

## Wikipedia Entry:

# Laurence D. “Larry” Richards

**Laurence Dale Richards** (1946 - ), known as Larry and born in Michigan as the oldest of five children to parents Kathryn and Charles Richards, is Professor Emeritus of Management and Informatics at Indiana University East in Richmond, Indiana, USA. Perhaps known more for his 32-year career in higher education administration, he also contributed ideas to the academic discourses in operations research, management science, engineering management and systems/cybernetics, including: desires as constraints (constraint theory), robustness and constraint in policy formulation (technology strategy), a way of thinking about ways of thinking (cybernetics), the craftsperson in and with time (the cybernetician), a consciousness of presence (vs. purpose), and a participative-dialogic society (social transformation and design). He used his administrative assignments as a research arena for trying out some of these ideas.

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## Biography

Richards grew up in Orono, Maine, where he attended public schools and graduated from Orono High School (1964). His father, Chuck, was a Professor of Botany and instilled in his children an appreciation for science and the natural world. His mother, Kay, was a special needs teacher/facilitator in elementary schools and instilled in her children the importance of patience and respect for people from all backgrounds and walks of life. Richards was a student-athlete, lettering in football, basketball and baseball in high school and football in college.

Richards received his bachelor’s degree in Electrical Engineering in 1968 from the University of Maine in Orono, after which he entered the U.S. Marine Corps, where he served as a jet pilot and flight instructor. During this time, he earned two master’s degrees: Master of Science in Aeronautical Systems from the University of West Florida in Pensacola (1970) and Master of Business Administration from Mississippi State University in Meridian (1974).

Richards then enrolled in the Wharton School at the University of Pennsylvania in Philadelphia to work on a Ph.D. in Operations Research (1980), where Dr. Shiv K. Gupta (Professor of Operations Research and dissertation supervisor) and Dr. Klaus Krippendorff (Gregory Bateson Professor of Cybernetics, Language and Culture, Annenberg School for Communication) became his mentors. While completing his studies, he worked as a Research Fellow at the Logistics

Management Institute in Washington, DC (1976-80), and as an Instructor of Management at what is now La Salle University in Philadelphia, Pennsylvania (1978-79).

Richards' first tenure-track faculty position was in administrative science at Colby College in Waterville, Maine (1980-83). After a year as a Research Associate in operations research at the University of Pennsylvania and Project Manager at the Dynamics Research Corporation in Andover, Massachusetts, he began his administrative career. His administrative assignments included: Founding Chair of the Department of Engineering Management at Old Dominion University (1984-97) in Norfolk, Virginia; Founding Dean of the School of Management and Aviation Science (1997-2004) and Acting Vice President for Academic Affairs (2000-02) at what is now Bridgewater State University in Bridgewater, Massachusetts; Executive Vice Chancellor for Academic Affairs (2004-15) and Interim Chancellor (2012-13) at Indiana University East; and, Interim Vice Chancellor & Dean of Indiana University – Purdue University Columbus (2015-16). He retired from Indiana University on September 1, 2016.

Richards served as President of the American Society for Cybernetics (1986-88) and of the American Society for Engineering Management (1998-99). He was a member of the editorial boards for the journals *Cybernetic* (1987-89) and *Systems Research* (1988-94) and a consulting editor for *Cybernetics and Human Knowing* (1992-94). He was appointed as the inaugural Executive Director of the Center for Commercial Space Infrastructure at Old Dominion University, subsequently renamed the Virginia Commercial Space Flight Center, a Commonwealth of Virginia initiative to create a commercial spaceport on Wallops Island, Virginia (1992). In Richmond, Indiana, he was appointed a member of the Ivy Tech Community College (Richmond) Regional Board of Trustees (2011-15) and a Commissioner on the Richmond Board of Aviation Commissioners (2009-15), for which he served as President during his final two years.

Richards married Jane Huard of Waterville, Maine, in 1969. She is a mathematician and teacher; she earned her bachelor's degree from the University of Maine and a master's degree from Old Dominion University. They have two sons (and daughters-in-law): Douglas (Bethany) and Gregory (Virginia), and three grandchildren: Callie, Charley and Adair.

## **Work**

In retirement, Richards continues to write on ideas in second-order cybernetics, policy support systems, social transformation and design, and art and technology in society. His work can be divided into three parts: his development of constraint theory as an approach to policy-level modeling that began with his doctoral dissertation in operations research, his life-long passion for and advancement of ideas in cybernetics, and his determination and optimism with respect to the possibility of a more participative and dialogic, and therefore less violent and more equitable and just, society.

### **Constraint theory**

Krippendorff introduced Richards to the idea of constraint through W. Ross Ashby's "Constraint Analysis of Many-dimensional Relations".<sup>[1]</sup> Krippendorff had studied with Ashby at the University of Illinois and drew on his ideas for his own work on content analysis and the measurement of disagreement.<sup>[2]</sup> Gupta introduced Richards to his work with Jonathan Rosenhead and Martin Elton on robustness,<sup>[3]</sup> and to John Friend and Neil Jessop's *Local Government and Strategic Choice*,<sup>[4]</sup> which proved particularly relevant. Also influential were Russell Ackoff's transformational approach to societal problem-solving,<sup>[5]</sup> Fred Emery/Eric

Trist's and Donald Schön's approach to sociotechnical design in turbulent/unstable environments,<sup>[6]</sup> Gregory Bateson's ideas on restraints and the limitations of conscious purpose,<sup>[7]</sup> Graham Allison's and John Steinbruner's work on models and paradigms (respectively) of decision-making,<sup>[8]</sup> Ernst von Glasersfeld's focus on constraints in his radical constructivism,<sup>[9]</sup> and Stafford Beer's vision for the political economy of Chile.<sup>[10]</sup> Gupta, who had studied with Ackoff, helped Richards frame constraint theory in a way compatible with more traditional operations research.<sup>[11]</sup>

In his book on *Constraint Theory*,<sup>[12]</sup> Richards proposed that, in addressing problems and issues in complex systems involving many participants, desires be treated as constraints rather than as goals or objectives (as they are in traditional operations research problem formulation). In research for NASA, he developed an approach for formulating policy on new space transportation systems when we know that technologies and political priorities will have changed in ways impossible to predict by the time a new system can be made operational. The approach uses robustness (set of options left open vs. those closed off), based on an analysis of the constraints (those options excluded from consideration because they are deemed impossible or undesirable), as a criterion for policy and decision-making.<sup>[13]</sup> The idea of constraint then contributed to a new way of thinking about decision-making in complex situations, policy support systems, and social transformation and design.

## **Cybernetics**

Richards had an interest in ideas in cybernetics from an early age, although he did not have a name for it until he took an electrical engineering course on Elements of Communication that used Ashby's *An Introduction to Cybernetics*<sup>[14]</sup> as the text. When he was searching for an institution at which he could pursue his doctoral studies, one of Richards' criteria was whether or not there were graduate courses in cybernetics he could take. He found them at the University of Pennsylvania in a two course sequence taught by Krippendorff, Models of Communication and Cybernetics and Society. Under the tutelage of Krippendorff, Richards got involved in professional organizations in systems and cybernetics—namely, the Society for General Systems Research, American Society for Cybernetics and American Cybernetics Association (the latter two eventually merging). Through these associations, he came to realize that there were multiple versions of systems and systems thinking and that the distinctions were significant and had potentially far-reaching implications.

In exploring the distinctions between versions of systems and systems thinking, Richards chose to focus on the ideas of hierarchy, purpose and belief.<sup>[15]</sup> The idea of whole systems (systems within systems within systems, etc.), for example, is contrasted with the cybernetic idea of processes; hierarchical thinking generates whole systems and gives way to dialectical thinking, which generates processes. The idea of teleological or purposeful systems, systems driven by future goals, is contrasted with the cybernetic idea of intention arising from an awareness of desires as a set of constraints in the present; the separation of future ends from current means gives way to the merging of ends and means in an ever-changing present. Systems thinking as ideological and optimizing is contrasted with cybernetic thinking as pragmatic and temporarily facilitative; belief and truth give way to passion and desire. Richards proposed that: (1) cybernetics be treated as a way of thinking about ways of thinking (of which it – cybernetics – is one), making the way of thinking a choice rather than defaulting to the prevailing way/paradigm (turning cybernetics into a process, rather than a fixed set of concepts); and, (2) the cybernetician be treated as a craftsperson in and with time, merging art and science in the transformation and design of social-political-economic systems.<sup>[16]</sup>

## **Designing (a) society**

During his graduate studies, Richards developed interests in non-hierarchical forms of social organization and the knowledge structures that support them, in the role of the arts and technology in social change, and in the shift in the formulation of the human attribute called consciousness to avoid Bateson's admonitions with respect to conscious purpose. In 1981, he met the composer, artist and teacher Herbert Brün<sup>[17]</sup> at a conference of the American Society for Cybernetics. They developed a life-long friendship and, over the years, had conversations on many topics, including but not limited to the role of the arts and technology (as Brün had pioneered computer synthesized music and graphic arts at the University of Illinois) in society. In 1992, Richards joined Brün and some of his former students—Drs. Susan Parenti, Mark Enslin and Arun Chandra, among others—in the first summer session of a new School for Designing Society. The name was subsequently changed to the School for Designing a Society, recognizing that alternative societies are possible and a change can be from the current to a new society (a change of system, a process of transformation), not only adjustments to the current society (changes in a system, a process of improvement).

While at Old Dominion University, Richards hosted the cybernetician Dr. Gordon Pask for three eight-week sessions as a guest lecturer (1987-88). Pask was the author of conversation theory,<sup>[18]</sup> a particular dialogic that Richards thought had relevance to processes of design and participation. Richards put this version of conversation together with the roles of the arts and technology in society to create an idea for a participative-dialogic society.<sup>[19]</sup> He would later remark that cybernetics is enacted in conversation. Recognizing the current dominance of hierarchical, purposeful and ideological thinking, Richards formulated an idea for a consciousness of presence as a cybernetic alternative to the consciousness of purpose. A participative-dialogic society, a society without violence or at least one where violence is the alternative of last resort, would, he argued, require a change of thinking.<sup>[20]</sup>

Richards continues to work on this way of thinking (about ways of thinking) and how changes in thinking might happen. In addition to composers, writers and teachers Parenti, Enslin and Chandra, collaborators include videographer and activist Jude Lombardi, movement artists and teachers Lisa Fay and Jeff Glassman, designers and design educators Thomas Fischer and Christiane Herr, communication theorist and social change artist Elizabeth Simpson, management educator Rochelle Young, composer and knowledge architect Ya'aqov Ziso, and theatre director and improvisator Brian Hagy, among others.

## **Awards and honors**

As an undergraduate student, Richards was elected into the honor societies Tau Beta Pi (engineering) and Eta Kappa Nu (electrical engineering). He is also a charter member (2004) in Epsilon Mu Eta (engineering management) and an honorary member (1998, 2004) of Alpha Mu Alpha (marketing) and Alpha Sigma Lambda (general studies). On behalf of the Department of Engineering Management at Old Dominion University, he accepted the Academic Leadership Award of the American Society for Engineering Management (ASEM) for the most outstanding graduate program in engineering management in 1995. In 2002, he was elected an ASEM Fellow (#32) and was awarded the Norbert Wiener Medal of the American Society for Cybernetics in 2007. He was elected an Academician in the International Academy for Systems and Cybernetics Sciences in 2013. In 2015, he received the award as Outstanding Reviewer for the journal *Kybernetes*.

## Publications

Richards has published over 100 books, monographs, journal/magazine articles, and conference papers. These represent a selection (see also the references below):

- 2017 From goal-oriented to constraint-oriented design: The cybernetic intersection of design theory and systems theory. *Leonardo* 50(1) (with Thomas Fischer).
- 2016 The many varieties of experimentation in second order cybernetics: Art, science, craft. *Constructivist Foundations* 11(3): 621-622.
- 2015 Designing academic conferences in the light of second order cybernetics. *Constructivist Foundations* 11(1): 65-73.
- 2015 Design for participation: Culture, structure, facilitation. *Constructivist Foundations* 11(1): 93-97.
- 2015 What I learned from Ranulph Glanville. *Cybernetics and Human Knowing* 22(2): 115-120.
- 2014 Education as a subversive activity: A proposal. *Kybernetes* 43(9-10): 1392-1398.
- 2009 *Craft and Constraint, Clocks and Conversation: A Larry Richards Reader 1987 – 2007*, Jason Marrero, Ed. (<https://pearlheatherforge.wordpress.com/2009/05/20/4/>).
- 2007 Connecting radical constructivism to social transformation and design. *Constructivist Foundations* 2(2-3): 129-135.
- 1996 Propositions on cybernetics and social transformation: Implications of von Foerster's non-trivial machine for knowledge processes. *Systems Research* 13(3): 363-369 (with Rochelle K. Young).
- 1985 The systems approach in an information society: A reconsideration. *Journal of the Operational Research Society* 36(9): 833-843 (with Shiv K. Gupta).
- 1979 Cybernetics and the management science process. *OMEGA, The International Journal of Management Science* 8(1): 71-80.

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7. Bateson, G. (1972) *Steps to An Ecology of Mind*. Chicago: Chicago University Press, especially, Cybernetic explanation: 405-416; Conscious purpose versus nature: 432-445; and, Effects of conscious purpose on human adaptation: 446-453.
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9. Glasersfeld, E. von (1984) An introduction to radical constructivism. In: Watzlawick, P. (ed.) *The Invented Reality*. New York: W.W. Norton: 17-40; and, (1992) Why I consider myself a cybernetician. *Cybernetics and Human Knowing* 1(1): 21-25.
10. Beer, S. (1975) *Platform for Change*. Chichester: John Wiley & Sons.
11. Gupta, S. K. & L. D. Richards (1979) A language for policy-level modelling. *Journal of the Operational Research Society* 30(4): 297-308.
12. Richards, L. D. (1983) *Constraint Theory: An Approach to Policy-Level Modelling*. Lanham, MD: University Press of America (reprinted 2002).
13. Richards, L. D. (1996) Analysis of robustness in the formulation of technology strategy. *Engineering Management Journal* 8(4): 21-32.
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## External links

Academia.edu: <https://independent.academia.edu/LarryRichards1>

Indiana University East Profile: <http://www.iue.edu/people/bio/bio.php?bio=laudrich>

Facebook: <https://www.facebook.com/larry.richards.756>

Twitter: <https://twitter.com/laudrich>

LinkedIn: [https://www.linkedin.com/in/laurencerichards?trk=nav\\_responsive\\_tab\\_profile](https://www.linkedin.com/in/laurencerichards?trk=nav_responsive_tab_profile)