Steven Walczak

EDUCATION

Ph.D. Computer and Information Sciences University of Florida 1990
Dissertation area: Artificial Intelligence/Machine Learning
Title: Using Inductive Inference of Past Performance to Build Strategic
Cognitive Adversary Models

M.S. Computer Science Johns Hopkins University 1985

B.S. Mathematics Pennsylvania State University 1981

PROFESSIONAL APPOINTMENTS

August 2015-Present *University of South Florida (School of Information)*, **Professor** (08/2021-present), **Associate Professor** (tenured, 08/2015-08/2021), dual appointment with *Florida Center for Cybersecurity*

June 2014-July 2015 University of South Carolina (Integrated Information Technology Department), Associate Professor (tenured), Interim Director of Graduate Studies in Health IT

August 1998-May 2014 *University of Colorado Denver (Business School)*, **Associate Professor** (tenured) (Aug. 2002-May 2014); **Assistant Professor** (Aug. 1998-Aug. 2002)

June 1997-May 1998 University of South Alabama (CIS Department), Associate Professor

May 1994-May 1997 University of South Florida (ISDS Department), Instructor

August 1991-May 1994 University of Tampa (CIS Department), Assistant Professor

January 1988-May 1991 *University of Florida (CIS)*, **Visiting Assistant Professor** (Jan. 1991-May 1991); **Graduate Research/Teaching Assistant** (Jan. 1988-Dec. 1990)

September 1987-December 1987 Computer Science Innovations, Senior Software Engineer

September 1986-September 1987 Harris Corporation (Government Systems), Lead Engineer

July 1981-June 1986 National Security Agency, Associate Computer Scientist

PUBLICATIONS

See attached list.

Google Scholar citation count (March 1, 2023): 4410, *h-index* of 33, *i10-index* of 57. Scopus *h-index* of 23. ORCID: https://orcid.org/0000-0002-0449-6272.

INVITED PRESENTATIONS

- "Artificial Neural Network Research in Healthcare/Epidemiology" presented to Epidemiology Department at USF, 19 May 2016
- "Text Mining to Determine Research Orientation of Academic Manuscripts" presented to FHSLA (Florida Health Sciences Library Association) annual meeting, 8 April 2016
- "Your Website, Your Image" presented for the Rutt Bridges Business Seminar Series, Denver, CO, 30 September 2008, (with Dawn Gregg)
- "Knowledge Management (KM): What is it and Why should we care?" presented at the Architecture, Engineering, and Construction (AEC) Industry IT Manager's National Roundtable meeting, Denver, CO, 3 June 2005
- "Neural Network Forecasting of Financial Time Series: The Case of Managed Foreign Currency Exchange Rates" presented in the Ph.D. IS Seminar series, Denver, CO, 14 April 2005, (with Andrea Hester).
- "Medical Information Retrieval Agents" presented for the Colorado Collaboration on Health and the Internet, Denver, CO, 17 September 2004.
- "Introduction to C#," presented at the Microsoft Regional Training Tour, Austin, TX, 25-26 October 2002.
- "Using Artificial Intelligence (AI) to Solve Business Problems," presented in the Ph.D. Seminar series, Denver, CO, 18 Sept. 2002.
- "Knowledge Management: Capitalizing on Your Company's Intellectual Assets," presented at the Mile Hi PMI Spring Seminar 2002, Denver, CO, 13 May 2002.
- "Using Artificial Intelligence and the Theory of Human Caring to Optimize the Scheduling and Assignment of Nurses," presented at Porter Adventist Hospital for the hospital's Clinical Council, Englewood, CO, 16 May 2001, (with Deborah Kellogg).
- "Clinical Decision Making with Neural Networks," presented at the University of Colorado Health Sciences Center, Denver, CO, 25 February 2000.

AWARDS AND HONORS

Reviewer of the Year Award, 2009, Journal of Theoretical and Applied Electronic Commerce Research.

Best Paper Award, 2002 Information Resources Management Association International Conference.

Best Application Paper Award, 1998 Decision Sciences Institute National Annual Meeting

Educator of the Year 1992-93, presented by Pi Sigma Epsilon, Delta Nu Chapter.

Pi Sigma Epsilon, Marketing Honor Society, inducted 1992.

Nominated and invited for membership in Sigma Xi (The Scientific Research Honor Society), April 2021.

Tau Beta Pi, Engineering Honor Society, inducted 1991.

Upsilon Pi Epsilon, Computer Science Honor Society, sponsored by ACM, inducted 1988.

PROFESSIONAL ORGANIZATIONS AND ACTIVITIES

- Information Resources Management Association (IRMA), 2001 2005, reviewer, track chair for 2003 IRMA International Conference Knowledge Management Track.
- Faculty Adviser for the student Information Systems Association at the University of Colorado Denver, January 2012-January 2013. Activities include: tour of the Denver Broncos IT facilities at Sports Authority Field at Mile High, CIO panel event, tour of Hosting.com, tour of Coors Field IT facilities.
- Healthcare Information and Management Systems Society (HIMSS), 2014 Present, South Carolina local chapter (2014-2018), Central and North Florida local Chapter (2015-Present).
- Applied Sciences, 2000-2022, Editor
- International Journal of Business Environment, 2013 Present, AE (2018 Present), Editorial Board member (2013-2017).
- International Journal of Cloud Applications and Computing, 2017 Present, International Advisory Board.
- International Journal of Healthcare Information Systems and Informatics, 2017 Present, Associate Editor.
- International Journal of Intelligent Information Technologies, 2004 Present, Editorial Review Board.

- Journal of Organizational and End-User Computing (JOEUC), 2003 2019, Editor-in-Chief (January 2016-Decmber 2019), Associate Editor (Aug. 2013-December 2015, January 2020-Present), Editorial Review Board (2003-2013).
- Journal of Theoretical and Applied Electronic Commerce Research, 2008 Present, Editorial Review Board.
- The Learning Organization journal, 2005 Present; Editor-in-Chief (Aug. 2005 Dec. 2007), Editorial Advisory Board (Jan. 2005 July 2005, Jan. 2008 Present).

The Open Medical Informatics Journal, 2008 – 2018, Editorial Advisory Board.

UNIVERSITY SERVICE

- School of Information Diversity Committee, USF, Spring 2021-Present
- USF Faculty Senate Executive Committee, Spring 2018-Spring 2022
- Publications Council, USF, Spring 2018-Spring 2022, Chair (Spring 2018-Spring 2022)
- Sabbatical Committee, USF, 2017-2020, Chair (2018-2020)
- Ethics and Integrity Council, USF, 2017-2020, Chair (2017-18)
- Faculty Council, USF College of Arts and Sciences, 2016-2019
- Healthcare Security Workgroup, Florida Center for Cybersecurity, Spring 2016-2018
- Faculty Affairs Committee, USF School of Information, 2015-2017, Chair (2016-17)
- Graduate Director, University of South Carolina, Spring 2015
- Information Systems Association, University of Colorado Denver (UCD) Management Information Systems Dept., 2010-2013, Faculty Advisor (2012-13)
- Research & Creative Activities Committee, UCD, 2002-2007, Chair (2003-07)
- Academic Affairs Committee, UCD Business School, 2005-2008, Chair (2006-08)

GRANTS

- \$41,698 Xonar Technology Inc., Xonar Safe Research Agreement, Spring semester 2020.
- \$1000 Grant for Network Teaching Lab at USC; Packet Viper PV50 and 4 IBM ThinkPad laptop computers, Fall 2014.

- \$15,495 Grants to set up Network Teaching Lab at UCD; Palo Alto Networks' PAN-200 Next Generation Firewall, Arista Networks' 7050T-36-F-M router, Fall 2013.
- \$250 Microsoft, grant of 2 Samsung Windows Phones, for use in classrooms, Fall 2013.
- \$1,140 Microsoft, mobile computing in the classroom, grant of three HP IPAQ 6925's for use in classrooms, Fall 2008.
- \$8,625 Software Inc., Agent-Based (Smart Spider) Research Grant, 2002
- \$5,000. Centura Health, Research (seed) Grant, 2001-02.
- \$73,425. Microsoft Corporation, program wide licenses for Microsoft Office 1998 and Visual Studio, 1998-99.
- \$10,000. University of South Alabama, College Of Medicine, Department of Surgery, Exploratory Research Grant, June-July 1998.
- \$6,000. NeuralWare Inc. (now Aspen Technologies), 1997.
- \$7,500. University of South Florida, Creative Research and Scholarship Grant, 1995-96.
- \$7,498. University of Tampa, Admissions Department, Research Grant, summer 1993.

TEACHING

Courses Taught:

- Healthcare Information Security and Privacy (including HIPAA compliance issues), undergraduate and graduate level, 5 semesters
- Clinical Decision Support Systems, undergraduate, 3 semesters
- Management of Health Information Technology, undergraduate and graduate, 12 semesters
- Decision Support Systems/Artificial Intelligence, undergraduate and graduate (including 1 Ph.D.), 4 semesters
- Programming (Intro. and advanced, using C, C++, Java, C#, iOS), undergraduate and graduate, 37 semesters
- Object-Oriented Systems Analysis and Design, undergraduate and graduate, 9 semesters
- Knowledge Management, graduate level, 6 semesters

- Information Systems Security and Privacy (including compliance issues), undergraduate and graduate level, 11 semesters
- Data Networking/Infrastructure, undergraduate and graduate, 13 semesters.
- Database (design and management), undergraduate, 3 semesters
- Operating Systems (Unix and Introduction, including web issues), undergraduate, 6 semesters
- Introduction to MIS, graduate (MBA), 5 semesters

Assorted other courses including: Software Engineering, Systems Analysis and Design, File Systems, IS Audit Controls, Introduction to Applications (Word, Excel, Lotus, Access).

Thesis/Dissertation Committees (listed alphabetically, by student last name)

- Lakshmi Anantharamu, Ph.D. dissertation committee member, Dissertation: Communication Algorithms for Adversarial Multiple Access Channels. Graduated Spring 2013.
- Brandon Beemer, Ph.D. dissertation committee member, Dissertation: Dynamic Interaction: A Measurement Development and Empirical Evaluation of Knowledge Based Systems and Web 2.0 Decision Support Mashups. Graduated Spring 2010.
- Gary Borkan, Ph.D. dissertation chair, Dissertation: Online Credit Card Bill Payment and Personality Type. Graduated Fall 2013
- Seyyedali Ziaei, M.S. external dissertation reviewer, The Effect of Ethno/Lingo Diversity on Knowkedge Sharing Effectiveness and Conflict in Groups, Universiti Teknologi Malaysia. Graduated Spring 2011.
- Jonalan Brickey, Colonel, Ph.D. dissertation chair, Dissertation: System for Persona Ensemble Clustering: A Cluster Ensemble Approach to Persona Development. Graduated Summer 2010.
- Allison Shea Gehrke, Ph.D. dissertation committee member, Dissertation: A
 Framework for Automated Performance Tuning and Verification of Numerical Solver
 Codes on the GPU Computing Platform, ABD.
- Richard Mann, Ph.D. Dissertation Chair, topic: Evaluation of Benefits and Drawbacks for Clinical Decision Support Systems Across Multiple User Classes. ABD.

 Vinu Mathews, Master's thesis committee member, Thesis: Prism, A Phoneme Recognition Intelligent Statistical Model: Basis for a Speaker Independent Speech Recognition System. University of South Alabama. Graduated Spring 1998.

PUBLICATIONS

Publications are separated by type, listed chronologically (most recent first) within type, and alphabetized by article title within years.

I. PEER-REVIEWED JOURNALS

- 1. **Walczak, S.**, & Velanovich, V. (2023). A neural network analysis of the effect of high and low frailty index indicators on predicting elective surgery discharge destinations. *PLoS One*, 18(4): e0284206. doi: 10.1371/journal.pone.0284206.
- 2. **Walczak**, **S.** (2023). Artificial Neural Networks and Big Data for Clinical Decision Support. *Yale Journal of Biology and Medicine*, *96*(3), submitted April 2023.
- 3. **Walczak, S.**, & Velanovich, V. (2022). Predicting Elective Surgical Patient Outcome Destination Based on the Preoperative Modified Frailty Index and Laboratory Values. *Journal of Surgical Research*, 275, 341-351. doi: 10.1016/j.jss.2022.02.029.
- 4. **Walczak, S.**, & Velanovich, V. (2021). Identification of Preoperative Clinical Factors Associated with Perioperative Blood Transfusions: An Artificial Neural Network Approach. *International Journal of Health Systems and Translational Medicine*, *1*(1), 62-75. doi: 10.4018/IJHSTM.2021010103.
- 5. Kompally, P., Sethuraman, S. C., **Walczak, S.**, Johnson, S., & Cruz, M. V. (2021). MaLang: A Decentralized Deep Learning Approach for Detecting Abusive Textual Content. *Applied Sciences* (*Computing & Artificial Intelligence* section), 11(18), 8701. doi: 10.3390/app11188701.
- 6. **Walczak, S.** (2021). Predicting Crime and Other Uses of Neural Networks in Police Decision Making. *Frontiers in Psychology*, *12*, 587943. doi: 10.3389/fpsyg.2021.587943.
- 7. **Walczak, S.**, & Mikhail, E. (2021). Predicting Estimated Blood Loss & Transfusions in Gynecologic Surgery Using Artificial Neural Network. *International Journal of Healthcare Information Systems and Informatics*, 16(1), 1-15. doi: 10.4018/IJHISI.2021010101.
- 8. Velanovich, V., & Walczak, S. (2020). Artificial neural networks in surgical research. *The American Journal of Surgery*, 220(6), 1526-1527. doi: 10.1016/j.amjsurg.2020.06.074.
- 9. Sethuraman, S. C., Vijayakumar, V., & Walczak, S. (2020). Cyber Attacks on Healthcare Devices Using Unmanned Aerial Vehicles. *Journal of Medical Systems*, 44(1), Article 29, doi:10.1007/s10916-019-1489-9.
- 10. Sibona, C., **Walczak, S.**, & Baker, E. W. (2020). A Guide for Purposive Sampling on Twitter. *Communications of the AIS*, 46, doi: 10.17705/1CAIS.04622.
- 11. **Walczak, S.**, & Velanovich, V. (2020). Prediction of perioperative transfusions using an artificial neural network. *PLoS ONE*, 15(2): e0229450. doi: 10.1371/journal.pone.0229450.

- 12. **Walczak, S.**, Permuth, J. B., & Velanovich, V. (2019). Analyzing Intraductal Papillary Mucinous Neoplasms Using Artificial Neural Network Methodologic Triangulation. *International Journal of Healthcare Information Systems and Informatics*, 14(4), 21-32, doi: 10.4018/IJHISI.2019100102.
- 13. **Walczak, S.**, Davila, M., & Velanovich, V. (2019). Prophylactic antibiotic bundle compliance and surgical site infections: an artificial neural network analysis. *Patient Safety in Surgery*, *13*, 41, doi: 10.1186/s13037-019-0222-4.
- 14. **Walczak, S.**, & Switzer, A. E. (2019). Raising Social Awareness Through Philately and Its Effect on Philanthropy. *Philanthropy & Education*, *3*(1), 73-102, doi: 10.2979/phileduc.3.1.04.
- 15. **Walczak, S.** (2018). Artificial Neural Network Research in Online Social Networks. *International Journal of Virtual Communities and Social Networking*, 10(4), 1-15, doi: 10.4018/IJVCSN.2018100101. [Note: although the publisher's copyright date on this is 2018, this did not appear in print until August 2019.]
- 16. **Walczak, S.**, & Taylor, N. G. (2018). Geography learning in primary school: Comparing face-to-face versus tablet-based instruction methods. *Computers & Education*, *117*, 188-198, doi: 10.1016/j.compedu.2017.11.001.
- 17. **Walczak, S.**, & Velanovich, V. (2018). Improving Prognosis and Reducing Decision Regret for Pancreatic Cancer Treatment Using Artificial Neural Networks. *Decision Support Systems*, 106, 110-118, doi: 10.1016/j.dss.2017.12.007.
- 18. **Walczak, S.** (2018a). The Role of Artificial Intelligence in Clinical Decision Support Systems and a Classification Framework. *International Journal of Computers in Clinical Practice*, *3*(2), 31-47, doi: 10.4018/IJCCP.2018070103.
- 19. **Walczak, S.** (2018b). Society of Agents A Framework for Multi-Agent Collaborative Problem Solving. *International Journal of Intelligent Information Technologies*, 14(4), 1-23, doi: 10.4018/IJIT.2018100101.
- 20. **Walczak**, S., & Estrada, R. D. (2017). Ameliorating Negative Perceptions of Attention Deficit Hyperactivity Disorder (ADHD) Students. *SM Journal of Community Medicine*, *3*(1), 1025. https://www.jsmcentral.org/sm-community-medicine/fulltext_smcm-v3-1025.pdf.
- 21. Walczak, S., & Okuboyejo, S. R. (2017). An Artificial Neural Network Classification of Prescription Nonadherence. *International Journal of Healthcare Information Systems and Informatics*, *12*(1), 1-13, doi: 10.4018/IJHISI.2017010101.
- 22. **Walczak**, S., & Velanovich, V. (2017a). An Evaluation of Artificial Neural Networks in Predicting Pancreatic Cancer Survival. *Journal of Gastrointestinal Surgery*, 21(10), 1606-1612, doi: 10.1007/s11605-017-3518-7.

- 23. **Walczak, S.**, & Sullivan, J. J. (2017). In their words: classifying organizational reliability from employee speech. *International Journal of Business Environment*, *9*(1), 18-33, doi: 10.1504/IJBE.2017.084704.
- 24. **Walczak, S.** (2017). A Text Analytic Approach to Classifying Document Types. *Journal of Writing Analytics*, 1, 103-146, doi: 10.1177/0093650212453600.
- 25. Sila, I., & Walczak, S. (2017). Universal versus contextual effects on TQM: a triangulation study using neural networks. *Production Planning & Control*, 28(5), 367-386, doi: 10.1080/09537287.2017.1296598.
- 26. Walczak, S. (2016). Artificial Neural Networks and other AI Applications for Business Management Decision Support. *International Journal of Sociotechnology and Knowledge Development*, 8(4), 1-21, doi: 10.4018/IJSKD.2016100101.
- 27. Schooley, B., **Walczak, S.**, Hikmet, N., & Patel, N. (2016), Impacts of Mobile Tablet Computing on Provider Productivity, Communications, and the Process of Care. *International Journal of Medical Informatics*, 88, 62-70, doi: 10.1016/j.ijmedinf.2016.01.010. [AIS SIG Health 2017 Best Paper Meritorious Mention Award]
- 28. **Walczak, S.**, & Borkan, G. L. (2016). Personality Type Effects on Perceptions of Online Credit Card Payment Services. *Journal of Theoretical and Applied Electronic Commerce Research*, 11(1), 67-83, doi: 10.4067/S0718-18762016000100005.
- 29. **Walczak, S.**, & Kellogg, D. L. (2015). A Heuristic Text Analytic Approach for Classifying Research Articles. *Intelligent Information Management*, 7(1), 7-21, doi: 10.4236/iim.2015.71002.
- 30. Ziaei, S., **Walczak, S.**, & Nor, K. M. (2014). The Impact of Ethnic and Lingual Diversity on Short Term Knowledge Sharing. *International Journal of Business Environment*, *6*(3), 246-265, doi: 10.1504/IJBE.2014.063770.
- 31. Sibona, C., & Walczak, S. (2014). Unfriending on Facebook: factors affecting online relationship termination in social networks and its impact on business. *International Journal of Business Environment*, 6(2), 199-221, doi: 10.1504/IJBE.2014.060237.
- 32. Brickey, J., **Walczak, S.**, & Burgess, T. (2012). Comparing Semi-Automated Clustering Methods for Persona Development. *IEEE Transactions on Software Engineering*, 38(3), 537-546, doi: 10.1109/TSE.2011.60.
- 33. **Walczak, S.** (2012). Methodological Triangulation Using Neural Networks for Business Research. *Advances in Artificial Neural Systems*, 2012(517234), 1-12, doi: 10.1155/2012/517234.
- 34. Sibona, C., Walczak, S., Brickey, J., & Parthasarathy, M. (2011). Patient Perceptions of Electronic Medical Records: Physician Satisfaction, Portability, Security, and Quality of Care.

- International Journal of Healthcare Technology and Management, 12(1), 62-84, doi: 10.1504/IJHTM.2011.037221.
- 35. Walczak, S., Kellogg, D. L., & Gregg, D. G. (2010). A Mashup Application to Support Complex Decision-Making of Retail Consumers. *International Journal of Information Systems in the Service Sector*, 2(4), 39-56, doi: 10.4018/jisss.2010100103.
- 36. Gregg, D. G., & Walczak, S. (2010). The Relationship Between Website Quality, Trust, and Price Premiums at Online Auctions. *Electronic Commerce Research*, 10(1), 1-25, doi: 10.1007/s10660-010-9044-2.
- 37. **Walczak, S.**, & Mann, R. (2010). Utilization and Perceived Benefit for Diverse Users of Communities of Practice in a Healthcare Organization. *Journal of Organizational and End User Computing*, 22(4), 24-50, doi: 10.4018/joeuc.2010100102.
- 38. Scott, J. E., & Walczak, S. (2009). Cognitive Engagement with a Multimedia ERP Training Tool: Assessing Computer Self-Efficacy and Technology Acceptance. *Information & Management*, 46(4), 221-232, doi: 10.1016/j.im.2008.10.003.
- 39. **Walczak**, **S.**, & Gregg, D. G. (2009). Factors Influencing Corporate Online Identity: A New Paradigm. *Journal of Theoretical and Applied Electronic Commerce Research*, 4(3), 17-29, doi: 10.4067/S0718-18762009000300003.
- 40. **Walczak, S.** (2009). Managing Personal Medical Knowledge: Agent-based Knowledge Acquisition. *International Journal of Technology Management*, 47(1-3), 22-36, doi: 10.1504/IJTM.2009.024112.
- 41. Gregg, D. G., & Walczak, S. (2008). Dressing Your Online Auction Business for Success: An Experiment Comparing Two E-Bay Businesses. *Management Information Systems Quarterly*, 32(3), 653-670, doi: 10.2307/25148860.
- 42. **Walczak, S.** (2008a). Knowledge Management and Organizational Learning: An International Research Perspective. *The Learning Organization*, *15*(6), 486-494, doi: 10.1108/09696470810907392.
- 43. Gregg, D. G., & Walczak, S. (2007). Exploiting the Information Web. *IEEE Transactions on Systems, Man, and Cybernetics Part C: Applications and Reviews*, 37(1), 109-125, doi: 10.1109/TSMCC.2006.876061.
- 44. Kellogg, D. L., & Walczak, S. (2007). Nurse Scheduling: From Academia to Implementation or Not? *Interfaces*, *37*(4), 355-369, doi: 10.1287/inte.1070.0291.
- 45. Gregg, D. G., & **Walczak**, **S.** (2006a). Adaptive Web Information Extraction. *Communications of the ACM*, 49(5), 78-84, doi: 10.1145/1125944.1125945.

- 46. Gregg, D. G., & Walczak, S. (2006b). Auction Advisor: An Agent-Based Online Auction Decision Support System. *Decision Support Systems*, 41(2), 449-471, doi: 10.1016/j.dss.2004.07.007.
- 47. **Walczak, S.**, Gregg, D. G., & Berrenberg, J. L. (2006). Market Decision Making for Online Auction Sellers: Profit Maximization or Socialization. *Journal of Electronic Commerce Research*, 7(4), 199-220, available at: http://www.jecr.org/sites/default/files/07-4-p02.pdf.
- 48. **Walczak**, **S.**, & Parthasarathy, M. (2006). Modeling Online Service Discontinuation with Nonparametric Agents. *Information Systems and e-Business Management*, 4 (1), 49-70, doi: 10.1007/s10257-005-0004-7.
- 49. **Walczak, S.**, Brimhall, B. B., & Lefkowitz, J. B. (2006). Nonparametric Decision Support Systems in Medical Diagnosis: Modeling Pulmonary Embolism. *International Journal of Healthcare Information Systems and Informatics*, *I*(2), 65-82, doi: 10.4018/jhisi.2006040105.
- 50. Walczak, S. (2005a). Artificial Neural Network Medical Decision Support Tool: Predicting Transfusion Requirements of ER Patients. *IEEE Transactions on Information Technology in Biomedicine*, 9(3), 468-474, doi: 10.1109/TITB.2005.847510.
- 51. **Walczak, S.** (2005b). Organizational Knowledge Management Structure. *The Learning Organization*, *12*(4), 330-339, doi: <u>10.1108/09696470510599118</u>.
- 52. **Walczak, S.**, Pofahl, W. E., & Scorpio, R. J. (2003). A Decision Support Tool for Allocating Hospital Bed Resources and Determining Required Acuity of Care. *Decision Support Systems*, 34(4), 445-456, doi: 10.1016/S0167-9236(02)00071-4.
- 53. Gregg, D. G., & Walczak, S. (2003). E-commerce Auction Agents and Online-Auction Dynamics. *Electronic Markets*, 13 (3), 242-250.
- 54. Covin, R., O'Brien, M., Grunwald, G., Brimhall, B., Sethi, G., **Walczak, S.**, Reiquam, W., Rajagopalan, C., & Shroyer, A. L. (2003). Factors Impacting Transfusion of Fresh Frozen Plasma, Platelets, and Red Blood Cells During Elective Coronary Artery Bypass Graft Surgery. *Archives of Pathology & Laboratory Medicine*, 127(4), 415-423.
- 55. **Walczak**, **S.** (2003a). Knowledge-Based Search in Competitive Domains. *IEEE Transactions on Knowledge and Data Engineering*, 15(3), 734-743, doi: 10.1109/TKDE.2003.1198402.
- 56. **Walczak, S.** (2003b). A Multiagent Architecture for Developing Medical Information Retrieval Agents. *Journal of Medical Systems*, 27(5), 479-498, doi: 10.1023/A:1025668124244.
- 57. Nowack, W. J., **Walczak, S.**, & Janati, A. (2002). Clinical Correlate of EEG Rhythmicity. *Journal of Clinical Neurophysiology*, 19(1), 32-36.
- 58. **Walczak, S.** (2002a). A Context-Based Computational Model of Language Acquisition by Infants and Children. *Foundations of Science*, 7(4), 393-411. doi: 10.1023/A:1020721512631

- 59. **Walczak**, S. (2002b). Information Security for Agent-based WWW Medical Information Retrieval. *Logistics Information Management*, 15(5/6), 393-399.
- 60. Becerra-Fernandez, I., Zanakis, S. H., & Walczak, S. (2002). Knowledge Discovery Techniques for Predicting Country Investment Risk. *Computers & Industrial Engineering*, 43(4), 787-800.
- 61. **Walczak, S.**, & Nowack, W. J. (2001). An Artificial Neural Network Approach to Diagnosing Epilepsy Using Lateralized Bursts of Theta EEGs. *Journal of Medical Systems*, 25(1), 9-20, doi: 10.1023/A:1005680114755.
- 62. **Walczak**, **S.** (2001a). An Empirical Analysis of Data Requirements for Financial Forecasting with Neural Networks. *Journal of Management Information Systems*, 17(4), 203-222.
- 63. **Walczak, S.** (2001b). Neural Networks as a Tool for Developing and Validating Business Heuristics. *Expert Systems with Applications*, 21(1), 31-36.
- 64. Yegorova, I., Andrews, B. H., Jensen, J. B., Smoluk, B. J., & Walczak, S. (2001). A Successful Neural Network-Based Methodology for Predicting Small Business Loan Default. *The Credit and Financial Management Review*, 7(4), 31-42.
- 65. **Walczak**, **S.**, & Grimbergen, R. (2000). Pattern Analysis and Analogy in Shogi: Predicting Shogi Moves from Prior Experience. *Knowledge and Information Systems*, *2*(2), 185-200.
- 66. **Walczak**, S., & Scorpio, R. J. (2000). Predicting Pediatric Length of Stay and Acuity of Care in the First Ten Minutes with Artificial Neural Networks. *Pediatric Critical Care Medicine*, *1*(1), 42-47.
- 67. **Walczak, S.** (2000a). Redesigning the Medical Office for Improved Efficiency: An Object-Oriented Event-Driven Messaging System. *Journal of Medical Systems*, 24(1), 29-37, doi: 10.1023/A:1005433112306.
- 68. **Walczak, S.**, & Scharf, J. E. (2000a). Reducing Surgical Patient Costs Through Use of an Artificial Neural Network to Predict Transfusion Requirements. *Decision Support Systems*, 30(2), 125-138, doi: 10.1016/S0167-9236(00)00093-2.
- 69. **Walczak**, S., & Scharf, J. E. (2000b). Transfusion Cost Containment for Abdominal Surgery with Neural Networks. *Neural Processing Letters*, 11(3), 229-238.
- 70. **Walczak**, S., & Sincich, T. (1999). A Comparative Analysis of Regression and Neural Networks for University Admissions. *Information Sciences*, 119(1-2), 1-20.
- 71. **Walczak, S.** (1999a). Gaining Competitive Advantage for Trading in Emerging Capital Markets with Neural Networks. *Journal of Management Information Systems*, 16(2), 177-192.

- 72. **Walczak**, S., & Cerpa, N. (1999). Heuristic Principles for the Design of Artificial Neural Networks. *Information and Software Technology*, 41(2), 107-117.
- 73. **Walczak**, **S.** (1999b). A Re-Evaluation of Information Systems Publication Forums. *Journal of Computer Information Systems*, 40(1), 88-97.
- 74. **Walczak, S.** (1998a). Knowledge Acquisition and Knowledge Representation with Class: The Object-Oriented Paradigm. *Expert Systems with Applications*, *15*(3/4), 235-244.
- 75. **Walczak, S.** (1998b). Neural Network Models for a Resource Allocation Problem. *IEEE Transactions on Systems, Man and Cybernetics Part B: Cybernetics*, 28(2), 276-284, doi: 10.1109/3477.662769.
- 76. Pofahl, W. E., **Walczak, S.** M., Rhone, E., & Izenberg, S. D. (1998). Use of an Artificial Neural Network to Predict Length of Stay in Acute Pancreatitis. *The American Surgeon*, 64(9), 868-872.
- 77. **Walczak, S.**, & Fishwick, P. (1997). A Quantitative Analysis of Pattern Production and Its Relationship to Expert Performance. *Journal of Experimental and Theoretical Artificial Intelligence*, 9(1), 83-101.
- 78. **Walczak, S.** (1996a). A Modified Decision Tree Approach for Evaluating the Potential for Application of Neural Networks and Expert Systems. *Journal of Computer Information Systems*, 36(4), 1-6.
- 79. **Walczak**, **S.** (1995a). Developing Neural Nets for Currency Trading. *Artificial Intelligence in Finance*, 2(1), 27-34.
- 80. **Walczak, S.** (1995b). Modeling Affect: The Next Step in Intelligent Computer Evolution. *Informatica An International Journal of Computing and Informatics*, 19(4), 573-584.
- 81. **Walczak, S.** (1995c). Selecting Between AI Technologies. *Artificial Intelligence in Finance*, 2(2), 15-21.
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- 44. **Walczak**, S. (1991c). Predicting Actions from Induction on Past Performance. *Machine Learning Proceedings of the Eighth International Workshop (ML91)*, (Evanston, IL) 275-279.
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II.A. PEER-REVIEWED CONFERENCE PRESENTATIONS

- 1. **Walczak, S.** & Velanovich V. (2019). Enhancing the prediction of perioperative transfusion utilization using artificial neural networks. *Central Surgical Association 2019 Annual Meeting*, Palm Harbor, FL [published in *American Journal of Surgery*, see I].
- 2. Tamhane, N., **Walczak, S.**, Imudia, A. N., & Mikhail, E. (2018a). Efficacy of Artificial Neural Networks for Blood Transfusion Prediction in Patients Undergoing Myomectomy. *47th Global Congress on Minimally Invasive Gynecology*, Las Vegas [abstract published in *The Journal of Minimally Invasive Gynecology*, see V].
- 3. Walczak, S., Davila, M., & Velanovich, V. (2018a). Prophylactic Antibiotic Bundle Compliance Does Not Predict Surgical Site Infections: An Artificial Neural Network. *American College of Surgeons Clinical Congress 2018*, Boston, [abstract published online in *Journal of the American College of Surgeons*, see V].
- 4. **Walczak, S.**, & Velanovich, V. (2017b). An Evaluation Artificial Neural Networks in Predicting Pancreatic Cancer Survival. 58th Annual Meeting of the Society for Surgery of the Alimentary Tract at Digestive Disease Week (DDW) 2017, Chicago [abstract published in Gastroenterology, see V].

II.B. OTHER CONFERENCE PRESENTATIONS

1. Mullarkey, M., Oxner, A., Ji, M., Walczak, S., Limayem, A., & Durden, B. (2022). Determining COVID Physiological Profiles with Wearable Devices. USF Health Research Day 2022, Poster.

III. PEER-REVIEWED BOOK/ENCYCLOPEDIA CHAPTERS

1. **Walczak, S.** (2021). First-time leaders and implicit leadership theory: Effects of stress. In: M. W. Guah (Ed.) *Handbook of Research on Innate Leadership Characteristics and Examinations of Successful First-Time Leaders* (pp. 109-131). Hershey, PA: IGI Global. doi: 10.4018/978-1-7998-7592-5.ch007.

- 2. **Walczak, S.** (2020). Artificial Neural Networks in Medicine: Recent Advances. In: M. Khosrow-Pour (Ed.) *Encyclopedia of Information Science and Technology, Fifth Edition* (pp. 1901-1918). Hershey, PA: IGI Global. doi: 10.4018/978-1-7998-3479-3.ch132.
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- 9. **Walczak, S.**, Yegorova, I., & Andrews, B. H. (2003). The Effect of Training Set Distributions for Supervised Learning Artificial Neural Networks on Classification Accuracy. In: G. Ditsa (Ed.), *Information Management: Support Systems and Multimedia Technology*, Hershey, PA: IRM Press, pp. 93-108.
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- 13. Tahai, A., **Walczak, S.**, & Rigsby, J. T. (1998). Improving Artificial Neural Network Performance Through Input Variable Selection. In: P. Siegel, K. Omer, A. deKorvin, & A. Zebda (Eds.) *Applications of Fuzzy Sets and The Theory of Evidence to Accounting II*, Stamford, Connecticut: JAI Press, pp. 277-292.
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- 15. **Walczak**, **S.**, & Krause, J. (1995). Chaos, Neural Networks, and Gaming. In: E. A. Yfantis (Ed.) *Intelligent Systems*, Dordrecht, Netherlands: Kluwer Academic, pp. 457-466.

III.A. DISSERTATION

1. Walczak, S. M. (1990). Using Inductive Inference of Past Performance to Build Strategic Cognitive Adversary Models (Doctoral dissertation, University of Florida), University Microfilms International (UMI).

IV. BOOK CHAPTER REPRINTS (Reprints, verbatim, of peer-reviewed journal articles or other peer-reviewed book chapters)

- 1. **Walczak, S.**, & Mikhail, E. (2022). Predicting Estimated Blood Loss and Transfusions in Gynecologic Surgery Using Artificial Neural Networks. In: *Research Anthology on Advancements in Women's Health and Reproductive Rights Volume 1*, Hershey, PA: Information Resources, Management Association, pp. 30-46.
- 2. **Walczak, S.**, Permuth, J. B., & Velanovich, V. (2021). Analyzing Intraductal Papillary Mucinous Neoplasms Using Artificial Neural Network Methodologic Triangulation. In: M. Khosrow-Pour (Ed.) *Research Anthology on Artificial Neural Network Applications*, Hershey, PA: IGI Global, pp. 867-880.
- 3. Walczak, S. (2021). Artificial Neural Networks in Medicine: Recent Advances. In: M. Khosrow-Pour (Ed.) *Research Anthology on Artificial Neural Network Applications*, Hershey, PA: IGI Global, pp. 1491-1509.
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- 7. **Walczak**, S., & Okuboyejo, S. R. (2020). An Artificial Neural Network Classification of Prescription Nonadherence. In: M. Khosrow-Pour (Ed.) *Data Analytics in Medicine: Concepts, Methodologies, Tools, and Applications*, Hershey, PA: Information Resources Management Association, pp. 487-501.
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- 11. **Walczak, S.** (2018). Artificial Neural Networks and Other AI Applications for Business Management Decision Support. In: M. Khosrow-Pour (Ed.) *Intelligent Systems: Concepts, Methodologies, Tools, and Applications*, Hershey, PA: Information Resources Management Assoc., pp. 2047-2071.
- 12. **Walczak, S.**, Deborah L. Kellogg, & Gregg, D. G., (2012). A Mashup Application to Support Complex Decision Making for Retail Consumers. In: J. Wang (Ed.) *Advancing the Service Sector with Evolving Technologies: Techniques and Principles*, Hershey, PA: Business Science Reference, pp. 277-294.
- 13. **Walczak, S.**, & Mann, R. (2012). Utilization and Perceived Benefit for Diverse Users of Communities of Practice in a Healthcare Organization. In: A. Dwivedi, & S. Clarke (Eds.) *End-User Computing, Development, and Software Engineering: New Challenges*, Hershey, PA: Information Science Reference, pp. 25-53.
- 14. Walczak, S., Brimhall, B. B., & Lefkowitz, J. B. (2011). Diagnostic Cost Reduction Using Artificial Neural Networks. In: Information Resources Management Association (Ed.) *Clinical Technologies: Concepts, Methodologies, Tools and Applications*, Hershey, PA: IGI Global, pp. 1812-1830.
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V. ABSTRACTS

- 1. Tamhane, N., **Walczak, S.**, Imudia, A. N., & Mikhail, E. (2018b). Efficacy of Artificial Neural Networks for Blood Transfusion Prediction in Patients Undergoing Myomectomy. *The Journal of Minimally Invasive Gynecology*, 25 (7) Supplement, S185.
- 2. Walczak, S., Davila, M. P., & Velanovich, V. (2018b). Prophylactic Antibiotic Bundle Compliance Does Not Predict Surgical Site Infection: An Artificial Neural Network. *Journal of the American College of Surgeons*, 227(4) Supplement 2, e166-e167.
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- 4. Nowack, W. J., Walczak, S., & Boggs, J. G. (2000). Interictal EEG Rhythmicity. *Journal of Clinical Neurophysiology*, 17 (5), 531.
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- 6. Scorpio, R. J., & Walczak, S. (1998). Predicting Intensive Care Unit Length of Stay Based on Data Upon Arrival in the Emergency Room Using a Neural Network. *Critical Care Medicine*, 26 (1) Supplement, A68.
- 7. Pofahl, W., **Walczak, S.**, & Rhone, E. (1998). Predicting Length of Stay in Acute Pancreatitis with a Neural Network. *Gastroenterology*, 114 (4) Supplement, A491.
- 8. **Walczak**, S. (1992d). Using Inductive Inference of Past Performance to Build Strategic Cognitive Adversary Models. *SIGART Bulletin*, 3 (1), 59.
- 9. **Walczak, S.** (1991e). Developing Opening Strategies by Analyzing an Opponent's Game History. *ICCA (International Computer Chess Association) Journal*, 14 (March), 21-22.

VI. OTHER (Invited publications, editorials, and non-refereed publications)

- 1. Schieszer, J. (2022, 17 Aug.) Cyberattacks in Healthcare are Escalating. *Renal & Urology News* (www.renalandurologynews.com), (interviewed as an expert in healthcare cybersecurity).
- 2. **Walczak, S.**, & Fuller, S. (2020, 8 Jan.). Neuro Central Ask the Experts: Artificial Intelligence in Neuroscience. Hosted by Neuro Central, https://www.neuro-central.com/2020/01/08/ask-experts-artificial-intelligence-neuroscience/.
- 3. Walczak, S. (2019). The Closing of the Year and a Call for a Single Citation Format. *Journal of Organizational and End User Computing* 31(4), vi-viii.
- 4. **Walczak, S.** (2018a). Editorial Preface. *Journal of Organizational and End User Computing* 30(2), v-vi. [In this editorial, I discuss the need to retire TAM.]
- 5. Walczak, S. (2018b). Health Information Security: Paper Records May Still Be A Good Thing. *Journal of Organizational and End User Computing* 30(1), v-viii.
- 6. **Walczak**, **S.** (2017). Editorial Globalization and Theoretical and Applied Research. *Journal of Organizational and End User Computing* 29 (1), v-vii.
- 7. **Walczak, S.** (2007c). Review of <u>Neural Networks in Organizational Research</u>. *Organizational Research Methods* 10 (4), 710-712.
- 8. **Walczak, S.** (2006a). Editorial The International Flavor of Organizational Learning & Knowledge Management. *The Learning Organization* 13 (5), 415.
- 9. Walczak, S. (2006b). Editorial The Value of Literature Reviews. *The Learning Organization* 13 (2), 120-122.
- 10. **Walczak, S.** (2004b). Review of <u>The Handbook of Data Mining</u>. *Organizational Research Methods* 7 (1), 119-121.
- 11. **Walczak, S.** (2003d). What are the implications of the Internet for business users? In: D. R. Laube & R. F. Zammuto (Eds.), *Business Driven Information Technology: Answers to 100 Critical Questions for Every Manager*, Palo Alto, CA: Stanford University Press, Chapter 26, pp. 114-117.
- 12. **Walczak, S.**, & Fiol, C. M. (2003). What is knowledge management? In: D. R. Laube & R. F. Zammuto (Eds.) *Business Driven Information Technology: Answers to 100 Critical Questions for Every Manager*, Palo Alto, CA: Stanford University Press, Chapter 51, pp. 219-223.
- 13. Walczak, S. (2002). Knowledge Management (KM): Capitalizing on Your Company's Intellectual Assets. In: *Project Management: It's a Jungle*, Mile High PMI Spring Seminar 2002, Denver, CO.

- 14. **Walczak, S.** (1996d). <u>Neural Networks in the Capital Markets</u>, A. P. Refenes (Ed.), book review, *Artificial Intelligence in Finance*, 2 (4), 25.
- 15. **Walczak**, **S.** (1995). Andrew and Iniki. In: D. Zeiger (Ed.) *Tomorrow Never Knows*, Owings Mills, MD: National Library of Poetry, pg. 102.