Humanics is an ergonomics-consulting firm that Principal Rani Lueder established in 1982. We specialize in occupational ergonomics and ergonomics research and design of products and places for adults, children and people with disabilities.

**Our consulting services include:**

- Research, design and evaluation of products and environments for adults, children and people with disabilities.
- Human factors forensics research and expert witness testimony.
- Corporate-wide ergonomics and safety evaluations.
- Ergonomics workshops and training.
- Biomechanics and physiological research, testing and evaluations.
- User-friendly design of human-computer interfaces of software and websites.
- Assess compliance with national and international standards/guidelines.
Selected Projects

- Consulting for the National Institute of Occupational Safety and Health (NIOSH).
  Efforts include reviewing the research on musculoskeletal risk among adolescents who work on farms or in agriculture. Assisting with on-line safety training and biomechanics assessment. Contributing to Centers for Disease Control and Prevention (CDC) website.


- Participating as part of the United States team of experts on the International Organization for Standardization ISO/TC 159/WG 2 guideline on elderly and disabled.
  The committee’s report, ISO/TR 22411, applies ergonomics data and guidelines to accommodate older persons and persons with disabilities in standards development.

- Continuing to consult (1988-present) on an extended annual retainer on product design ergonomics for a range of organizations in Japan that have included ErgoSeating Japan, the University of Waseda, and the Japan Institute for Human Posture Research.

- Providing Human Factors and Ergonomics expert witness consulting on product design, occupational ergonomics, ergonomics for children, elderly and people with disabilities.

- Consulted for Proctor & Gamble on an in-depth and multi-dimensional analysis of child capabilities. Included biomechanics/physiological research.

- Oversaw an industrial ergonomics evaluation for Michelin Tires South Carolina.
  Reviewed biomechanical and psychosocial/organizational factors at work. Developed industrial training programs for management and first line employees.

- Chaired a Task Force for the Human Factors & Ergonomics Society on the human factors and ergonomics content and services on their web site over short & long term.

- Conducted a broad range of large-scale assessments of organizations.
  Evaluated work environments and established a nation-wide ergonomics database for the Social Security Administration. Participated in nationwide assessments, surveys, training and workplace evaluations for over ten years. Directed redesign of K-CBS News.

- Consulted on research projects for NIOSH / Centers for Disease Control on alternative keyboard designs (Cincinnati) and on arm support for mining operation (Pittsburgh).

- Member, Standards committee responsible for revising American National Standards Institute Guidelines for VDT workstations (ANSI HFES 100-2007).


<table>
<thead>
<tr>
<th>Organizations</th>
<th>Social Security (NY, NJ, Puerto Rico)</th>
<th>IBM</th>
<th>NIOSH</th>
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<tbody>
<tr>
<td>US Social Security Administration</td>
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<td>Doane Pet Care</td>
<td>Pacific Bell Directories</td>
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<tr>
<td>Chevron (3 sites)</td>
<td>Michelin Tires</td>
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<td>Netherlands Consulate General</td>
<td>Australian Consulate</td>
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<td>Canadian Consulate (3 sites)</td>
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<td>AARP</td>
<td>Morgan Adams</td>
<td>Mojave Water</td>
<td>PG&amp;E</td>
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<td>Hewlett Packard</td>
<td>Burlington Northern</td>
<td>ErgoSaverUS</td>
<td>Kinesis Medical</td>
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<td>Ergonomics Consortium</td>
<td>Adventist Health</td>
<td>Hawthorne Savings</td>
<td>Zenith Insurance</td>
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<td>SouthWestern Bell</td>
<td>Spitfire Ventures</td>
<td>Burson Marsteller</td>
<td>City of Camarillo</td>
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<td>Paul Revere Insurance</td>
<td>So Cal Edison</td>
<td>Federal Express</td>
<td>Syska Hennessy Group</td>
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<td>Cal State University Northridge</td>
<td>James Irvine Foundation</td>
<td>UniHealth Foundation</td>
<td>Sunalliance Insurance</td>
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<td>Air New Zealand</td>
<td>ICF Consulting</td>
<td>Capell Coyne &amp; Co</td>
<td>Sekisui TA Industries</td>
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<td>Singer Lewak Greenbaum &amp; Goldstein</td>
<td>Royal &amp; SunAlliance Insurance</td>
<td>Research &amp; Education Institute</td>
<td>Orange County Register</td>
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<td>Stockman Group</td>
<td>Metro Transit District</td>
<td>Unum Life Insurance</td>
<td>Tourism New Zealand</td>
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<td>Am Musical &amp; Dramatic Academy</td>
<td>McCloskey Communications</td>
<td>Los Alamos National Labs</td>
<td>Grant Thornton</td>
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<td>State Farm</td>
<td>SLGG</td>
<td>Merrill Lynch</td>
<td>Public Counsel</td>
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Rani Lueder, CPE  Humanics ErgoSystems, Inc.
### Selected Clients

#### Manufacturers

<table>
<thead>
<tr>
<th>Manufacturers</th>
<th>Proctor &amp; Gamble</th>
<th>3M</th>
<th>Dupont</th>
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<tbody>
<tr>
<td>Steelcase</td>
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<tr>
<td>The Knoll Group</td>
<td>Herman Miller</td>
<td>Haworth</td>
<td>Rubbermaid</td>
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<td>Allsteel</td>
<td>Bausch and Lomb</td>
<td>MCA</td>
<td>Compaq</td>
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<td>Abbott Labs</td>
<td>Precision</td>
<td>Shaw Walker</td>
<td>Cardiac Sciences</td>
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<td>Metamorphosis</td>
<td>Kimball</td>
<td>Kinetics</td>
<td>GTE</td>
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<td>ErgoSeating Japan</td>
<td>SwingSeat</td>
<td>MEDCO</td>
<td>Vote-PAD, Inc.</td>
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<td>Westinghouse</td>
<td>Details</td>
<td>Accuride</td>
<td>GF</td>
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<td>Keilhauer</td>
<td>Honeywell</td>
<td>Kinetics</td>
<td>J B Research</td>
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<td>Highmark Furniture</td>
<td>J.T. Posey Co.</td>
<td>Vitra</td>
<td>Guardian Medical</td>
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#### Expert Witness Research / Consulting

<table>
<thead>
<tr>
<th>Expert Witness Research / Consulting</th>
<th>Dickson &amp; Dickson</th>
<th>Thorsnes Bartolotta &amp; McGuire</th>
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<tbody>
<tr>
<td>Scherffius, Ballard, Still &amp; Ayres</td>
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<td>Landegger &amp; Baron</td>
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<td>Law Offices of David C. Anderson</td>
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<td>Hettinger &amp; Leedy</td>
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#### Industrial Design Firms

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<tr>
<th>Industrial Design Firms</th>
<th>Spline Design</th>
<th>Metaphase</th>
<th>Ray Carter Design</th>
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<tr>
<td>Designworks / USA</td>
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<td>Zamparelli &amp; Company</td>
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<td>Emerson Johnson Mackay</td>
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<td>IDEO</td>
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Rani Lueder, CPE  Humanics ErgoSystems, Inc.
## Selected Clients

### Government Agencies

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<tr>
<td>EDD</td>
<td>EEOC</td>
<td>NIOSH (Pittsburgh)</td>
<td>MITI of Japan</td>
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<tr>
<td>Social Security Administration National</td>
<td>Internal Revenue Service</td>
<td>Health &amp; Welfare Canada</td>
<td>Social Security (NY, NJ, Puerto Rico)</td>
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### Academia

<table>
<thead>
<tr>
<th>UCLA</th>
<th>UC Berkeley COEH</th>
<th>Waseda University</th>
<th>Los Angeles Chiropractic</th>
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</thead>
<tbody>
<tr>
<td>Art Center College of Design Pasadena</td>
<td>University of Wisconsin-Madison</td>
<td>University of Hong Kong</td>
<td>Art Center College of Design Pasadena</td>
</tr>
<tr>
<td>University of Michigan</td>
<td>UC Irvine</td>
<td>Cornell University</td>
<td>8 Chiropractic Colleges</td>
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### Ergonomics Consulting Firms

<table>
<thead>
<tr>
<th>Biomechanics Corporation of America</th>
<th>Aubum Engineers</th>
<th>HumanTech</th>
<th>Innovative Ergonomic Technologies</th>
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<tbody>
<tr>
<td>Ergonomic Technologies</td>
<td>JA Wise &amp; Assoc.</td>
<td>Ergoworks</td>
<td>US Ergonomics</td>
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### Grants

<table>
<thead>
<tr>
<th>Foundation Chiropractic Education &amp; Research</th>
<th>Intl Association of Chiropractic</th>
<th>Architectural Institute of Research</th>
<th>NorthWest Consortium of Chiropractic</th>
</tr>
</thead>
</table>


Continuing to serve on the ErgoExpo Advisory Board for NECE (National Ergonomics Conference and Exposition) and EECE (Eastern Ergonomics Conference & Exposition).


Workshop on Posture. **Japan Ergonomics Conference.** University of Waseda, Japan. 2002


Selected Presentations

Invited Panel Chair. When the cure is worse than the disease... pros and cons of commonly used ergonomics products. National Ergonomics Conference. Anaheim 1999.


On Advisory Board for three years. InterPlan (Designer’s Saturday). New York.


Invited Speaker & Chair. InterPlan (Designer’s Saturday). New York, 1996.


Invited Speaker & Chair. InterPlan (Designer’s Saturday). New York. 1995.

Invited Key Speaker. ErgoCon ‘95. San Jose and Atlanta conferences, 1995.


Rani Lueder, CPE, Humanics ErgoSystems, Inc.
Selected Presentations


Selected Publications

Mostly books


Lueder, R. Peer reviewed eight books relating to ergonomics for publishers.

Advisory Board member, ErgoSolutions magazine, 2003-2005.

Executive Editor, Office Ergonomics magazine, 1984-1986.

Book chapters


- Introduction: Rani Lueder & Valerie Berg Rice (to the memory of Cheryl Bennett)
- Physical development in children & adolescents and age-related risks: Rani Lueder
- Designing products for children: Valerie Berg Rice & Rani Lueder
- Children in vehicles: Rani Lueder
- School furniture for children: Alan Hedge & Rani Lueder
- Designing cities and neighborhoods for children: Rani Lueder
- Children and wayfinding: Gary L. Allen, Rani Lueder & Valerie Berg Rice


- Introduction and overview: Kageyu Noro & Rani Lueder
- Adjustability in context: Rani Lueder
- Does it matter that people are shaped differently, yet backrests are built the same? R. Lueder, E.N. Corlett, C. Danielson, G. Greenstein, J. Hsieh, R. Phillips & Designworks.
Selected Publications


Journals, Proceedings and Society Publications


Two journal articles of Lueder's research submitted on the biomechanics of the spine.


Selected Publications


Other Publications


Lueder, R. Developing a quality control program. Workplace Ergonomics, Jan 1996.


Rani Lueder, CPE: Humanics ErgoSystems, Inc.
HARD FACTS ABOUT SOFT MACHINES

The Ergonomics of Seating

Edited by Rani Lueder and Kageyu Noro
THE ERGONOMICS PAYOFF

EDITED BY
RANI LUEDER

DESIGNING THE ELECTRONIC OFFICE