CURRICULUM VITA

Jiajie Zhang, PhD

Dean
Dr. Doris L. Ross Professor
University of Texas School of Biomedical Informatics at Houston

Director
National Center for Cognitive Informatics and Decision Making in Healthcare

Dr. Zhang is the Dean and the Doris L. Ross Professor at the School of Biomedical Informatics. He is also the Principal Investigator and Director of the National Center for Cognitive Informatics and Decision Making in Healthcare (nicknamed SHAPRC), which is funded by a $15 million grant from ONC under the SHARP program to lead the national effort on EHR usability, workflow, and cognitive support. He has more than 20 years of research, education, application, and consulting experience in biomedical informatics, usability, decision making, and human-centered design. He has authored more than 150 publications and has been the principal investigator or co-investigator on numerous grants ($22 million as PI). He has graduated 22 PhD students and 72 master's students. Dr. Zhang was a recipient of John P. McGovern Outstanding Teacher Award. Dr. Zhang also has training and practical experience in academic leadership and business administration. Dr. Zhang is an elected Fellow of American College of Medical Informatics.

I. CONTACT INFORMATION

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6421 Westchester Avenue
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II. EDUCATION

1979 - 1982		Special Program for Gifted Young, Physics Specialization **University of Science & Technology of China**
1982 - 1983	BS	Biochemistry & Molecular Biology, Department of Biological Sciences **University of Science & Technology of China**
1983 - 1986		Master's Program in Biophysics and Neuroscience **University of Science & Technology of China**
1986 - 1989		Ph.D. Program, Department of Psychology **University of California, San Diego**
1989 - 1991	MS	Department of Cognitive Science **University of California, San Diego**
1991 - 1992	PhD	Department of Cognitive Science (World's 1st PhD in Cognitive Science. Advisor: Donald A. Norman)

	University of California, San Diego
2000 - 2001	Certificate of Completion, Business Administration **University of Houston**
2002 - 2003	Certificate of Completion, Academic Leadership Development Program **Office of Academic Affairs, University of Texas at Houston**

III. PROFESSIONAL EXPERIENCE

1992 - 1998	Assistant Professor, Department of Psychology **The Ohio State University**
1994 - 1998	Center Faculty, Center for Cognitive Science **The Ohio State University**
1996 - 1998	Charter Member, Institute for Ergonomics **The Ohio State University**
1998 - 2005	Associate Professor, School of Health Information Sciences **University of Texas, Houston**
1999 - 2002	Chair, Faculty Governance Organization, School of Health Information Sciences, **University of Texas, Houston**
2000 - 2001	Associate Research Scientist, Information Technology Research **Houston Academy of Medicine – Texas Medical Center Library**
2001 - present	Member, Keck Center for Computational and Structural Biology
2002 - 2013	Associate Dean for Research, School of Health Information Sciences, **University of Texas, Houston**
2003 - 2011	Director for Research, Center for Biosecurity & Public Health Informatics Research **University of Texas, Houston**
2003 - 2007	Training Co-Director at UT Houston Site, Keck Center/National Library of Medicine Informatics Training Program
2005 - present	Professor, School of Biomedical Informatics **University of Texas, Houston**
2006 - present	Dr. Doris L. Ross Professorship, School of Biomedical Informatics **University of Texas, Houston**
2007 - 2012	Training Director at UT Houston Site, National Library of Medicine Informatics Training Program for Gulf Coast Consortium
2009 - present	Director, Center for Cognitive Informatics and Decision Making, School of Biomedical Informatics (Co-Director, 2009-2011) **University of Texas, Houston**
2009 - 2012	Acting Director, Center for Translational Neuroinformatics, School of Biomedical Informatics **University of Texas, Houston**
2010 - present	Director, National Center for Cognitive Informatics and Decision Making in Healthcare (Co-Director, 2010-2011)
2012 – 2013	Interim Dean School of Biomedical Informatics **University of Texas, Houston**
2013 – present	Dean School of Biomedical Informatics **University of Texas, Houston**

IV. PROFESSIONAL SOCIETIES

American Medical Informatics Association (AMIA)
Association for Computing Machinery (ACM) and SIGCHI
Cognitive Science Society
Healthcare Information and Management Systems Society (HIMSS)
Human Factors Society
Psychonomic Society

V. AWARDS & HONORS

2002	John P. McGovern Outstanding Teacher Award, University of Texas at Houston,
2002	Recognition of Outstanding Leadership as Chair of Faculty Governance Organization, School of Health Information Science, U. of Texas at Houston
2003	Inducted as Fellow, American College of Medical Informatics
2006	Distinguished Lecturer, Departments of Biomedical Informatics and Computer Science, Arizona State University
2006	Dr. Doris L. Ross Endowed Professorship

VI. GRANTS & CONTRACTS

Active

1. **Jiajie Zhang** (PI), *National Center for Cognitive Informatics and Decision Making in Healthcare*. 4/1/10 to 3/31/14. ($15,000,000). Office of National Coordinator for Health Information Technology, SHARP Program Award (#10510949) for Patient-Centered Cognitive Support.
2. **Jiajie Zhang** (PI, after departure of Kim Dunn), & others. *Texas Gulf Coast Regional Extension Center for Health IT*. 4/1/10 to 3/31/14. ($15,274,321). Office of National Coordinator for Health Information Technology.
3. **Jiajie Zhang (PI)** & Amy Franklin (Co-PI), *Opportunistic Decision Making, Information Needs, and Workflow in Emergency Care*. AHRQ. 9/1/2012-8/31/2016. ($1,942,271).
4. **Jiajie Zhang** (Subcontract PI; PI: Keith Butler at University of Washington), *Modeling and Analysis of Critical Care for HIT Improvement*. AHRQ/UW. 9/1/2012-8/31/2017. ($240,000).
5. **Jiajie Zhang** (Co-I; PI: Muhammad Walji), *Developing a Patient Safety System for Dentistry*. NIH. 9/1/2012-8/31/2017. ($4,007,644).
6. **Jiajie Zhang** (Subcontract PI; PI: Hongfang Liu at Mayo Clinic), *Natural language processing for clinical and translational research*. NLM/Mayo Clinic. 6/5/2013-6/14/2018.
7. **Jiajie Zhang** (PI), *Equipment for Center for Translational Neuroinformatics*. 10/1/10 to 9/30/12. ($99,000). HSRA.
8. **Jiajie Zhang** (PI), *Equipment for Center for Translational Neuroinformatics*. 10/1/09 to 9/30/12. ($235,620). HSRA.
9. Yin Liu (PI) & **Jiajie Zhang** (Co-I). *Bayesian methods in signal transduction network analysis. National Library of Medicine*. 12/1/2010 – 11/30/14. ($1,044,541)
10. **Jiajie Zhang** (PI). *Doctoral Fellowship*. Vivian Smith Foundation, 09/01/10-08/31/13. ($150,000)
11. **Jiajie Zhang** (PI). *Patient Safety and Health IT*. Cullen Trust for Healthcare, 09/01/10-08/31/13. ($250,000)
12. David McPherson (PI) and many others (Elmer Bernstam: Director of Informatics Core;

Jiajie Zhang Co-I for informatics core). *Center for Clinical and Translational Sciences*. NIH, 9/1/12-8/31/17). ($20M total. $1.5M for informatics core)

13. Tony Gorry (PI), Jack Smith (Co-PI), & Site Directors: **Jiajie Zhang** (Training Director for UT Houston Site), Wah Chiu, Monte Pettit, Donald Berry, Rudy Guerra, David Gorenstein. *Biomedical Informatics Training Grant*, National Library of Medicine, 7/07-6/11. (1st year direct cost: $918,850; total cost: $4.97 million)
14. Thomas Caskey (PI), Eric Boerwinkle (Co-PI), **Jiajie Zhang** (Co-I), et al. *Houston Laboratory and Population Sciences Training Program in Gene-Environment Interactio*n. BURROUGHS WELLCOME Foundation. 2/2009-1/2014 ($2,500,000)
15. Dean Sittig (PI), Eric Thomas (Co-PI), & Site Directors (**Jiajie Zhang:** Training Director for UT Houston Site). *Patient Safety and Information Technology Training Grant*, AHRQ, 7/08-6/13.

Completed

1. **Jiajie Zhang** (PI), *Evaluation of NIST Usability Protocol*. 9/1/11 to 11/30/11. ($20,000). National Institute of Standards and Technology (via User Centric).
2. Vimla L. Patel (PI), **Jiajie Zhang** (Co-PI), and others. *Cognitive complexity in critical care*. James S. McDonnell Foundation. 12/1/07 – 11/30/12. ($4,724,573)
3. Mohammad Hossein Rahbar (PI), **Jiajie Zhang** (Co-I, informatics leader), and others. *PROMMTT: A prospective, observational, multi-center massive transfusion trial*. 9/1/08-8/30/10. ($9,262,639 total; $8,296,266 direct cost).
4. Frank C. Arnett (PI) and many others (**Jiajie Zhang** is Co-I for informatics core). *Center for Clinical and Translational Sciences*. NIH/NCRR, 9/1/06-6/30/11). ($36M total. $3M for informatics core)
5. Kim Dun (PI), **Jiajie Zhang** (Co-I). Medical Home. NIH (RC1 Challenge Grant) 9/29/09 to 8/31/11. ($962,400).
6. **Jiajie Zhang** (PI), Vimla L. Patel, & Ron Gimbel. Usability Evaluation of AHLTA. 2/11/08 to 2/10/09/08. ($199,999). US Army TATRC.
7. **Jiajie Zhang** (PI), Elmer Bernstam (Co-I), and Muhammad Walji (Co-I). Usability *Evaluation of CHCS/AHLTA and Cerner CPOE*s. Mission Hospitals. 3/1/08 to 2/28/09. ($157,940).
8. **Jiajie Zhang** (PI of subcontract) & Todd R. Johnson. *Cognition and error management for critical care*. Columbia University, 2/04-1/08, $422,305. (Subcontract of NLM Grant R01 LM007894-01A1, PI: Vimla L. Patel).
9. John Valenza (PI), David Taylor, Muhammad Walji, James Spence, Craig Johnson, **Jiajie Zhang** (Co-I). SmartConsent: A Computerized Informed Consent for Patients. CCTS Pilot Project Award. Center for Clinical and Translational Sciences, University of Texas Health Science Center at Houston. 9/18/07-9/17/09. ($100,000).
10. Suzanne Kemmer (PI), Amy Franklin, Jack W. Smith, **Jiajie Zhang** (Co-PIs). *Reconceptualizing Medical Ontologies: Merging Cognitive Linguistics and Biomedical Informatics*. Gulf Coast Consortium. 9/1/08-8/31/09. ($10,000).
11. **Jiajie Zhang** (PI). *Doctoral Fellowship*. Vivian Smith Foundation, 09/01/08-08/31/09. ($25,000)
12. **Jiajie Zhang** (Co-I of subproject). *Texas Training and Technology for Trauma and Terrorism*. US Army. 9/1/04-8/31/07. ($11 million per year for the whole project; PI: S. Ward Casscells).
13. **Jiajie Zhang** & Todd R. Johnson: *Usability evaluation of Digital EMS*. U.S. Army (DAMD17-01-20054). 3/1/02-6/15/06. ($240k). (Subproject of Disaster Relief & Emergency Medical Services - DREAMS™ from U.S. Army, PI: Dr. Duke).
14. **Jiajie Zhang** (Co-Mentor for Joshua Goodwin). *Medical informatics research training grant*. AHRQ Pre-doctoral Training Fellowship, 9/1/08-8/31/11. ($20,772)

15. **Jiajie Zhang** (Co-Mentor for Okafor Nnaemeka). *Medical informatics research training grant*. AHRQ postdoctoral Training Fellowship, 9/1/08-8/31/10. ($46,992)
16. **Jiajie Zhang** (Co-Mentor for Stephen Jones). *Medical informatics research training grant*. Keck Center for Computational and Structural Biology/National Library of Medicine, 07/01/08-6/30/10. ($46,992)
17. **Jiajie Zhang** (Mentor for Roxana Maffei). *Medical informatics research training grant*. AHRQ Pre-doctoral Training Fellowship, 9/1/08-8/31/11. ($20,772)
18. **Jiajie Zhang** (Mentor for Jillian Webb). *Medical informatics research training grant*. Keck Center for Computational and Structural Biology/National Library of Medicine, 06/15/07-6/14/10. ($90k).
19. **Jiajie Zhang** (Mentor for Muhammad Walji). *Medical informatics research training grant*. Keck Center for Computational and Structural Biology/National Library of Medicine, 01/01/04-12/31/06. ($90,639).
20. **Jiajie Zhang** (Mentor for Jung-Wei Chen). *Medical informatics research training grant*. Keck Center for Computational and Structural Biology/National Library of Medicine, 07/01/06-6/30/09. ($145k).
21. **Jiajie Zhang** (PI) and Jack W. Smith. *Evaluating a Merck information system*. Merck. 01/15/06-4/30/06. ($39,086).
22. **Jiajie Zhang** (PI) & Jack W. Smith. *Human-centered intelligent flight surgeon console—Evaluation, Refinement, and Deployment*. NASA, 9/1/04-8/31/05. ($109,340).
23. Todd R. Johnson (Project Leader), **Jiajie Zhang**, & Vimla L. Patel. *Device usability guidelines for patient safety*. Agency for Healthcare Research & Quality, Center of Excellence Grant (P01 HS 11544-01), 9/1/01-8/31/04. ($609,754) (One of five projects of the $7.2 million Center Grant on Patient Safety, PI, Eric Thomas, UTH Medical School,).
24. **Jiajie Zhang** (Mentor for Julie Brixey). *Medical informatics research training grant*. Keck Center for Computational and Structural Biology/National Library of Medicine, 03/01/02-02/28/05. ($129,210).
25. **Jiajie Zhang** (Mentor for Zhong Xie). *Human-centered computing in clinical research data management system*. Keck Fellowship/Baylor College of Medicine, 01/01/03-12/31/04. ($25,000).
26. **Jiajie Zhang** (PI), Kathy A. Johnson, Jack W. Smith, Jane Malin, Patrick McGinnis, Francis Mount, Phyllis McCulley. *Human-centered intelligent flight surgeon console*. NASA (NCC 2-1234), 3/01-5/04. ($1,295,146)
27. **Jiajie Zhang** (PI), Vimla L. Patel (Co-PI), Todd R. Johnson, & James P. Turley (Co-Is): *Toward a Taxonomy of Medical Error in Critical Care: A Cognitive Analysis of Infusion Pump Usability*. ARMY, National Medical Technology TestBed (DAMD17-97-27016). 4/1/02-3/31/03. ($262,390)
28. **Jiajie Zhang** (Mentor for Yang Gong). *Human-centered distributed information design*. Keck Fellowship/Baylor College of Medicine, 01/01/02-12/31/03. ($25,000)
29. Hongbin Wang (PI), **Jiajie Zhang** (Co-I), Todd R. Johnson (Co-I). *Modeling Spatial Cognition*. Office of Naval Research, 10/15/00-10/14/03. ($492,207)
30. **Jiajie Zhang** (PI). Professional Services for Houston Academy of Medicine/Texas Medical Center Library. 4/1/00-8/31/01. ($43,153)
31. **Jiajie Zhang** (Mentor for Yang Gong). *Teaching fellowship*. Texas Women's University. 09/01/01-08/31/02. ($3000).
32. Johnson, Todd R. (PI), **Zhang, Jiajie** (Co-PI), & Spitz, Margaret (Co-PI), *Redesign of a Genetics Tracking Program to Improve Ease of Use and Reduce Errors*, Texas Higher Education Coordinating Board (011618-0077-1999), 1/1/00-8/31/02. ($243,439).
33. Kathy A. Johnson & **Jiajie Zhang**. *Evaluation of Merck Source.* Merck & CO, Inc. 10/1/01-11/1/01. ($6000)
34. **Jiajie Zhang** & Todd R. Johnson. *Usability Evaluation of Prometheus Online Teaching*

Software. Prometheus, Inc. 11/00-3/01. ($10,975)

35. **Jiajie Zhang**, Kathy A. Johnson, & Jack W. Smith. *Evaluation of Prototype Merck Medicus*. Merck & Co., Inc., 1/3/01-1/31/01. ($6,000)
36. **Jiajie Zhang**, Kathy A. Johnson, & Jack W. Smith. *Evaluation of Merck Manual Online*. Merck & Co., Inc., 6/00. ($2,600)
37. Todd R. Johnson, & **Jiajie Zhang**. Consulting service for AskRed, Inc. 1999-2000. ($5000)
38. Vladimir Sloutsky (PI), Todd R. Johnson (Co-I), & **Jiajie Zhang** (Co-I): *The development of understanding in mathematics and science: Cognitive mechanisms and methods of amplification*. James S. McDonnell Foundation, 7/1/98-6/30/02. ($600,602)
39. Hongbin Wang (PI), **Jiajie Zhang** (Co-I), Todd R. Johnson (Co-I). *Development of Reinforcement Learning Techniques for Efficient Training of Semi-Autonomous Robotic Systems*. NASA Johnson Space Center (NAG9-1247), 7/1/98-6/30/01. ($60,000). 4/1/00-8/31/01.
40. Todd R. Johnson (PI) & **Jiajie Zhang** (Co-PI): *The development of understanding in mathematics and science: Cognitive mechanisms and methods of amplification*, The Ohio State University, 7/1/98-6/30/02. ($48,500)
41. Crandell, Sharon (PI), Johnson, Todd R., Mabry, M., Miller, C., Smith, J.W., Turley, J., & **Zhang, J**., Co-Is, *BabyCam*. Telecommunications Infrastructure Fund Board 5/31/99-4/30/01. ($113,890)
42. **Jiajie Zhang** (PI) & Todd R. Johnson (Co-PI): *Toward A Cognitive Theory of Direct Interaction*. Office of Naval Research, Cognitive and Neural Sciences & Technology Division (N00014-96-1-0472), 12/1/98-11/30/99. ($131,120)
43. Todd R. Johnson (PI) & **Jiajie Zhang** (Co-PI): *A Hybrid Learning Architecture for Tactical Decision Making in Dynamic and Uncertain Environments*. Office of Naval Research, Cognitive and Neural Sciences & Technology Division, 12/1/98 - 1/31/99. ($20,000)
44. Todd R. Johnson (PI) & **Jiajie Zhang** (Co-PI): *A Hybrid Learning Architecture for Tactical Decision Making in Dynamic and Uncertain Environments—Phase 2,* The Ohio State University, 9/1/98-12/31/98. ($12,530)
45. **Jiajie Zhang** (PI) & Todd R. Johnson (Co-PI): *Toward A Cognitive Theory of Direct Interaction—Phase 2,* The Ohio State University, 9/1/98-1/31/99. ($33,209)
46. Todd Johnson (PI) & **Jiajie Zhang** (Co-PI): Augmentation Equipment Grant, *Requesting an Eye Point-of-Regard Analysis Lab***,** Office of Naval Research, Cognitive and Neural Sciences & Technology Division, 7/1/96 - 12/31/98. (cash equivalent of $30,000)
47. Todd R. Johnson (PI) & **Jiajie Zhang** (Co-PI): *A Hybrid Learning Architecture for Tactical Decision Making in Dynamic and Uncertain Environments*. Supplementary Grant from the Office of Naval Research, Cognitive and Neural Sciences & Technology Division (N00014-95-1-0241), 1/1/98 - 12/31/98. ($70,848)
48. **Jiajie Zhang** (PI) & Todd R. Johnson (Co-PI): *Toward A Cognitive Theory of Direct Interaction*. Office of Naval Research, Cognitive and Neural Sciences & Technology Division, N00014-96-1-0472, 1/1/96-1/31/99. ($406,269)
49. Todd R. Johnson (PI) & **Jiajie Zhang** (Co-PI): *A Hybrid Learning Architecture for Tactical Decision Making in Dynamic and Uncertain Environments*. Office of Naval Research, Cognitive and Neural Sciences & Technology Division, N00014-95-1-0241, 1/1/95 - 12/31/97. ($279,080)
50. **Jiajie Zhang** (PI): *Distributed Representations in Problem Solving and Reasoning.* Seed Grant, Office of Research, The Ohio State University, 10/92-10/93. ($19,888)

VII. PUBLICATIONS

Peer-Reviewed

Journal Articles:

1. Yu, P., Zhang, Y., Gong, Y., & Zhang, J. (2013). Unintended adverse consequences of introducing electronic health records in residential aged care homes. *International Journal of Medical Informatics*, doi:pii: S1386-5056(13)00115-9. 10.1016/j.ijmedinf.2013.05.008. [Epub ahead of print]
2. Middleton, B., Bloomrosen, M., Dente, M. A., Hasmat, B., Koppel, R., Overhage, J. M., Payne, T. H., Rosenbloom, S. T., Weaver, C., & Zhang, J. (2012). Enhancing patient safety and quality of care by improving the usability of electronic health record systems: recommendations from AMIA. *Journal of American Medical Informatics Association* doi:10.1136/amiajnl-2012-001458
3. Zhang, J., & Walji, M. (2011). TURF: Toward a unified framework of EHR usability. *Journal of Biomedical Informatics, 44 (6)*, 1056-1067.
4. Patterson, E. S., Zhang, J., Abbott, P., Gibbons, M. C., Lowry, S. Z., Quinn, M. T., Ramaiah, M., & Brick, D. (2013). Enhancing Electronic Health Record Usability in Pediatric Patient Care: A Scenario-Based Approach. *The Joint Commission Journal on Quality and Patient Safety, 39* (3), 129-135.
5. Joshi, A., de Araujo Novaes, M., Machiavelli, J., Iyengar, S., Vogler, R., Johnson, C., Zhang, J., Hsu, C. E. (2012). Designing human centered GeoVisualization application - the SanaViz - for telehealth users: a case study. *Technology and Health Care*, *20* (6), 473-488.
6. Joshi, A., de Araujo Novaes, M., Machiavelli, J., Iyengar, S., Vogler, R., Johnson, C., Zhang, J., Hsu, C. E. (2012). A human centered GeoVisualization framework to facilitate visual exploration of telehealth data: a case study. *Technology and Health Care*, *20* (6), 457-71.
7. Maffei, R. M., Dunn, Zhang, J., K., Hsu, C. E., & Holmes, J. H. (2012). Understanding behavioral intent to participate in shared decision-making in medically uncertain situations. *Methods of Information in Medicine, 51 (4),* 301-308*.*
8. John B. Holcomb, MD; Deborah J. del Junco, PhD; Erin E. Fox, PhD; Charles E. Wade, PhD; Mitchell J. Cohen, MD; Martin A. Schreiber, MD; Louis H. Alarcon, MD; Yu Bai, MD, PhD; Karen J. Brasel, MD, MPH; Eileen M. Bulger, MD; Bryan A. Cotton, MD, MPH; Nena Matijevic, PhD; Peter Muskat, MD; John G. Myers, MD; Herbert A. Phelan, MD; Christopher E. White, MD; **Jiajie Zhang**, PhD; Mohammed H. Rahbar, PhD for the PROMMTT Study Group. (2012). The Prospective, Observational, Multicenter, Major Trauma Transfusion (PROMMTT) Study: Comparative Effectiveness of a Time-varying Treatment with Competing Risks. *Archives of Surgery, 148 (2)*, 127-136*.*
9. Rahbar, M. H., Fox, E. E., del Junco, D. J., Cotton, B. A., Podbielski, J. M., Matijevic, N., Cohen, M. J., Schreiber, M. A., Zhang, J., Mirhaji, P., Duran, S. J., Reynolds, R. J., Benjamin-Garner, R., Holcomb, J. B. (2012). Coordination and management of multicenter clinical studies in trauma: Experience from the Prospective Observational Multicenter Major Trauma Transfusion (PROMMTT) Study. *Resuscitation*, 83, 459-464.
10. Joshi, A., Novaes, M. A., Iyengar, S., Machiavelli, J. L., Zhang, J., Vogler, R., & Hsu, C. E. (2011). Evaluation of a tele-education programme in Brazil. *Journal of telemedicine and Telecare*, 17 (7), 341-345.
11. Herasevich, V., Tsapenko, M., Kojicic, M., Ahmed, A., Kashyap, R., Venkata, C., Shahjehan, K., Thakur, S. J., Pickering, B. W., Zhang, J., Hubmayr, R. D., Gajic, O. (2011). Limiting ventilator induced lung injury through individual electronic medical records surveillance. *Journal of Critical Care Medicine, 39* (1), 1-6.
12. Florez-Arango, J. F., Iyengar, M. S., Dunn, K., & Zhang, J. (2011). Performance factors of mobile rich media job aids for community health workers. *Journal of American Medical Informatics Association, 18 (2),* 131-137.

13. Kannampallil, T., Li, Z., Zhang, M., Cohen, T., Robinson, D.J., Franklin, A., Zhang, J., Patel, V. (2011). Making Sense: Sensor-based Investigation of Clinician Activities in Complex Critical Care Environments. *Journal of Biomedical Informatics, 44*, 441-454.
14. Franklin, A., Liu, Y., Li, Z., Nguyen, V. D., Johnson, T. R., Robinson, D., Okafor, N., King, B., Patel, V. L. & Zhang, J. (2011). Opportunistic decision making and complexity in emergency care. *Journal of Biomedical Informatics, 44*, 469-476.
15. Saitwal, H., Feng, X., Walji, M., Patel, V. L., & Zhang, J. (2010). Assessing Performance of an Electronic Health Record (EHR) Using Cognitive Task Analysis. *International Journal of Medical Informatics,* 79, 501-506*.*
16. McLane, S., Turley, J. P., Esquivel, A., Engebretson, J., Smith, K. A., Wood, G. L., & Zhang, J. (2010). Concept analysis of cognitive artifacts. *ANS Adv Nurs Sci, 33* (4), 352-362.
17. Yang, G., & Zhang, J. (2009). Toward A Human-Centered Hyperlipidemia Management System: The Interaction between Internal and External Information on Relational Data Search. *Journal of Medical Systems, 35,* 169-177.
18. Saleem, J. J, Russ, A. L., Sanderson, P., Johnson, T. R., Zhang, J., & Sittig, D. F. (2009) Current challenges and opportunities for better integration of human factors research with development of clinical information systems. *2009 IMIA Yearbook of Medical Informatics*.
19. Esquivel, A., Dunn, K., McLane, S., Te'eni, D., Zhang, J., & Turley, J. P. (2009). When your words count: A discriminative model to predict approval of referrals. *Journal of Primary Care Informatics, 17 (4), 201-207.*
20. Zhang J, Wang H (2009) An Exploration of the Relations between External Representations and Working Memory. *PLoS ONE 4(8)*: e6513. doi:10.1371/ journal.pone.0006513*.*
21. Nahm, M., & Zhang, J. (2009). Operationalization of the UFuRT methodology for usability analysis in the clinical research data management domain. *Journal of Biomedical Informatics, 42*(2)*,* 327-333*.*
22. Mirhaji, P., Zhu, M., Vagnoni, M., Bernstam, E. V., Zhang, J., & Smith, J. W. (2009). Ontology driven integration platform for clinical and translational research*. BMJ Bioinformatics*, 10, Suppl 2:S2.
23. Brixey, J. J., Zhang, J., Johnson, T. R., & Turley, J. P. (2009). Legibility of a volumetric infusion pump in a shock trauma ICU. *Jt Comm J Qual Patient Saf. 35* (4), 229-235.
24. Brixey, J.J., Robinson, D.J., Turley, J.P., & Zhang, J. (2010). The roles of MDs and RNs as initiators and recipients of interruptions in workflow. *International Journal of Medical Informatics, 79,* 109-115.
25. Brixey, J.J., Robinson, D.J., Zhang, J., & Turley, J.P. (2008). Interruptions and distractions: Workflow intrusions at a level-one trauma center. *Focus on Patient Safety, 11 (3),* 2-5.
26. Patel, V. L., Zhang, J., Yoskowitz, N. A., Green, R., & Sayan, O. R. (2008). Translational Cognition for Decision Support in Critical Care Environments: A Review. *Journal of Biomedical Informatics, 41* (3), 413-431.
27. Brixey, J.J., Robinson, D.J., Tang, Z., Johnson, T.R., Turley, J.P., Patel, V. L., & Zhang, J. (2008). Interruptions in a Level One Trauma Center: A case study. *International Journal of Medical Informatics, 77,* 235-241*.*
28. Hakimzada, A.F., Green, R.A., Sayan, O.R., Zhang, J., & Patel, V.L. (2008). The nature and occurrence of registration errors in the emergency department, *International Journal of Medical Informatics*, *77* (3), 169-175. [Epub ahead of print. Available online at dx.doi.org/10.1016/j.ijmedinf.2007.04.011].
29. Sun, Y., Wang, H., Zhang, J., & Smith, J. W. (2008). Probabilistic judgment on a coarser scale. *Cognitive Systems Research*, *9*(3), 161-172.
30. Brixey, J. J., Robinson, D. J., Turley, J. P., Zhang, J. (2007). Initiators of Interruption in Workflow: The Role of MDs and RNs. *Studies of Health Technology and Informatics, 130*, 103-109*.*
31. Johnson, T. R., Tang, Z., Zhang, J., Turley, J. P., & Patel, V. (2007). Attitudes toward

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1. Zhang, J. (1983). *Effect of calcium on proteolytic activity and conformation of hemorrhagic toxin I from five pace snake (agkistrodon acutus) venom***.** BS Thesis. Department of Biological Sciences, University of Science & Technology of China. (Advisor: Xun Xu)
2. Zhang, J. (1992). *Distributed representation: The interaction between internal and external information*. Ph.D. Dissertation. San Diego: University of California, Department of Cognitive Science. (Advisor: Donald A. Norman)

Abstracts:

1. Walji, M. F., Franklin, A., Zhang, Z., Graves, K., Li, Y., Gu, Y., & Zhang, J. (2012). Rapid Usability Assessment of Commercial EHRs. AMIA 2012 (Podium).
2. Li, Y., Walji, M. F., Franklin, A., & Zhang, J. (2012). Exploring E-Prescribing Task Flow and Design in Commercial EHRs. AMIA 2012 (Poster).
3. Killoran, P. & Zhang, J. (2012). Droogle: Using Free Text to Support Structured Medication Entry. AMIA 2012 (Poster).
4. Zhu, M., Rogith, D., Walji, M. F., & Zhang, J. (2012). TURFS: A Comprehensive Tool Suite for Usability Evaluation and Redesign. AMIA 2012 (Theater Style Presentation).
5. Zhang, Z., Walji, M. F., Franklin, A., & Zhang, J. (2012). An Application of a Cognitive Transparency Metric in EHR User Interfaces. AMIA 2012 (Poster).
6. Loe, C., Cohen, T., Zhang, J., Fernandez, M., & Franklin, A. (2012). Designing a Learning Technology for Community Health Workers. AMIA 2012 (Poster).
7. Franklin, A., Simmons, D., Graves, K., Zhang, Z., Harrington, C., Walji, M. F., & Zhang, J. (2012). Usability Problems and Patient Safety Risks in EHR Design. AMIA 2012 (Podium).
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9. Berster, B., Liu, Y., Zhang, M., Patel, V. L., Zhang, J., Robinson, D., Franklin, A. More than looks alone: Cognitive support in an emergency department information display system. AMIA 2011 (Poster).
10. Zhu, M., Walji, M., Zhang, J. Extracting and inserting meaningful use concepts into UFuRT models. AMIA 2011 (Poster).
11. Lee, L., Li, Y., Graves, K., Franklin, A., Walji, M. F., & Zhang, J. (2011). Estimating task execution time in EHRs using the Keystroke-Level Model. AMIA 2011 (Poster).
12. Mohammad, M., Espinosa, G., Murphy, D., & Zhang, J. Design and evaluation of a problem-oriented view for OpenVista EHR using UFuRT framework. AMIA 2011 (Poster).
13. Zhang, Z., Li, Y., Walji, M., Franklin, A., & Zhang, J. (2011). A metric for measuring cognitive transparency of EHR user interfaces. AMIA 2011 (Poster).
14. Zhang, M., Li, Z., Kong, X., Zhang, J., Patel, V. (2010) Measuring Randomness of Clinician Activities in Emergency Context. AMIA Annual Symposium 2010. (Poster)
15. Li, Z., Robinson, D.J, Zhang, Z. (2010) UObserve: A Mobile App for the Study of Emergency Department Workflow. American College of Emergency Physicians Research Forum 2010. (Poster)
16. Nahm, M., Johnson, C. M., Walden, A., Johnson, T. R., & Zhang, J. (2010). Clinical Research Data Management Tasks and Definitions. *2010 AMIA Clinical Research Informatics Summit*. (Poster)
17. Z. Li; Y. Liu; J. Goodwin; J. Zhang. (2009). Towards a Work Domain Model of the Emergency Department. *Proceedings of AMIA 2009*
18. Chen, J. W., & Zhang, J. (2007). Identifying functional discrepancies among systems, users, and activities of electronic dental records: A work domain ontology approach (pp. 904). *Proceedings of AMIA 2007.*
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20. Xie, Z., Zhang J. (2007). Representational Affordances in Design of Clinical Research Information System (pp. 1162). *Proceedings of AMIA 2007.*
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22. Zhu, M. Huang, Y., Gong, Y., Brixey, J., Turley, J. P., & Zhang, J. (2006). Difficulties in mapping concepts in medical error taxonomies. *Proceedings of AMIA2006.*
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25. Walji, M., Johnson-Throop, K. A., Johnson, T. R., Bernstam, E. V., & Zhang, J. (2005). (Abstract). Persuasive Email Messages for Patient Communication. *Proceedings of AMIA2005*.
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32. Gainer, A., Pancheri, K., & Zhang, J. (2003). (Abstract). Interface Design: Physician Order Entry Systems. AMIA 2003.
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34. Chung, P. H., Zhang, J., Johnson, T. R., & Patel, V. L. (2003) (Abstract). An Extended Hierarchical Task Analysis for Error Prediction in Medical Devices. *Proceedings of the 2003 Cognitive Science Society Conference.*
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36. Zhang, J., Patel, V. L., Smith, J. W., Turley, J. P., & Johnson, T. R. (2001). (Abstract) Human errors in medicine: Theoretical issues and practical implications. *Proceedings of the 3rd International Conference of Cognitive Science (pp.220).*
37. Aggarwal, V., Rajappan, S., Rudrapatna, V, Raval, B., Zhang, J. (2000). (Abstract) Continuous Speech Recognition in Radiology Reporting. AMIA 2000 Proceedings.
38. Wang, H., Zhang, J., & Johnson, T. R. (1999). (Abstract) Order Effects in Human Belief Revision. (Abstract). *Proceedings of the 1999 Cognitive Science Society Conference*.
39. Johnson, T. R., Wang, H., & Zhang, J. (1999). (Abstract) Declarative and Procedural Learning in Alphabetic Retrieval. *Proceedings of the 1999 Cognitive Science Society Conference*.
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42. Zhang, J., Johnson, T. R., Chuah, J., & McGrory, K. (1997). (Abstract) Direct Interaction Representation of Cockpit Information Displays: The Tradeoff between Internal and External Representations. *Proceedings of the Nineteenth Annual Conference of the Cognitive Science Society (pp. 1097)*. Hillsdale, NJ: Erlbaum.
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44. Mirhaji, P., Turley, J. P., Richesson, R., & Zhang, J. (2003). (Abstract) A Knowledge Driven Approach to Public Health Situation awareness. Second National Conference on Syndromic Surveillance.

Technical Reports & Other Unpublished Papers:

1. Zhang, J. (1987). *The effect of the timing of interruption on human action*. Unpublished

report. San Diego: University of California, Institute for Cognitive Science.
2. Zhang, J. (1990). The interaction of internal and external information in a problem solving task (Technical Report 9005). San Diego: University of California, Department of Cognitive Science.
3. Zhang, J. (1992). *Distributed representation: The interaction between internal and external information*. Technical Report 9201, Department of Cognitive Science, UC San Diego.
4. Zhang, J. & Norman, D. A. (1995) *The representation of numbers*. Technical Report 15, Center for Cognitive Science, The Ohio State University.
5. Wang, H., Johnson, T. R., & Zhang, J. (1997). *UEcho: A model of uncertainty management in human abductive reasoning*. Hybrid Technical Report No. 4 (TR-97/ONR-HYBRID-04). The Ohio State University.
6. Johnson, T. R., Zhang, J., & Johnson, C. M. (2000). AskRed.com heuristic evaluation. *Unpublished Report.*
7. Patel, V. L., & Zhang, J. (2000). Decision making in emergency care: The use of data and heuristics: Technical report. Center for Medical Education, McGill University.
8. Zhang, J., Johnson, T. R., & Johnson, C. M. (2001). Heuristic evaluation of Prometheus Version 4 – Instructor Side. *Unpublished Report*.
9. Zhang, J., Johnson, T. R., & Johnson, C. M. (2001). Heuristic evaluation of Prometheus Version 4 – Student Side. *Unpublished Report*.
10. Zhang, J., Johnson, K. A., & Smith, J. W., (2001). Heuristic evaluation of Merck Medicus. *Unpublished Report.*
11. Johnson, T. R., Johnson, C. M., & Zhang, J. (2001). User Evaluation of Prometheus Courseware. *Unpublished Report.*
12. Chen, J. W., Brixey, J., & Zhang, J. (2002). Comparing user performance of electronic and paper prescription writing. *Unpublished Report*
13. Zhang, J., Johnson, T. R., & Tang, Z. (2002). Usability Engineering Project for Digital EMS: Part 1 - Heuristic Evaluation of Version 1. *Unpublished Report.*
14. Zhang, J., Johnson, T. R., & Tang, Z. (2002). Usability Engineering Project for Digital EMS: Part 2 - Heuristic Evaluation of Version 2 Mockup. *Unpublished Report.*
15. Johnson, T. R., Tang, X., Graham, M., Brixey, J., Zhang, J., Kesselman, A., & Patel, V. L. (2003). Healthcare Employee Attitudes Toward Medical Device-Use Errors and their Prevention. Unpublished manuscript.
16. Gong, Y., Zhang, T., Rukab, J., Johnson-Throop, K. A., & Zhang, J. (2003). Design and Development of a Search Interface for an Information Gathering Tool. Unpublished manuscript.
17. Zhang, T., Gong, Y. Rukab, J., Johnson-Throop, K. A., & Zhang, J. (2003). Ethnographic and Computational Studies of A Distributed Information System. Unpublished manuscript.
18. Graham, M. J., Kubose, T. T., Keselman, A., Jordan, D., Johnson, T. R., Zhang, J., & Patel, V. L. (2003). Medical Errors in Critical Care: Prospective and Retrospective Analysis of Technology Use.
19. Tang, Z., Zhang, J., & Johnson, T. R. (2003). Usability Engineering of Digital EMS-Task analysis of Version 2 Mockup. Unpublished Report.
20. Zhang, J., Johnson, T. R., & Tang, Z. (2003). Usability Engineering Project for Digital EMS: Preliminary Heuristic Evaluation of Version 3. *Unpublished Report.*
21. Tang, Z. , Johnson, T. R., & Zhang, J. (2003). Usability Engineering Project for Digital EMS: Heuristic Evaluation of Protocols. *Unpublished Report.*

VIII. PRESENTATIONS

<u>Keynotes, Symposia, & Panels:</u>

1. **Keynote***. The role of external representations*. Human-Computer Interaction Consortium

(HCIC) 1996 Workshop. Fraser, Colorado, February 14, 1996, jointly with Donald A. Norman & Daniel Gruen.

2. **Panel (participant)**. *Relational Information displays*. Human Factors and Ergonomics Society Conference. Chicago, October, 1998, jointly with Klaus Christofesen (Chair), Christopher Wickens, & Kim Vicente.
3. **Panel (Chair)**. *What is wrong with EMR?* AMIA'99. November 8, 1999. Washington, DC, jointly with James Cimino, Jonathan Teich, and Vimla L. Patel.
4. **Symposium (Chair)**. *The nature of human error: An emerging interdisciplinary perspective*. Cognitive Science Society Conference, August 6-11, 2000, Philadelphia, jointly with Patel, V. L., Shortliffe, E. H., Freed, M., & Remington, R.
5. **Panel (participant)**. *Slips, mistakes and faulty reasoning: The nature of human errors in medicine*. *AMIA 2000*, jointly with Shortliffe, E. H. (Chair), Patel, V. L., & Freed, M.
6. **Chair**: Session on *Human-Computer Interaction*, Smart Systems 2000, 9/5/00-9/8/00
7. **Symposium (Chair).** *High-level cognition: theories and applications*. 3rd International Conference of Cognitive Science. August 27-September 1, 2001.
8. **Panel (Chair)**. *Medical Error: Is the solution medical or cognitive?* AMIA'01. Washington, DC, November, 2001, jointly with Vimla L. Patel, Kim Vicente, Todd R. Johnson.
9. **Panel (participant)**. *Reducing medical errors: Enhancing patient safety through multidisciplinary informatics research*. MedInfo2001, London, September, 2001, Jointly with Vimla L. Patel, (Chair), Edward H. Shortliffe, Johan van der Lei , & Hiroshi Takeda.
10. **Chair**: Session on Ontology and Design. AMIA2003. Washington, DC, November 9-12, 2003.
11. **Plenary:** *Human Centered Intelligent Flight Surgeon Console.* Keck Annual Research Conference, Clear Lake, Texas, October, 2003.
12. **Plenary:** *Biomedical informatics for translational medicine: Challenges*. Symposium on Information-Based Translational Medicine, Houston, September 29-30, 2005.
13. **Plenary:** *Health informatics and medical error*. 2005 Annual Conference of the Chinese Medical Informatics Association. Shenzhen, China, November 13-15, 2005.
14. **Panel (Chair)**. *Cognition factors and decision making in critical care?* AMIA'05. Washington, DC, October, 2005, jointly with Vimla L. Patel, Ted Shortliffe, Michael Shabot, Don Runker.
15. **Distinguished Lecturer**. *Human-centered computing in biomedical informatics.* Arizona State University, Phoenix, January 23, 2006.
16. **Panel (Participant)**. *Home based patient-centered technologies.* AMIA'06. Jointly with George Demiris, Stuart Speedie, Justin Starren, and Karen Courtney.
17. **Symposium (Chair).** *Distributed cognition in healthcare*. 2006 Annual Conference of Cognitive Science Society. July, 2006.
18. **Plenary:** *Biomedical Informatics: Current Challenges*. Pan-Pacific Medical Informatics & eHealth Summit, Beijing, April 17, 2007.
19. **Guest Speaker**. *The impact of technology on teamwork*. 2007 Collaboration and Knowledge Interoperability Workshop. Office of Naval Research. Orlando, Florida. January 23-25.
20. **Guest Speaker**. *Human-centered computing in biomedical informatics.* Houston Chapter of Human Factors and Ergonomics Society. February 15, 2007.
21. **Panel (Participant)**. *Alert overriding in computerized provider order entry systems: Problems and solutions.* MedInfo07. Jointly with Jos Aarts, Niels Boye, & Vimla Patel.
22. **Panel (Participant)**. *Collaborative Systems in Health Care---Implications for Improving Patient Safety.* 2008 American Psychological Association Convention. Jointly with Daniel Morrow (Chair), Yan Xiao, Douglas Wiegmann, Emilie Roth, Vimla Patel. Boston, August 16, 2008.
23. **Panel (Participant)**. *Collaborative Systems in Health Care---Implications for Improving Patient Safety.* 2008 American Psychological Association Convention. Jointly with Daniel Morrow (Chair), Yan Xiao, Douglas Wiegmann, Emilie Roth, Vimla Patel. Boston, August 16,

2008

24. **Panel.** Zhang, J., & Patel, V. L**.** *Team work in complex environment: The role of Technology.* 2008 American Medical Informatics Association Annual Meeting. Washington, DC, November, 2008. Presentation for Panel: Distributed Cognition in Healthcare
25. **Keynote**. Zhang, J. *Biomedical Informatics and Health IT: Challenges and Opportunities in US and in China*. 2011 International Biomedical Informatics Summit at Peking University
26. **Panel (Chair)**. The Role of Usability, Workflow, and Patient-centered Cognitive Support in Improving Health Information Technology. AMIA 2011, October 24, 2011, Washington, DC. (with Muhammad Walji, Keith Butler, Yan Xiao, & Mark Haselkorn)
27. **Invited Speaker**. Meaningful use of EHR through meaningful practice of usability. Asian American Pacific Islander Region VI Health Summit 2011. November 4, 2011, Houston, Texas.
28. **Keynote**. Zhang, J. *Health Information Technology: Challenges and Opportunities.* 2013 CHIMA Annual Conference.

Invited Presentations at Other Institutions and Organizations:

1. *Health Information Technology: Challenges and Opportunities.* Zhejiang University, Hangzhou, June 14, 2013.
2. *Health Information Technology: Challenges and Opportunities.* Southeast University, Nanjing, June 17, 2013.
3. *Usability and Patient Safety Issues of Health Information Technology*. Texas Medical Center Council of Pharmacy Executives Meeting. May 7, 2012.
4. *Strategic Health IT Advanced Research Projects (SHARP) Program and EHR Usability*. Texas Medical Center Quality and Patient Safety Council Meeting. February 23, 2012.
5. *Usability and Patient Safety Issues of Health Information Technology*. Texas Medical Center CIO/CMIO Council Meeting. February 16, 2012.
6. *Is Usability More Valuable than Oil*? Research Seminar, University of Texas School of Biomedical Informatics at Houston. Challenges and Opportunities for EHR. February 1, 2010.
7. *EHR usability*. Peking University Health Science Center, June 8, 2011.
8. *Biomedical Informatics.* Nanjing University, June 15, 2011.
9. *Cognitive complexity in Critical Care*. Duke University, June 21, 2010.
10. *Cognitive complexity in Critical Care*. Mayo Clinic, April 29, 2010.
11. *SHARPC: An overview of ONC funded Patient-Centered Cognitive Support project*. Texas Medical Center, December 2, 2010, Houston, Texas.
12. *Biomedical Informatics: Current Challenges*. Guangdong Pharmaceutical University, July 18, 2007.
13. *Biomedical Informatics: Current Challenges*. Center for Bioinformatics, Peking University, July 23, 2007.
14. *Biomedical Informatics: Current Challenges*. MIForum, No. 3 Hosptial, Peking University Health Science Center, July 21, 2007.
15. *The impact of technology on teamwork*. Research Seminar Series, School of Health Information Sciences, University of Texas Health Science Center at Houston, April, 2007.
16. *Biomedical Informatics: Current Challenges*. South Carolina Medical University, January 21, 2007.
17. *Biomedical Informatics: Current Challenges*. MD Anderson Cancer Center, May 24, 2006.
18. *What is wrong with EHR*? Taipei Medical University, November 18, 2005.
19. *Health information and medical error*. Taipei Medical University, November 17, 2005
20. *What is wrong with EHR*? Hong Kong Hospital Authority, November 16, 2005.
21. *Public health informatics*. CDC, Shenzhen, China, November 15, 2005.
22. *What is biomedical informatics?* Beijing Capital Medical University, July, 2005.

23. *Health Informatics and Medical Error*. HIMSS South Central Texas Chapter. April 22, 2005.
24. *Representational Analysis for Human-Computer Interaction,* Department of Psychology, Rice University, February 4, 2005.
25. *Representational Analysis for Human-Computer Interaction,* Tokyo SIG on Usability, February 18, 2005.
26. *Representational Analysis for Human-Computer Interaction,* Tokyo University, February 21, 2005.
27. *Human Centered Intelligent Flight Surgeon Console,* Keck Center for Computational Biology, February 21, 2003.
28. *A Cognitive taxonomy of human errors in medicine,* Department of Psychology, Rice University, May 1, 2002.
29. *Human Centered Intelligent Flight Surgeon Console,* Department of Medical Informatics, Columbia University, April 18, 2002.
30. *External cognition*. Workshop on Cognition, Learning & Social Change (organized by Nobel Laureate Douglass North of Washington University), October 27-28, 2000, Airley, Virginia.
31. *User interface design for medical information systems*. NASA Johnson Space Center, Houston, March 16, 2000.
32. *The representational issues of health concepts: A cognitive perspective*. International Medical Informatics Association--Working Group 6 Meeting (Health Concept Representation and Natural Language Processing). Phoenix, Arizona, December 16-19
33. *User Interface Design: Theory and Applications*. Chinese Academy of Sciences, Beijing, June 14, 2000.
34. *Distributed cognition—The interaction between internal and external representations*. Denison College, October 20, 1998.
35. *Representations—A Cognitive Perspective*. Department of Physics, The Ohio State University, October 19, 1998.
36. *The Representational Effect in the Design of direct interaction interfaces: Theory and applications*. Microsoft Research, June 30, 1998.
37. *The Representational Effect in the Design of direct interaction interfaces: Theory and applications*. IBM Watson Research Center, June 25, 1998.
38. *The Representational Effect in Distributed Cognitive Tasks*. University of Central Florida, April 10, 1998.
39. *The Representational Effect in Distributed Cognitive Tasks*. George Mason University, January 26, 1998.
40. Zhang, J. *Distributed Cognition*. Brownbag, Group for Cognitive Development and Instruction, The Ohio State University, November 19, 1997.
41. *Distributed cognition—The interaction between internal and external representations*. Bowling Green State University, March 13, 1997.
42. Johnson, T. R., & Zhang, J. *Strategies and mechanisms of learning by doing*. Brownbag, Center for Cognitive Science, The Ohio State University, February 16, 1996.
43. Zhang, J. *A hybrid architecture for tactical decision making*, Cognitive/Experimental Brownbag, Department of Psychology, Ohio State University. October 3, 1995.
44. Wang, J., & Zhang, J. *Multiple-levels of memory dissociations*. CogFest95, Center for Cognitive Science, The Ohio State University, October, 1995.
45. *New directions of cognitive science—Environment-based approaches to cognition*. Symposium of Cognitive Science: Its Current Status and Future Development. Beijing, China, August 19, 1995.
46. *Distributed cognition*. Graduate School, Academia Sinica, September 12, 1994.
47. Zhang, J. *External Representations*. Brownbag, Center for Cognitive Science, The Ohio State University, September 23, 1994.
48. *Seminar in Problem Solving*. Beijing Laboratory of Cognitive Science, Academia Sinica,

September 5-10, 1994.

49. Zhang, J. *Internal and External Representations in Problem Solving and Everyday Cognition*. Center for Cognitive Science, The Ohio State University, February 26, 1993.
50. Zhang, J. *The interaction between perceptual and cognitive processes: mental planning or situational strategies?* CogFest93, Center for Cognitive Science, The Ohio State University, November 20, 1993.

Conference Presentations: (Oral & Poster)

1. Zhang, J. EHR Usability Present and Future: Opening Remarks. Pre-AMIA Symposium on EHR Usability. October 21, 2011, Washington, DC.
2. Zhang, J. EHR Usability Present and Future: Closing Remarks. Pre-AMIA Symposium on EHR Usability. October 21, 2011, Washington, DC.
3. Walji, M., & Zhang, J. TURF – A unified framework for EHR usability. Pre-AMIA Symposium on EHR Usability. October 21, 2011, Washington, DC.
4. Harrington, C., Wood, R., Breuer, J., Pinzon, O., Howell, R., Pednekar, M., Zhu, M., & Zhang, J. Using a Unified Usability Framework to Dramatically Improve the Usability of an EMR Module. AMIA 2011 (Oral). October 22-26, 2011, Washington, DC.
5. Bozzo Silva, P., Bernstam, E., Herskovic, J., Markowitz, E., & Zhang, J. Automated medication reconciliation and complexity of care transitions. AMIA 2011 (Oral). October 22-26, 2011, Washington, DC..
6. Markowitz, E., Bernstam, E., Herskovic, J., Zhang, J., Shneiderman, B., Plaisant, C., & Johnson, T. R. Medication reconciliation: Work domain ontology, prototype development, and a predictive model. AMIA 2011 (Oral). October 22-26, 2011, Washington, DC.
7. Berster, B., Liu, Y., Zhang, M., Patel, V. L., Zhang, J., Robinson, D., Franklin, A. More than looks alone: Cognitive support in an emergency department information display system. AMIA 2011 (Poster). October 22-26, 2011, Washington, DC.
8. Zhu, M., Walji, M., Zhang, J. Extracting and inserting meaningful use concepts into UFuRT models. AMIA 2011 (Poster). October 22-26, 2011, Washington, DC
9. Mohammad, M., Espinosa, G., Murphy, D., & Zhang, J. Design and evaluation of a problem-oriented view for OpenVista EHR using UFuRT framework. AMIA 2011 (Poster). October 22-26, 2011, Washington, DC
10. Zhang, Z., Li, Y., Walji, M., Franklin, A., & Zhang, J. A metric for measuring cognitive transparency of EHR user interfaces. AMIA 2011 (Poster). October 22-26, 2011, Washington, DC
11. Zhang, J. A Cognitive Framework of Usability: Representation and Cognitive Modeling. Cognitive Science Beijing Symposium 2011. Tsinghua University, Beijing, June 16-18, 2011.
12. Zhang, J. Overview of Patient-Centered Cognitive Support research at SHARPC. Presentation to EHR Association. HIMSS 2011, February 22, 2011, Orlando, Florida.
13. Li, Z., Robinson, D.J, Zhang, Z. UObserve: A Mobile App for the Study of Emergency Department Workflow. American College of Emergency Physicians Research Forum 2010. (Poster)
14. Le, H., Willcockson, I., & Zhang, J. Heuristic evaluation of cancer eStaging documentation. AMIA 2010. (Poster)
15. Zhang, J., & Walji, M. *A Unified Framework of EHR Usability.* National Institute of Standards and Technology. June 7, 2011.
16. Zhang, J., & Walji, M. *The SHARPC Approach to EHR Usability.* National Institute of Standards and Technology. July 13, 2010.
17. Zhang, J. Overview of Patient-Centered Cognitive Support research at SHARPC. Session 15- SHARP: Vendor Engagement with Federal Health IT Research Efforts. HIMSS 2011, February 21, 2011, Orlando, Florida.

18. Zhang, J. Overview of Patient-Centered Cognitive Support research at SHARPC. Presentation to EHR Association. HIMSS 2011, February 22, 2011, Orlando, Florida
19. H. Saitwal, X. Feng, M. Walji, V. Patel, and J. Zhang, "Assessing Task Performance of an Electronic Health Record (EHR) User Interface," presented at AMIA 2009 Symposium, San Francisco, Nov. 14 - 18, 2009.
20. Goodwin, J., Okafo, N., Li, Z., Todd, R.J., Zhang, J. (2009) Development of a Multi-Agent Simulation of a Level-One Trauma Center. AMIA Annual Symposium 2009.
21. Nahm, M., Johnson, C. M., Walden, A., Johnson, T. R., & Zhang, J. (2010). Clinical Research Data Management Tasks and Definitions. *2010 AMIA Clinical Research Informatics Summit*. (Poster)
22. Nahm, M., Nguyen, V. D., Razzouk, E., Zhu, M. & Zhang, J. (2010). Analysis of distributed cognition elements on clinical research data collection forms. Proceedings of the American Medical Informatics Association Summit on Clinical Research Informatics 1st Annual Meeting. Bethesda, MD: American Medical Informatics Association.
23. Zhang, M., Li, Z., Kong, X., Zhang, J., Patel, V. (2010) Measuring Randomness of Clinician Activities in Emergency Context. AMIA Annual Symposium 2010. (Poster)
24. Zhang, J. A cognitive framework of usability: Representation and cognitive modeling. *Cognitive Science Beijing Symposium 2011*, June 17-18, 2011, Tsinghua University, Beijing, China.
25. Nahm M, White LW, Johnson C, Johnson T, Zhang J, Additive Theory of Error Generation and Correction Derived from & Applied to Clinical Research Data Management. Presented at Information Quality Industry Symposium (IQIS). July 15-17, 2009, Cambridge Massachusetts
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173. Zhang, J., & Norman, D. A. *The representation of relational information displays*. The Sixteenth Annual Conference of the Cognitive Science Society, Atlanta, August 15, 1994.
174. Johnson, T. R., Zhang, J., & Wang, H. *Bottom-up recognition learning: A Compilation-Based Model of Limited-Lookahead Learning*. The Sixteenth Annual Conference of the Cognitive Science Society, Atlanta, August 15, 1994.
175. Johnson, T. R., Zhang, J., & Wang, H. *Bottom-up recognition learning.* The Thirteenth SOAR Workshop, The Ohio State University, March 11, 1994.
176. Zhang, J. *The interaction between perceptual and cognitive processes in a distributed problem solving task*. 1993 AAAI Fall Symposium on Games: Planning and Learning. Research Triangle Park, North Carolina, October 10, 1993.
177. Zhang, J. & Norman, D. A. *A Cognitive Taxonomy of Numeration Systems*. The Fifteenth Annual Conference of the Cognitive Science Society, Boulder, Colorado, June 21, 1993.
178. Zhang, J. *The interaction of internal and external representations in a problem solving task*. The Thirteenth Annual Conference of Cognitive Science Society, Chicago, August 8, 1991.

IX. GRANT REVIEW PANELS

2003-2005 *NIH: Biomedical Information Science & Technology Initiative (BISTI)*
2008-2008 *NIH: Biomedical Information Science & Technology Initiative (BISTI)*
2003-2007 *NIH: National Library of Medicine Special Emphasis Panel (R21)*
2006-2007 *NIH: National Library of Medicine Special Emphasis Panel (K and G Grants)*
2006 *NIH: National Library of Medicine Special Emphasis Panel (R13)*
2004-2005 *AHRQ, Health Information Technology*
2006-2010 *AHRQ Health Care Technology and Decision Sciences (HCTDS)*

2004 *NIH: National Centers of Biomedical Computing Review Panel*
2004-present *NIH: NCMHD Loan Repayment Program*
2009-2010 *NIH: NCMHD Loan Repayment Program (Chair)*
2008-2009 *NIH:* Emerging Technologies and Training in Neurosciences
2008-2010 *NIH: Biomedical Computing and Health Informatics*
2001 *Netherlands Science Foundation*
2006-present *State of Pennsylvania*
2006-2007 *State of Florida*
2010 *ONC SHARP*
2010 *Department of Defense*

X. ADVISORY BOARDS, EXPERT PANELS, ETC.

2005-2006	DHHS Office of the Assistant Secretary for Planning and Evaluation (ASPE), "Assessing the Economics of HIT Adoption and Successful Implementation in Ambulatory Care Settings".
2006	Team work in complex environment, National Research Council
2011	AHRQ EHR Usability Project
2011	EHR Usability Hearing, Office of National Coordinator for Health Information Technology, April 21, 2011, Washington, DC.
2011	Institute of Medicine Electronic Health Records Collaborative
2011-2012	AMIA Task Force on EHR Usability
2012 – present	Advisory Board, China Hospital Information Management Association (CHIMA)
2012 – present	Senior Internal Advisor, AMIA Working Group on Clinical Informatics in Intensive Care (AMIA-CIIC)

XI. Editorial Activities

Associate Editor:
Journal of Healthcare Engineering

Guest-Editor:
Journal of Biomedical Informatics, Special Issue on Human-Centered Computing—Part 1
Journal of Biomedical Informatics, Special Issue on Human-Centered Computing—Part 2
Journal of Information Visualization, Special Issue on Human-Centered Visualization

Editorial Board:
Journal of Medical Informatics

Ad Hoc Reviewer:
Applied Ergonomics

Archives of Internal Medicine
Cognitive Science
Behavior & Information Technology
European Journal of Cognitive Psychology
Human-Computer Interaction
IEEE Transactions on Neural Networks
Instructional Science
International Journal of Human-Computer Studies
Journal of American Society of Information Science
Journal of American Medical Informatics Association
Journal of Biomedical Informatics
Journal of Experimental Psychology: Applied
Journal of Management Studies
Memory & Cognition
Perception
Quality and Safety in Health Care
Quarterly Journal of Experimental Psychology
Reliability Engineering & System Safety

Proceedings of the American Medical Informatics Association
Proceedings of the Annual Conference on Computer-Supported Cooperative Learning
Proceedings of the Cognitive Science Society
Proceedings of International Medical Informatics Association
Proceedings of International Conference of Cognitive Science\
Proceedings of Symposium of the WG HCI&UE of the Austrian Computer Society: Usability and Human-Computer Interaction for Medicine and Health Care

Various books and book chapters

XII. CONFERENCE PROGRAM COMMITTEES (National & International)

Chair: The EHR Usability Symposium 2012: Usability and Meaningful Use, November 4, 2012
Chair: SHARPC Annual Meeting, April 3-4, 2012.
Chair: Pre-AMIA Symposium: EHR Usability Present and Future, October 21, 2011.
Organizer: EHR Usability Round Table at ONC Grantee Meeting, November 16, 2011
Advisor: International Biomedical Informatics Summit at Peking University, June 6-8, 2011.
Chair: SHARPC Annual Meeting, April 5-7, 2011.
Chair: Session on EMR Applications. AMIA2007. Chicago, November 10-14, 2007.
Member, Program Committee, *Usability & HCI for Medicine & Health Care, 2007*
Organizer*: Symposium on Information-Based Translational Medicine, 2005*
Member: Program Committee, *AMIA 2005*
Member: Program Committee, *2nd International Conference on Smart Graphics*, *2002*
Member, Program Committee, *2001 Cognitive Science Conference*
Member, Program Committee, *2001 International Conference of Cognitive Science (ICCS)*
Chair: Symposium on High-Level Cognition, *ICCS2001*
Member, Program Committee, *2001 Human.Systems Conference*
Member: Program Committee, *Smart Systems 2000*.
Chair: Session on Human-Computer Interaction, *Smart Systems 2000*

XIII. News and Media

1. March 8, 2013, New UT Health Science dean wants to ramp up commercialization (Houston Business Journal)
2. February 20, 2013, Jiajie Zhang, Ph.D., Named Dean of the UTHealth School of Biomedical Informatics (Newswise)
3. December 08, 2011, Newsmaker Interview: Jiajie Zhang (Healthcare IT News)
4. May 18, 2011, Usability key to wide EMR adoption (Healthcare IT News)
5. May, 2011, Making EMRs more user-friendly (Healthcare Finance News)
6. April 26, 2011, NIST, ONC put health IT usability center stage (Healthcare IT News)
7. April 25, 2011, NIST, ONC plan measures, testing to improve health IT usability (Government HealthIT)
8. April 12, 2011, Seven questions with Jiajie Zhang (Healthcare IT News)
9. April 08, 2011, EMR usability seen lacking (Healthcare IT News)
10. April 07, 2011, Usability is key for EHR adoption (Healthcare IT News)
11. April 06, 2010, UTHealth gets $15 million for health information technology research (UTHealth News Release)
12. February 02, 2009. Jiajie Zhang, PhD, the Doris L. Ross Professor and Associate Dean for Research at the University of Texas School of Health Information Sciences at Houston, Discusses Long- Standing Career. (UTH SBMI News story)
13. December, 2007, Faculty Honors Convocation (Distinctions)
14. February, 2007. Zhang Appointed First Holder of Dr. Doris L. Ross Professorship (Distinctions)
15. February 02, 2007. Reception celebrates the school's first endowed professorship (UTH SBMI News Story).
16. May 09, 2004, Supercomputers bring research to bedside (Healthcare IT News)

XIV. TEACHING

Courses Taught:

AMIA 10x10 Course:
Healthcare Interface Design (2011)
Healthcare Interface Design (2012)
Healthcare Interface Design (2013)

Courses at University of Texas at Houston (Associate & Full Professor):

1.	Health Data Displays (Information Visualization)	(graduate)
2.	Social Dynamics (Computer-Supported Collaborative Work)	(graduate)
3.	Health Interface Design (Human-Computer Interaction)	(graduate)

Courses at Ohio State University (Assistant Professor):

1.	Cognitive Psychology	(undergraduate)
2.	Neural Network in Psychology: Theory	(undergraduate & graduate)
3.	Neural Network in Psychology: Applications	(undergraduate & graduate)
4.	High-Level Cognition	(graduate)
5.	Distributed Cognition	(graduate)
6.	Situated Cognition	(graduate)
7.	Seminars in Cognitive/Experimental Psychology	(graduate)
8.	Knowledge Representations	(graduate)

9. Complex Information Processing in Cognition (graduate)

Courses at University of California at San Diego (Teaching Assistant):

1. Introduction to Statistics (undergraduate)
2. Cognitive Engineering (undergraduate)
3. Cognitive Psychology (undergraduate)
4. Parallel Distributed Processing: Foundation (undergraduate)
5. Parallel Distributed Processing: Advanced (undergraduate)

Short Courses:

1. 7-Day Short Course on EMR usability. July 15-22, 2010, Medellin, Colombia.
2. 3-Day Short Course on EMR usability. January 19-21, 2011, Houston, Texas.

Conference Tutorials:

1. *The Coordination of external representations and internal mental representations in display-based cognitive tasks*, Diagrams 2000 Conference, Edinburgh, UK, August 31 - September 3, 2000.
2. *User Interface: Practical Design and Evaluation of Healthcare Computer Applications and Devices*. AMIA2003. Washington, DC, November, 2003. (with Gregg Lund, Constance M. Johnson, Todd R. Johnson, & Vimla L. Patel)
3. *User Interface: Practical Design and Evaluation of Healthcare Computer Applications and Devices*. MedInfo, September 7-12, 2004, San Francisco. (with Gregg Lund, Constance M. Johnson, & Todd R. Johnson)
4. *Introduction to Biomedical informatics*. Fudan University, Shanghai, July 12, 2005.
5. *Usability in health information systems*. Kingstar Winning, Shanghai, July 13, 2005.
6. *Human-Centered Design and Evaluation of Health Information Systems.* 2008 American Medical Informatics Association Annual Meeting. Washington, DC, November, 2008. (With Vimla Patel)
7. *Human-Centered Design and Evaluation of Health Information Systems.* 2009 American Medical Informatics Association Annual Meeting. San Francisco, November, 2009. (With Vimla Patel)
8. *Human-Centered Design and Evaluation of Health Information Systems.* 2010 American Medical Informatics Association Annual Meeting. Washington, DC, October, 2010. (With Vimla Patel)
9. *Fundamentals of EHR Usability.* 2012 American Medical Informatics Association Annual Meeting. Chicago, November 3, 2012. (With Muhammad Walji and Amy Franklin)

Postdoctoral Fellows (former and current):

1. Stephen Jones, MD, Methodist Hospital
2. Peter Killoran, MD, University of Texas Medical School at Houston
3. Nnaemeka Okafor, MD, University of Texas Medical School at Houston
4. Joanna Abraham, PhD, University of Texas School of Biomedical Informatics at Houston
5. Zhihua Tang, PhD, Landmark Graphics
6. Zhen Zhang, MD, University of Texas School of Biomedical Informatics at Houston
7. Frank Tamborello, PhD, University of Texas School of Biomedical Informatics at Houston
8. Velma Payne, PhD, University of Texas School of Biomedical Informatics at Houston

Ph.D. Dissertations: (As Advisor & Committee Member)

1. *Order Effects in Human Belief Revision*, Hongbin Wang, 8/98. (Department of Psychology, OSU). (Advisor)
2. *An Investigation into the Psychology of Spatial and Temporal Reasoning*, Anthony J. Blum, 1/93. (Department of Psychology, OSU). (Committee member)
3. *For Better or for Worse? The Advantages Model of Decision Strategy Selection*, Toni L. Blum, 6/94. (Department of Psychology, OSU). (Committee member)
4. *A Computational Model of Skill and Concept Acquisition in Abductive Problem Solving*, Ayse Bayazitoglu, 6/95. (Department of Computer and Information Sciences, OSU). (Committee member)
5. *Cognitive Convergence among Members of Newly Formed Groups*, Tim Crespin, 6/96. (Department of Psychology, OSU). (Committee member)
6. *A Dynamical Systems Approach to Adaptivity in a Manual Tracking Task*, Min-Ju Liao, 8/97. (Department of Psychology, OSU). (Committee member)
7. *Effects of Information Display on the Construction of Clinician Mental Models*. Constance M. Johnson, 10/03. (UT Houston) (Committee member)
8. *Cognitive impact of interactive multimedia,* Yanko Michea, 9/04. (UT Houston) (Committee member)
9. *Understanding Interruptions in Healthcare: Developing a Model,* Juliana J. Brixey. 3/06. (UT Houston) (Advisor)
10. *The interaction of internal and external information in relational data search,* Yang Gong. 7/06. (UT Houston) (Advisor)
11. *Does the Message Matter? Enhancing Patient Adherence through Persuasive Messages*. Muhammad Walji. 12/06. (UT Houston) (Advisor)
12. *Developing a method for identifying and reducing functional discrepancies of information systems*. Jung-Wei Chen. 12/08. (UT Houston) (Advisor)
13. Florez-Arango, MD, MS, J, Iyengar, PhD, MS, Dunn, MD, PhD, K, Zhang, PhD, J, Phelps, PhD, CL, and Throop-Johnson, PhD, K (2009). Workload and Performance Factors Associated with Multimedia Jobs Aids for Community Health Workers . Phd thesis, The Univeristy of Texas School of Health Information Sciences at Houston. (Committee member)
14. McLane, MS, MBA, RN-BC, S, Turley, RN, PhD, JP, Engebretson, Dr. PH, RN, J, Wood, PhD, RN, FAAN, GL, and Zhang, PhD, J (2009). Understanding Nurse Created Cognitive Artifacts:Personally-Created-Cognitive-Artifacts as External Representations of Distributed Cognition . Phd thesis, The University of Texas School of Health Information Sciences at Houston. (Committee member)
15. Esquivel, MD, MS, A, Dunn, MD, PhD, K, Turley, RN, PhD, JP, Zhang, PhD, J, and Te' eni, PhD, D (2008). Characterizing, Assessing, and Improving Healthcare Referral Communication . Phd thesis, The University of Texas School of Health Information Sciences. (Committee member)
16. Parsa Mirhaji (2009). BIOMEDICAL LANGUAGE UNDERSTANDING AND EXTRACTION (BLUE-TEXT). A MINIMAL SYNTACTIC, SEMANTIC METHOD. Phd thesis, The University of Texas School of Health Information Sciences. (Advisor)
17. Meredith Nahm (2010). Data Accuracy in Medical Record Abstraction. (Advisor)
18. Min Zhu (2010). Formalizing a conceptual framework of work domain knowledge. (Advisor)
19. Roxana Maffei (2011). Understanding and Characterizing Shared Decision-Making and Behavioral Intent in Medical Uncertainty. (Committee member)
20. Arunkumar Srinivasan (2011). A Method for Representating Contextualized Information (MeRCI) to Improve Situational Awareness among Electronic Health Information Exchange System Dashboard Users. (Advisor)
21. Sharangdhar S. Phatak (2012). Advanced Protein Modeling Method: Benchmarking and Applications in Computer-Aided Drug Discovery. (Committee member)

22. Ashish Joshi. The SanaViz: Human centered geoviusalization to facilitate visual exploration of public health data. (Committee member)

Master's Theses: (As Advisor & Committee Member)

At Ohio State University: MA in Psychology and Industrial Design

1. Hongbin Wang, June, 1995, *Multi-Level Analysis of Memory Dissociations*, 6/95.
2. Johnny Chuah, September, 1998, *Distributed Cognition of a Navigational Instrument Display Task*.
3. Terrell L. Childers,June, June, 1993, *Analogical Transfer in Problem Solving*.
4. Krishna Tateneni, June, 1994, *Cross-Modal and Cross-Formal Priming on Implicit Tests of Memory: An Application of the Process Dissociation Procedure*.
5. Robert H. Lewis, June, 1994, *Search Image Formation in a Word Detection Task*.
6. Sakol Teeravarunyou, June, 1997, *Recommendations for Using the Semantic Process in Children's Communication Software*.

At University of Texas at Houston: MS in Health Informatics

7. Molly C. Shek, RHA, Fall 2000, *Electronic Medical Record A Decision Support Tool*.
8. David M. Lynch, B.S.N., Summer 2001, *An Overview of Change Management*.
9. Jianguo Xiao, MD, PhD, Spring 2001, *Application of Geographic Information System (GIS) in Infectious Disease Surveillance and Control*.
10. Nicole M. Follansbee MS, MSN, MPH, RN, Spring 2001, *The Health Information Portability and Accountability Act (HIPAA) And the Implications for Nurses And the Implications for Nurses*.
11. Rita Torkzadeh, M.S., Spring 2001, *Integrating Health Promotion and Informatics: Developing Interactive Health Information Systems Tailored To Healthcare Consumers' Needs.*
12. Wei-Chih Clara Chang, MPH, ,Spring 2001, *Critical Components Associated with Hospital-wide Filmless PACS Operation and Digital Image Management*
13. Minh Dai Dang, BA, Fall 2001, *Tele-ophthalmology: Diabetic Retinopathy Imaging in a Correctional Care Environment – A Store-and Forward Non-mydriatic Digital Camera Remote Care Study Preliminary Analysis*.
14. Fanny Hawkins, Ed.D., Fall 2001, *Clinical Documentation Before and After Implementing an EMR – An Empirical Study*.
15. Martha A. Koperwhats, Summer 2002, *Application of Human Factor Engineering to Selection and Implementation Planning of a Voice Recognition System*.
16. Yue Wang, M. S., Summer 2002, *Towards an integrated data environment: a review of database development in bioinformatics*.
17. Jung-Wei Chen, DDS, MS, Spring 2002, *Teledentistry and its use in education.*
18. *Vijaya Mekala, BHMS, Spring 2002, Computerization of clinical guidelines-A review on clinical care algorithm*.
19. William Holtkamp, RNBC, BSN, Spring 2002, *Integrated Health Information Systems: Who, What, Why, and How*.
20. Stacey Barnes, RN, Spring 2002, *The Nurse as Informatics Project Manager: Applying Nursing to Information Systems and Their End Users.*
21. Lan Yang, Fall 2002, *Computer simulation and modeling of clinical trials in drug development*.
22. Yan Xing, M. D., Spring 2003, Bayesian Probabilistic Network Modeling of Risk Assessment for Patients with Melanoma.

23. Fiona Nunes, Spring 2003, *Implementation of information systems in healthcare: A framework for success.*
24. Andy Nguyen , Fall 2003, *A Model of Clinical Decision Support Systems and Supporting Clinical Information System Objects.*
25. Ashwin Jadhav, MD , Fall 2003, *Arden Syntax for Medical Logic Modules: Examining state of the Standard.*
26. *Susan Rinkus, RN, Fall 2003, Distributed cognition in knowledge management design.*
27. Jamie A. Rukab, Fall 2003, *A Framework of Interruptions in Distributed Team Environments.* Dawn Marie Shelton, RN, MS , Spring 2004, *A Roadmap for Evaluation and Return On Investment for a Clinical Documentation System In a Pediatric Critical Care Setting*.
28. Indreshpal Kaur, PhD, Spring 2004, *Distributed Database Systems in Healthcare: Need for Standards.*
29. Sunay Ravindra, MBBS, Spring 2004, *Automatic and User-Assisted Report generation in Healthcare.*
30. Ye Yuan. *High-throughput automated primer design.* 2004.
31. Tao Zhang, MD, MS, Spring 2004, *An Information Flow Analysis of a Distributed Information System for Space Medical Support.*
32. Down Shelton. *A Roadmap for Evaluation and Return On Investment for a Clinical Documentation System In a Pediatric Critical Care Setting*. 2004.
33. Roland Tadoum, Spring, 2005, *Predictors of childhood sexual and physical abuse*.
34. Lynne Chandler, Spring 2005, *Methods for Evaluation within an Iterative Prototype Life-Cycle*.
35. Helen Strown-George, Spring 2005, *The people vs. change: How an organization can effectively implement change by focusing on its employees.*
36. Pallavi Mokkarala, Summer 2005, *Development of comprehensive medical error ontology*.
37. Leslie Hinds, Spring 2006, *Telemedicine Preparedness in Texas to Meet the Needs of the Medically Underserved*.
38. Jun Li, Spring 2006, *Developing a PDA-based Electronic Medical Record Prototype for a Telemedicine System.*
39. Kamila Smolji, Spring 2006, *Information management: Searching for the right model.*
40. Miko Watkins, Spring 2006, *Evaluating a PDA as an emergency medical record for EMS personnel.*
41. Ritu Srinivastava. *Web-based application for interactive visualization and analysis of diabetes data from an EMR*. Spring, 2006.
42. Soni Gupta. *Harnessing the Power of Mobile Computing through Workflow Management*. 2007.
43. Ming Ying Lisa Chu-Weininger. *Tele-psychiatry for the Assessment of Patient Admission: Costs, Benefits, and Provider Job Satisfaction*. 2007.
44. Xing Wang. *A Comparison of Local Field Potentials and Spiking Activity to Predict Perpetual Report During Bistable Visual Simulation*. 2007**.**
45. M. S. Anwar. *A Process Analysis Approach to Evaluating a Clinical Decision Support System: The AVIATOR Model.* 2007.
46. Sharon McLane. *Medication Administration Error: A Review of the Literature and Recommended Future Direction.* 2007**.**
47. Lei Xu*. BSMART: a MATLAB/C toolbox for analysis of multi-channel neural data*. 2007.
48. Rachel Masake. *Data Modeling Practices in Healthcare: A Review of Literature and Recommended Direction*. 2007.
49. Tawnya Breaux. *Something Wiki This Way Comes (A Wiki Primer for Organizations)*. 2008
50. Dawit Gabremichael. *Improving Electronic Medical Record with Service Oriented Architecture.* 2008
51. Catherine Lee Doughty. *Change Management for Collaborative Practice*. 2008.

52. Ying Zhu. *Distributed Representation of Touch in Somatosensory and Visual Cortex*. 2008
53. Carruth, MPA, PA-C, TN, Dunn, MD, PhD, K, and Zhang, PhD, J (2009). Analyzing Functional Requirements for Applying Meaningful Use By A Patient Centered Medical Home . Masters thesis, The University of Texas School of Health Information Sciences at Houston.
54. Miyake, K, Aoki, MD, PhD, MS, MBA, N, and Zhang, PhD, J (2009). Systematic Review of Increases in Prescription Mistakes due to Doctor Fatigue . Masters thesis, The University of Texas School of Health Information Sciences at Houston.
55. Nguyen, HK, Sirajuddin, MBBS, MS, AM, Murphy, MD, R, Dunn, MD, PhD, K, and Zhang, PhD, J (2009). The Customization of Commercial Base Rules in Dose Range Checking to Reduce Nuisance Alerts . Masters thesis, The University of Texas School of Health Information Sciences at Houston.
56. Zhang, MD, Z, Walji, Ph.D., MF, Patel, PhD, VL, Gimbel, PhD, R, and Zhang, PhD, J (2009). Functional Analysis of User Interfaces in an Electronic Health Record System using UFuRT Framework . Masters thesis, The University of Texas School of Health Information Sciences at Houston.
57. Krishnan, MS, R, Gould, MD, L, Dunn, MD, PhD, K, and Zhang, PhD, J (2008). Online Self-paced Learning in Nuclear Cardiology for Fellows and Students . Masters thesis, The University of Texas School od Health Information Sciences at Houston.
58. Lund, DO, GC, Zhang, PhD, J, and Johnson, PhD, TR (2008). Genetics Data and Electronic Health Records (EHR): The Case for Integration . Masters thesis, The University of Texas School of Health Information Sciences at Houston.
59. Timothy Brannon, MD, Master Thesis, The Problem- Oriented Medical Record in the Age of the EMR. (2010)
60. Tyler Carruth, MPA, PA-C, Analyzing Functional Requirements for Applying Meaningful Use by a Patient Centered Medical Home. (2010)
61. TruongSon Hoang, Master's Thesis, Serological Surveillance of Hepatitis B Infection and Vaccination Status of Vietnamese Americans. (2010)
62. Ying Liu, MD. Master's Thesis, The Impact of Environmental Factors on Physician Decision Making in Emergency Department. (2010)
63. David Salako. Venous Thromboembolism Risk Assessment, an Electronic Health Record and Clinical Decision Support Approach, the Socio-Technical Impact on and in and In-Patient Care Hospital Setting. (2010)
64. Kuniaki Miyake. Master's Thesis, Systematic Review of Increases in Prescription Mistakes Due to Doctor's Fatigue. (2010)
65. Stephen Jones. Early Detection of Hospitalized Patients at Risk for Developing Sepsis. (2011)
66. Nnaemeka Okafor, MD. Analysis of Diagnostic Errors in Emergency Medicine Using a Descriptive Medical Error Registry. (2011)
67. Sharyn Smalls. The Role of Consultancy in Enhancing Readiness for Implementation of the Medical Home Model Supported by Teleaccess through a Quality Health Record: Barriers and Opportunities for Learning. (2011)
68. Himali Saitwal. An Evaluation of Complementary Techniques for Mapping and Integrating Medication Terminological Systems. (2011)
69. Circe Tsui. Development and Early Assessment of a Patient-Centered Kiosk for Medication Reconciliation: My Medication Helper (MMH). (2011)
70. Dinesh Gottipati. Augmenting Expertise: Effects of a Cognitive Support System on Psychiatric Clinical Comprehension. (2012).
71. Jesus Ibarra-Jimenez. Description, Evaluation, Modeling and Improvement of Knowledge Acquisition in Transdisciplinary Health Care Teams: A Review of the Literature. (2012).
72. Vickie D. Nguyen. Intended and Unintended Consequences of Introducing a New Electronic Health Record in an Emergency Department. (2012).

Current Positions of Selected Former Students (out of 93):

- **Juliana Brixey,** Ph.D., M.S., RN. Assistant Professor, University of Kansas; Assistant Professor, School of Biomedical Informatics at UT Houston
- **Anna W. Chen,** DDS, M.S., PhD, Associate Professor, Loma Linda University Dental School
- **Adol Esquivel,** MD, PhD, Assistant Vice President, St. Luke's Episcopal Health System
- **Yang Gong,** Ph.D., M.S., Assistant Professor, Dept of Health Informatics, U of Missouri at Columbia; Associate Professor, School of Biomedical Informatics at UT Houston
- **Constance M. Johnson**, Ph.D., RN., MS, Associate Professor, School of Nursing, Duke University.
- **Stephen L. Jones**, M.D., M.S., Research Scientist, The Methodist Hospital Research Institute; Principal Investigator of $14.4 million CMS Innovation Grant on sepsis.
- **Sharon McLane**, PhD, MBA, RN-BC, Chief Nursing Information Officer and Director of Clinical Transformation, Lakeland Regional Medical Center
- **Meredith Nahm,** PhD, Associate Director for Clinical Research Informatics, Duke University
- **Parsa Mirhaji**, MD, PhD, Assistant Professor and Director of Clinical Research Informatics, Albert Einstein College of Medicine
- **Nnaemeka Okafor**, MD, MS, Assistant Professor, Department of Emergency Medicine, UTHealth Medical School
- **Muhammad Walji,** Ph.D., Associate Dean for Information Technology and Associate Professor, UTHealth School of Dentistry. Recipient of 2012 UT Regents Outstanding Teacher Award
- **Hongbin Wang,** Ph.D., M.S., Professor and Associate Dean for Academic Affairs, School of Biomedical Informatics at UT Houston

XV. ADMINISTRATIVE SERVICE

University Level:
Member, Scientific Review Committee, UTH. 2000-2002.
Member, Minority's Affair Committee, UTH. 1998-current.
Member, Nominating Committee, UTH. 1999-2001.
Chair, Nominating Committee, UTH. 2001-2002.
Member, Task Force for University Strategic Plan on Research, UTH, 2002.
Member, Research Council, UTH. 2003-present
Member, Task Force for Advanced Initiatives, UTH, 2005
Member, Search Committee for IMM Director, UTH, 2011-2012
Member, Search Committee for School of Dentistry Associate Dean for Research, UTH, 2011-2012

School and Department Level:
Interim Dean, SBMI, UTH, 2012-present
Associate Dean for Research, SHIS, UTH, 2002-present
Director, National Center for Cognitive Informatics and Decision Making, SBMI, UTH 2010-present
Chair, Faculty Search Committee, SBMI, 2011-2012
Chair, Appointment, Promotion, and Tenure Committee, 2005-present
Chair, Faculty Governance Organization, SHIS, UTH, 1999-2002.
Chair, Faculty Search Committee, SHIS, UTH. 1999-2000, 2001-2002, 2002-2003, 2011.
Chair, Departmental Faculty Committee, SHIS, UTH. 2000-2002
Coordinator, Health Informatics Speakers Series, SHIS, UTH. 1998-2000.

Member, Scholarship Committee, SHIS, UTH, 2001.
Member, Speakers Committee, Department of Psychology, OSU. 1993-1998.
Member, Undergraduate Committee, Department of Psychology, OSU.
Graduate Advisor, GRADCOG, Center for Cognitive Science, OSU.