of Action for the Information Society in Latin America and the Caribbean (eLAC2007 and eLAC2010).

01/2004 – 10/2010 **Observatory on the Information Society in Latin America and the Caribbean (OSILAC)**

Job description: Principal Investigator: Executive Coordinator and Lead Researcher

Joint resources: US\$ 1,500,000: International Development Research Centre (IDRC, Canada) and UN ECLAC, in three consecutively renewed phases.

Project results: 12 publications; 3 databases; 10 regional seminars; capacity-building for 120 statisticians of National Statistics Offices; leadership role in the definition of core indicators for ICT access and usage within the global Partnership on Measuring ICT for Development (officially adopted by UN Statistical Commission), which consists of an UN inter-agency alliance of 8 UN agencies, World Bank, OECD, and European Commission.

10/2006 – 12/2007 **Research cooperation UN ECLAC – Telefónica Foundation**

Job description: Principal Investigator at UN ECLAC: Lead Researcher

Joint resources: US\$ 83,000: Telefónica Foundation and UN ECLAC;

Project results: 1 book, including 34 international interviews, 1 Delphi exercise.

08/2006 – 12/2007 **Review of ICT development in Latin America and the Caribbean**

Job description: Principal Investigator at UN ECLAC: Lead Researcher

Joint resources: US\$ 140,000: United Nations Development Programme (UNDP), Regional Dialogue on the Information Society (DIRSI) and UN ECLAC;

Project results: 23 country profile case studies; 3 thematic reports; summary report.

INVITED PRESENTATIONS & KEYNOTES (selected from [over 200 general presentations](#))

- 11/2023
Santiago, Chile
[Information & Educational Tech](#); Keynote: [What's the Deal with ChatGPT?](#)
- 01/2019
Santiago, Chile
[Congreso Futuro](#); Keynote: [¿Qué especie queremos ser? Ciencia Social Computacional.](#)
- 10/2017
Montevideo, Uruguay
[Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento](#);
Keynote: Celebrating 10 years of Digital Agenda in Uruguay: Future Challenges
- 05/2016
Geneva, Switzerland
[19th Annual Session of the United Nations Commission on Science and Technology](#);
Keynote: Foresight for Digital Development
- 10/2015
Phoenix, USA
[Partnership for the Progress on the Digital Divide \(PPDD\)](#); Keynote: The international perspective
- 06/2015
Dresden, Germany
[Evolution processes information over multiple levels -linking the theory of evolution and information theory](#); Max Planck Institute for the Physics of Complex Systems
- 11/2014
London, UK
[Big Data requires Big Visions for Big Change](#); TEDxUCL; University College London
- 06/2013
Santiago, Chile
[Complex Social Systems Dynamics and Development](#); Seminar series on Management and Public Policy; Industrial Engineering, University of Chile
- 06/2011
Silicon Valley, USA
[The Economist, The ideas Economy: Information, making sense of the deluge](#); That giant sifting sounds
- 11/2007
Rio de Janeiro, Brazil
[Internet Governance Forum Brazil](#), Successful participative policy-making in the frame of the United Nations: eLAC multi-stakeholder Delphi, Government of Brazil and United Nations
- 12/2006
Hong Kong, China
[ITU Telecom World 2006](#) Universal, Ubiquitous, Equitable and Affordable Access, International Telecommunications Unions
- 09/2006
Bogotá, Colombia
[III International Encounter of Investigators](#), Knowledge, Innovation and Human development, Colombian Institute for the Development of Science and Technology, COLCIENCIAS
- 06/2005
Rio de Janeiro, Brazil
[Regional Preparatory Ministerial Conference of Latin America and the Caribbean](#) for the World Summit on the Information Society; Government of Brazil and ECLAC
- 04/2005
Managua, Nicaragua
[Technical Meeting on E-Government in Central America](#), Nicaraguan Council of Science and Technology, Division for Public Admin. and Dev. Management, DESA United Nations
- 11/2004
Cusco, Peru
[III Summit of Presidents](#) of European telecommunications regulatory agencies and Latin American regulators; Independent Regulators Group Europe IRG and Regulatel
- 06/2004
Sao Paulo, Brazil
[UNCTAD XI](#), Implementing the WSIS Plan of Action, issues for trade and development; United Nations Conference on Trade and Development
- 10/2003
Rome, Italy
[Capacity Building Programme for Caribbean Diplomats](#), United Nations Institute for Training and Research (UNITAR)
- 06/2003
San Juan, Puerto Rico
[Association of Caribbean University, Research and Institutional Libraries](#), ACURIL XXXIII
- 02/2003
Beirut, Lebanon
[Regional Preparatory Ministerial Conference of Western Asia](#) for the World Summit on the Information Society; Government of Lebanon and UN ESCWA
- 09/2002
Brasilia, Brazil
[OECD Global Forum](#): Policy Frameworks for the Knowledge-based Economy: ICTs, Innovation and Human Resources; Organization for Economic Co-operation and Development
- 05/2002
Curaçao, Nethl.Antilles
[UNCTAD Regional High-Level Workshop](#) on Electronic Commerce and ICT for Central America and the Caribbean, United Nations Conference on Trade and Development
- 04/2002
Valencia, Spain
[III Iberoamerican Encounter of Digital Cities](#); Asociación Hispanoamericana de Centros de Investigación y Empresas de Telecomunicaciones (AHCJET)
- 11/2001
La Paz, Bolivia
IV Latin-American Forum for Telecommunications Regulator Bodies: Closing the Digital Divide; Foro Latinoamericano de Entes Reguladores de Telecomunicaciones (REGULATEL)
- 10/2001
La Habana, Cuba
V Presidents' Summit of the Hispanoamerican Association of Research Centers and Telecommunication Enterprises (AHCJET)
- 03/2001
Paris, France
Joint OECD/ UN/ UNDP/ World Bank Global Forum, Exploiting the Digital Opportunities for Poverty Reduction, Organization for Economic Co-operation and Development, UN, UNDP, World Bank