## RICHARD M. GOLDEN

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#### Educational History

- Ph.D., 1987, Experimental Psychology, Brown University, Providence, RI.
- M.S., 1986, Electrical Engineering, Brown University, Providence, RI.
- B.S., 1982, Electrical Engineering and Psychology, University of California at San Diego, La Jolla, CA.

## Employment History (Principal Positions)

- Program Head, Undergraduate Cognitive Science Program, 2000-present, School of Behavioral and Brain Sciences, University of Texas at Dallas, Richardson, TX.
- Program Head, Applied Cognition and Neuroscience Graduate Program, 2000-present,
   School of Behavioral and Brain Sciences, University of Texas at Dallas, Richardson,
   TX.
- Professor of Cognitive Science, 2004-present, School of Behavioral and Brain Sciences, University of Texas at Dallas, Richardson, TX.
- Secretary-Treasurer, 2002-2017, Society for Mathematical Psychology, www.mathpsych.org.
- Associate Professor of Cognitive Science, 1996-2004, School of Behavioral and Brain Sciences, University of Texas at Dallas, Richardson, TX.
- Participating Faculty Member in Electrical Engineering, 1999-present, School of Engineering and Computer Science, University of Texas at Dallas, Richardson, TX.
- Visiting Professor. Fall 1998, Economics Department, University California at San Diego, La Jolla, CA.
- Assistant Professor of Cognitive Science, 1990-1996, School of Human Development, University of Texas at Dallas, Richardson, TX.
- National Institute of Health Research Fellow, 1987-1989, Psychology Department, Stanford University, Stanford, CA.
- Andrew Mellon Research Fellow, 1986-1987, Psychology Department and Learning, Research, and Development Center. University of Pittsburgh, Pittsburgh, PA.

## Editorial Board Member (Action Editor)

- 1996-2011, Journal of Mathematical Psychology.
  [Out of all 1,709 Social Science and Psychology Journals, ranked #1 for cited half-life, ranked in top 15% for Impact Factor, and ranked in top 30% for Immediacy Factor. Out of all 380 Mathematics and Statistics Journals, ranked #1 for cited half-life, ranked in top 5% for Impact Factor, ranked in top 20% for Immediacy Factor.]
- 1995-2006, Neural Networks.
  [Out of all 917 Computer Science and Engineering Journals, ranked in top 1% for cited half-life, ranked in top 10% for Impact Factor, ranked in top 6% for Immediacy Factor.]
- 2001-2004, International Journal of Applied Intelligence.
- 1999-2004, Neural Processing Letters.

## Governing/Executive Board Member

- 2002-2017 Society for Mathematical Psychology (Secretary-Treasurer)
- 1996-2004 Society for Text and Discourse.

#### Review Board Member

• 1997-2001, International Journal of Applied Intelligence

#### Honors and Awards

- 1. Invited Symposium Speaker at the Symposium "Robotics, Artificial Intelligence & Machine Learning: 2020 Challenges for Urologic Research Series" held prior to the 2020 Annual Meeting of the American Urological Association. Washington, D.C. May 2020. [Virtual Conference]
- 2. Invited Workshop Speaker at the Workshop "New Strategies to Solve Analytic Challenges in Health Services Research" held prior to the 2016 Annual Meeting of the Academy Health. Boston, MA, June, 2016. [Invited by the Veteran's Administration Health Services Research and Development Service].
- 3. Invited Consultant to the Panel on Statistics and Analytics for VHA Datasets. Veterans Administration, Washington, DC. August 2013-Present.
- 4. Advisory Panel Member for the Special Competition for Research in the Mathematical Social and Behavioral Sciences. National Science Foundation, Arlington, VA. June 28-29, 2004.
- 5. National Science Foundation Information Technology Research Award. Only 6 out of 75 submitted proposals received awards in a nation-wide competition in the area of Educational Technology across all NSF directorates. [\$393,834 for a two-year time period], Awarded Fall 2001.
- 6. **Keynote Speaker**. Thirty-fourth Annual Meeting of the Society for Mathematical Psychology. Brown University, Providence, RI, August, 2001.
- 7. Special UTD Faculty Development Award. Artificial Neural Net analysis and design with Professor Halbert White, Economics Department, UCSD, La Jolla, CA, Fall 1998.
- 8. **Keynote Speaker**. Second Joint Mexico-US International Conference on Neural Networks and Neurocontrol. Quintana Roo, Mexico, 1997.

- 9. National Institute of Health Postdoctoral Fellowship, 1987-1990.
- 10. Sigma XI Award for Outstanding Research, 1987, Brown University.
- 11. Andrew Mellon Fellowship, 1986-1987, University of Pittsburgh.
- 12. Connectionist Summer School Fellowship, 1986, Carnegie-Mellon.
- 13. Brown University Fellowship, 1982-1983, Brown University.

#### Patents

- 1. Graphical User Interface for Automatic Coding of Free Response Data using Hidden Markov Model Methodology. Golden, R.M., Earwood, J., Durbin, M. A. U. S. Patent No. US 7,188,064 B2. Assignee: Board of Regents, The University of Texas System, Austin, TX. March 6, 2007.
- 2. Adaptive Multiple Access Interference Suppression. Dowling, E. M., Jani, U. G., Wang, Z., Golden, R. M. U.S. Patent No. US 6,700,923 B1. Assignee: Board of Regents, The University of Texas System, Austin, TX. March 2, 2004.
- 3. Smart Antenna Multiuser Detector. Dowling, E. M., Jani, U., Golden, R. M., Wang, Z. U.S. Patent No. US 6,782,036 B1. Assignee: Board of Regents, The University of Texas System, Austin, TX. August 24, 2004.

## Invited (Ad Hoc) Reviewer

Annals of Math and AI (2003), Applied Intelligence (1997-2000), Behavior, Research Methods (2011, 2012), Behavioral and Brain Sciences (1988, 1989, 1993, 1994), Biostatistics and Epidemiology (2018), Cambridge University Press (2011,2015, 2019), Cognitive Psychology (2003), Cognitive Science (1988, 1991, 1994, 2002, 2003, 2005), Computational Statistics and Data Analysis (2003), Connection Science (1990-1993), ConTex Grant Proposal (2020), Council of Physical Sciences of the Netherlands Organization for Scientific Research (NOW) (2005), Discourse Processes (1996-1999, 2005, 2006), IEEE Transactions on Circuits and Systems (1997, 1998), IEEE Transactions on Neural Networks (1991, 1997, 1998, 2000-2003, 2005), International Journal of Neural Systems (1998), Journal of Artificial Intelligence Research (1994), Journal of Computer and System Sciences (2001), Journal of Mathematical Psychology (1991-1998, 2005-2006, 2013, 2014), Journal of Multivariate Analysis (2010), Journal of Statistical Planning and Inference (2016), Journal of Urology (2010-2014), Lawrence Erlbaum Book Reviewer (1990, 1994), Machine Learning (1989), Mathematical and Computer Modeling of Dynamical Systems (2012), MIT Press Book Reviewer (1995, 1996, 1998), Motivation and Emotion (1996), Multivariate Behavioral Research (2008), National Science Foundation (1999), Neural Computation (1993, 1995, 1998-2000), Neural Networks (1989, 1991, 1994, 1995), Oxford University Press (2011, 2012, 2015), Pattern Recognition Letters (1995), Proceedings of the Fourteenth Annual Cognitive Science Society Conference (1992), Psychological Methods (2013, 2014), Psychological Review (2000), Psychometrika (2006, 2007, 2008, 2011, 2014, 2015), Sage Publications (2011, 2012), Springer Nature Book Reviewer (2019), Society for Industrial and Applied Mathematics (1989), TEST (2020), World Scientific Publishing (2008).

### Professional Societies

Cognitive Science Society, IEEE (Senior Member), Society for Mathematical Psychology (Member of Executive Board), Psychometrics Society, Artificial Intelligence and Education.

## RESEARCH

## Published Books (Peer-Reviewed)

- 1. Golden, R. M. (1996). Mathematical Methods for Neural Network Analysis and Design. MIT Press, Cambridge, MA. [419 pages].
- 2. Golden, Richard, M. (2020). Statistical Machine Learning: A unified framework.

  <u>Texts in Statistical Sciences Series.</u> CRC Press/Chapman-Hall. Book website:

  www.statisticalmachinelearning.com
- 3. Golden, Richard M. (in press). Statistical Machine Learning: A unified approach. [Chinese Translation of CRC Press Edition]. Beijing Huazhang Graphics & Information Co., Ltd., China Machine Press.

## **Articles (Peer-Reviewed and Invited Peer-Reviewed)**

- 1. Golden, R. M.; Henley, Steven, S.; White, Halbert; Kashner, T. M. (2019). Consequences of model misspecification for maximum likelihood estimation with missing data. *Econometrics*, 7(3), 37. https://doi.org/10.3390/econometrics7030037.
- 2. Kashner, T. M.; Henley, Steven S.; Golden, Richard M.; Zhou, Xiao-Hua (2019). "Making causal inferences about treatment effect sizes from observational datasets" Biostatistics and Epidemiology, DOI: 10.1080/24709360.2019.1681211
- 3. Henley, Steven S.; Golden, Richard M.; Kashner, T. M. (2019). "Statistical modeling methodologies: challenges and strategies." *Biostatistics and Epidemiology*. DOI: 10.1080/24709360.2019.1618653
- 4. Golden, Richard, M. (2018). "Adaptive learning algorithm convergence in passive and reactive environments." Neural Computation, 30, no. 10, p. 2805-2832.
- 5. Golden, Richard M.; Henley, Steven S.; White, Halbert; Kashner, T. M. (2016). "Generalized Information Matrix Tests for Detecting Model Misspecification." *Econometrics* 4, no. 4.
- 6. Westover, Arthur N.; Kashner, T. M.; Winhusen, T. M. Golden, Richard M.; Nakonezny, Paul A.; Adinoff, Brian; and Henley, S. S. (2015). "A systematic approach to subgroup analyses in a smoking cessation trial". The American Journal of Drug and Alcohol Abuse, 41(6): 498-507.
- 7. Brakenridge, SC, Henley SS, Kashner TM, Golden RM, Paik D-H, Phelan HA, Sperry JL, Cohen MJ, Moore EE, Minei JP, Maier RV, Cuschieri J. (2013). Comparing clinical predictors of deep venous thrombosis vs. pulmonary embolus after severe injury: A new paradigm for post-traumatic venous thromboembolism? The Journal of Trauma and Acute Care Surgery, 74(5): 1231-1238.
- 8. Ghiasinejad, S. and Golden, R. M. (2013). Modeling human coding of free response data. *Computers in Human Behavior*, 29, 2394-2403.
- 9. Wong, W. E., Debroy, V., Golden, R., Xu, X, Thuraisingham, B. (2012). Effective software fault localization using an RBF Neural Network. *IEEE Transactions on Reliability*, 61, No. 1, pp. 149-169.
- 10. Brakenridge, Scott C.; Phelan, Herb A.; Henley, Steven S.; Golden, Richard M.; Kashner, T. Michael; Eastman, Alexander E.; Sperry, Jason L.; Harbrecht, X.; Moore, Ernest E.; Cuscieri, Joseph; Maier, Ronald V.; and Minei, Joseph P. "Early Blood Product and Crystalloid Resuscitation: Risk Association with Multiple Organ

- Dysfunction after Severe Blunt Traumatic Injury." Journal of Trauma, Injury, Infection, and Critical Care, 71, no. 2 (August, 2011), pp. 299-305.
- 11. Byrne, J. M., Kashner, T. M., Gilman, S., Aron, D.C., Cannon, G. W., Chang, B. K., Godleski, L, Golden, R. M., Henley, S. S., Holland, G. J., Kaminetzky, C. P., Keitz, S. A., Kirsh, S., Muchmore, E. A., and Wicker, A. B. (2010). Measuring the intensity of resident supervision in the Department of Veterans Affairs: The Resident Supervision Index. Academic Medicine, 85, pp. 1171-1181.
- 12. Kashner, T. M., Henley, S. S., Golden, R. M., Byrne, J. M., Sheri, A., Cannon, G. W., Chang, B. K., Holland, G. J., Aron, D. C., Wicker, A., and White, H. (2010). Studying the Effects of ACGME duty hours limits on resident satisfaction: Results from VA Learners' Perception Survey. Academic Medicine, 85, 1130-1139.
- 13. Kashner, T. Michael, Byrne, J. M., Chang, B. K., Henley, S. S., Golden, R. M., Aron, D. C., Cannon, G. W., Gilman, S. C., Holland, G. J., Kaminetzky, C. P., Keitz, S. A., Muchmore, E. A., Kashner, T. K., and Wicker, A. B. (2010). Measuring progressive independence with the resident supervision index: Empirical approach. Journal of Graduate Medical Education, pp. 17-30.
- 14. Kashner, T. Michael, Byrne, J. M., Henley, S. S., Golden, R. M., Aron, D. C., Canon, G. W., Gilman, S. C., Chang, B. K., Holland, G. J., Kaminetzky, C. P., Keitz, S. A., Muchmore, E. A., Kashner, T. K., and Wicker, A. B. (2010). Measuring progressive independence with the resident supervision index: Theoretical approach. *Journal of Graduate Medical Education, pp. 8-16.*
- 15. Kashner, T. Michael, Stensland, Michael D., Lind, Lisa, Wicker, A., Rush, A. John, Golden, R. M., and Henley, Steven S. (2009). Measuring use and cost of care: The utilization and cost methodology. *Medical Care*, 47, pp. 184-190.
- 16. Ismaili, P. B. and Golden, R. M. (2008). Traversal patterns for content designed web environment. WSEAS Transactions on Information Science and Applications, 11, 5, 1521-1530. (http://wses.us/e-library/transactions/information/2008/28-434.pdf).
- 17. Goldman, S. J., Golden, R. M., van den Broek (2007). Why are computational models of text comprehension useful? *Revista Signos*, 40, 545-572.
- 18. Kashner, T. M., Hinson, Holland, G. J., Mickey, D. D., Hoffman, K., Lind, L., Johnson, L. D., Chang, B. K., Golden, R. M., Henley, S. S. (2007). A data accounting system for clinical investigators. *Journal of American Medical Informatics Association*, 14, 394-396.
- 19. Kashner, T. M., Henley, S. S., Golden, R. M., Rush, A. J., and Jarrett, R. B. (2007). Assessing the preventive effects of cognitive therapy following relief of depression: A methodological innovation. *Journal of Affective Disorders*, 104, pp. 251-261.
- 20. Paik, D., Golden, R. M., Tolak, M., and Dowling, E. M. (2006). Blind Adaptive CDMA Processing for Smart Antennas Using the Block Shanno Constant Modulus Algorithm. *IEEE Transactions on Signal Processing*, 54, 1956-1959.
- 21. Golden, R. M. (2003). Discrepancy risk model selection test theory for comparing possibly misspecified or nonnested models. *Psychometrika*, 68, 229-249.
- 22. Jani, U., E. M. Dowling, and R. M. Golden (2000). Multiuser interference suppression using block Shanno constant modulus algorithm. *IEEE Transactions on Signal Processing*, 48, 1503-1505.

- 23. Golden, R. M. (2000). Statistical tests for comparing possibly misspecified and nonnested models. Invited paper. *Journal of Mathematical Psychology*, 44, 153-170.
- 24. Golden, R. M. (1998). Knowledge digraph contribution analysis of protocol data. Discourse Processes, 25, 179-210.
- 25. Michaels, E. K., Niederberger, C. S., Golden, R. M., Brown, B., Cho, L., Hong Y. (1998). Use of a neural network to predict stone growth after shock wave lithotripsy. Urology, 51, 335-338.
- 26. Golden, R. M. (1997). Causal network analysis validation using synthetic recall protocols. Behavior Research Methods, Instruments & Computers, 29, 15-24.
- 27. Krongrad, A., L. J. Granville, M. A. Burke, R. M. Golden, S. Lai, L. Cho, and C. S. Niederberger (1997). Predictors of general quality of life in patients with benign prostate hyperplasia or prostate cancer. *Journal of Urology*, 157, 534-538.
- 28. Golden, R. M. (1995). Making correct statistical inferences using a wrong probability model. *Journal of Mathematical Psychology*, 39, 3-20.
- 29. Niederberger, C. S., Ross, L. S., Lipshultz, L. I., Lamb, D. J., Golden R. M. (1995). Artificial intelligence: The new frontier of fertility data analysis. ARTA 7, 57-68.
- 30. Golden, R. M. (1994). Analysis of categorical time-series text recall data using a connectionist model. *Journal of Biological Systems*, 2, 283-305.
- 31. Golden, R. M. (1993). Stability and optimization analyses of the generalized brain-state-in-a-box neural network model. *Journal of Mathematical Psychology*, 37, 282-298.
- 32. Golden, R. M. and Rumelhart, D. E. (1993). A parallel distributed processing model of story comprehension and recall. *Discourse Processes*, 16, 203-237.
- 33. Golden, R. M. (1988a). A unified framework for connectionist systems. *Biological Cybernetics*, 59, 109-120.
- 34. Golden, R. M. (1986a). The "Brain-State-in-a-Box" neural model is a gradient descent algorithm. *Journal of Mathematical Psychology*, 30, 73-80.
- 35. Golden, R. M. (1986b). A developmental neural model of visual word perception, Cognitive Science, 10, 241-276.

# Invited Book Chapters, Refereed Book Chapters, Invited Encyclopedia Articles, Peer-Reviewed Proceedings

- 1. Sudheesh, A. and Golden, R. M. (in press). Exploring temporal functional dependencies between latent skills in cognitive diagnostic models. *Proceedings of the 85<sup>th</sup> Annual (Virtual) International Meeting of the Psychometric Society*.
- 2. Malaiya, R. K. and Golden, R. M. (in press). Simulation studies of item bias estimation accuracy. Proceedings of the 85<sup>th</sup> Annual (Virtual) International Meeting of the Psychometric Society.
- 3. Golden, R. M., Nandy, S., Patel, V. (2019). Cross-validation nonparametric bootstrap study of the Linhart-Volkers-Zucchini Out-of-Sample Prediction Error Formula for Logistic Regression Model. *In Joint Statistical Meetings Proceedings*, Institute of Mathematical Statistics. Alexandria, VA: American Statistical Association. 1810-1824.

- 4. Golden, Richard M. (2015). Statistical Pattern Recognition. In James D. Wright (ed.). International Encyclopedia of the Social and Behavioral Sciences, Vol. 23, Second Edition. Amsterdam: Elsevier, pp. 411-417.
- 5. Golden, Richard M.; Henley, Steven S.; White Jr., Halbert; and Kashner, T. Michael (2013). "New Directions in Information Matrix Testing: Eigenspectrum Tests." in Causality, Prediction, and Specification Analysis: Recent Advances and Future Directions Essays in Honour of Halbert L. White, Jr. (Festschrift Hal White Conference), Norman Rasmus Swanson and Xiaohong Chen, editors, New York: Springer, pp. 145-178.
- 6. Dasgupta, S., Golden, R. M., Ng, V. (2012). Clustering documents along multiple dimensions. In *Proceedings of the Twenty-Sixth AAAI Conference on Artificial Intelligence*. AAAI Press, pp. 879-885.
- 7. Golden, R. M. (2010). Artificial Neural Networks. In H. Bidgoli (ed.) The Handbook of Technology Management. Volume 3. New York: Wiley, pp. 331-346.
- 8. Ismaili, P. B. and Golden, R. M. (2008). Can expertise be discerned from traversal behavior in a content designed hypertext (web) environment. In J. Zamanillo, S. de la Maz, & P. Espi (Eds.), DIWEB'08 Proceedings of the 8th WSEAS International Conference on Distance Learning and Web Engineering (pp.202-206). WSEAS: Wisconsin.
- 9. Wong, W. E., Shi, Y., Qi, Y., and Golden, R. (2008). Using an RBF neural network to locate program bugs. In *Proceedings of the 19<sup>th</sup> IEEE International Symposium on Software Reliability Engineering (ISSRE)*, Seattle, pp. 27-38.
- 10. Goldman, S. R., Golden, R. M., and van den Broek, P. (2007). Why are computational models of text comprehension useful? In. F. Schmalhofer and C. A. Perfetti (eds.) Higher Level Language Processes in the Brain: Inference and Comprehension Processes, Mahwah: New Jersey, Erlbaum.
- 11. Golden, R. M., and Goldman, S. R. (2006). An empirical feasibility study of the ARCADE system. In R. Sun (ed.) *Proceedings of the 28<sup>th</sup> Annual Cognitive Science Society Conference*. Mahwah, New Jersey, 1376-1381.
- 12. Jaynes, C. and Golden, R. M. (2003). Statistical detection of local coherence relations in narrative recall and summarization data. In R. Alterman and D. Kirsh (eds.) Proceedings of the 25th Annual Conference of the Cognitive Science Society, Boston, MA: Cognitive Science Society, 3-8.
- 13. Niederberger, C. S., and R. M. Golden (2001). Artificial neural networks in urology: applications, feature extraction and user implementations, In R. Dybowski and V. Gant (eds.) *Clinical Applications of Artificial Neural Networks*, Cambridge, MA: Cambridge University Press, 120-142.
- 14. Golden, R. M. (2001). Statistical pattern recognition. In N. J. Smelser and P. B. Baltes (eds.) *International Encyclopedia of the Social and Behavioral Sciences*, Elsevier, Oxford, UK, Vol. 22, pp. 15040-15044.
- 15. Golden, R. M. (2001). Artificial Neural Networks: Neurocomputation. In N. J. Smelser and P. B. Baltes (eds.) *International Encyclopedia of the Social and Behavioral Sciences*, Elsevier, Oxford, UK, Vol. 2, pp. 806-811.
- 16. Durbin, M. A., Earwood, J., & Golden, R. M. (2000). Hidden Markov models for coding story recall data In *Proceedings of the 22nd Annual Cognitive Science Society Conference*. Mahwah, New Jersey, 113-118.

- 17. Golden, R. M. (2000). Kirchoff law Markov fields for analog circuit design. In S. A. Solla, T. K. Leen, and K. R. Muller (eds.) Neural Information Processing Systems Proceedings, 12, MIT Press, Cambridge, pp. 907-913.
- 18. Golden, R. M., Henley, S. S., Bodine, H. L., Dawes, R. L., Kashner, T. M. (1997). Using constrained categorical regression to identify structural relationships in epidemiological data. In James G. Anderson and Meyer Katzper (eds.) Simulation in the Medical Sciences; Proceedings of the 1997 Western Multiconference. Society for Computer Simulation International, San Diego, CA. [6 pages].
- 19. Golden, R. M. (1997). Optimal statistical goals for neural networks are necessary, important, and practical. In D. S. Levine and W. R. Elsberry (eds.) Optimality in Biological and Artificial Neural Networks? Mahwah: NJ. Lawrence Erlbaum. 145-159.
- 20. Bodine, H., Henley, S., Dawes, R., Golden, R. M., Kashner, T. M. (1996). Data modeling using constrained categorical regression. In C. H. Dagli, M. Akay, C. L. Chen, B. R. Fernandez, and J. Ghosh Intelligent Engineering Systems Through Artificial Neural Networks, Vol. 6: Proceedings of the 1996 Artificial Neural Networks in Engineering, ASME Press, New York, 1033-1038.
  - 21. Golden, R. M., Henley, S. S., Bodine, H., Dawes, R. L., Kashner, T. M. (1996).

    Pruning a softmax neural network using principled optimal brain damage. In

    Proceedings of the 1996 World Congress on Neural Networks. INNS Press, Erlbaum, NJ,
    323-330.
  - 22. Niederberger, C. S., Pursell, S., and Golden, R. M. (1996). A neural network to predict lifespan and new metastases in patients with renal cell cancer. In E. Fiesler, R. Beale, G. L. Murphy, C. Niederberger, K. Torkkola, and C. Wellekens (eds.) Handbook of Neural Computation. Oxford University Press (New York) and Institute of Physics Publishing (Bristol, United Kingdom), 1-6.
  - 23. Rumelhart, D. E., Durbin, R., Golden, R. M., Chauvin, Y. (1996). Backpropagation: The basic theory. In P. Smolensky, M. C. Mozer, and D. E. Rumelhart(eds.)

    Mathematical Perspectives on Neural Networks. Erlbaum: NJ, 533-566.
  - 24. Golden, R. M. (1996). Using Marr's framework to select appropriate mathematical methods for neural network analysis and design. In *Proceedings of the 1996 World Congress on Neural Networks*. INNS Press, Erlbaum, NJ, 1007-1010.
  - 25. Niederberger, C. S., Michaels, E. K., Cho, L., Hong, Y., Brown, B., Ross, L. S., Golden, R. M. (1996). A neural computational model of stone recurrence after ESWL. In *Proceedings of the International Conference on Engineering Applications of Neural Networks*, 423-426. Systems Engineering Association, Finland.
  - 26. Golden, R. M. (1996). Interpreting objective function minimization as intelligent inference. In J. Albus, A. Meystel, and R. Quintero (eds.) Intelligent Systems: A Semiotic Perspective, Proceedings of An International Multidisciplinary Conference Volume I: Theoretical Semiotics. U.S. Government Printing Office, Washington, D.C. [5 pages].
  - 27. Rumelhart, D. E., Durbin, R., Golden, R., and Chauvin, Y. (1995). Backpropagation: The basic theory. In Y. Chauvin and D. E. Rumelhart (eds.), Backpropagation: Theory, Architectures, and Applications. Hillsdale: NJ. Lawrence Erlbaum, 1-34.
  - 28. Golden, R. M., Rumelhart, D. E., Strickland, J., and Ting, A. (1994). Markov random fields for text comprehension. In D. Levine and M. Aparicio IV (Eds.), Neural Networks for Knowledge Representation and Inference. Hillsdale: NJ. Lawrence Erlbaum, 283-309.

- 29. Qin Y, Lamb DJ, Golden RM, Niederberger C. (1994). A neural network predicts mortality and new metastases in patients with renal cell cancer. Proceedings of the First World Congress on Computational Medicine, Public Health and Biotechnology-Building a Man in the Machine, Part III, Series in Mathematical Biology and Medicine, Volume 5: 1325-1341.
- 30. Golden, R. M., Golden, S. F., Strickland, J., and Choi, I. (1993). A psychometric PDP model of temporal structure in story recall. In *Proceedings of the Fifteenth Annual Cognitive Science Society Conference*. Hillsdale: NJ. Lawrence Erlbaum, 487-491.
- 31. Golden, R. M., and Rumelhart, D. E. (1991). A distributed representation and model for story comprehension and recall. In *Proceedings of the Thirteenth Annual Cognitive Science Society Conference*. Hillsdale: NJ. Lawrence Erlbaum, 7-12.
- 32. Schley, C., Chauvin, Y., Henkle, V., and Golden, R. M. (1991). Neural networks structured for control application to aircraft landing. In D. S. Touretzky and R. Lippman (eds.), Advances in Neural Information Processing Systems 3. Morgan Kaufmann, San Mateo, CA, 415-421.
- 33. Golden, R. M. (1988b). Relating neural networks to traditional engineering approaches. The Proceedings of the Artificial Intelligence Conference/West. Tower Conference Management Company, IL, 255-260.
- 34. Golden, R. M. (1988c). Probabilistic characterization of neural model computations. In D. Z. Anderson (Ed.) *Neural Networks and Information Processing*. New York: NY: AIP, 310-316.
- 35. Golden, R. M. (1988d). A developmental neural model of visual word perception. In D. Waltz and J. A. Feldman (eds.) *Connectionist Models and their Implications*. NJ: Ablex, 119-154.
- 36. Golden, R. M. (1986c). Representing causal schemata in connectionist systems. Proceedings of the Eighth Annual Cognitive Science Society. Hillsdale, NJ: Erlbaum, 13-22.
- 37. Anderson, J. A., Golden, R. M., and Murphy, G. L. (1986). Concepts in distributed systems. In H. Szu (Ed.), *SPIE. Advanced Institute, Optical and Hybrid Computing*. Bellingham, Washington: SPIE, 13-22.
- 38. Golden, R. M. (1985). A developmental neural model of word perception. *Proceedings* of the Seventh Annual Conference of the Cognitive Science Society, 27-35.

#### Invited Book Reviews and Refereed Commentaries

- 1. Henley, S. S., Kashner, T. M., Golden, R. M., Westover, A. N. (2016). "Response to letter regarding "A systematic approach to subgroup analyses in a smoking cessation trial." The American Journal of Drug and Alcohol Abuse, 42. [Invited Commentary]
- 2. Townsend, J. T., Golden, R. M., Wallsten, T. (2005). Quantitative training in psychology is deteriorating: Traditional methodologists, mathematical psychologists, and psychology face a challenge. In *Psychological Science Agenda*, 19 (9), October 2005. American Psychological Association Online.
- 3. Golden, R. M. and Goldman, S. R. (2004). Automatized reading comprehension ability assessment: How much or what? *Measurement*, 2, 45-48.
- 4. Golden, R. M. (2002). Spiking interest in computational modeling: A unified approach to cognitive neuroscience. Invited Book Review. *Journal of Mathematical Psychology*, 46, 636-653.

- 5. Golden, R. M. (2000). Some cautionary remarks on the ''localist model'' concept. Commentary. The Behavioral and Brain Sciences, 23, 478.
- 6. Golden, R. M. (1997). Model-based learning problem taxonomies. Commentary. The Behavioral and Brain Sciences, 20, 73-74.
- 7. Golden, R. M. (1997). Exploring the diversity of artificial neural network architectures. Invited book review. *Journal of Mathematical Psychology*, 41, 287-292.
- 8. Golden, R. M. (1996). Where are the "neurons" in Neural Networks? Invited book review. *Journal of Mathematical Psychology*, 40, 99-102.
- 9. Golden, R. M. (1994). Strong and weak formal specifications. Commentary. The Behavioral and Brain Sciences, 17, 668.
- 10. Golden, R. M. (1990). Are connectionist models just statistical pattern classifiers? Commentary. The Behavioral and Brain Sciences, 13, 494-495.
- 11. Golden, R. M. (1988e). Statistical rationality. Commentary. Behavioral and Brain Sciences, 11, 35.
- 12. Golden, R. M. (1986d). On some specific models of intentional behavior. Commentary. The Behavioral and Brain Sciences, 9, 144-145.

#### Plenary and Invited Talks

- 1. Golden, R. M. "From Neuroscience to Machine Learning Biological and nonbiological neural networks". (Virtual) Winter Camp for Neuroscience and Cognitive Behavior for High School Students. University of Texas at Dallas, Richardson, TX., December 2020.
- 2. Golden, R. M. Invited Symposium Speaker at the (Virtual) Symposium "Robotics, Artificial Intelligence & Machine Learning: 2020 Challenges for Urologic Research Series" held prior to the 2020 Annual Meeting of the American Urological Association. Washington, D.C. May 2020.
- 3. Golden, R. M. Introduction to Neural Networks (Machine Learning Algorithms).
  University of Texas at Dallas Artificial Intelligence Society Talk. University of Texas at Dallas, Richardson, TX, November 3, 2016.
- 4. Golden, R. M., Henley, S. S., Kashner, T. M., Katz, R. D., White, H. Trace and Determinant Information Matrix Goodness-of-Fit Tests for Logistic Regression Modeling Applications. *University of Texas at Dallas Math Department Colloquium*, Richardson, TX, October 12, 2004.
- 5. Golden, R. M. Neural Models as Parametric Statistical Inference Engines. Invited talk. *Society for Mathematical Biology*. University of Michigan, Ann Arbor, MI, July 28, 2004.
- 6. Golden, R. M., Goldman, S. R., Thomas, C., Oney, B., Macleod, S., and Lauterbach, M. Modeling text understanding: Applications for diagnostic assessment of reading. Invited talk. International Conference on Higher Level Language Processes in the Brain: Inference and Comprehension Processes. Hanse Institute for Advanced Study. Delmenhorst, Germany, June 21-June 25, 2003.
- 7. Golden, R. M. Automatic semantic annotation of domain-specific free response data. 2<sup>nd</sup>
  Annual Research Symposium of the Human Language Technology Research Institute.
  University of Texas at Dallas, March 10-11, 2003.
- 8. Golden, R. M. Statistical hypothesis testing in complex behavioral simulation models. Plenary Invited Talk. 34th Annual Meeting of the Mathematical Psychology Society, Brown University, Providence, RI, July 26-July 28, 2001.

- 9. Golden, R. M. Statistical hypothesis testing with possibly misspecified and non-nested statistical pattern recognition models. Invited talk. *LEMS Laboratory*, Electrical Engineering Department. Brown University, Providence, RI, 2001, July 29-2001.
- 10. Golden, R. M. Statistical tests for deciding which neural network architecture ''best-fits'' a given statistical environment. Invited talk. *Institute of Neural Computation. November 17, 1998. University of California at San Diego, La Jolla, CA.*
- 11. Golden, R. M. Knowledge digraph contribution analysis of human recall data for semantic network identification and validation. Invited talk. *Artificial Intelligence Research Group*. November 16, 1998. University of California at San Diego, La Jolla, CA.
- 12. Golden, R. M. Expected loss model selection statistical tests for comparing non-nested, nested, and misspecified models. Invited talk. *Joint Statistical Meetings.* August 9-13, 1998. Dallas, Texas.
- 13. Golden, R. M. Towards a unified mathematical theory of neural network analysis and design. Invited talk. Keynote speaker. Second Joint Mexico-US International Conference on Neural Networks and Neurocontrol. August 19-29, 1997, Playa del Carmen, Quintana Roo, Mexico.
- 14. Golden, R. M. Model selection statistical tests for comparing non-nested and misspecified models. Invited talk. *Model Selection Conference* (sponsored by the *Society for Mathematical Psychology*). August 3-4, 1997, Bloomington, Indiana.
- 15. Golden, R. M. Interpreting objective function minimization as intelligent inference. Invited talk. International Multidisciplinary Conference Intelligent Systems: A Semiotic Perspective October 20-23, 1996, Gaithersburg, Md.
- 16. Golden, R. M. Markov random fields for text knowledge schema modeling. Invited talk. Symposium on High-Performance Computing in the Behavioral Sciences. May 10-12, 1996. University of Minnesota Supercomputer Institute.
- 17. Golden, R. M. Analysis of complex information processing systems. Invited talk. *Evolving complexity: Challenges to society, economy, and the individual.* University of Texas at Dallas, Richardson, Texas, November 1994.
- 18. Golden, R. M. Analysis of story recall data using a connectionist model. Invited talk. *Center for Research, Learning, Perception, and Cognition*. University of Minnesota, May 1993.
- 19. Golden, R. M. Disciplined connectionist modelling. Invited talk. *Center for Research, Learning, Perception, and Cognition*. University of Minnesota, May 1993.
- 20. Golden, R. M. A hidden Markov model of story comprehension and recall. Invited talk. *Educational Testing Services*, Princeton, NJ. February, 1990.
- 21. Golden, R. M. Stability properties of the "Brain-State-in-a-Box" neural network model. Invited talk. *International Conference on Dynamical Systems, Control Theory, and Applications*. Wright State University. Dayton, Ohio. June 1989.
- 22. Golden, R. M. Relating neural networks to traditional engineering approaches. Invited talk. *AI West 1988*. Long Beach, CA. May 1988.
- 23. Golden, R. M. Modelling memory for routine action sequences. Invited talk. *Center for Adaptive Systems*. Boston University. Boston, MA. November, 1986.

## Talks and Posters (Refereed but not Invited)

- 1. Fox, C. P. and Golden, R. M. Using cognitive diagnostic modeling to investigate learning taxonomy assumptions. Poster presented at the  $53^{rd}$  (Virtual) Annual Meeting of the Society for Mathematical Psychology.
- 2. Golden, R. M. New scalable misspecification tests for G-DINA models with many parameters. Talk presented at the  $85^{th}$  Annual (Virtual) International Meeting of the Psychometric Society.
- 3. Sudheesh, A., and Golden, R. M. Exploring temporal functional dependencies between latent skills in summative assessments. Poster presented at the 85<sup>th</sup> Annual (Virtual) International Meeting of the Psychometric Society.
- 4. Malaiya, R. and Golden, R. M. Simulation studies of item bias estimation. Poster presented at the  $85^{th}$  Annual (Virtual) International Meeting of the Psychometric Society.
- 5. Golden, R. M., Nandy, S., Patel, V. (2019). Cross-validation nonparametric bootstrap study of the Linhart-Volkers-Zucchini Out-of-Sample Prediction Error Formula for Logistic Regression Model. Presented at the 2019 Joint Statistical Meetings. Denver, Colorado.
- 6. Stouffer, K., Ghiasinejad, S., Golden, R. M. (2017). "Effects of Verbal Cognitive Flexibility and Verbal Working Memory Span on Recall of Expository Texts with Topic Shifts". Presented at the  $26^{th}$  Annual Society for Text and Discourse Meeting, Philadelphia, PA.
- 7. Stouffer, K., Ghiasinejad, S., Golden, R. M. (2016). "Effects of Executive Processes on Recall of Expository Text." Reprogramming the Brain to Health: Computational Psychiatry and Neurology. Annual University of Texas at Dallas and University of California Berkeley Brain Symposium conducted at the Center for Brain Health, Dallas, TX.
- 8. Golden, Richard, M., Nandy, Shaurabh, Patel, Vishal, and Viraktamath, Pratibha (2015). "A Laplace approximation for approximate Bayesian model selection."

  Presented at the Advances in Approximate Bayesian Inference Workshop at the 2015

  Neural Information Processing Systems Conference, Montreal, Quebec, Canada,
  December 11, 2015.
- 9. Golden, Richard, M. (2015). "A stochastic approximation expectation maximization theorem with applications for adaptive learning, adaptive control, Markov fields, and missing data analysis." Presented at the 48th Annual Meeting of the Society for Mathematical Psychology, Newport Beach, California, July 17-21, 2015.
- 10. Stouffer, K., Ghiasinejad, S., and Golden, R. M. "Effects of verbal cognitive flexibility on memory and comprehension for expository text." Presented at the 24<sup>th</sup> Annual Society for Text and Discourse Meeting, Chicago, Ill, July 6-8, 2015.
- 11. Ryland, J., Golden, R. M., O'Toole, A. J. "Orientation, congruency, and rotary motion: Models of object identification." 2015 Vision Sciences Society Conference. St. Pete Beach, Florida, May 15-20, 2015.
- 12. Golden, Richard, M. (2015). "Stochastic descent analysis of representation learning algorithms." Presented as a workshop contribution at the 2015 International Conference on Learning Representations, San Diego, California, May 7-9, 2015.
- 13. Golden, Richard, M. "Yet another stochastic convergence analysis of residual gradient temporal difference and Q learning". Presented at the  $47^{th}$  Annual Meeting

- of the Society for Mathematical Psychology, Quebec City, Canada, July 18-21, 2014.
- 14. Stouffer, K., Ghiasinejad, S., and Golden, R. M. "Effects of prior knowledge and cognitive flexibility on memory and comprehension for expository text." Presented at the 2014 24<sup>th</sup> Annual Society for Text and discourse Conference, Chicago, Illinois, July, 2014.
- 15. Dasgupta, S., Golden, R. M., Ng, V. Clustering documents along multiple dimensions. Twenty-Sixth AAAI Conference on Artificial Intelligence, Ontario, Canada, July 22-26, 2012. (Acceptance Rate: 26%).
- 16. Golden, Richard, M., Henley, S. S., and Kashner, Michael, T. "Generalized Information Matrix Tests: A unified Theory for Goodness-of-Fit Analysis."

  Presented at the 45<sup>th</sup> Annual Meeting of the Society for Mathematical Psychology, Columbus, Ohio, July 21-24, 2012.
- 17. Bichler, A., Ghiasinejad, S., and Golden, R. M. "An Evaluation of Behavioral Similarities Between Human Coders and an Automated System for Coding Free Response Data." Presented at the 45<sup>th</sup> Annual Meeting of the Society for Mathematical Psychology, Columbus, Ohio, July 21-24, 2012.
- 18. Golden, Richard M.; Henley, Steven S.; White Jr., Halbert L.; and Kashner, T. Michael. "Specification Testing using Eigenspectrum-Based Information Matrix Tests." Presented at the 44<sup>th</sup> Annual Meeting of the Society for Mathematical Psychology, Boston, MA, July 15-18, 2011.
- 19. Golden, Richard M.; Henley, Steven S.; White Jr., Halbert L.; and Kashner, T. Michael. New Directions in Information Matrix Testing: Eigenspectrum Tests." presented at the Conference in Honor of Halbert L. White, Jr. Causality, Prediction, and Specification Analysis: Recent Advances and Future Directions, San Diego, CA, May, 2011.
- 20. Golden, R. M., Henley, S., White, H., and Kashner, T. M. Application of a Robust Differencing Variable Technique to Veteran Affairs (VA) Learners' Perceptions Survey. Presented at the 43<sup>rd</sup> Annual Meeting of the Society for Mathematical Psychology, August 7-10, 2010.
- 21. Golden, R. M., Henley, S., White, H., and Kashner, T. M. Correct Statistical Inferences using Misspecified Models with Missing Data with Application to the Learners' Perception Survey. Presented at the Joint Annual Conference of the 42<sup>nd</sup> Annual Meeting of the Society for Mathematical Psychology and the 40<sup>th</sup> Annual Meeting of the European Mathematical Psychology Group, Amsterdam, Netherlands, August 1-4, 2009.
- 22. Golden, R. M., and Ismaili, P. B. Technologies for characterizing human hypertext comprehension. *IEE Research and New Venture Showcase: Technologies for Understanding Human Language*, University of Texas at Dallas, Richardson, TX, January 23, 2009.
- 23. Ismaili, P. B. and Golden, R. M. (2008). Can expertise be discerned from traversal behavior in a content designed hypertext (web) environment. 8<sup>th</sup> WSEAS International Conference on Distance Learning and Web Engineering. University of Cantabria, Santander, Spain.
- 24. Ismaili, P., and Golden, R. M. Knowledge Digraph Contribution (KDC) Analysis for a Hypertext Mental Model Application. 41<sup>st</sup> Annual Meeting of the Society for Mathematical Psychology, July 26-July 29, 2008, Washington, D.C.
- 25. Golden, Henley, White, Kashner, and Katz. Theorems Supporting Statistical Inference for Possibly Misspecified Models in the Presence of Missing Data. 40<sup>th</sup>
  Annual Meeting of the Society for Mathematical Psychology. July 25-July 28, 2007,

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- 26. Yoshida, M., Katz, W. F., Henley, S. S., and Golden, R. M. Modeling children's and adult's prosodic-cue perception for compound word ambiguity resolution. 40<sup>th</sup> Annual Meeting of the Society for Mathematical Psychology. July 25-July 28, 2007, Irvine, CA.
- 27. Golden, R. M., Henley, S. S., White, H., Kashner, M. T., Katz, R. D. Covariance matrix estimation for misspecified models with missing data. 39<sup>th</sup> Annual Meeting of the Society for Mathematical Psychology, Vancouver, B.C., CANADA, July 29-August 1, 2006.
- 28. Ismaili, P., Golden, R. M., and Goldman, S. R. Simulation studies of statistical inference in KDC analysis. Poster presented at the 39th Annual Meeting of the Society for Mathematical Psychology, Vancouver, B.C., CANADA, July 29-August 1, 2006.
- 29. Ghiasinejad, S., and Golden, R. M. A hidden Markov model of lexicon and word order effects on role assignment. Poster presented at the 39<sup>th</sup> Annual Meeting of the Society for Mathematical Psychology, Vancouver, B.C., CANADA, July 29-August 1, 2006.
- 30. Golden, R.M., Henley, S.S., White, H. L., Kashner, M. T., How to analyze data which is not there! Brown Bag Presentation, School of Behavioral and Brain Sciences, March 1, 2006.
- 31. Golden, R. M., and Goldman, S. R. ARCADE: Automated Reading Comprehension and Diagnostic Evaluation. Poster presented at the *Principal Investigator Meeting*, Crystal Gateway Marriott, December 8-9, 2005.
- 32. Golden, R. M., and Goldman, S. R. Knowledge digraph contribution analysis of naturalistic free response data. 38<sup>th</sup> Annual Meeting of the Society for Mathematical Psychology, The University of Memphis, Memphis, TN, August 4-August 5, 2005.
- 33. Jaynes, C. M., and Golden, R. M. Investigation of individual differences in sequential production data. Poster presented at the 37<sup>th</sup> Annual Meeting of the Society for Mathematical Psychology, University of Michigan, Ann Arbor, MI, July 28-August 1, 2004.
- 34. Golden, R. M., Henley, S. S., White, H., Kashner, T. M., Katz, R. D. Making correct statistical inferences in the presence of missing data using a wrong probability model. 37th Annual Meeting of the Society for Mathematical Psychology, University of Michigan, Ann Arbor, MI, July 28-August 1, 2004.
- 35. Jaynes, C. M., and Golden, R. M. Statistical detection of local coherence relations in narrative recall and summarization data.  $25^{th}$  Annual Conference of the Cognitive Science Society, Boston, MA, July 31-August 2, 2003.
- 36. Jaynes, C. M., and Golden, R. M. Distinctive sequential statistical regularities in story summary and story recall data. Poster presented at the 36th Annual Meeting of the Society for Mathematical Psychology, Weber State University, Ogden, Utah, July 24-27, 2003.
- 37. Golden, R. M. Robust asymptotic statistical theory for knowledge digraph contribution analysis. 36th Annual Meeting of the Society for Mathematical Psychology, Weber State University, Ogden, Utah, July 24-27, 2003.
- 38. Goldman, S. R., Golden, R. M., Thomas, C., Oney, B., Macleod, S., and Lauterbach, M. Applications of text processing models to diagnostic assessment of reading.

  Poster presented at the *Thirteenth Annual Meeting of the Society for Text and*

Discourse, Madrid, Spain, June 26- June 28, 2003.

- 39. Oney, B., Goldman, S. R., Lauterbach, M., Braasch, J., Kusumgar, R., Brodowinska, and Golden, R. M. Assessing Complex Comprehension through Computer Based and Paper and Pencil Testing. 84th Annual Meeting of the American Educational Research Association, Chicago, IL, April 21-25, 2002.
- 40. Ghiasinejad, S. and Golden, R. M. An Empirical Evaluation of the AUTOCODER System for Automatic Semantic Coding of Children Summarization Data. *12th annual meeting of the Society for Text and Discourse*. Palmer House Hilton, Chicago, IL, June 27-June 30, 2002.
- 41. Golden, R. M., Henley, S. S., Kashner, T. M., Katz, R. D. Information Matrix Goodness-of-Fit Tests for Explanatory Logistic Regression and Neural Net Models. 35th Annual Meeting of the Society for Mathematical Psychology. Miami University, Oxford, Ohio, July 25-July 28, 2002.
- 42. Golden, R. M., Jaynes, C. Earwood, J., Durbin, M. A. Coding unsegmented free response data using AUTOCODER. *Eleventh Annual Meeting of the Society for Text and Discourse*. University of California, Santa Barbara (UCSB), July 12-July 14, 2001.
- 43. Earwood, J., Durbin, M. A., & Golden, R. M. Autocoder: An intelligent assistant for coding protocol data. The Tenth Annual Meeting of the Society for Text and Discourse. Lyons, France, July 19-July 21, 2000.
- 44. Durbin, M. A., Earwood, J., & Golden, R. M. Hidden Markov models for coding story recall data. *The 22nd Annual Cognitive Science Society Conference*. Institute for Research in Cognitive Science. University of Pennsylvania. Philadelphia, PA, August 13-August 15, 2000.
- 45. Golden, R. M. Kirchoff law Markov fields for analog circuit design. 13th Annual Neural Information Processing Systems Conference. Denver, Colorado, November 29-December 1, 1999.
- 46. Golden, R. M. A model selection test for misspecified time-series models. 32th Annual Mathematical Psychology Meeting. University of California at Santa Cruz. Santa Cruz, California, August 15-17, 1999.
- 47. Golden, R. M., S. S. Henley, H. L. Bodine, R. L. Dawes, T. M. Kashner. Using constrained categorical regression to identify structural relationships in epidemiological data. 1997 Western Multiconference (WMC 97). Phoenix, Arizona, January 13-15, 1997.
- 48. Golden, R. M. A connectionist/statistical model: Memory for event sequences in text. *Armadillo Conference*. University of Texas at Dallas. Richardson, TX.May 23-24, 1996.
- 49. Bodine, H., S. Henley, R. Dawes, R. Golden, M. Kashner. Data modeling using constrained categorical regression. 1996 Artificial Neural Networks in Engineering (ANNIE 96). St. Louis, Missouri, November 10-13, 1996.
- 50. Golden, R. M., S. S. Henley, H. L. Bodine, R. L. Dawes, T. M. Kashner. Pruning a softmax neural network using principled optimal brain damage. 1996 World Congress on Neural Networks. San Diego, California, September 15-18, 1996.
- 51. Golden, R. M. Synthesizing recall protocols for non-linear texts. Sixth Annual Winter Text Conference. Teton Village, Wyoming, January, 1995.

- 52. Golden, R. M. Temporal Markov field models of naturalistic text. Sixth Annual Meeting of the Society for Text and Discourse. July 11 12, 1996, La Jolla, California.
- 53. Golden, R. M. Mathematical methods for connectionist model analysis and design. 29th Annual Mathematical Psychology Meeting. August 1-4, 1996, University of North Carolina at Chapel Hill.
- 54. Golden, R. M. A temporal Markov random field model of text recall. 28th Annual Mathematical Psychology Conference, Irvine, California, August, 1995.
- 55. Golden, R. M. Synthesis of text recall data from a probabilistic semantic representation. Fifth Annual Meeting of the Society for Text and Discourse, Albuquerque, New Mexico, July 1995.
- 56. Golden, R. M., and Ragan, S. Toward partial automatization of text knowledge digraph analysis. Fifth Annual Meeting of the Society for Text and Discourse, Albuquerque, New Mexico, July, 1995.
- 57. Krongrad, A., Granville, L., Burke, M., Golden, R., Cho, L., and Niederberger, C. Novel markers of quality of life: A potential framework for targeting prostate therapies. VA HSR&D Service Meeting, Washington, D.C., February 28-March 2, 1995.
- 58. Golden, R. M. Constrained categorical time-series analysis of text recall data using a connectionist model. Fifth Annual Winter Text Conference. Teton Village, Wyoming, January, 1994.
- 59. Niederberger, C., Golden, R. M., Lamb, D. J., Ross, L. S., Guinan, P. S., Pursell, S. E., Cho, L., and Qin, Y. A neural network predicts mortality and new metastases in patients with renal cell cancer. *The First World Congress on Computational Medicine, Public Health, and Biotechnology.* Austin, TX, April 1994.
- 60. Golden, R. M., Golden, S. F., Strickland, J., and Choi, I. A psychometric PDP model of temporal structure in story recall. *Fifteenth Annual Cognitive Science Conference*. Boulder, CO, June, 1993.
- 61. Golden, R. M. Statistical analysis of categorical time-series data. *Twenty-sixth Annual Conference of the Mathematical Psychology Society*. Norman, OK, August, 1993.
- 62. Golden, R. M. How to decide which semantic network ''best fits'' the data. Third Annual Meeting of the Society for Text and Discourse. Boulder, CO, June, 1993.
- 63. 25. Golden, R. M. A misspecified model for the analysis of text recall data. Twenty-fifth Annual Conference of the Mathematical Psychology Society. San Francisco, August, 1992.
- 64. Golden, R. M. New methods for text recall and summarization data analysis. Second Annual Society for Text and Discourse Meeting, San Diego, June, 1992.
- 65. Tingley, E. C., and Golden, R. M. Sequence and structure of symbolic play between well and depressed mothers and their toddlers. *Eighth International Conference on Infant Studies*, Miami, May, 1992.
- 66. Golden, R. M. and Rumelhart, D. E. A distributed representation and model for story comprehension and recall. *Thirteenth Annual Cognitive Science Conference*. Chicago. August 1991.
- 67. Schley, C., Chauvin, Y., Henkle, V., and Golden, R. M. A general network architecture for nonlinear control problems. *Neural Information Processing Conference*. Denver, CO. November, 1990.

- 68. Golden, R. M. Toward a Markov random field model of story comprehension and recall. Fourth Annual Workshop of the Metroplex Institute for Neural Dynamics, IBM Westlake, TX. October, 1990.
- 69. Golden, R. M. Understanding connectionist systems: A statistical viewpoint. Twentieth Annual Mathematical Psychology Meeting. University of California at Berkeley. Berkeley, CA. August, 1987.
- 70. Golden, R. M. Representing causal schemata in connectionist systems. *Eighth Annual Conference of the Cognitive Science Society*. University of Massachusetts at Amherst, MA. August 1986.
- 71. Golden, R. M. A nonlinear analysis of the "Brain-State-in-a-Box" model.

  \*\*Eighteenth Annual Mathematical Psychology Meeting.\*\* University of California at San Diego. La Jolla, CA. August 1985.
- 72. Golden, R. M. A developmental neural model of word perception. Seventh Annual Conference of the Cognitive Science Society. University of California at Irvine. Irvine, CA. August, 1985.

## Unrefereed Talks and Posters and Colloquia

- 1. Golden, Richard, M. (2018). Experiments in Cyberlearning: The Echo Video System. Interactive Lunch and Learn: Echo 360 System. University of Texas at Dallas. May 15, 2018.
- 2. Golden, Richard, M. (2018). Asymptotic behavior of nonlinear high-dimensional adaptive learning with cognitive-neuroscience applications. Physics Colloquium, November 7, 2018. University of Texas at Dallas.
- 3. Ghiasinejad, S., and Golden, R. M. Word-order and lexical semantic factors influencing thematic role assignment strategies in sentence comprehension. Poster presented at the 28<sup>th</sup> Annual Conference of the Cognitive Science Society, Vancouver, B.C., CANADA, July 26-July 29, 2006.
- 4. Patel, K., and Golden, R. M. A word-net vector space frequency semantic link distance model of word-meaning equivalence. Poster presented at the 25<sup>th</sup> Annual Conference of the Cognitive Science Society, Boston, MA, July 31-August 2, 2003.

## Published Talk Abstracts (refereed and unrefereed)

- 1. Ghiasinejad, S., and Golden, R. M. (2006). Word-order and lexical semantic factors influencing thematic role assignment strategies in sentence comprehension. In R. Sun (Ed.) Proceedings of the 28<sup>th</sup> Annual Conference of the Cognitive Science Society, Mahwah, NJ: Erlbaum.
- 2. Patel, K., and Golden, R. M. (2003). A word-net vector space frequency semantic link distance model of word-meaning equivalence. In R. Alterman and D. Kirsh *Proceedings* of the 25<sup>th</sup> Annual Conference of the Cognitive Science Society, Boston, MA: Cognitive Science Society. [1 page].
- 3. Golden, R. M. (1996). A semantic Markov field model of text recall. *Proceedings of the Eighteenth Annual Conference of the Cognitive Science Society*. La Jolla, California, p. 769.
- 4. Shoup, A. G., Golden, R. M., and Moushegian, G. (1995). The spatial and temporal distribution of the N100 elicited by interaural time and interaural level difference. Abstracts of the Eighteenth Midwinter Research Meeting for Research in Otolaryngology. St. Petersburg Beach, Florida, p. 137

- 5. Qin, Y., Ross, L. S., Lipshultz, L. I., Lamb, D. J., Golden, R. M., and Niederberger, C. S. (1994). Analysis of a neural network that predicts testis biopsy results with high accuracy. The 50th Annual Meeting of the American Fertility Society. San Antonio, TX, November, pp. 199-200.
- 6. Hayes, S., Golden, R. M., and Assmann, P. (1991). Categorization of CVC syllables at varying speaking rates. Presented at the 122nd Meeting of the Acoustical Society of America. Journal of the Acoustical Society of America, 90, Houston, November, p. 2273.