DORRIS AND ASSOCIATES INTERNATIONAL, LLC
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Nathan T. Dorris, PhD, CPE
Vice President & Principal Consultant

Professional Profile:

Nathan Dorris is a human factors specialist (ergonomist) with extensive professional experience in product safety and the evaluation of instructions, warnings and other safety communications. Dr. Dorris is a Principal Consultant for Dorris and Associates International, LLC. His primary responsibilities include the design and implementation of product safety research, including evaluations of human-machine interfaces as well as the usability and effectiveness of precautionary information. Dr. Dorris represents Dorris and Associates as a member of the ANSI Z535 main committee and he currently serves as the ANSI Z535.5 subcommittee chairman. The Z535 series of standards pertain to the design of warning signs, labels and various other safety communications.

Dorris and Associates have a wide variety of clients including private and public corporations, non-profit organizations, trade associations, state and federal governmental agencies, as well as defense and plaintiff's attorneys. Client services have been performed in the U.S., Canada, U.K., France, Germany, Spain, Belgium, Australia and Japan. Products manufactured and/or distributed by these clients range from automobiles and airplanes to everyday consumer products and children's toys.

Dr. Dorris is also an Affiliate Professor in the Industrial and Systems Engineering Department of Auburn University, where he has taught the graduate course in Human Factors Engineering (HFE).

Education:

B.S., Management, Georgia Institute of Technology; Atlanta, GA (1997)

M.S., Industrial and Systems Engineering, Auburn University; Auburn, AL (2004)

Ph.D., Industrial and Systems Engineering, Auburn University; Auburn, AL (2004)

Professional Affiliations & Service:

Certified Professional Ergonomist (CPE)

American National Standards Institute (ANSI) Z535 Main Committee and Z535.5 Chairman

Human Factors and Ergonomics Society (HFES)

American Society of Safety Engineers (ASSE)

Society of Automotive Engineers (SAE)

The Institute of Industrial Engineers (IIE)

National Safety Council (NSC)

Honors & Awards:

Auburn University Presidential Graduate Research Fellowship

National Institute for Occupational Safety and Health (NIOSH) Graduate Fellowship

Alpha Pi Mu Industrial Engineering Honor Society

2003 INFORMS Doctoral Colloquium Participant

Outstanding Presentation Award, 2003 Auburn University Graduate Research Forum

Publications & Reports:

Boelhouwer, E. J., Davis, J., Franco-Watkins, A., Dorris, N. T., and Lungu, C.(2013).Comprehension of hazard communication: Effects of pictograms on safety data sheets and labels. *Journal of Safety Research, 46,*September, 145-155.

Dorris, N.T. and Burke, K.A. (2011). Mandatory airbag warnings: An updated evaluation. In *Proceedings of the Society of Automotive Engineers International World Congress*, SAE 11B-0026. Warrendale, PA: Society of Automotive Engineers.

Burke, K.A., Dorris, N.T., and Dorris, J.A. (2010). Sunscreen Labeling and Warnings: A Human Factors Analysis. In *Proceedings of the 3rd International Conference on Applied Human Factors and Ergonomics*, Miami, FL.

Dorris, N.T., Valimont, R.B, and Boelhouwer, E.J. (2007). Eye Movements While Reading Degraded On-Product Warnings. In *Proceedings of the Human Factors and Ergonomics Society 51st Annual Meeting*, Santa Monica, CA: The Human Factors and Ergonomics Society.

Glasscock, N.F. and Dorris, N.T. (2006). Warning Degradation and Durability. Prepared for: *The Handbook of Warnings*, edited by M.S. Wogalter. A volume in the Human Factors and

Ergonomics Series (series editor: Gavriel Salvendy). Mahwah, NJ: Lawrence Erlbaum Associates (LEA).

Carnahan, B.J., Dorris, N.T., and Kuntz, L.A. (2005). Designing Anthropomorphic Symbols Using Interactive Evolutionary Design. *Information Design Journal and Document Design*, 13(3), pp. 179-190.

Dorris, N.T., Carnahan, B.J., Orsini, L, and Kuntz, L.A. (2004). Interactive Evolutionary Design of Anthropomorphic Symbols. In *Proceedings of the 2004 IEEE Congress on Evolutionary Computation (CEC)*. New York: The Institute of Electrical and Electronics Engineers.

Carnahan, B.J. and Dorris, N.T. (2004). User-Centered Symbol Design Through Human-Computer Collaboration. In *Proceedings of the Human Factors and Ergonomics Society 48th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

Dorris, N.T. and Davis, J. (2003). Testing the Effects of Degradation on Comprehension of Warnings. In *Proceedings of the Human Factors and Ergonomics Society 47th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

Davis, J. and Dorris, N.T. (2003). Current Status of Warning Systems in Forest Harvesting Equipment. USDA Forest Service Research Agreement No. SRS 02-CA-11330132-087.

Flynn, E., Dorris, N.T., Carnahan, B.J. and Holman, T. (2002) Medication Dispensing Errors in Community Pharmacies: A Nationwide Study. In *Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

Dorris, A.L. and Dorris, N.T. (2001) Supporting the Warning Designer: An Automotive Case Study. In *Proceedings of the Human Factors and Ergonomics Society 45th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

Dorris, A.L. and Dorris, N.T. (2001). Mandatory Air Bag Warnings: A Human Factors Analysis of Their Development. SAE 2001-01-0046. Warrendale, PA: Society of Automotive Engineers.

Presentations & Seminars:

"The Future of Product Warnings: Some Questions Answered & Some Answers Questioned." American Equipment Manufacturers Product Safety & Compliance Seminar, St. Louis, MO. April 2015.

"Twenty-first Century Warnings in a Global World." Defense Research Institute Product Liability Conference, Washington, D.C. April 4, 2013.

"The Development of ANSI Z535.6: Presentation of Safety Messages in Collateral Materials." Invited Panel Member for Discussion at the Human Factors and Ergonomics Society 48th Annual Meeting. New Orleans, LA.

"Warning Systems in Logging Equipment." American Society of Safety Engineers (ASSE) Conference 2004, Las Vegas, NV.

"Identifying Relevant Symbol Design Criteria Using Interactive Evolutionary Computation." IEC Workshop at Genetic and Evolutionary Computation Conference (GECCO) 2004. Seattle, WA. June, 2004.

"Developing Safety Symbols for the Workplace through Interactive Evolutionary Design." American Industrial Hygiene Conference & Exposition (AIHce), Atlanta, GA. 2004

"Can Loggers Understand Degraded Warning Labels?" Council on Forest Engineering (COFE) 2004 Annual Meeting. Hot Springs, AR. April, 2004.

"Developing and Evaluating Warnings for Recreational Products." Defense Research Institute (DRI) Product Liability Conference. New Orleans, LA. February 2004.

"Equipment Warning Signs and Symbols." Alabama Cooperative Extension's 2003 Professional Logging Managers (PLM) Continuing Education Satellite Broadcast. Auburn, AL. July 24, 2003.

"The Use of Interactive Evolutionary Design (IED) to Facilitate Workplace Hazard Communication." IEC Workshop at Genetic and Evolutionary Computation Conference (GECCO) 2003. Chicago, IL. July 12, 2003.

"Current Status of Warning-Systems in Forest Harvesting Equipment." National Occupational Research Agenda (NORA) Symposium 2003: "Working Partnerships Research to Practice." Washington, D.C. June 23, 2003.

"How Deteriorated are Warnings Associated with Forest Harvesting Equipment?" Invited Presentation to the Society of Automotive Engineers (SAE) Committee on Forest Harvesting Equipment. Eugene, OR. February 19, 2003.

"Warning Design & Development: A Human Factors Perspective." Key Note Address of the Web Sling and Tie Down Association (WSTDA) Spring 2001 Meeting. San Antonio, TX. March 14, 2001.