

Randolph G. Bias, Ph.D.

Office:

Sanchez Building, Room 562B
School of Information
The University of Texas at Austin
Austin, TX 78712

Contact:

Work: (512) 471-7026
Cell: (512) 657-3924
Home: (512) 836-0845
rbias@ischool.utexas.edu

Home:

1329 Braided Rope Drive Austin, TX 78727

Education:

Ph.D., Human Experimental Psychology, University of Texas at Austin, Austin, TX, 1978
B.S., with honors, Psychology, Florida State University, Tallahassee, FL, 1973

Certification:

Certified Human Factors Professional, Board of Certification in Professional Ergonomics

Honor Society:

Phi Alpha Phi

Professional Societies:

HFES (Human Factors and Ergonomics Society)
UPA (Usability Professionals' Association)
ACM SIGCHI (Assoc. of Computing Machinery SIG in Computer-Human Interaction)
ASIST (American Society for Information Society and Technology)

Other Professional Activities:

Director, Board of Certification in Professional Ergonomics, 2001
Associate Editor, *International Journal of Human-Computer Studies*, 2007 - 2009
Member, Editorial Board, *Journal of Usability Studies*, 2005 - present
Member, Editorial Board, *interactions*, ACM SIGCHI publication, 1998 - present
Review Committee, Human Factors and Ergonomics Society Conference (various years)
Review Committee, ACM SIGCHI Conference (various years)
Review Committee, Usability Professionals' Association Conference (various years)
Co-editor, CHI Conference daily newsletter, 1994

Professional Experience:

The University of Texas at Austin School of Information
1/2003 – present: Associate Professor
8/2005 – present: Director, Information eXperience (IX) Lab
8/2004 – 12/2007: Faculty Affiliate, UT-Austin IC² Institute Digital Media Collaboratory
1/2001 – 12/2002: Adjunct Faculty

Austin Usability, Inc.

1/2000 – 12/2002: Co-founder and Chief Usability Officer

BMC Software, Inc.

5/99 – 4/01: Manager, Customer Advocacy

5/96 – 5/99: Manager, Usability Engineering

IBM Corporation/Tivoli Systems

7/84 – 4/96: Advisory Human Factors Scientist

Huston-Tillotson University

9/94 – 6/95: Visiting Faculty Member (on Faculty Loan from IBM)

Texas State University
9/93 – 1/94: Instructor (part-time), School of Science, Department of Computer Science

Bell Telephone Laboratories
6/81 – 6/84: Member of Technical Staff

Rutgers University
9/83 – 6/84: Instructor (part-time), Dept. of Psychology

The University of Texas at Austin
9/78 – 6/79, and 9/80 – 6/81: Instructor, Dept. of Psychology

Texas Department of Health
7/79 – 8/80: Statistician III

Professional Skills:

- Usability Engineering/User-Centered Design
- User interface design
- Independent research in human information processing
- Experimental design and field study
- Teaching, writing, editing
- Descriptive and inferential statistics

Awards/Grants/Honors:

- 2008, Co-PI, NSF, Studying Design Intent for Software Evolution and Maintenance. PI Dewayne Perry. \$452,329
- 2008, Co-PI, NSF, CI-TEAM Implementation: Educating a Competitive, Cyberinfrastructure Savvy Engineering and Construction Workforce. PI William O'Brien. \$1,000,000
- 2008/2009, School of Information John P. Commons Teaching Fellowship, \$7000
- 2008/2009, Texas Office of Court Administration, interagency agreement to provide usability support for the development of a web-based application to support electronic filing. \$21,900
- 2008/2009, Ongoing usability engineering support of Vignette's emerging next generation of web content management software. \$30,000
- 2007/2008 Texas Exes Teaching Award, School of Information, \$1000
- 2005/2006, IBM, Faculty Award, \$40,000
- 2005/2006, School of Information John P. Commons Teaching Fellowship, \$5000
- 2005, UT-Austin IC² Institute, summer support, \$7500
- 2005, Microsoft, A large-N study of ClearType© preference, \$105,000
- 2005, Microsoft, supporting secondary research paper written by a Master's student, \$3500
- 2004/2005, School of Information John P. Commons Teaching Fellowship, \$4000
- 2004, Microsoft, The effects of ClearType© on programmer productivity, \$100,000
- 2004, UT Faculty Travel Grant , HFES conference, New Orleans, \$325
- 2004, Solicited donation to the iSchool from Ion Storm (local software company) for usability work done for them, with master's student Shannon Lucas, \$2000
- 2004, Dean's Fellowship, one course "buy out," Spring semester, approx. \$18,000
- 2004/2005, IBM, Faculty Award, \$40,000
- 2004, Microsoft, supporting secondary research paper written by a Master's student, \$3000
- 2003, UT Faculty Travel Grant , ASIST conference, Long Beach, CA, \$325
- 2003/2004, School of Information Alumni Teaching Fellowship, \$4000

Patent:

"Telephone call center with method for providing customer with wait time updates," Attorney Docket No. 064198.0168, and assigned U.S. Application Serial No. 10/617,486, filed on July 11, 2003. R. G. Bias (University of Texas at Austin), P. Kortum (SBC Labs), B. A. Knott (SBC Labs), and R. R. Bushey (SBC Labs).

Selected Publications:

Cognitive Science

Dillon, A., Kleinman, L., Choi, G. and Bias, R. (2006) Visual search and reading tasks using ClearType® and regular displays: two experiments. *Proceedings of CHI 2006*, New York: ACM Press, 503-511

Bias, R. G., Bodin, B. K., Burns, S. A., Nanavati, A. A., Chung, D., & Maynard, A. M. (2005). User interface design, transaction measurement, and usability engineering for remote devices. IBM Center for Advanced Studies, Austin, February.

Nanavati, A. A., & Bias, R. G. (2005). Optimal line length in reading: A literature review. *Visible language*, 39. Providence: Rhode Island School of Design, pp. 120-145.

Bias, R. G., Williams, J. P., Chung, D., & Burns, S. A. (2005). Experimental study of the effects of Microsoft's ClearType® on programmer productivity. Paper presented at the annual meeting of the Human Factors and Ergonomics Society, Orlando, November.

Dillon, A., Kleiman, L., Bias, R., Choi, G., and Turnbull, D. (2004). Reading and Searching Electronic Documents: An Experimental Study of Regular and Enhanced Screen Displays. Paper presented at the ASIST annual conference, Providence, RI, November.

Gillan, D. J., & Bias, R. G. (2002). Usability science I: Foundations. *International Journal of Human-Computer Interaction*, 13, pp. 351-372.

Bias, R. G. & Gillan, D. J. (chairs) (1998). Whither the science of human-computer interaction? A debate involving researchers and practitioners. In the *Proceedings of the 42nd Annual Meeting of the Human Factors and Ergonomics Society*, p. 526. Santa Monica, CA: HFES.

Smith-Kerker, P. L., & Bias, R. G. (1988). Two bits, four bits, six bits, a color: Subjective quality of color images. IBM Technical Report, October.

Bias, R. G., McCusker, L. X., & Hillinger, M. L. (1982). Generation(s) of phonological codes: A response to Guttentag. *Psychological Bulletin*, 91, 369-371.

McCusker, L. X., Hillinger, M. L., & Bias, R. G. (1981). Phonological recoding and reading. *Psychological Bulletin*, 89, 217-245.

McCusker, L. X., Gough, P. B., & Bias, R. G. (1981). Word recognition inside out and outside in. *Journal of Experimental Psychology: Human Perception and Performance*, 7, 538-551.

Bias, R. G., & McCusker, L. X. (1980). Phonological recoding in lexical decision at recognition threshold. *Journal of Reading Behavior*, 12, 5-21.

Foss, D. J., Bias, R. G., & Starkey, P. (1978). Sentence comprehension processes in the preschooler. In *Recent advances in the psychology of language: Formal and experimental approaches* R. N. Campbell & P. T. Smith (Eds.), New York: Plenum Press.

General Human Factors

Kortum, P., Bias, R. G., Knott, B. A., & Bushey, R. G. (2008). The effect of choice and announcement duration on the estimation of telephone hold time. *International Journal of Technology and Human Interaction*, 4, 29-53.

Knott, B. A., Kortum, P., Bushey, R. R., & Bias, R. G. (2004). The effect of music choice and announcement duration on subjective wait time for call center hold queues. In the *Proceedings of the Human Factors and Ergonomics Society 48th Annual Meeting* (pp. 740 - 744). Santa Monica, CA: HFES.

Chang, M., Leggett, J., Furuta, R., Kerne, A., Williams, J. P., Burns, S., & Bias, R. G. (2004). Collection understanding. *Proceedings of the ACM & IEEE Joint Conference on Digital Libraries (JCDL)*, pp. 334-342.

Bias, R. G. Ten things psychologists know that web site developers don't. Texas Psychology Alumni Conference. Austin, February, 2003.

Bias, R. G., & Gillan, D. J. (1997). Human error: But which human. *Disaster Recovery*, 10, Issue 3.

Bias, R. G. (1996). Lassoing user data with feedback loops. *Software Quality Matters*, 4, 9-10.

Bias, R. G., Gillan, D. J., & Tullis, T. S. (1993). Three usability enhancements to the human factors-design interface. In *Human-Computer Interactions: Software and Hardware Interfaces, Proceedings of the Fifth International Conference on Human-Computer Interaction*, G. Salvendy & M. J. Smith (Eds.), Amsterdam: Elsevier, 169-174.

Gillan, D. J., & Bias, R. G. (1992). The interface between human factors and design. *Proceedings of the 36th annual meeting of the Human Factors Society*, Santa Monica: Human Factors Society, 443-447.

Bias, R. G., & Alford, J. A. (1989). Factoring human factoring, in IBM. *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics*, Cambridge, Mass., November, pp. 1296-1300.

Bias, R. G., & DeRidder, M. L. (1989). Human factoring an OS/2 application. *IBM Personal Systems Developer*, Fall, 93-97.

Bias, R. G., & Smith-Kerker, P. L. (1986). The mainstreamed human factors psychologist in the development of the IBM RT PC. *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics*, 153-158.

Bias, R. G. (1986). Abbreviations in computer systems: A review and a strategy. IBM Technical Report, April.

Bias, R. G. (1985). The human factors game. *Contemporary Psychology*, 30, 710-711.

Usability and User-Centered Design

Moore, M., Bias, R. G., Prentice, K., Fletcher, R., and Vaughn, T. (2009). Web usability testing with a Hispanic medically underserved population. *J Med Libr Assoc.* April; 97(2): 114-121.

Bias, R. G. (2008). Panelist. Discount Testing by Amateurs: Threat or Menace? Steve Krug (Chair). Usability Professionals' Association annual meeting, Baltimore, June.

Rogers, J., & Bias, R. (2008). User-Centered Design of VCM. Vignette Village, Austin, TX, October. (Not a peer-reviewed conference.)

Rogers, J., Payne, T., & Bias, R. (2007). Vignette Content Management Usability Testing: Before and After. Vignette Village, Dallas, TX, November. (Not a peer-reviewed conference.)

Bias, R.G. (2007). Panelist. "Looking into the crystal ball: The future of usability," William Albert (Chair). Usability Professionals' Association annual meeting, Austin, June.

Bias, R. G., Lucas, S., & Latham, T. (2007). The Hybrid User-Requirements Interface Evaluation (HURIE) Method. In C. Righi & J. James (Eds.), *User-centered design case studies*. San Francisco: Morgan Kaufmann.

Williams, J. P., Bias, R. G., & Mayhew, D. J. (2007). Cost justification. In J. A. Jacko & A. Sears (Eds.), *The Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies and Emerging Applications, 2nd Edition*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Huang, S. C., Chou, I., & Bias, R. G. (2006). Empirical evaluation of a popular cellular phone's menu system: Theory meets practice. *Journal of Usability Studies*, 1.

Fuchs, B. E., Thomsen, C. M., Bias, R. G., & Davis, D. (2006). Behavioral citation analysis: A new look at a familiar tool. *College and Research Libraries*, 67, No. 4, pp. 304 – 324.

Bias, R. G. Usability for organizations. Keynote address at Thomsen Group, St. Paul, Minnesota, May, 2005.

Bias, R. G., Usability: Why "they" don't get it and why "they" do. Keynote presentation to the second annual meeting of the Human Factors and Ergonomics Society of Houston conference, Houston, May, 2005.

Bias, R. G., & Mayhew, D. J. (Eds.) (2005). *Cost-Justifying Usability, 2nd Edition: Update for the Internet Age*. San Francisco: Morgan Kaufmann.

Mayhew, D. J., & Bias, R. G. (2004). Cost-justifying usability engineering for cross-cultural user interface design. In N. Aykin (Ed.), *Usability and internationalization of information technology*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Bias, R. G. (2003). The School of Information. *Alcalde*. September.

Bias, R. G., Mayhew, D. J., & Upmanyu, D. (2003). Cost justification. In J. A. Jacko & A. Sears (Eds.), *The Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies and Emerging Applications*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Bias, R. G. (2003). The dangers of amateur usability engineering. In S. Hirsch (chair), Usability in practice: Avoiding pitfalls and seizing opportunities. Annual meeting of the American Society of Information Science and Technology, October, Long Beach.

Bias, R. G. (2003). Panelist. "My Manager Said 'Yes' to Usability: Now what?," Whitney Quesenberry (chair). 50th Annual Meeting of the Society of Technical Communications, Dallas, TX, May.

Bias, R. G. (2003). Panelist. "Accessibility: Building Virtual Curbscuts," Sharron Rush (chair). South by Southwest Interactive, Austin, TX, March.

Bias, R. G. (2002). Panelist, "Measuring ROI for Usability," S. Rosenbaum (chair). Session at the UPA Annual Conference, Orlando, July.

Bias, R. G. (2002). Foreword. In K. Vredenburg, S. Isensee, & C. Righi, (Eds.), *User-centered design: An integrated approach*. Englewood Cliffs, NJ: Prentice-Hall.

Keough, K. A., & Bias, R. G. (2001). Usability triage for international web sites. In the *Proceedings of the 9th International Conference on Human-Computer Interaction*. August, New Orleans.

Bias, R. G., & Keough, K. A. (2000). Usability triage for web sites. In the *Proceedings of the 6th Conference on Human Factors and the Web: Doing Business on the Web*. June, Austin, TX.

Bias, R. G. (2000). Express yourself: Designing for 5 billion users. In *Designing information and communication appliances in the new millennium* (Panel), D. J. Gillan, Chair. In the *Proceedings of the 44th Annual Meeting of the Human Factors and Ergonomics Society*, San Diego, August.

Bias, R. G., & Kieboom, H. (1997). Cost-justifying your usability activities. Tutorial presented at Interact 97, the 5th IFIP Conference on Human-Computer Interaction. Sydney, July.

Bias, R. G. (1997). Free usability data. Interact 97, the 5th IFIP Conference on Human-Computer Interaction. Sydney, July.

Bias, R. G. (1997). Panelist. In S. Bloomer (chair), Positioning usability in an organization: Can usability really help organizations achieve their business objectives? Interact97, the 5th IFIP Conference on Human-Computer Interaction. Sydney, July.

Bias, R. G., & Reitmeyer, P. B. (1995). Usability support inside and out. *interactions*, vol. 2, April, 29-32.

Bias, R. G., & Mayhew, D. J. (Eds.) (1994). *Cost-Justifying Usability*. Boston: Academic Press.

Bias, R. G. (1994). The pluralistic usability walkthrough: Coordinated empathies. In *Usability Inspection Methods*, J. Nielsen and R. L. Mack (Eds.), New York: Wiley and Sons, Inc.

Bias, R. G. (chair) (1994). User interface navigation: And a model for explicit research-practice interaction. In the *Proceedings of the 38th Annual Meeting of the Human Factors and Ergonomics Society*, Santa Monica: Human Factors & Ergonomics Society, 255.

Gillan, D. J., & Bias, R. G. (1994). Use and abuse of metaphor in human-computer interaction. In the *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics*, San Antonio, October, 1434-1439.

Bias, R. G., Lanzetta, T. L., & Scanlon, J. S. (1993). Consensus requirements: Low- and high-tech methods for discerning system requirements from groups of users. *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics*, Le Touquet, France, October, 191-196.

Bias, R. G. (1992). Top 10 ways to muck up an interface project. *IEEE Software*, November, 95-96. Reprinted in the National Information Technology Center Newsletter, Vol. 1, Issue 2.

Fath, J. L., & Bias, R. G. (1992). Taking the "task" out of task analysis. *Proceedings of the 36th annual meeting of the Human Factors Society*, Santa Monica: Human Factors Society, 379-383.

Bias, R. G. (1991). Walkthroughs: Efficient collaborative testing. *IEEE Software*, 5, 94-95.

Waters, F. C., Bias, R. G., & Smith-Kerker, P. L. (1987). AIX usability enhancements and human factors. *IBM Systems Journal*, 26, 383-394.

Bias, R. G. (1986). Intuition: Not "if" but "when." *Creativity*, 5, 11.

Teaching:

Academia:

Undergraduate:

- Introduction to Psychology
- Perceptual Psychology
- Cognitive Psychology
- The Psychology of Language
- Statistics
- Research Methods
- The Psychology of Computers
- Introduction to Psychology (Correspondence course, developed and taught.)

Graduate:

- Introduction to Usability
- Advanced Usability
- Usability Engineering and Information Architecture
- Software Usability Engineering
- Introduction to Research Methods for Information Studies
- Seeking Funding for Information Studies
- Doctoral Research and Theory I & II
- Independent Studies – 17
- Capstones – 12
- Master's reports/theses chaired – 4
- Other master's reports/theses committees – 3
- Doctoral committees chaired – 4
- Other doctoral committees – 12

Industry:

- Bias, R. G. Cost-justifying usability. Software Development 97, San Francisco.
- Bias, R. G., & Kieboom, H. Cost-justifying your usability activities. Tutorial presented at Interact 97, the 5th IFIP Conference on Human-Computer Interaction. Sydney, July, 1997.
- Bias, R. G. Designing and redesigning usable interfaces. Australian Bureau of Statistics, Melbourne, Australia, July 21, 1997.
- Tognazzini, B., & Bias, R. G. Designing and redesigning human-computer interfaces, The University of Texas at Austin, February 7, 1996, and Rice University, February 8, 1996.
- Bias, R. G. Usable human-computer interfaces, The University of Texas at Austin, March 27-29, 1995.
- Bias, R. G. Designing and redesigning usable human-computer interfaces. Rice University, March, 1995.
- Bias, R. G., and Mandel, T. Human interface evaluation and design. The University of Texas at Austin, March, 1992.
- Brooks, R., & Bias, R. G. Human interface evaluation and design. The University of Texas at Austin, February 27 – March 1, 1991.

Service:**Professional Public Service:**

- 2009: Manuscript review for *Cognition and Instruction*
- 2009: Manuscript review the *Human Factors*
- 2009: Paper review committee for the Human Factors and Ergonomics Society (many years, including 2009)
- 2009: Manuscript reviewer, *Journal of the American Society of Information Science and Technology*
- 2009: Paper review committee, 13th Americas Conference on Information Systems
- 2008: Tenure review, Barbara Chaparro, Wichita State University
- 2008: Guest speaker, University of Texas at Austin Empowering Leadership (EL) Alliance, a computer science organization for minority students
- 2007: Paper review, Usability Professionals' Association annual meeting
- 2006: Manuscript review, ASIST2006
- 2005: Manuscript reviewer, *Human-Computer Interaction*, August
- 1992-present: Review Committee, ACM SIGCHI Conference (many years, including 2005,2006, 20077)
- 2004: Manuscript reviewer, *International Journal of Human-Computer Studies*
- 2004-present: Faculty Sponsor, ASIST Student Chapter
- 2003/2004: UT-Austin, Simkins Hall Faculty Fellow
- 2003: Usability evaluation of the John B. Connally High School web site, February
- 2001: Director, Board of Certification in Professional Ergonomics
- 1998-1999: Chair, HFES Computer Systems Technical Group (2-year term)
- 1996-1999: Member, Advisory Board, UT-Austin Software Quality Institute
- 1994: Co-editor, CHI Conference daily newsletter
- 1991-1992: Member, Editorial Board, *HFES Bulletin*

- 1989-1990: Chair, IBM Corporate-wide Human Factors Group

Committee Service:

- 2008/2009 University-wide Committee
 - o Graduate Assembly
 - o Graduate Assembly Academic Subcommittee
- 2008/2009 iSchool Committees
 - o Executive Committee
 - o Doctoral Studies Committee (Chair)
- 2007/2008 iSchool Committees
 - o Information Architecture and Design committee (Chair)
 - o Doctoral Studies Committee (Chair)
 - o Executive Committee
 - o Strategic Planning Committee
- 2007/2008 University-wide Committee
 - o *Ad hoc* committee to evaluate the Dean
- 2006/2007 iSchool Committees
 - o Information Architecture and Design committee (Chair)
- 2005/2006 iSchool. Committees
 - o Faculty Search and Colloquium Committee (Chair)
- 2004/2005 iSchool Committees
 - o Research and Colloquia (Chair)
 - o Doctoral Studies Committee
 - o Participant, "Industry day" trip to Houston to visit IDERA and ICONIXX
- 2003/2004 iSchool Committees
 - o Research and Colloquia (iForum)
 - o Faculty Search
 - o Ph.D. Student
- 2000-2002, Visiting Committee, UT-Austin Department of Psychology