

## Thomas D. Wason, PhD

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### Education

**Ph.D.**, Experimental Psychology, North Carolina State University, Raleigh, NC, 1993.

Dissertation: *Construction and evaluation of a three-dimensional display from a two-dimensional projection surface based on theoretic considerations of metrification and affine space.*

**M.S.**, Experimental Psychology, North Carolina State University, Raleigh, NC, 1983.

Thesis: *Auditory Auto-Correlation: An experimental study of central nervous system processing of direct and reflected speech sounds.*

Psi Chi: Academic Honor Society in Psychology.

**B.S.**, Mechanical Engineering, Massachusetts Institute of Technology (MIT), Cambridge, MA, 1964.

Thesis: *Instrumentation of the human distal esophageal sphincter.*

Premedical Studies. Duke University, Durham, NC, & University of N.C. at Chapel Hill, 1966/1967.

### Professional Experience

**Consultant, R&D**, Neurosciences, research methods, digital media management, 2009 - .

**Intelligent Automation, Inc.**, Senior Scientist, Education and Training Technology Division, Jan. 2007 – Nov. 2009

Investigated the use of SCORM e-learning specifications for the Advanced Distributed Learning (ADL) Initiative CoLab as a member of the technical team. Developed e-learning tools and agent-based simulations.

**Teleologic Learning Company, LLC**, Learning Architect, and the

**Center for Advanced Learning, Inc.** (offshoot of TLC), Staff Scientist, 2003-2006.

Methods for online course development, taxonomy and metadata system development, organizational systems for online course development.

**IEEE Industrial Standards and Technology Organization**, Consultant, 2002-2003.

Editor for Liberty Alliance Project Web services architecture (WSA) standards. Extensive international travel.

**IMS Project of Educause/IMS Global Learning Consortium, Inc.** ([www.imsglobal.org](http://www.imsglobal.org)), Meta-Data Lead, 1999-2001.

Development of specifications and XML-Schemas for the IMS e-learning standards. Liaison with numerous governmental, educational and standards communities in both the US and in the international communities. Development of specifications for metadata, taxonomies.

**Institute for Academic Technology (IAT)** of the University of North Carolina at Chapel Hill, 1996-1998.

Director of Research and Evaluation, 1998.

**Thoughtbytes**, 1994-1996. Founding Partner. Interactive Multimedia Program Content Development. IBM Business Partner.

**Wason Consulting**, Raleigh, NC, 1993-1996. Human-computer interaction, medical, neurophysiological and audio equipment development.

**Cardiovascular Diagnostics**, 1992-1993. Vice President of Development. Led development of a product for bedside testing of blood coagulation time. The product incorporated, electronics, mechanics, embedded computers, software and biochemistry. I initiated, planned and evaluated a clinical trial.

Over 20 years experience in technology R&D.

R&D management, biomedical technologies, display technologies, software, electronics, custom integrated circuits, sensor technologies, networks, optoelectronics and industrial automation.

## Selected Publications

- Wason, T. (2017). Coherent Apertures in the Central Nervous System: A Model of the internal experience. Monograph, ISBN-13/10: 978-1548461577/154861571, 219p.
- Haynes, J., Zbylut, M., Wason, T. & Maloor, P. (2007). "The Play's the Thing" Teaching High Level Skills through Dramatic Simulations. Paper and Presentation for the Interservice/ Industry Training, Simulation and Education Conference (I/ITSEC) Conference, 2007.
- Norris, B. & Wason, T. (2005). "Air Force Institute for Advanced Distributed Learning e-CDC Transition Project, Executive Summary" <http://www.maxwell.af.mil/au/afiadl/ecdcproject.pdf>, 18 January 2005.
- Cherry, A., Wason, T. & Carlton, T. (2004). "Tag and Go Seek: Ensuring Successful Tagging, Discoverability and Reusability of Content." Paper and Presentation for the Interservice/ Industry Training, Simulation and Education Conference (I/ITSEC) Conference, 2004.
- Wason, T., & Perrin, B. (2004). AFIADL Taxonomy Project Final Report GSA Task Order ID: 4TFG57030729 Dec. 2004 <http://www.maxwell.af.mil/au/afiadl/adl/TaxonomyFinalReportDec2004.pdf>.
- Wason, T., and Wiley, D. (2001). "Structured Metadata Spaces," in Greenberg, J. (ed.), *Metadata and Organizing Educational Resources on the Internet*, NY: Haworth Press (pp. 263-277); co-published in the *Journal of Internet Cataloging* (2000), 3 (1-3). Invited contribution.
- Wason, T., Dr. Tom Guides: <http://www.twason.com/drtomguides.html>.
- Wason, T., Anderson, T., & Griffin, S. (1999). IMS XML binding of the IEEE Learning Object Metadata.
- Hodgins, W., Wason, T., & Duval, E. (1998). IEEE Learning Technology Standards Committee (LTSC) Learning Object Metadata (LOM) Draft Document v2.1.
- Hodgins, W., Wason, T., & Duval, E. (1998). IEEE Learning Technology Standards Committee (LTSC) Learning Object Metadata Dictionary v2.1.
- Griffin, S., Wason, T.D. (1997). "The Year of Metadata." *Educom Review*, 32(6) (Nov/Dec), pp. 56-58.
- Cohen, J.A., Charles, L., Wason, T.D., Dermott, S.C., & Macik, B.G. (1992). "Delay in sample processing may significantly decrease whole blood and plasma APTT's obtained from heparinized patients resulting in establishment of erroneous therapeutic whole blood ranges." Paper presented at American Society for Hematology, Fall 1992 Meeting.
- Lappin, J. & Wason, T. (1991). "The perception of geometrical structure from congruence," Chapter 28 in Ellis, S. (ed.) Pictorial communications in virtual and real environments, London: Taylor & Francis. Previously published in Ellis, S. R., Kaiser, M. K., & Grunwald, A. (eds.), *Spatial Displays and Spatial Instruments*; NASA Conference Publication 10032 pp 18-1 - 18-15.
- Lappin, J., Wason, T., & Akutsu, H. (1987). "Visual detection of common motion of spatially separate points." *Bulletin of the Psychonomic Society*, 25, 343.
- Janssen, R. & Wason, T. (1987). U.S.E.P.A. Internal Report: "A small animal ultrasound auditory stimulation system."

## Patents:

- US 5,751,927, Wason, T., 1998, Method and apparatus for producing three dimensional displays on a two dimensional surface
- US 5,020,108, Wason, T., 1991, Audible display of electrical signal characteristics
- US 4,787,054, Wason, T., 1988, Interdial compensation technique for angular position detectors
- US 4,754,411, Wason, T., 1988, Angular position detector
- US 4,710,889, Wason, T., 1987, Angular position detector
- US 4,704,690, Wason, T., 1987, Angular position detector
- US 4,606,008 / ROC (Taiwan) NI-25618, Wason, T., 1986, Angular position detector
- US 4,556,844, Wason, T., 1985, Apparatus for mounting an electrical sensing device or encoder on a data output indicator or meter
- US 4,477,860, Wason, T. & Cain, C., 1984, Electrode array
- US 4,438,434 (1984) / CAN 1,194,956, Wason, T., 1984, Self-sequencing data bus allocation system
- US 4,433,332 / UK GB 2,059,593B / MEX 148,528, Wason, T., 1984, Apparatus for remotely determining the position of rotating objects
- US 4,034,661, Boosalis, M. & Wason, T., 1977, Apparatus for heating and dispensing food articles
- US 3,893,554, Wason, T., 1975, Torque limiting clutch
- US 3,761,186, Wason, T., 1973, Apparatus for optically inspecting the condition of a surface having known variations in the condition