
BIOGRAPHICAL SKETCH

NAME: Rakesh Babu

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Lead Accessibility Scientist, Envision Research Institute

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i> B.Sc Chemistry	Completion Date MM/YYYY	FIELD OF STUDY
G.M. College	Bachelor of Science	05/1993	Chemistry
Sambalpur University	Masters of Science	05/1996	Organic Chemistry
Central Michigan University	Master of Science	05/2005	Information Systems
University of North Carolina at Greensboro	Doctorate	06/2011	Information Systems

A. Personal Statement

My research synthesizes theories in Blind-Centered Computing, Social Inclusion, and the Cognitive Sciences to inform the development of IT artifacts and interventions needed to integrate blind people in the information society. The foundation of this work was laid by my doctoral research that developed a cognitive, user-centered, task-oriented approach to accurately understand blind people's unique needs and challenges in ICT (information and communications technology) interactions. Subsequently, I adopted and adapted this approach to develop knowledge of such special needs and challenges in the contexts of e-learning, online social interactions, travel planning, and information retrieval. Extramural funding from National Science Foundation), Research Council of Norway, Institute of Museum & Library Services, and Online Computing Library Center have sponsored different completed and on-going projects. More recently, my work has focused on the affordances of new and emergent ICTs as workplace enablers for blind people. I have conducted a series of studies that examine this phenomenon from two different perspectives - the blind worker and the employer-with the aim of enhancing the employability of this highly underemployed population.

B. Positions and Honors

2003-2005	Chemistry Tutor. Central Michigan University
2005-2011	Graduate Assistant. University of North Carolina at Greensboro
2009-2011	Principal Research Scientist. Include-All AS
2011-2018	Assistant Professor, School of Information Studies. University of Wisconsin-Milwaukee
2016-2018	Member, Board of Directors. Industries of the Blind-Milwaukee
2018- present	Lead Accessibility Scientist, Envision Research Institute. Envision Inc.

C. Contributions to Science

- Xie, I., Babu, R., Castillo, M.D., and Han, H. (2017). Identification of factors associated with blind users' help-seeking situations in interacting with digital libraries. *Journal of the Association for Information Science and Technology*. doi:10.1002/asi.23982.
- Heath, D. and Babu, R. (2017). Theorizing managerial perceptions, enabling IT, and the social inclusion of workers with disabilities. *Information and Organization*. 27(4), 211-225. doi: 10.1016/j.infoandorg.2017.09.001.
- Babu, R. and Xie, I. (2017). Haze in the Digital Library: Design Issues Hampering Accessibility for Blind Users. *The Electronic Library*, 35(5). <https://doi.org/10.1108/EL-10-2016-0209>.
- Babu, R. and Heath, D. (2017). Mobile Assistive Technology and Job Fit of Blind Workers. *Journal of Information, Communications and Ethics in Society (JICES)*, 15(2). doi: 10.1108/JICES-10-2016-0041. Available online at <http://www.emeraldinsight.com/doi/pdfplus/10.1108/JICES-10-2016-0041>
- Babu, R. (2015). Blind Students' Challenges in Social Media Communication: An Early Investigation of Facebook Usability for Informal Learning. *International Journal of Online Pedagogy and Course Design (IJOPCD)*, 5(1), 58-73. doi:10.4018/ijopcd.2015010105.
- Babu, R. and Fuller, P. (2015). Towards more helpful bus tracker apps for blind transit riders. *First Monday*, 20(6), doi:10.5210/fm.v20i6.5536.
- Xie, I., Babu, R., Joo, S., & Fuller, P. (2015). Using Digital Libraries Non-Visually: Understanding Help-Seeking Situations of Blind Users. *Information Research*, 20(2), paper 673. <http://InformationR.net/ir/20-2/paper673.html>.
- Babu, R. (2014). Can blind people use social media effectively? A qualitative field study of Facebook usability. *American Journal of Information Systems*, 2(2), pp. 33-41. <http://www.sciepub.com/ajis/content/2/2>
- Babu, R. (2013). Understanding challenges in non-visual interaction with travel sites: An exploratory field study with blind users. *First Monday*, 18(12). <http://firstmonday.org/ojs/index.php/fm/article/view/4808>
- Babu, R. and Singh, R. (2013). Enhancing learning management systems utility for blind students: A task-oriented, user-centered, multimethod evaluation technique. *Journal of Information Technology and Education-Research*, 12. <http://www.iite.org/documents/Vol12/JITEv12ResearchBabu001-032.pdf>.
- Babu, R. (2012). Developing more accurate competence models for improved e-learning for the blind. *Journal of Information Science & Technology*, 9(2). <http://pascal.iseq.utl.pt/ojs/index.php/jist/article/view/139>.
- Babu, R., Singh, R., and Ganesh, J. (2010). Understanding blind users' Web accessibility and usability problems. *AIS Transactions on Human Computer Interaction*, 2(3), 73-94.
- Babu, R. and Midha, V. (2007). Accessible E-learning: Equal pedagogical opportunities for students with sensory limitations. *International Journal of Web-Based Learning and Teaching Technologies*, 2(2), 38-49.

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing Research Support

Institute of Museum & Library Services National Leadership Grant

July 2016 – June 2019

Project Title: Creating Digital Library Design Guidelines on Accessibility, Usability, and Utility for Blind and Visually Impaired Users.

Role: Co-PI

Completed Research Support

- Universal Accessibility of Digital Libraries: Feb 2016 – Jan 2017, Online Computing Library Center ALISE Research Grant (Co-PI) (\$15K).
- Universal Accessibility of Digital Libraries: Jul 2014 – Jun 2015, RGI Award (Co-PI) (\$150K).
- Understanding Access and Usability Challenges Presented By Bus-tracking Sites for Blind Users: May 2014 – Dec 2014, SOIS SAGO Grant (PI) (\$2K).
- Creating Help Mechanisms for Blind Users: May 2013 – Dec 2013, SOIS SAGO Grant (PI) (\$2K).
- TREVIS: Triad Research Initiative to Empower the Visually Impaired in Information Systems Competitiveness: Jul 2011 – Dec 2012, TIPP Grant (Co-PI) (\$20K).
- Mind of the Blind on the Web: Aug 2009 – May 2012, U.S. National Science Foundation's CC, PAC and REESE programs (Co-PI) (\$100K).
- Include the Visually Impaired in the Social Web: Sep 2010 – Mar 2013. European Research Council's Nordic-Baltic Research and Innovation Program on Living Labs (Co-PI) (\$2M).
- Empowering the Visually Impaired in the Information Society: Jun 2010 – Feb 2011, Research Council of Norway's IT-FUNK Program (Co-PI) (\$ 10K).
- Research Collaboration to Improve Web Accessibility and Usability for the Blind (Pre-proposal Grant): May 2010 – Sep 2010. Research Council of Norway (Co-PI) (\$500).
- Beyond Web Accessibility-A Cognitive Approach to Usability for the Blind (Seminar Grant): Aug 2010. Research Council of Norway (Co-PI) (\$3K).