

I. Personal Background and Education

Chilean, 75 years old, Industrial Civil Engineer and Master of Science in Engineering Economics, from the Universidad Chile (1975). Free graduate studies in Political Economy and Economic Development at the University of Sussex (UK, 1975-1977).

II. Current Positions

- Associate Professor at the Department of Industrial Engineering of the Faculty of Physical and Mathematical Sciences, Universidad de Chile (1972 – present).
- Director of the "Innovation and Sociotechnology" Program (PIST) (2005 – present).
- Director of the "Strengthening Social Capital and Generating a Culture of Innovation in the Aysén Coastal Region" Program (KAYSEN) (2020 – present).

III. Previous Positions at the Department of Industrial Engineering (DII) and Faculty of Physical and Mathematical Sciences.

- Director (Founder) of the Managerial Skills Program (1999-2004).
- Undergraduate Academic Coordinator (1979-1980, 1998-2000).
- Director (Co-founder) of External Projects (1990-1995).
- Academic Director (Co-founder) of the Public Management Modernization Program (1990-1993).
- Director (Founder) of the Health Systems Management and Economics Program (GESS) (1994-1997).
- Member of the DII Council (1985-1992, 1998-2000, 2003-2008).
- Elected Member of the Faculty Council (1986-1987).
- Master's Program Coordinator at DII (1984-1988).

IV. Other Academic Positions

- Visiting Researcher at the School of Education, University of Colorado at Boulder (February to July 2010).
- Visiting Professor at the ESADE Business School, Barcelona, (2001-2005. Two weeks of lectures, workshops, and talks per year).
- Associate Researcher at the Center for Development Studies (CED) (1981-1987).

V. Leadership Roles in External Projects of the Department of Industrial Engineering (Selected)

- Director of the Diploma in Managerial Skills for Strengthening Social Capital in the Salmon Cluster (2005-2007).
- Director of the Diploma in Managerial Skills for Strengthening Social Capital in the Biobío Region (2001-2005).

- Director of the Social Capital Strengthening Program in the Aysén Region (2001-2006).
- Director of the ENAP Managerial Development Program (1998-2000).
- Director of the Health Ministry Modernization Project (1990-1993).
- Director of the Metropolitan Central Health Service Modernization Project (1992-1993).
- Director of the Public Assistance Hospital Modernization Project (1993-1994).
- Director of the Ñuble Region Health Service Modernization Project (1995-1996).
- Director of the "World Network of Distinguished Chileans" (REDCHILE), a project of the Presidency of the Republic (1991-1994).

VI. Positions in Other Organizations

- Board Member of the Chilean Government Innovation Laboratory (2014-2018).
- Advisory Council Member of ENDEAVOR Chile (2007-2011).
- Member of the Higher Executive Council of Fundación Chile (1992-2000).
- Founding President of the Santiago Innovators Club (1992-1997).
- Founding Partner and Board Member of the Center for Copper and Mining Studies (CESCO) (1984-1990).

VII. Teaching at the Department of Industrial Engineering

Taught over 200 undergraduate and graduate courses and supervised more than 50 undergraduate theses and master's dissertations at DII.

Since 1990, teaching has focused on the areas of Innovation and Leadership, Self-Design and Self-Management, Sociotechnology, Management Skills and Entrepreneurship.

Since 1997, instructor of the course "Industrial Engineering Workshop I", now called "Leadership and Social Innovation" which is an entry-level course to the Industrial Civil Engineering specialty. This course has been a global pioneer, leading to several conference presentations and publications on incorporating socio-emotional and managerial skills, and later, expanding Self-Consciousness. Currently, the course methodology involves student work in prisons and vulnerable high schools.

Creator and facilitator of around ten editions of the "Integration and Social Capital Building Workshops" for the Mining MBA and the Master's in Management and Public Policy, both offered at DIE.

Creator of the following elective courses, all of which are innovations in the field of engineering education from a philosophical and pedagogical perspective:

- "Development of Entrepreneurial Capacity".
- "Self-Design and Self-Management" (created and co-taught with Professor Humberto Maturana, Faculty of Sciences, Universidad de Chile).
- "Innovation and Sociotechnology".

- “Cognitive-Body Integration” (co-created and taught in its first edition with Professor Carmen Cordero, biologist trained with Prof. Humberto Maturana at the Experimental Epistemology Laboratory, Universidad de Chile).
- “Discourse for Professional Effectiveness” (co-created and taught in its first edition with Professor Rodrigo Valenzuela Cori, Faculty of Law, Universidad de Chile).

In the context of the KAYSEN Project, a special section of the Final Project Course was created in 2022, in collaboration with Professor Eduardo Contreras (Professor at DII), to design and socially evaluate projects for contributing to the portfolio of the Aysén Commune.

VIII. Other Teaching Activities

- Instructor of the Public Innovation Workshop in the Open Government Diploma at the Institute of Public Administration, Universidad de Chile (INAP) (12 hours, 5 editions since 2020).
- Instructor of the Closing Lecture for the Master's in Environmental Law at Universidad del Desarrollo (2015 – present).
- Instructor of the Innovation Workshop in the Executive Management Program (ESADE) in Barcelona (24 hours, 2001-2005).
- Instructor of "The Business Game" a 12-hour workshop for 50 ESADE professors (April 2003).

IX. Research, Development and Applied Projects

Since 1990, my research and development work has focused on Radical Innovation and Paradigm Shifts in business, social, organizational, educational, and public management fields. This has been based on a Radical Constructivist philosophical platform, developed at DII since 1986, when Professor Humberto Maturana began teaching the "Biology of Knowledge" course for the department's graduate program.

This work led to the proposal to address the need to strengthen Social Capital, another area of research and development since the mid-1990s, through the creation of a new discipline I proposed called Sociotechnology. The Diplomas in Managerial Skills for Strengthening Social Capital and the Colloquiums on Strengthening Social Capital have been outcomes of this line of work.

This work has integrated Radical Constructivism with advances in Neuroscience—particularly in neuroplasticity—Systems Engineering, and emotional and spiritual approaches to education and innovation. Thus, we have developed a radical constructivist proposal for the Expansion of Self-Consciousness, one of the factors that most contributes to the well-being and holistic development of people in work, social, and personal domains.

Based on these pedagogical developments, work is currently underway on a proposal to create "Self Engineering" and "Engineering of Love".

At present, my main applied project is "Strengthening Social Capital and Generating a Culture of Innovation in the Aysén Coastal Region" (KAYSEN). Some of the initiatives co-generated between the PIST team and various entities in that region have been taken on by the Puerto Aysén Development Corporation (CORPAYSEN). A master's student in Public Policy and Management at DIE applied for and won the position of manager of that organization in May 2023.

The project "Strengthening Social Capital in the State of Trujillo" is in its final phase. It began with an Extended On-Site Workshop (two days with 200 people) in 2007 and was reactivated during the pandemic in a telematic format. An important component of this project is the research "Cultural Pathologies in the State of Trujillo, Venezuela" carried out in collaboration with researchers from the Universidad de Los Andes, Venezuela.

X. Publications and Communications

10.1 Major Academic Publications (since 1990):

VIGNOLO, C. (2021) "The Paradigmatic Revolution and the Great Crossroads: Psychosociopathization or Humanization." In *"Governing the Future: Current Debates on Government, Administration, and Public Policy"* edited by the Research Group on Government, Administration, and Public Policy (GIGAPP), pp. 173-182, Madrid.

VIGNOLO, C. (2016) "A Radical Constructivist Approach to Public Innovation" Proceedings of the XXI Conference of CLAD, Santiago, Chile, November 8-11.

BALMACEDA, S., VIGNOLO, C. (2015). "Social Entrepreneurship Projects: A Context to Educate Engineers Aware of Themselves and the World" in Proceedings of the Seventh International Symposium on Project Approaches in Engineering Education (PAEE 2015). Donostia - San Sebastian, Spain, July 6-10. Published by Aalborg University Press (pp. 206-213).

VIGNOLO, C. (2013) "Sociotechnology: Radical Innovation and Social Capital Building for Latin America" in Llambias, Jaime (editor), *"Latin America: Questions and Perspectives"* York University Bookstore, Toronto (pp. 285-300).

VIGNOLO, C. (2012) "Consciousness, Design, and Management of Self: A Radical Constructivist Approach to the Education of Integral Engineers" presented at the World Engineering Education Forum (WEEF 2012), Buenos Aires, October 17-18.

VIGNOLO, C., RAMIREZ, A., & VERGARA, C. (2010) "Angels and Demons in Chilean Public Management: A Post-Rationalist and Post-Romantic Approach to Public Sector Innovation" *Revista Enfoques Gestión Pública*, vol. 8, N°13, pp. 183-195.

VIGNOLO, C., & CELIS, S. (2010) "Engineering of Self: Twenty-Five Years of Experience Developing New Skills and Expanding Boundaries for Chilean Engineers"

presented at the World Engineering Education Forum (WEEF 2010), Singapore, October 17-21.

VIGNOLO, C. (2009) "Angels and Demons in Organizations: Notes on a Psycho-Sociopathology of Innovation." Working Paper Series Management N° 113, Department of Industrial Engineering, Universidad de Chile.

VIGNOLO, C., & CELIS, S. (2007). Learning to Start, Starting by Learning. Presentation at the "Roundtable of Entrepreneurship Education (REELA)", Rio de Janeiro, Brazil.

VIGNOLO, C., HELD, G., & ZANLUNGO, J.P. (2006), "Strategic Management of Clusters: The Case of the Chilean Salmon Industry", Second International Conference on Strategic Management, Pontificia Universidad Católica de Chile and *Journal of Business Research*, Santiago, Chile, January 4-5.

VIGNOLO, C., & DEPOLO, S. (2006), "Kaleidoscopic Guide to Innovation", *Revista Trend Management*, Volume 8, November.

SPOERER, S., VIGNOLO, C., DEPOLO, S., COCIÑA, M. (2005) "Challenging Competitiveness: Organizational Transformation, Innovation, and Executive Development" *Revista Trend Management*, V.7, Special Edition, May. (First Prize in the "Papers Made in Chile" competition of this journal).

VIGNOLO, C., S. SPOERER, C. ARRATIA, & S. DEPOLO (2004), "Forming Innovative Leaders: The Leadership Skills Certificate Program of the Bío Bío Region, Chile", Proceedings of the 8th Annual Meeting, National Collegiate Inventors and Innovators Alliance (NCIIA), "Education that Works" March 18-20, San Jose, California.

VIGNOLO, C. (2004) "Unleashing Innovation in the Company of the Third Millennium", *Revista Trend Management*, V.6, Special Edition, May.

VIGNOLO, C., POTOENJAK, C., & RAMÍREZ, A. (2003). "Development as a Conversational Process of Social Capital Construction: Theoretical Framework, a Sociotechnological Proposal, and a Case Study in the Aysén Region", *Revista Ingeniería de Sistemas*, Santiago, Chile, July.

VIGNOLO, C. (2002), "Sociotechnology: Social Capital Building for the Third Millennium" *Revista del CLAD, Reforma y Democracia*, Caracas, N° 22, March.

VIGNOLO, C. (2002), "Innovating for Life: Six Propositions for the Third Millennium" Working Paper N° 39, Management Series, Department of Industrial Engineering, Universidad de Chile. Published as a supplement of *Diario Los Andes*, Venezuela, September 19, 2007.

MATURANA, H., & VIGNOLO, C. (2001) "Conversing about Education", *Revista Perspectivas en Política, Economía y Gestión*, Department of Industrial Engineering, Universidad de Chile, Santiago, Vol 4 - No 2, May, pp. 249-266.

VIGNOLO, C (2000). "Rethinking Thinking" The University Thinks Chile. Annals of an Academic Forum, Professor Luis Riveros (Editor), "*Society, State, and Public Policies*" Collection, LOM Editions, July, pp. 63-75.

VIGNOLO, C. (1998), "New Paradigms in Management: An Approach from the Modernization of Public Health Systems in Chile", *Revista del CLAD, Reforma y Democracia*, Caracas, Venezuela, N° 11, June, pp. 49-78.

VIGNOLO, C. (1998), "Zen in the Art of Innovating: Towards a New Paradigm of Business Innovation" *Revista Estudios Públicos*, Centro de Estudios Públicos, Santiago, Chile, N° 70, Autumn, pp. 173-200.

MONTERO, C., & C. VIGNOLO (1997), "Modernization of Management in a Public Hospital: The Case of Public Assistance in Santiago" *Revista Perspectivas en Política, Economía y Gestión*, Department of Industrial Engineering, Universidad de Chile, Santiago, Chile, Vol. 1, N° 1, November, pp. 91-105.

VIGNOLO, C. (1996), "Human Resource Management: A Key Factor in Modernization" in "*Modernization of Public Management: International Experiences and Their Relevance for Chile*", Dolmen Editions, Santiago, Chile, pp. 196-202.

VIGNOLO, C., & C. VERGARA (1994), "Design and Evaluation of Public Systems: An Evaluation" in "*What Does Society Expect from the Government?*" Tomassini, L. (Editor), Center for Public Policy Analysis, Universidad de Chile, and Chilean Association of Political Science, Santiago, Chile, pp. 155-184.

VIGNOLO, C. (1993), "Public Management in the Age of Management", *Revista de Ciencia Política*, Institute of Political Science, Pontificia Universidad Católica de Chile, Santiago, Chile, Vol. XV, Nos. 1-2, pp. 169-186.

VIGNOLO, C., J.C. LUCERO, & C. VERGARA (1993), "Modernization of Public Management" in "*How to Improve Public Management*" Lahera, E. (Editor), CIEPLAN, FLACSO, Forum 90, Santiago, Chile, pp. 51-65.

VIGNOLO, C., & G. WECHSLER (1992), "Technological Innovation in Chile: Lessons from a Case Study of Successful Manufacturing Companies" *Revista Ingeniería de Sistemas*, Department of Industrial Engineering, Universidad de Chile, Santiago, Chile, Vol. IX, N° 2, December, pp. 11-25.

10.2. Conferences, Talks, and Workshops (Selection)

"Towards an Engineering of Love"

Talk at the 22nd Anniversary of the "Building My Dreams" Corporation, Faculty of Physical and Mathematical Sciences, Universidad de Chile. July 24, 2024.

"Social Capital as a Development Tool"

Workshop-Talk for Senior Naval Officers, Naval War Academy, Viña del Mar, as part of the Senior Management Diploma (DAD). July 23, 2024.

"Consciousness, Self-Design, and Self-Management: Pillars of Learning for a Fulfilling Life"

Inaugural Lecture for the Academic Year at the Universidad Católica de la Santísima Concepción. May 15, 2024.

"Introduction to Social Capital"

Workshop for the Social Capital Strengthening Program for Youth of the Bío Bío Region. Organized by the Social Capital Circle of the Bío Bío Region. September 22, 2023.

"Building Social Capital for Innovation in Health"

Workshop for the Innovation Program in Clinical Management and User Satisfaction Diploma at the Regional Hospital of Ñuble. August 3, 2023.

"Instead of Madness: Consciousness and Community"

Talk-Workshop as part of the celebration of 50 years as a faculty member at the Universidad de Chile. In-person at the Universidad de Chile, with Zoom and YouTube transmission. March 29, 2023.

"Social Capital: Key to Stopping Pandemics, Avoiding Disasters, and Humanizing Humanity"

Workshop for the Social Capital Circle of the Bío Bío Region, Concepción. November 18, 2022. Zoom.

"Conversational Constructivism and Integral Human Development"

Incorporation Lecture as a Guest Professor at the Universidad de Los Andes, Venezuela. Introduction by the Rector. Teleconference via Zoom. August 17, 2021.

"Love (in Business) in the Time of Coronavirus"

Webinar organized by the Executive Education Program of DIE. May 14, 2020. Repeated on May 20, 2020. 300 participants in total.

"Conversational Constructivism and Integral Human Development"

Incorporation Lecture as a Guest Professor at the Universidad de Los Andes, Venezuela. Introduction by the Rector. Teleconference via Zoom. August 17, 2021.

"Love in Management and Public Service"

Lecture for 600 employees of the Municipality of Chillán. Two editions, October 25 and 26, 2021.

"Leadership, Radical Innovation, and Paradigm Shifts in the Age of Disruption"

Webinar for the Salmon Industry Association. September, 2021.

Participation in Panel in Tribute to Dr. Humberto Maturana

Participants: Eladio Muchacho/ María Alejandra Briceño/ Francisco Ruiz/ Carlos Vignolo
Organized by Ateneo de Valera, Universidad de Los Andes, Diario Los Andes, Valera
Industry and Trade Association (ACOINVA), Valera, Trujillo, Venezuela, August 24, 2021. Zoom transmission.

"Innovation and Social Capital: Keys to Municipal Development"

6 Lectures and 5 brief Workshops in various municipalities of the state of Veracruz, Mexico. November and December 2019. 300 participants in all activities.

"Social Capital Technologies: Keys to Sustainable Development"

At the International Seminar: Governing the Future: Trust, Public Innovation, and Institutional Capacities for Sustainable Development. GIGAPP/ INAP/ CEPAL. Santiago, May 15, 2019.

"The Paradigmatic Revolution and the Great Crossroads: Psychosociopathization or Humanization"

Inaugural Lecture, IX GIGAPP Congress. Madrid, September 24, 2018.

"Development as a Conversational Process of Social Capital Building"

Talk for senior faculty and authorities of the Faculty of Physical and Mathematical Sciences, Universidad de Chile, Santiago, January 18, 2018.

"Innovacion Radical y Cambios de Paradigmas: Oportunidad para America Latina"

IX Workshop de la Red EMPRENDESUR "Promoviendo el Emprendedurismo Innovador en América Latina" Mar del Plata, 9 al 11 de Septiembre de 2015

"Consciousness, Design, and Management of Self: A Radical Constructivist Approach to the Education of Integral Engineers"

The Network Engineering, Social Justice and Peace Annual Meeting, Buenos Aires, Argentina, 17-19 August 2014

"Consciousness, Design, and Management of Self: A Radical Constructivist Approach to the Education of Integral Engineers"

Workshop "Research on Higher Education". U. Michigan- U. Chile. Santiago, May 10, 2013

"Innovate or Die: the New Rules of the Game", SEBRAE Congress, Sao Paulo, November, 2008.

“Innovando en el Aprender Para Liderar el Cambio”. Fulbright Departure Meeting, Santiago, Mayo 10, 2007.

“Evolution, Innovation and Revolution: Towards and Engineering of Love”.
Conference: “Engineering, Social Justice and Peace: Widening the Appeal of Engineering”
Binghamton, USA. April, 27-28, 2007

“Des-encadenando el Emprendimiento y la Innovación en la Escuela de Ingeniería de la Universidad de Chile...y en el Mundo”. Roundtable on Engineering Education, University of Stanford, Latin America Conference (REELA). Guayaquil, 8 – 10 de November de 2006

“El Amor en la Empresa: Innovación y Rehumanización del Management”.
American Chilean Chamber of Commerce. 6 de octubre de 2005

“Liderazgo de Sí-Mismo y Rehumanización de la Empresa”, Taller de Innovación
ESADE-ICDA, Buenos Aires, 2,3 y 4 de noviembre 2004

“Liderazgo de Sí Mismo y Rehumanización de la Empresa” Conferencia de Cierre,
Juego de los Negocios B2000. ESADE, Barcelona, 21 de noviembre de 2003

“Constructivismo conversacional y Juegos de aprendizaje”. ESADE, Barcelona, 8 de mayo 2003

“Des-encadenando la Innovación en la Empresa Catalana”. ESADE, Barcelona, 7 de mayo 2003.

“La Formación de Directivos como Expansión de la Conciencia de Sí”. VII Congreso del CLAD, Lisboa, 9 de octubre de 2002.

“Liderazgo de Sí-Mismo y Construcción de Capital Social”. ESADE-IDGP. 4 de octubre de 2002

“Des-encadenando la Innovación en la Empresa Catalana”. ESADE. Barcelona. 13 de marzo 2001.

“Emotions in Education and Innovation: A Radical Constructivist Approach” Final presentation to Faculty of University of Colorado at Boulder. June 28, 2010

10.3 Media Appearances (Outside of Chile)

- 28 Columns in El Divisadero Newspaper of Aysén, 2020. Part of the KAYSEN Project, republished in Diario Los Andes, State of Trujillo, Venezuela.
- Interview on Veracruz State TV, November 2019.
- Radio interviews (three between 2019 and 2024) on Radio XEU, Veracruz.

XI. Scholarships and Awards

- British Council Scholarship for postgraduate studies at the University of Sussex.
- Teaching Innovation Award from the Industrial Civil Engineering Student Center.
- Best Full-Time Professor Award at the Department of Industrial Engineering (DIE).
- Teaching Career Award from DIE.
- Undergraduate Teaching Award from the Universidad de Chile.
- First Prize in the "Papers Made in Chile" Competition of *Revista Trend Management*, Chile (co-authored with Spoerer, S.; Depolo, S.; and Cociña, M. - Special Edition).