

CURRICULUM VITAE

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EDUCATION:

Doctor of Philosophy, Electrical Engineering, University of Canterbury, New Zealand, 1978.
Bachelor of Engineering, Electrical Engineering, University of Canterbury, New Zealand, 1974.

HONOURS & AWARDS:

2006 AER Award for Outstanding Contributions to Low Vision Research & Literature
2004 Garland Clay Award, American Academy of Optometry
2004 William A Kettlewell Chair in Vision Science
1997 Catherine D. Kettlewell Endowed Chair.
1988 William A. Kettlewell Chair in Vision Science.
1974-78 University Grants Committee Scholarship, New Zealand.
1972 Senior Scholar, University of Canterbury.
1974 First Class Honours, University of Canterbury.

MEMBERSHIPS:

Member, Institute of Electrical and Electronic Engineers, 1979 to present.
Founding Member, Rehabilitation Engineering Society of North America (Resna) 1979 to present.
Member, International Society for Low Vision Rehabilitation Research (ISLRR).

FIELDS OF INTEREST:

Research and Development for blind, visually impaired, deaf, and multiply disabled individuals;
transfer of technology to industry; human factors engineering.

PROFESSIONAL EXPERIENCE

2010 to Present Executive Director, The Smith-Kettlewell Eye Research Institute, San Francisco, CA.
1995 to Present Director (1980-94 Co-Director), Rehabilitation Engineering Research Center, The Smith-Kettlewell Eye Research Institute, San Francisco, CA.
1981 to present Senior Scientist, Smith-Kettlewell Eye Research Institute, San Francisco,

- California
- 1980 to 1981 Scientist (1979-80 Associate Scientist), Medical Research Institute, Pacific Presbyterian Medical Center, San Francisco, California
- 1978 to 1979 Research Engineer, The Smith-Kettlewell Eye Research Foundation, San Francisco, California. Designed and developed scanning sonar-tactile mobility aids for the blind. Supervisor: Dr. Carter Collins.
- 1977 Research Assistant, University of Canterbury, Department of Electrical Engineering, Christchurch, New Zealand. Studied the feasibility of a new class of mobility aid for the blind. Supervisor: Dr. Leslie Kay.
- 1977 Senior Tutor, Christchurch College, Christchurch, New Zealand. Tutored in math and engineering.
- 1974 to 1977 Ph.D. Student, University of Canterbury, Department of Electrical Engineering, Christchurch, New Zealand. Specialized in the computer simulation and evaluation of blind mobility.

EXAMPLES OF PROFESSIONAL SERVICE

- Co-Chairman, SIG on Cognitive and Sensory Loss, Resna.
- Member, RESNA Standards Committee on Assistive Products for Persons with Vision and Hearing Impairments (ISO TAG Committee) 2005-2008
- Associate Editor, IEEE Trans Neural Systems & Rehabilitation Engineering, 2004-2006
- Chairman, Coalition of Rehabilitation Engineering Research Organizations, 2002-Present
- Chairman, RESNA Special Interest Group on Sensory Aids, 1986 and 2005-present.
- Co-Organizer, National Eye Institute Workshop: Research Opportunities in Low Vision, Jan 02
- Member, National Research Council Committee on Disability Determination for Individuals with Visual Impairments, 2000-2002
- Member, Editorial Board, Assistive Technology, 2003-present
- Member, Editorial Board, Journal of Rehabilitation Research and Development, 2000-2004
- Member, Low Vision Research Group, 1997-2004
- Chairman, Field Initiated Grant review committee on technology, NIDRR, 1999-2001
- Member, Veterans Administration RR&D Service Scientific Review Board, 1985-2001
- Associate Editor, IEEE Transactions on Rehabilitation Engineering, 1994-96
- Member, Editorial Board, Technology and Disability, 1993-95.
- Member, National Research Council Committee: Currency Features for Visually Impaired, 1994.
- Chairman, Small Business Innovative Research Study Section, National Eye Institute, 1986-1991, and periodically 1992-present.
- Co-Chairman, RESNA Conference, 1986.
- Consulting Member, Mississippi State R&T Center Advisory Council, 1984-2001.
- Chairman, Committee on Prosthetics and Sensory Aids, Engineering in Medicine and Biology Society, Institute of Electrical and Electronic Engineers, 1981 to 1982.
- Member, Advisory Committee, RERC on Universal Telecommunications Access, Gallaudet University, 1995-99

PUBLICATIONS

Lott LA, Schneck ME, Haegerström-Portnoy G, Brabyn JA. Non-standard vision measures predict mortality in elders: the Smith-Kettlewell Institute (SKI) study. *Ophthalmic Epidemiol.* 2010 Aug;17(4):242-50.

Schneck ME, Haegerström-Portnoy G, Lott LA, Brabyn JA. Monocular vs. binocular measurement of spatial vision in elders. *Optom Vis Sci.* 2010 Aug;87(8):526-31.

Brabyn J. "Assistive Technologies for the Blind." In Goldstein, B (Ed): *Sage Encyclopedia of Perception.* Sage Publications, Thousand Oaks, CA, January 2010 pp 64-67.

Brabyn J. "Sensory Rehabilitation." In Goldstein, B (Ed): *Sage Encyclopedia of Perception.* Sage Publications, Thousand Oaks, CA, January 2010. pp 881-883

Marston J, Cao G, Brabyn J, Miele J. "Accessible Geographical Information for People with Low Vision." *Proceedings of the CSUN Conference, 2010.*

H. Shen, K.Y. Chan, J. Coughlan and J. Brabyn. "A Mobile Phone System to Find Crosswalks for Visually Impaired Pedestrians." *Technology and Disability, Vol 20, Number 3, pp 217-224, 2008.*

Brabyn J. "Vision". In Lange M (Ed): *Fundamentals in Assistive Technology (4th Edition): An Introduction to Assistive Technology Implementation in the Lives of People with Disabilities.* Resna Press, Arlington VA, 2008, pp 293-311.

Seelman K, Palmer C, Ortmann A, Mormer E, Guthrie O, Miele J, Brabyn J. Quality-of-Life Technology for Vision and Hearing Loss: Highlights of Recent Developments and Current Challenges in Technology. *IEEE Engineering in Medicine and Biology Magazine, 27, 2, 40-55. March/April 2008.*

Brabyn J, Schneck M, Lott L, Haegerstrom-Portnoy G. "Dual Sensory Loss: Overview of Problems, Visual Assessment, and Rehabilitation". *Trends in Amplification, 11, 4, December 2007, 219-226.*

Brabyn JA, Seelman K, Panchang S. "Aids for People who are Blind or Visually Impaired". In Cooper RA, Ohnabe H, Hobson D (Eds): *An Introduction to Rehabilitation Engineering.* Taylor & Francis, New York 2007. pp 287-313.

Brabyn, J. Future Directions in Blindness and Low Vision: Perspectives from a State-of-the-Science Conference. *Visual Impairment Research, Vol 8 No 3, December 2006, 61-66.*

Brabyn JA, Ortman AJ, Palmer CV, Seelman KD. Sensory Aids. In Akay, M. (Ed): *Wiley Encyclopedia of Biomedical Engineering.* April 2006. ISBN: 0-471-24967-X.

Lott LA, Haegerstrom-Portnoy G, Schneck ME, Brabyn JA. Face recognition in the elderly. *Optometry and Vision Science* 2005; 82(10): 874-81.

Brabyn JA, Schneck ME, Haegerstrom-Portnoy G, Lott LA. Night driving self-restriction: Vision function and gender differences. *Optometry and Vision Science* 2005; 82(8): 755-64.

Brabyn JA, Schneck M, Haegerstrom-Portnoy G, Lott L. Functional vision: "Real World" impairment, examples from the SKI Study. *Visual Impairment Research* 2004; 6(1): 35-44.

Schneck ME, Haegerstrom-Portnoy G, Lott L, Brabyn JA, Gildengorin G. Low contrast vision function predicts subsequent acuity loss in an aged population: The SKI study. *Vision Research* 2004; 44: 2317-25.

Schneck, ME, Haegerstrom-Portnoy, G, Lott, L, Brabyn, J, Gildengorin, G. Low contrast vision function predicts subsequent acuity loss in an aged population: The SKI Study. *Vision Research*, 44 (2004) 2317-2325.

West CG, Gildengorin G, Haegerstrom-Portnoy G, Lott LA, Schneck ME, Brabyn JA. Vision and driving self-restriction in older adults. *J Am Geriatr Soc.* 2003 Oct;51(10):1348-55.

Brabyn, JA, Lott LA, Haegerstrom-Portnoy, Schneck ME. Night driving avoidance and vision in old age: The SKI Study. *ARVO* 2003.

Haegerstrom-Portnoy G, Schneck ME, Brabyn JA, Lott LA, Brabyn JA. Development of refractive errors into old age. *Optometry and Vision Science*, 2002 October 79(10): 643-9.

Lott LA, Haegerstrom-Portnoy G, Schneck ME, Brabyn JA. Reading performance in older adults: the SKI Study. The Fall Vision Meeting, Oct 24-27, 2002, San Francisco. *Journal of Vision* Vol 2. No 10, Abstract 36, Page 36a.

Schneck ME, Haegerstrom-Portnoy G, Lott LA, Brabyn JA. Predicting declines in vision and vision performance in older individuals. The Fall Vision Meeting, Oct 24-27, 2002, San Francisco. *Journal of Vision* Vol 2. No 10, Abstract 37, Page 37a.

Brabyn JA, Alden A, Haegerstrom-Portnoy G, Schneck M: GPS Performance for Blind Navigation in Urban Pedestrian Settings. Proceedings, Vision 2002, Goteborg, Sweden, July 2002.

Brabyn, J, Alden A. Use of GPS in Urban Settings. Proceedings, Resna Conference, June 2002.

Lott LA, Haegerstrom-Portnoy G, Schneck ME, Brabyn JA, Gildengorin GL. Predicting reading performance decrements in older adults with good acuity. *ARVO Abstract #3829*, 2002.

Haegerstrom-Portnoy G, Schneck ME, Brabyn JA and Lott L and Brabyn JA. Development of refractive errors into old age. *Optometry and Vision Science*, 2002 October 79(10): 643-9.

West CG, Gildengorin G, Haegerstrom-Portnoy G, Schneck ME and Lott L and Brabyn JA. Is vision function related to physical functional ability in older adults? *J. Am. Geriatrics Soc*, 2002, 50:136-145..

Brabyn JA, Haegerstrom-Portnoy G, Lott LA, Schneck ME, Gildengorin GL. Predicting visual acuity loss in an older population: the SKI study. ARVO Abstract #3841, 2002.

Haegerstrom-Portnoy G, Schneck ME, Brabyn JA, Lott LA. Changes in vision function over time in an older population: the SKI study. ARVO Abstract #4717, 2002.

Brabyn J. Some Projects from the Smith-Kettlewell RERC on Blindness and Low Vision. *Resna News*, Spring 2002, p5.

Crandall W, Bentzen BL, Myers L, Brabyn J. New orientation and accessibility option for persons with visual impairment: transportation applications for remote infrared audible signage. *Clinical and Experimental Optometry* 2001 May, 84(3): 120-131

Brabyn J, Schneck ME, Haegerstrom-Portnoy G, Lott L. The Smith Kettlewell Institute (SKI) Longitudinal Study of Vision Function and its Impact among the Elderly: an Overview. *Optometry and Vision Science*, 2001 May: 78(5): 264-269.

Lott, LA, Schneck, ME, Haegerstrom-Portnoy, G., Brabyn, JA, Gildengorin GL, West CG. Reading Performance in Older Adults with Good Acuity. *Optometry and Vision Science*, 2001 May: 78(5):316-24.

Brabyn JA, Haegerstrom-Portnoy G, Schneck ME, Lott LA. The impact of cataract surgery on vision and reading in elders. *Investigative Ophthalmology and Visual Science*, Suppl, 42/4, S585, 2001.

Haegerstrom-Portnoy, G, Schneck, ME, Brabyn JA, Lott L. Refractive error distributions in very old observers. *Investigative Ophthalmology and Visual Science*, Suppl, 42/4, S390, 2001.

Lott LA, Haegerstrom-Portnoy G, Schneck ME, Brabyn JA. Face and object recognition in elders. *Investigative Ophthalmology and Visual Science*, Suppl, 42/4, S863, 2001.

Brabyn, J. Visual Impairment in the Elderly under Real-World Viewing Conditions. *Optometry and Vision Science*, 2000 77 (12s) 204.

Schneck, ME, Haegerstrom-Portnoy, G, Lott, L, Brabyn, J. Ocular contributions to age-related loss in coarse stereopsis. *Optometry and Vision Science*, 2000 77 (10) 531-536.

Brabyn, J. Some Contributions of Arthur Jampolsky MD to Vision Rehabilitation. *Proceedings, Jampolsky Festschrift*, Smith-Kettlewell Eye Research Institute, San Francisco, April, 2000.

Brabyn, J., Haegerstrom-Portnoy, G, Schneck, M, Lott, L "Visual Impairment in Older People under Everyday Viewing Conditions". *Journal of Visual Impairment and Blindness*, 94, 12, 741-755, 2000.

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Crandall, W, Brabyn, J, Bentzen, B, Myers, L "Remote Infrared Signage Evaluation for Transit Stations and Intersections". *Journal of Rehabilitation Research and Development*, 36, 4, October 1999.

Haegerstrom-Portnoy, G, Schneck, M, Brabyn, J "Seeing Into Old Age: Vision Function Beyond Acuity". *Optometry and Vision Science* (1999), 76, 3, 141-158.

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Brabyn, J.A., Haegerstrom-Portnoy, G., Schneck, M.E., & Lott, L.A. Insignificance of high significant correlations among spatial vision measures. *Investigative Ophthalmology & Vis Sci, Supplement*, 1999.

Brabyn, J. (1997) "Technology as a Support System for Orientation and Mobility," *American Rehabilitation* , 23(3): 26-30.

Haegerstrom-Portnoy, G., Brabyn, J.A., Schneck, M.E., and Jampolsky, A. "The SKILL Card: An Acuity Test of Reduced Luminance and Contrast," *Investigative Ophthalmology Visual Science*, 1997, 38 (1): 207-218.

Heller, M., Brabyn, J. "Ergonomic Considerations in Blind and Low Vision Rehabilitation." In Kumar, S. (Ed) *Perspectives in Rehabilitation Ergonomics*, Taylor & Francis. (in press).

Brabyn, J.A., Haegerstrom-Portnoy, G., Schneck, M.E. "Vision Function in the 75-100 Age Group," *Investigative Ophthalmology Visual Science (suppl.)*, 1996, 37, 1383.

Brabyn, J.A., Schneck, M.E., and Haegerstrom-Portnoy, G. "Vision Function in the Oldest Old," *Topical Meeting of Vision Science and its Application*, Santa Fe, NM, February 1996.

Brabyn, J., Schneck, M.E., and Haegerstrom-Portnoy, G., "Vision and Driving in an Elderly Marin County Population." Transportation Research Board 75th Annual Meeting, Washington, D.C., January 7, 1996, 33.

Brabyn, J.A., Schneck, M.E., and Haegerstrom-Portnoy, G. "Measured and Self-Reported Visual Function in the Elderly," *Investigative Ophthalmology Visual Science (suppl.)*, 1995, 36, 3075.

Brabyn, J. "Orientation and Navigation Systems for the Blind: An Overview of Different Approaches." Keynote paper, *International Conference as Navigation Technology for the Blind*, Royal National Institute for the Blind, February 1995.

Brabyn, J., Legge, G. (Chapter Co-authors), "Assessment of Needs and Requirements." In, National Research Council, National Material Advisory Board, *Study of Currency Features Usable by the Visually Impaired*, National Academy Press, 1995.

Brabyn, J. "Rehabilitation Engineering Research in Blindness, Visual Impairment, and Multisensory Loss," *Technology and Disability*, November 1994; 3(4):266-282.

Brabyn, J.A., Colenbrander, C., Winderl, M. "Improving the Ergonomics of Popular Low Vision Telescopes," *Journal of Vision Rehabilitation*, 1994, 8, 12-13.

Brabyn, J.A. Smith-Kettlewell Rehabilitation Engineering Center Progress Report. *Veterans Administration Rehabilitation R&D Progress Report*, 1994.

Brabyn, J.A., Haegerstrom-Portnoy, G., Schneck, M.E., and Hennessy, D. "Attentional Visual Fields: Age Changes and Relation to Driving." *Invest. Ophthalmology Visual Science (Suppl.)*, 1994, 35, 3225.

Brabyn, J., Schneck, M., Haegerstrom-Portnoy, G., Jampolsky, A. "Functional Assessment of Vision Under Poor Lighting and Contrast: The SKILL Card," *Proceedings, RESNA '94*, Nashville, June 17-22, 1994, 261-263.

Brabyn, J., Schneck, M., Haegerstrom-Portnoy, G., and Steinman, B. "Vision Test Performance and Accident Proneness in Drivers Over the Age of 55," *Proceedings, Vision Science and Its Applications Topical Meeting*, Optical Society of America, 1994, 2, 210-213.

Crandall, W., Gerrey, W., and Brabyn, J. Remote Reading for Visually Impaired People: A New Application for Telecommunications. *Technology and Disability*, Vol. 3, No. 3, August 1994, 204-213.

Schneck, M.E., Haegerstrom-Portnoy, G., Brabyn, J., and Hennessy, D. Predicting Driving Performance from Vision Tests: I. Preliminary Findings for Spatial Vision in the California Driving Population. *Technical Program of Visual Sciences and its Applications*, 1994 Technical Digest, Series Volume 2, Optical Society of America, 2, 206-209.

Brabyn, J.A., Crandall, W., and Gerrey, W. "Talking Signs: A Remote Signage Solution for the Blind, Visually Impaired and Reading Disabled," *Proceedings, 15th Annual International*

Conference, *IEEE Engineering in Medicine and Biology Society*, October 28-31, 1993, San Diego, CA.

Brabyn, J.A., Jampolsky, A., Haegerstrom-Portnoy, G., Schneck, M., Colenbrander, A., and Winderl, M. "New Low Vision Devices and Tests," *Proceedings, RESNA 16th Annual Conference*, June 12-17, 1993, Las Vegas, NV.

Schneck, M., Brabyn, J.A., Haegerstrom-Portnoy, G., Jampolsky, A., and Katz, B. Poster Presentation, "A New Test for Vision Under Poor Lighting and Contrast: The SKILL Card," California Pacific Medical Center Research Week Symposium, San Francisco, November 17, 1993.

Brabyn, J.A., Crandall, W., and Gerrey, W. "Remote Reading Systems for the Blind: A Potential Application of Virtual Presence," *Proceedings, International Conference, IEEE Engineering in Medicine and Biology Society*, Paris, November 1992, 1538-1539.

Brabyn, J.A. "The Design of Auditory Instrument and Computer Displays for the Blind." *SID 92 Digest*, 663-666.

Brabyn, J.A. "Problems to be Overcome in High-Tech Devices for the Visually Impaired." *Optometry and Vision Science*, 69(1), 1992, 42-45.

Crandall, W.F., Gerrey, W.A., and Brabyn, J.A. "A Fax-Based Reading System for the Blind and Print-Handicapped," *Proceedings, RESNA International '92*, June 6-11, 1992, Toronto, Canada, Vol. 12, 463-465.

Williams, J. and Brabyn, J.A. "A Study of Accessibility to Electronic Music Synthesizers and Sequencers by Blind Musicians," *Proceedings, RESNA International '92*, June 6-11, 1992, Toronto, Canada.

Gerrey, W., Brabyn, J.A., Fowle, T., and Alden, A. "The Smith-Kettlewell Auditory Breakout Box," *Proceedings, The Johns Hopkins National Search for Computing to Assist Persons with Disabilities*, Laurel, MD, February 1-5, 1992, 173-176.

Schneck, M., Haegerstrom-Portnoy, G., Katz, B. and Brabyn, J.A. "Optic Neuritis: Small Reductions in Luminance Cause Large Losses in Vision Function," *Technical Digest Non-Invasive Assessment of the Vision System*, Optical Society of America, 1993, 11, 352-355.

Schneck, M., Haegerstrom-Portnoy, G., Brabyn, J.A., and Katz, B. "SKILL Card: Hidden Deficits in 'Recovered' Optic Neuritis," *Investigative Ophthalmology and Visual Science (Suppl.)*, 1992, 33, 964.

Brabyn, J.A. Smith-Kettlewell Rehabilitation Engineering Center Progress Report to 1991. *Veterans Administration Rehabilitation R&D Progress Report*, 1991.

Brabyn, J.A. "Design Considerations in Sensory Aids for the Visually Impaired," *IEEE Case Studies in Medical Instrument Design*, H.T. Nagle and W.J. Tompkins, Eds., Institute of Electrical and Electronics Engineers, Inc., New York, NY, 1991, 188-199.

Brabyn, J.A. and Fowle, T. "The TeleBraille II: A Braille TDD for the Deaf-Blind," *Proceedings, World Congress on Technology*, Arlington, VA, December 1-5, 1991, Vol. V, 764-784.

Brabyn, J.A. and Loughborough, W. "A Digitizing Touch-Tablet/Synthetic Speech Computer Interface," *Proceedings, Annual International Conference, IEEE Engineering in Medicine and Biology Society*, Orlando, FL, October 31-November 3, 1991, Vol. 13, No. 4, 1833-34.

Brabyn, J.A. "Smith-Kettlewell/CALDMV Vision Test Project," *Summary of Proceedings of the Conference on Driver Competency Assessment*, California Department of Motor Vehicles and Transportation Research Board, National Research Council, October 24-26, 1990, San Diego, California, 52-54.

Brabyn, J.A. Smith-Kettlewell Rehabilitation Engineering Center Progress Report to 1990. *Veterans Administration Rehabilitation R&D Progress Report*, 1990, Vol. 28, No. 1, 386-389.

Brabyn, J.A., Gerrey, W., Fowle, T., and Alden, A. "Instrument Readouts for the Blind," *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Vol. 12, No. 5, 1990.

Brabyn, J.A., Steinman, B., Portnoy, G. "Vision Performance and Accident Rate in Older Drivers." *Proceedings, National Conference on Driver Competency Assessment*, California Department of Motor Vehicles, San Diego, October 24-26, 1990.

Gerrey, W., Brabyn, J.A., and Crandall, W. "The Use of Fax Technology to Address the Reading Needs of Blind and Visually Impaired Persons," *Journal of Visual Impairment & Blindness*, December 1990, 509-513.

Fowle, T., Gerrey, W., Alden, A., and Brabyn, J.A. "The Nattering RAM: A Sixteen-Word, Field-Recordable Speech Board," *Proceedings, RESNA 13th Annual Conference*, Washington, D.C., June 15-20, 1990, 263-64.

Brabyn, J.A. and Brown, B. Mobility and low vision: identifying the problems and non-problems. *Proceedings, International Conference on Low Vision*, Melbourne, February 1990.

Brabyn, J.A., Gerrey, W., and Fowle, T. Speech technology for the blind. *Proceedings of 1989 American Voice Input-Output Society (AVIOS) Symposium*, Newport Beach, CA, September, 1989, 75-77.

Brabyn, J.A., Gerrey W., Fowle, T., Alden, A., and Williams, J. Some practical vocational aids for the blind. *Proceedings of IEEE/EMB 11th Annual International Conference*, Seattle, November 1989.

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Brabyn, J.A. Some new sensory aids for the visually impaired. *Proceedings of IEEE/EMB 10th Annual International Conference*, New Orleans, November 1988.

Fowle, T., Gerrey, W., Brabyn, J.A. A universal job instrumentation system for the blind. *Proceedings of ICAART '88*, Montreal, June 1988.

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Brabyn, J.A. Electronic braille technology for the blind. *Proceedings, IEEE/EMBS 9th Annual International Conference*, Boston, November 1987, 1791-2.

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Brabyn, J.A. Sensory aids invention and reinvention: the influence of the market on developers. *Sensus*, Spring 1987, 12-15.

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Brabyn, L.A. and Brabyn, J.A. An evaluation of "Talking Signs" for the blind. *Human Factors*, 1983, 25, 49-53.

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Gregson, R.A.M., Smith, D., Strelow, E.R., and Brabyn, J.A. Acute effects of alcohol on measures of walking performance. *Applied Psychological Measurement*, 1978, 2, 203-219.

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Brabyn, J.A. and Strelow, E.R. Computer-analyzed measures of characteristics of human locomotion and mobility. *Behavior Research Methods and Instrumentation*, 1977, 9, 456-462.
Kay, L., Bui, S.T., Brabyn, J.A., and Strelow, E.R. Single object sensor: A simplified binural mobility aid. *Journal of Visual Impairment and Blindness*, 1977, 71, 210-213.

Strelow, E.R., Brabyn, J.A., and Clark, G.R. Apparatus for measuring and recording path, velocity, and direction characteristics of human locomotion. *Behavior Research Methods and Instrumentation*, 1976, 8, 422-446.

SELECTED PRESENTATIONS

Brabyn J. Research as a Basis for Codes and Standards. Invited panel presentation to GSA Workshop on Building Design for Low Vision, Washington DC, September 29, 2010

Brabyn, J. Assistive Technology Development Problems: Lessons from a Career. (Panel

organizer and presenter). Envision Conference, San Antonio, September 25, 2010.

Brabyn, J. A Lifetime of Mistakes in Assistive Technology. Keynote presentation at Workshop on Computer Vision Applications for the Blind and Visually Impaired, IEEE Conference on Computer Vision, San Francisco, June 14, 2010

Brabyn J. Seeing Beyond the ADA for Healthcare and Senior Living Environments. Special SGUBrown Bag Presentation, Smith Group Architects, San Francisco, May 13, 2010.

Brabyn J, Shen H, Gerrey W, Coughlan J, Fowle T. Accessing Instruments and Appliances with Visual Displays. Envision Conference, September 2009.

Brabyn J. New Map Technologies for Wayfinding. (Panel organizer and presenter) Vision 2008, Montreal., June 2008.

Brabyn J. Research on Visual Impairments in Older Persons. Low Vision Forum, San Francisco, April 2008.

Brabyn JA, Haegerstrom-Portnoy G, Schneck ME, Lott LA. "Attentional Visual Field Test Predicts Future Cognitive Performance. ARVO poster presentation, May 2007.

Brabyn J. Dual Sensory Loss: Introduction to State of the Science. Keynote presentation, State of the Science Conference, RERC on Hearing Enhancement, Gallaudet University, Washington DC, September 20, 2006.

Brabyn KA, Lott LA, Haegerstrom-Portnoy G, Schneck ME. Vision variables predict future cognitive performance. ARVO poster presentation, May 2006.

Brabyn J. Where does NIDRR Rehabilitation Technology Research Fit In? Recent Highlights and Future Needs. Invited presentation, National Eye Institute 8th National Eye Health Education (NEHEP) Conference, Santa Fe, New Mexico, March 2006.

Brabyn, J. Vision Assessment: Relevance to Dual Sensory Loss. Current Practice and Future Needs. Invited presentation at Dual Sensory Loss Consensus Conference, Veterans Administration, Portland, Oregon. Sept 27-28, 2004.

Brabyn, J. "Age-Related Vision Deficits: Relation to Sign Reading and Independent Functioning". American Society on Aging Conference, San Francisco, April 13, 2004.

Brabyn, J. "Vision and Aging" Presentation to San Francisco Low Vision Forum, University of California, San Francisco, Feb 7, 2004

Brabyn JA, Schneck M, Haegerstrom-Portnoy G, and Lott L. Functional vision: "Real World" Impairment, Examples from the SKI Study. Proceedings of a conference on Functional Vision:

Assessment and Outcome, Morgantown, West Virginia, May 2003.

Brabyn, J. "Aging and Vision Loss" Invited Lecture, Emory School of Medicine and Veterans Administration RR&D Center, Atlanta, Georgia, December 11, 2003.

Brabyn, J. "Vision Changes in Aging: Importance to Low Vision Rehabilitation". Scotoma Training Program, American Academy of Ophthalmology, Anaheim, California, November 16, 2003.

Brabyn, J. "Functional Vision Impairment: Findings from the SKI Study". Functional Vision Conference, West Virginia University Eye Institute, Morgantown West Virginia, May 30, 2003.

Keynote Speaker, "Orientation and Navigation Systems for the Blind: An Overview of Different Approaches," International Conference on Orientation and Navigation Systems for Blind Persons, London, England, February 1-2, 1995.

Brabyn, J., Haegerstrom-Portnoy, G., Schneck, M., Hennessey, D. "Attentional Visual Fields: Age Changes and Relation to Driving," *Invest. Ophthalmol. Vis. Sci.*, 35, 4, 1994.

Brabyn, J., Schneck, M., Haegerstrom-Portnoy, G., Steinman, B. "Vision test performance and accident-proneness in drivers over the age of 55," *Vision Science and its Applications*, Technical Digest Series, Vol. 2, 206-209, 1994.

Brabyn, J.A., Schneck, M., Haegerstrom-Portnoy, G., and Jampolsky, A. Poster Presentation, "Practical Assessment of Vision in Older Individuals," California Pacific Medical Center Research Week Symposium, San Francisco, November 17, 1993.

Brabyn, J.A. Invited participant in poster exhibit for California Pacific Medical Center Research Symposium, San Francisco, October 14, 1992.

Brabyn, J.A. "The Design of Auditory Instrument and Computer Displays for the Blind." Presented at the *Society for Information Display 1992 International Symposium, Seminar and Exhibition*, Boston, May 21, 1992.

Brabyn, J.A. and Loughborough, W. "A Digitizing Touch-Tablet/Synthetic Speech Computer Interface," presented at Annual International Conference, IEEE Engineering in Medicine and Biology Society, Orlando, FL, October 31-November 3, 1991.

Brabyn, J.A. "Problems to be Overcome in High Technology for the Visually Impaired." Special session on Technology, American Academy of Optometry, Nashville, December 8-10, 1990.

Brabyn, J.A. New Technology for the Blind, International Symposium "The Shape of Services in the Future" National Mobility Centre, Kew, Victoria, Australia, March 28-30, 1988.

Brabyn, J.A. Session Moderator, "Science and Technology for Blind and Visually Impaired People: Computer Technology, Education and Employment," AFB/FJB International Symposium, "Vision Loss: Everybody's Business," Los Angeles, February 3-6, 1988.

Brabyn, J.A. Invited Speaker, "New Technology for the Blind: Examples and Issues." Royal Guide Dogs for the Blind Associations of Australia, Conference "The Shape of Services in the Future." Melbourne, March 28, 1988.

Brabyn, J.A. Session Moderator, "Sensory Aids for the Visually Impaired," RESNA Conference, Montreal, June 1988.

Brabyn, J.A. "Computer Access Problems of the Future," talk given at Sensory Aids Foundation, Palo Alto, August 19, 1988, and September 16, 1988.

Brabyn, J.A., Session Chair, "Assistive Devices I," IEEE/EMBS 10th Annual International Conference, New Orleans, LA, November 5, 1988.

Brabyn, J.A. Guest Lecture, "Research and Development in Sensory Aid Technology." Sensory Seminar, San Francisco State University, Department of Special Education, December 2, 1987.

Brabyn, J.A. Lecture: "Mobility Problems of the Elderly." University of California, Berkeley School of Optometry, Lecture Series on Functional Impact of Sensory Loss With Aging, October 8, 1987.

Brabyn, J.A. Keynote Speech: "Let's Not Reinvent the Wheel." Mississippi State R&T Center/AFB National Working Seminar on Job Modification for Blind and Visually Impaired Persons, Orlando, FL, April 8-10, 1987.

Brabyn, J.A. and Fowle, T. Presentation: "New Devices for the Blind." National Federation of the Blind, Western Regional Co Convention, Oakland, California, March 21, 1986.

Brabyn, J.A. Presentation: "Research and Development on New Sensory Aids from the Smith-Kettlewell REC." California Council of the Blind Convention, Sacramento, California, April 12, 1986.

Brabyn, J.A. A review of mobility aids and means of assessment. Invited paper presented at the North Atlantic Treaty Organization/National Science Foundation Conference, Lake Arrowhead, CA. September, 1984.

Brabyn, J.A. A training program for blind electronics technicians. Radio interview, *National Public Radio*. San Francisco, CA, September, 1984.

Brabyn, J.A. Practical sensory aids technology for the blind. Paper presented at *Burke Rehabilitation Conference*, White Plains, NY. October, 1983.

Brabyn, J.A. Aids for the sensory impaired. Session Chairman, Conference of the *Rehabilitation Engineering Society of North America*, San Diego, CA. June, 1983.

Brabyn, J.A. and Brabyn, L.A. Current developments in design and evaluation of aids for the blind. Seminar presented at the *American Foundation for the Blind*, New York, October, 1983.

Brabyn, J.A. Artificial devices assisting the blind. Radio Interview, *KNBR*, San Francisco, CA. September, 1982.

Brabyn, J.A. Computer applications for blind business vendors. Lecture presented at the *Tri-Regional Randolph-Sheppard Conference*, Sacramento, CA. September, 1982.

Brabyn, J.A. Aids for people with sensory impairments. Session Chairman, *Conference on Rehabilitation Engineering*, Houston, TX. August, 1982.

Brabyn, L.A. and Brabyn, J.A. The Talking Signs: An aid to navigation and orientation for the blind. Paper presented at the meeting of the *Western Psychological Association*, Sacramento, CA. April, 1982. 82. 2.

Brabyn, J.A. Review of sensory aids for the blind. Paper presented at the College of Engineering, University of California, Berkeley. February, 1981. Published in *Bioengineering Seminars - 1981*, Report 81-1.

Brabyn, J.A. Application of electronic technology in rehabilitation engineering. Paper presented at the *Wescon Conference*, San Francisco, CA. September, 1981.

Brabyn, J.A., Collins, C.C., and Kay, L. A wide bandwidth CTFM scanning sonar with tactile and acoustic display for persons with impaired vision (blind, divers, etc.). Paper presented at *Ultrasonic International Conference*, published in the Proceedings. Brighton, England, July 2, 1981.

Brabyn, J.A. Artificial vision: A review of sensory aids for the blind. Invited paper presented at the *Annual Conference of the IEEE Engineering in Medicine and Biology Society*. Published in the Proceedings. Washington, D.C. September, 1980. Abstract in *IEEE Transactions on Biomedical Engineering*, 1980, 27, 532.

Brabyn, J.A. Technological developments for deaf-blind persons. Paper presented at the meeting of the *Helen Keller Centennial Congress*. Boston, Mass. June, 1980.

Brabyn, J.A. Rehabilitation engineering research for the blind. Paper presented at the *Rehabilitation Engineering Seminar* sponsored by the Rehabilitation Engineering Center, Stanford Children's Hospital, Palo Alto, Ca. March, 1980.

Brabyn, J.A. Current and future research in blind mobility aids. Paper presented at the meeting of the *Interagency Conference on Rehabilitation Engineering*. Atlanta, Ga. August, 1979.

Brabyn, J.A., Kay, L., and Strelow, E.R. Effects of simulated cue variations on an experienced sonicguide user. Paper presented at the meeting of the *Psychological Society*. Oxford, England, May, 1977.