

May 6, 2020

## DAVID G. NOVICK

Mike Loya Distinguished Chair in Engineering  
Professor of Engineering Education and Leadership  
College of Engineering  
The University of Texas at El Paso  
El Paso, TX 79968

(office) 915-747-6031  
<http://engineering.utep.edu/novick>  
[novick@utep.edu](mailto:novick@utep.edu)

### Education

1988	Ph.D. in Computer and Information Science, University of Oregon
1985	M.S. in Computer and Information Science, University of Oregon
1977	J.D., Harvard Law School
1974	B.A. (Honors College) in Political Science and Economics, University of Oregon, with honors, elected to Phi Beta Kappa

### Professional Experience

University of Texas at El Paso, El Paso, TX

2016 - Present	Professor of Engineering Education and Leadership
2011 - Present	Mike Loya Distinguished Chair in Engineering
1999 - 2016	Professor of Computer Science
2012 - 2017	Co-director, Mike Loya Center for Innovation and Commerce
2011 - 2014	Associate Dean of Engineering for Graduate Studies and Research
2005 - 2011	AT&T Distinguished Professor of Computer Science
2008 - 2009	Acting Chair of Computer Science
2005 - 2008	Associate Provost
2004 - 2005	Associate Vice-President for Academic Affairs
2004 - 2005	SBC Distinguished Professor of Computer Science
2002 - 2004	SBC Professor, Department of Computer Science
1999 - 2004	Chair, Department of Computer Science

European Institute of Cognitive Sciences and Engineering (EURISCO), Toulouse, France

1996 - 1999	Director of Research
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Oregon Graduate Institute of Science and Technology, Portland, OR

1994 - 1996	Associate Professor of Computer Science and Engineering,
1989 - 1994	Assistant Professor of Computer Science and Engineering

University of Oregon, Eugene, OR

1989	Visiting Assistant Professor of Computer and Information Science
1983 - 1988	Graduate Teaching Fellow and Graduate Research Fellow, Department of Computer and Information Science,
1981 - 1985	Adjunct Assistant Professor and Lecturer in Law, School of Law

Jaqua, Wheatley, Gallagher & Holland, P.C., Eugene, OR

1979 - 1983	Associate Attorney
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Federal Communications Commission, Washington, DC

1977 - 1979	Attorney-Adviser
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### Leadership and Management

*Served in administrative roles for 17 years at the department, college, and provost level, creating strategic new programs, bringing people together in teams, and bringing innovation and entrepreneurship to the university. Served as president of faculty senate.*

Co-Director, Mike Loya Center for Innovation and Commerce, The University of Texas at El Paso, 2012-2017

- Co-founded interdisciplinary center, teaming the College of Engineering and the College of Business Administration—named 2016 Outstanding Emerging Entrepreneurship Center by Global Consortium of Entrepreneurship Centers.
- Developed accelerated BS(Eng)-MBA joint degree program.
- Developed new curriculum sequence in innovation and entrepreneurship.
- Developed graduate certificate program in innovation and entrepreneurship.
- Offered venture competitions, start-up workshops, grand-challenge workshops, and other student-development programs.
- Led UTEP's VentureWell-Epicenter Pathways to Innovation team.
- Mentored NSF I-Corps team.

Associate Dean of Engineering for Graduate Studies and Research, The University of Texas at El Paso, 2011-2014

- Led College's initiatives for reaching Tier-1 status for doctoral production and external funding.
- Created research facilitation teams for the College's interdisciplinary research themes.
- Provided strategic guidance for program development across multiple colleges.
- Led graduate program directors in developing doctoral recruiting and retention strategy.
- Coordinated College's interim accreditation reports and graduate program reports.
- Coordinated proposals for three new Ph.D. programs.

Associate Provost (and as Associate Vice President for Academic Affairs), The University of Texas at El Paso, 2004-2008

- Supervised directors of most campus research centers and initiated cross-center collaboration; created and led research collaboration team of associate deans for research; created program to improve faculty skills for research and grants.
- Coordinated national searches at the level of dean and director; organized and led initiatives to improve faculty recruiting.
- Led development of research foci and research organization sections of university's ten-year strategic plan for research.
- Prepared the Focused Report and Response Report for the university's SACS reaccreditation; developed program maturity scorecard.
- Directed UTEP's Kaufmann Campus Initiative, to infuse entrepreneurship into the university.
- Partnered with local community college and school district on projects at the confluence of education and technology; led new approach to management and redevelopment of university's Web site; coordinated facilities and academic support services for Academic Affairs.
- Conducted administrative review of the Graduate School.
- Advised the Provost with policy issues, including tenure and promotion, and academic organization; reviewed tenure cases.

Chair, Department of Computer Science, The University of Texas at El Paso, 1999-2004 (Acting Chair, 2008-2009)

- Doubled FTE faculty; systematically mentored newer faculty; developed new generation of leadership within department.
- Developed independent Ph.D. program and trebled enrollment.
- Developed long-term department strategy based on value to the university and its region; restructured research foci to promote national competitiveness.
- Developed plan for recruitment and retention of undergraduate and graduate students.
- Developed professional M.S. program, across colleges, in information technology.
- Developed and implemented first major curricular revisions in 18 years; prepared for and passed ABET accreditation review.
- Created departmental advisory board, with annual financial contributions; obtained \$80,000 in contributions from Microsoft Corporation over three years; initiated departmental alumni association.

Acting Chair (periodically), Department of Computer Science and Engineering, Oregon Graduate Institute, 1995-1996

President, Faculty Senate, Oregon Graduate Institute, 1994-1995

- Led faculty successfully during financial and administrative crisis that threatened the existence of the institution.
- Participated in leadership team of \$35 million capital campaign.

Co-Director, Interactive Systems Research Group, The University of Texas at El Paso, 1999-present

Director, Interactive Systems Research Group, Oregon Graduate Institute, 1989-1996

Project Manager, Year 2000 Census Automated Spoken Questionnaire Project, Oregon Graduate Institute, 1993-1995

### Grants and Contracts

*Served as PI, co-PI, or author on grants and contracts totaling about \$16 million. The awards funded projects covering both infrastructure development and basic research.*

“Dialog-Activity Spotting using Prosodic-Similarity Models (Phase 2)” Defense Advanced Research Projects Agency, 24 months beginning July 1, 2016, co- P.I. with Nigel Ward, Elizabeth Shriberg, and Andreas Tsiartas, \$587,874.

“Building E-Teams: A Course in Innovation in Technology,” VentureWell, 37 months beginning March 1, 2016, P.I., \$28,087.

“UTSA/UTEP/UTSCSA Technology and Commercialization (TEC) Partnership, Phase II,” University of Texas System, 12 months beginning January 1, 2016, co- P.I. with Cory Hallam and Andrea Giuffrida, \$175,000.

“Dialog-Activity Spotting using Prosodic-Similarity Models,” Defense Advanced Research Projects Agency, 12 months beginning May 31, 2015, co- P.I. with Nigel Ward, Elizabeth Shriberg, and Andreas Tsiartas, \$293,937.

“UTSA/UTEP/UTSCSA Technology and Commercialization (TEC) Partnership,” University of Texas System, 12 months beginning January 26, 2015, co- P.I. with Cory Hallam and Andrea Giuffrida, \$175,000.

“EAGER: Preliminary Explorations for the Development of Responsive Prosodic Behaviors for Interactive Systems,” National Science Foundation, 12 months beginning September 1, 2014, co- P.I. with Nigel Ward and Olac Fuentes, \$150,000.

“Novel Program in Education for Innovation and Entrepreneurship: The UT TRANSFORM Program,” University of Texas System, 24 months beginning August 1, 2012, co- P.I. with Cory Hallam (UT-San Antonio), Oliver Wenker (MD Anderson), Dorie Gilbert (UT-Austin), and Gary Frankwick (UT-El Paso), \$750,000.

“RI: Small: Time-Based Language Modeling,” National Science Foundation, 36 months beginning October 10, 2009, co- P.I. with Nigel Ward and Olac Fuentes, \$505,999.

“Cross-cultural, cross-activity virtual human models of human group conversational behavior,” U.S. Army (joint project with ICT-USC), 12 months beginning November 1, 2008, co-P.I. with David Traum, \$100,000.

“Cross-cultural perceptions of human and virtual human group conversational behavior,” U.S. Army (joint project with ICT-USC), 12 months beginning November 7, 2007, co-P.I. with David Traum and Francois Modave, \$100,000.

“Active Listening and Trust Across Cultures,” U.S. Department of Defense, Counter Intelligence Field Activity, 12 months beginning October 1, 2007, P.I., \$181,264.

“Enriching virtual human conversation with culture-specific behaviors,” U.S. Army (joint project with ICT-USC), 10 months beginning January 20, 2006, co-P.I. with David Traum, \$100,000.

“Beyond words: Identification of back-channel communication rules in Arabic and development of training methods,” Defense Advanced Research Projects Agency (via subcontract from the University of Southern California), 24 months beginning June 29, 2005, co-P.I. with Nigel Ward, \$419,876.

“CRI: A reconfigurable computer network to support research,” National Science Foundation, No. 0454189, 36 months beginning June 1, 2005, co-PI with Luc Longpré, \$303,822.

“Modeling real-time interpersonal interaction in spoken communication,” National Science Foundation, No. 0415150, 36 months beginning September 1, 2004, co-P.I. with Nigel Ward and Karen Ward, \$449,878.

“Graduate Education for Minority Students in Computer Science and Engineering: Extending the Pipeline,” National Science Foundation, No. EIA-0080940, 60 months beginning September 15, 2000, P.I. with Sergio Cabrera, Ann Gates, Mehdi Shadaram and Patricia Teller, \$1.25 million.

“Développement de règles de conception et d'un outil informatique pour élaborer les procédures 'mode d'emploi' et opérationnelles pendant la conception des systèmes et interfaces embarqués,” Aérospatiale, 10 months beginning March 1, 1999, P.I., €126,837.

“Development of interfaces and validation in aeronautics (DIVA),” European Commission, 36 months beginning January 1, 1998, co-P.I. with Guy Boy, €3,765,898.

“Vers une méthode de définition des procédures opérationnelles lors de la conception et de l'évaluation des systèmes et interfaces embarqués,” Aérospatiale, 10 months beginning March 10, 1998, P.I., FF 820,000.

“Etude comparative de plusieurs FCOMs pour la conception duale des systèmes techniques et des procédures d'emploi,” Aérospatiale, 10 months beginning March 25, 1997, P.I. with Guy Boy, FF 800,000.

“Conception centrée sur l'homme: Procédures et cockpit,” Aérospatiale, 9 months beginning May 6, 1996, P.I. with Guy Boy, FF 500,000.

“Infrastructure for the Software Engineering Research Council,” Oregon Joint Graduate Schools of Engineering, 12 months beginning June 1, 1996, co-P.I. with Stephen Fickas, Warren Harrison and Bruce D'Ambrosio, \$100,000.

“An interactive systems seminar on Oregon's desktops,” Oregon Joint Graduate Schools of Engineering, 12 months beginning January 1, 1995, P.I. with Phil Cohen and Sharon Oviatt, \$30,000.

“Infrastructure for the Software Engineering Research Council,” Oregon Joint Graduate Schools of Engineering, 12 months beginning February 1, 1995, co-P.I. with Stephen Fickas, John Conery, Warren Harrison and Bruce D'Ambrosio, \$100,000.

“Spoken-language access to multimedia (SLAM): A multimodal interface to the World-Wide Web,” National Science Foundation, 12 months beginning September 15, 1994, P.I. with Ronald A. Cole and Mark Fanty, \$49,996.

“A network-based course in object-oriented programming,” Oregon Joint Graduate Schools of Engineering, six months beginning September 1, 1994, co-P.I. with Andrew P. Black, \$20,000.

“Rapid prototyping and deployment of spoken language systems,” 12 months beginning August 1, 1994, U.S. Office of Naval Research and the U.S. Bureau of the Census, co-P.I. with Ronald A. Cole and Mark Fanty, \$450,000.

“Business office access,” U S WEST Advanced Technologies, 24 months beginning June 1, 1994, co-P.I. with Ronald A. Cole and Mark Fanty, \$1,400,000.

“Toward robust spoken-language systems,” National Science Foundation, No. IRI-9314959 (ARPA order number B029), 36 months beginning March 24, 1994, co-P.I. with Ronald A. Cole, Hynek Hermansky, Mark Fanty, Etienne Barnard, and Nelson Morgan, \$826,606.

“Building the foundation for sustainable research in collaborative computing,” Oregon Joint Graduate Schools of Engineering, seven months beginning January 1, 1994, co-P.I. with Stephen Fickas, \$60,000.

“Understanding users and uses of synchronous business communications software,” Intel Corporation, 18 months beginning October 18, 1993, P.I. with Eleanor Wynn, \$102,605.

“Graduate traineeships for under-represented minorities for research in spoken-language interfaces (human-computer interface),” National Science Foundation, No. GER-9354959, 60 months beginning October 1, 1993, co-P.I. with Ronald A. Cole, \$574,560.

“Voice questionnaire for the Year 2000 Census,” United States Bureau of the Census, ten months beginning July 15, 1993, co-P.I. with Ronald A. Cole (grant administered through U.S. Office of Naval Research, ONR No. N00014-91-J-1482), \$125,000.

“Dialogue-based access to information services,” U S WEST Advanced Technologies, ten months beginning January 1, 1993, P.I., \$100,000.

“Dialogue-based access to information services,” Oregon Advanced Computing Institute (OACIS), No. 40-0055, ten months beginning January 1, 1993, P.I., \$20,000.

“New methodologies for evaluating interactive technologies,” National Science Foundation visiting professorships for women program, NSF No. 91-87, 12 months beginning August 15, 1992, submitted on behalf of Catherine R. Marshall, \$225,000.

“Computational models of dialogue: Speech-act theory meets real utterances,” National Science Foundation Research Initiation Award, NSF No. IRI-9110797, 24 months beginning September 1, 1991 (including supplemental funding for research experience for undergraduates), P.I., \$67,000.

### Refereed Publications

*Published 135 refereed journal articles and conference papers, plus numerous workshop publications, book chapters, and technical reports. Research interests focus on interactive systems, including intelligent virtual agents, spoken-language dialogue systems, and development methods for interfaces and their documentation. Currently lead UTEP's Advanced aGent ENGagement Team (AGENT), which uses immersive technologies to build rapport between humans and intelligent virtual agents.*

Novick, D., Afravi, M., Martinez, O., Rodriguez, A., and Hinojos, L.J. (in press). Usability of the Virtual Agent Interaction Framework. In *International Conference on Human-Computer Interaction*, July 19-24, 2020, Copenhagen, Denmark.

Rodriguez, A. E., Camacho, A., Hinojos, L. J., Afravi, M., & Novick, D. (2019). A proxemics measurement tool integrated into VAIF and Unity. In *21st International Conference on Multimodal Interaction*, October 14-18, 2019, Suzhou, Jiangsu, China, 508-509.

Novick, D., Afravi, M., Camacho, C., Rodriguez, A., and Hinojos, L. (2019). Pedagogical-Agent learning companions in a virtual reality educational experience. In *International Conference on Human-Computer Interaction*, July 26-31, 2019, Orlando, FL, 193-203.

Novick, D. (2019). Why don't commuter-school students pursue startups? In *165th Annual Conference & Exposition*, American Society for Engineering Education, June 16-19, Tampa, FL, available at <https://peer.asee.org/33560.pdf> (second-place winner, outstanding research paper).

Gris, I., and Novick, D. (2018). Virtual Agent Interaction Framework (VAIF): A tool for rapid development of social agents, In *17th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2018)*, July 10-15, 2018, Stockholm, Sweden, 2230-2232.

Novick, D., Hinojos, L.J., Rodriguez, A.E., Camacho, A., and Afravi, M. (2018). Conversational interaction with multiple agents initiated via proxemics and gaze. In *6th Annual International Conference on Human-Agent Interaction (HAI '18)*, December 15–18, 2018, Southampton, UK.

- Novick, D., Hinojos, L.J., Rodriguez, A.E., Camacho, A., and Afravi, M. (2018). The Market Scene: Physical interaction with multiple agents. In *6th Annual International Conference on Human-Agent Interaction* (HAI '18), December 15–18, 2018, Southampton, UK.
- Novick, D., Afravi, M., Camacho, A., Hinojos, L.J., and Rodriguez, A.E. (2018). Toward inducing rapport-building behaviors in interaction with an embodied conversational agent. In *18th ACM International Conference on Intelligent Virtual Agents* (IVA 2018), November 5–8, 2018, Sydney, Australia, 345-346.
- Novick, D., Afravi, M., and Camacho, A. (2018). Paola Chat: A virtual agent with naturalistic breathing. In *International Conference on Human-Computer Interaction. In International Conference on Virtual, Augmented and Mixed Reality*, July 15-20, 2018, Las Vegas, NV, 351-360.
- Gris, I., and Novick, D. (2018). Virtual Agent Interaction Framework (VAIF): A Tool for Rapid Development of Social Agents, In *17<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems* (AAMAS 2018), July 10-15, 2018, Stockholm, Sweden, 2230-2232.
- Novick, D., and Kendall, M. (2018). Entrepreneuring oneself: Integrating professional growth in an engineering design and entrepreneurship course sequence. In *125th Annual Conference & Exposition*, American Society for Engineering Education, June 24-27, Salt Lake City, UT, available at <https://peer.asee.org/30313.pdf> (winner, outstanding teaching paper).
- Novick, D., Kendall, M., Tranquillo, J., Jackson, A., and Hardin, A. (2018). I&E at commuter schools: Reaching students who work (panel). *VentureWell Open Conference*, March 22-24, 2018, Washington, DC, <https://venturewell.org/open-session/panel-ie-commuter-schools-reaching-students-work/>.
- Novick, D., Rodriguez, L., Pacheco, A., Rodriguez, A., Hinojos, L., Cartwright, B., Cardiel, M., Gris Sepulveda, I., Rodriguez-Herrera, O., and Ponce, E. (2017). The Boston Massacre history experience. In *Proceedings of 19th ACM International Conference on Multimodal Interaction*, November 13-17, 2017, Glasgow, Scotland, 499-500.
- Khan, S., Camacho, A., and Novick, D. (2017). Recipe Hunt: Engaging with cultural food knowledge using multiple embodied conversational agents. In *Proceedings of 17<sup>th</sup> International Conference on Intelligent Virtual Agents*, August 27-30, 2017, Stockholm, Sweden, 209-212.
- Hallam, C., Novick, D., Gilbert, D., Wenker, O., and Zanella, G. (2017). Academic entrepreneurship and the entrepreneurial ecosystem: The UT TRANSFORM project, *Academy of Entrepreneurship Journal* 23(1), 77-90.
- Novick, D., Gris, I., Camacho, A., Rayon, A., and Gonzalez, T. (2017, July). Bigger (gesture) isn't always better. In *19<sup>th</sup> International Conference on Human-Computer Interaction*, July 12-14, 2017, Vancouver, Canada, 609-619.
- Brixy, J., and Novick, D. (2017). Building rapport with extraverted and introverted agents. In *Proceedings of the International Workshop on Spoken Dialog Systems*, available at [https://www.uni-ulm.de/fileadmin/website\\_uni\\_ulm/iui.iwsds2017/papers/IWSDS2017\\_paper\\_8.pdf](https://www.uni-ulm.de/fileadmin/website_uni_ulm/iui.iwsds2017/papers/IWSDS2017_paper_8.pdf).
- Novick, D., Kendall, M., and Cervantes, A. (2017). Integrating the I-Corps experience into undergraduate engineering education. In *VentureWell Open conference*, March 23-26, 2017, Washington, DC, available at <http://www.cs.utep.edu/novick/papers/icorps.venturewell17.pdf>.
- Gris, I., Camacho, A., and Novick, D. (2016). Physical engagement increases rapport in multimodal interactions. In *Proceedings of Meaningful Play 2016*.

- Gris, I., Rivera, D. A., Rayon, A., Camacho, A., and Novick, D. (2016). Young Merlin: an embodied conversational agent in virtual reality. In *Proceedings of the 18th ACM International Conference on Multimodal Interaction*, 425-426.
- Rayon, A., Gonzalez, T., and Novick, D. (2016). Analysis of gesture frequency and amplitude as a function of personality in virtual agents. In *Proceedings of the Workshop on Multimodal Analyses Enabling Artificial Agents in Human-Machine Interaction*, 3-9.
- Novick, D., and Rodriguez, L.M. (2016). Extending empirical analysis of usability and playability to multimodal computer games, *HCI International 2016*, Toronto, July 2016, in International Conference of Design, User Experience, and Usability, 469-478. Springer International Publishing.
- Novick, D., Camacho, A., Gris, I., and Rodriguez, L.M. (2016). Tracking conversational gestures of extraverts and introverts in multimodal interaction. In *Proceedings of LREC 2016 Workshop on Collecting and Generating Resources for Chatbots and Conversational Agents (RE-WOCHAT)*, Portorož, Slovenia, May 2016, 24.
- Novick, D., Gris, I., Camacho, A., and Hallam, C. (2016). StartUpTrackerTexas: A Web Portal for Seed-Funding Programs (poster), VentureWell OPEN Conference, March 3-5, 2016, Portland, OR. Designated best poster: tools.
- Novick, D., Gris Sepulveda, I., Rivera, D. A., Camacho, A., Rayon, A., & Gutierrez, M. (2015, November). The UTEP AGENT System. In *Proceedings of the 2015 ACM on International Conference on Multimodal Interaction* (pp. 383-384). ACM. Designated best demonstration.
- Gris, I., Camacho, A., and Novick, D. (2015). Full-body gesture recognition for embodied conversational agents: The UTEP AGENT gesture tool, *Conference on Gesture and Speech in Interaction*, Nantes, France, September, 2015.
- Novick, D., Gutierrez, M., Gris, I., and Rivera, D.A. (2015). A mark-up language and interpreter for interactive scenes for embodied conversational agents, *HCI International 2015*, Los Angeles, CA, August 2015, in *Virtual, Augmented and Mixed Reality*, 206-215. Springer International Publishing.
- Gris, I., Rivera, D.A., and Novick, D. (2015). Animation guidelines for believable embodied conversational agent gestures, *HCI International 2015*, Los Angeles, CA, August 2015, in *Virtual, Augmented and Mixed Reality*, 197-205. Springer International Publishing.
- Novick, D. (2015). An undergraduate course in intellectual property law. *122nd ASEE Annual Conference and Exposition*, Seattle, WA, June, 2015, available at <http://www.asee.org/public/conferences/56/papers/11095/view>.
- Gris, I., Novick, D., Camacho, A., Rivera, D.A., Gutierrez, M., and Rayon, A. (2014). Recorded speech, virtual environments, and the effectiveness of embodied conversational agents, *Intelligent Virtual Agents 2014*, Boston, MA, August, 2014, 182-185.
- Camacho, A., Rayon, A., Gris, I., and Novick, D. (2014). An exploratory analysis of ECA characteristics, *Intelligent Virtual Agents 2014*, Boston, MA, August, 2014, 95-98.
- Gris, I., Novick, D., Rivera, D.A., and Gutierrez, M. (2014). UTEP's AGENT architecture. IVA 2014 Workshop on Architectures and Standards for IVAs, *Intelligent Virtual Agents 2014*, Boston, MA, August, 2014.
- Novick, D., and Gris, I. (2014). Building rapport between human and ECA: A pilot study, *HCI International 2014*, Heraklion, Greece, July, 2014, *Lecture Notes in Computer Science*, vol. 8511, 472-480.



- Novick, D., Vicario, J., Santaella, B., and Gris, I. (2014) Empirical analysis of playability vs. usability in a computer game, HCI International 2014, Heraklion, Greece, July, 2014, *Lecture Notes in Computer Science*, vol. 8518, 720-731
- Novick, D., Hallam, C., Gilbert, D., Wenker, O., and Frankwick, G. (2014). The UT TRANSFORM project, *121st ASEE Annual Conference and Exposition*, Indianapolis, IN, June, 2014, available at <http://www.asee.org/public/conferences/32/papers/9911/view>.
- Gris, I., Novick, D., Gutierrez, M., Rivera, D.A. (2014). The “Vampire King” (Version 2) corpus, *LREC 2014 Workshop on Multimodal Corpora*, Reykjavik, Iceland, May, 2014.
- Novick, D., and Gris, I. (2013). Grounding and turn-taking in multimodal multiparty conversation. *Proceedings HCII 2013*, July 24-27, 2013, Las Vegas, NV, *Lecture Notes in Computer Science*, vol. 8007, 97-106.
- Novick, D., Santaella, B., Cervantes, A., and Andrade, C. (2012). Short-term methodology for long-term usability. *Proceedings SIGDOC 2012*, October 3-5, 2012, Seattle, WA, 205-212.
- Novick, D., Adoneth, G., Manuel, D., and Gris, I. (2012). When the conversation starts: An empirical analysis. IVA 2012 Workshop on Real-Time Conversations with Virtual Agents, Santa Cruz, CA, September, 2012, *Joint Proceedings of the IVA 2012 Workshops*, 67-74.
- Novick, D. (2012). Paralinguistic behaviors in dialog as a continuous process. *InterSpeech 2012 Workshop on Feedback Behaviors in Dialog*, Stevenson, WA, September, 2012, *Lecture Notes in Computer Science*, vol. 8007, 97-106.
- Novick, D., Rhodes, J., and Wert, W. (2011). The communicative functions of animation in user interfaces, *Proceedings of SIGDOC 2011*, October 3-5, 2011, Pisa, IT, 1-8.
- Herrera, D., Novick, D., Jan, D., Traum, D. (2011). Dialogue behaviors across culture and group size, *Proceedings of HCI International 2011*, Orlando, FL, July, 2011, *Lecture Notes in Computer Science*, Vol. 6766, 450-459
- Ward, N. G., Vega, A., Novick, D. (2010). Lexico-prosodic anomalies in dialog, *Speech Prosody 2010*, available at <http://speechprosody2010.illinois.edu/papers/100085.pdf>
- Herrera, D., Novick, D., Jan, D., and Traum, D. (2010). The UTEP-ICT cross-cultural multiparty multimodal dialog corpus. *Proceedings of the Workshop on Multimodal Corpora: Advances in Capturing, Coding and Analyzing Multimodality*, LREC 2010, Malta, May, 2010, 49-53.
- Flecha-Garcia, M., Novick, D., and Ward, N. (2008). Differences between Americans and Arabs in the production and interpretation of verbal and non-verbal dialogue behaviour, *Speech and Face-to-Face Communication Workshop*, Grenoble, France, October 27-29, 2008, 47-48.
- Novick, D., Andrade, O., and Bean, N. (2009). The micro-structure of help. *Proceedings of SIGDOC 2009*, October 5-7, 2009, Bloomington, IN, 97-104.
- Andrade, O., Bean, N., and Novick, D. (2009). The macro-structure of help. *Proceedings of SIGDOC 2009*, October 5-7, 2009, Bloomington, IN, 143-150.
- Novick, D., Andrade, O., Bean, N., and Elizalde, E. (2008). Help-based tutorials, *Proceedings of SIGDOC 2008*, Lisbon, Portugal, September 22-25, 2008, 1-8.
- Andrade, O., and Novick, D. (2008s). Expressing help at appropriate levels, *Proceedings of SIGDOC 2008*, Lisbon, Portugal, September 22-25, 2008, 125-129.
- Jan, D., Herrera, D., Martinovski, B., Novick, D., and Traum, D. (2007). A computational model of culture-specific conversational behavior, *7th International Conference on Intelligent Virtual Agents (IVA07)*, Paris, France, September 17-19, 2007, 46-54.

Novick, D., Elizalde, E., and Bean, N. (2007). Toward a more accurate view of when and how people seek help with computer applications, *Proceedings of SIGDOC 2007*, El Paso, TX, October 21-23, 2007, 95-102.

Hollingsed, T., and Novick, D. (2007). Usability inspection methods after 15 years of research and practice, *Proceedings of SIGDOC 2007*, El Paso, TX, October 21-23, 2007, 249-254.

Adjouadi, M., Alo, R., Beheshti, M., Fernandez, J., Novick, D., and Santiago, N. (2006). Panel: The Computing Alliance of Hispanic-Serving Institutions: Interventions to increase Hispanic participation in computing, *Proceedings of the 36th ASEE/IEEE Frontiers in Education Conference*, San Diego, CA, October 28-31, 2006, <http://fie.engrng.pitt.edu/fie2006/>, M4B-1.

Novick, D., and Ward, K. (2006). Why don't people read the manual? *Proceedings of SIGDOC 2006*, Myrtle Beach, SC, October 18-20, 2006, 11-18.

Novick, D., and Ward, K. (2006). What users say they want in documentation, *Proceedings of SIGDOC 2006*, Myrtle Beach, SC, October 18-20, 2006, 84-91.

Stamey, J., Novick, D., Spinuzzi, C., and Melenbacher, B. (2006). Research issues in the design of communication, *Proceedings of SIGDOC 2006*, Myrtle Beach, SC, October 18-20, 2006, 129.

Novick, D., and Lowe, B. (2005). Co-generation of text and graphics. *Proceedings of SIGDOC 2005*, Coventry, UK, September 21-23, 2005, 6-11.

Mendoza, V., and Novick, D. (2005). Usability over time, *Proceedings of SIGDOC 2005*, Coventry, UK, September 21-23, 2005, 151-158.

Ward, N., Rivera, A., Ward, K., and Novick, D. (2005). Root causes of lost time and user stress in a simple dialog system, *Proceedings of the 9th European Conference on Speech Communication and Technology (Interspeech'2005 – Eurospeech)*, Lisbon, September 4-8, 2005, 1565-1569.

Novick, D. (2005). Models of gaze in multi-party discourse, Working Notes, *CHI 2005 Workshop on the Virtuality Continuum Revisited*, Portland, OR, April 3, 2005.

Snoddy, S., and Novick, D. (2004). Post-training support for learning technology, *Proceedings of SIGDOC 2004*, Memphis, TN, October 10-13, 2004, 90-96.

Sayles, K., and Novick, D. (2004). Assessing effectiveness of personality style in documentation, *Proceedings of SIGDOC 2004*, Memphis, TN, October 10-13, 2004, 75-82.

Novick, D., and Ward, K. (2003). An interaction initiative model for documentation, *Proceedings of SIGDOC 2003*, San Francisco, CA, October 11-15, 2003, 80-85.

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### Technical Reports

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- Ward, N., Rivera, A., Ward, K., and Novick, D. (2005). *Some usability issues and research priorities in spoken dialog applications*, Technical Report UTEP-CS-05-23, Department of Computer Science, The University of Texas at El Paso.
- Novick, D., and Tazi, S. (1997). *Flight crew operating manuals as dialogue: The act-function-phase model*, EURISCO Research Report RR-97-002.
- Novick, D., House, D., Fanty, M., and Cole, R. (1995). *A multimodal browser for the World-Wide Web*. Technical Report CSE-95-18, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.

- Hansen, B., and Novick, D. (1995). *Coding for Mutuality Strategies in Dialogue*. Technical Report CSE-95-17, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.
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- Ward, K., Marshall, C., and Novick, D. (1995) *Applying task classification to natural meetings*. Technical Report CSE 95-011, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.
- Novick, D., Hansen, B., and Lander, T. (1994). *Letter-sequence dialogues*. Technical Report CSE 94-007, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.
- Novick, D., and Sutton, S. (1994). *Acknowledgments in task-based dialogue*. Technical Report CSE 94-001, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.
- Novick, D., Walton, L., and Ward, K. (1993). *Contribution graphs in multiparty discourse*. Technical Report CSE 93-015, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.
- Novick, D. & Wynn, E. (1992). *Participatory behavior in participatory design*. Technical Report CSE 92-019, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.
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- Novick, D. G. (1991). *Controlling interaction with meta-acts*. Technical Report CSE-91-01, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.
- Ward, K., Novick, D. G., and Sousa, C. (1990). *Air traffic control communication at Portland International Airport, July 1, 1990*. Technical Report CSE-90-25, Department of Computer Science and Engineering, Oregon Graduate Institute of Science & Technology.
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- Douglas, S., Doerry, E., and Novick, D. (1990). *Splitting the difference: Exploring the middle ground in user interface design*, Technical Report CIS-TR-90-12, Department of Computer and Information Science, University of Oregon.

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### Other Talks

“The Micro and Macro Structure of Use of Help,” School of Computing, National University of Singapore, Singapore, November 26, 2012.

“Applying the Cognitive Theory of Usability,” Keio-NUS CUTE Center, National University of Singapore, Singapore, November, 20, 2012

“Multimodal Grounding across Cultures,” Workshop on Multimodal Grounding for Virtual Humans and Robots, Institute for Creative Technologies, Marina del Rey, CA, September 12-14, 2008.

“The Mystery of the Mediocre User,” National Office of Aerospace Studies and Research (ONERA), Toulouse, France, June 28, 2007.

“Usability as a Function of Experience,” Thales Group, Toulouse, France, June 14, 2007.

“Usability over Time,” Institute for Creative Technologies, Los Angeles, CA, January 13, 2006.

“Usability over Time,” Portland State University, Portland, OR, November 30, 2005.

“High-assurance computing at UTEP,” Software and Information Technology Organization, El Paso, TX, November 9, 2004.

“An Interaction Initiative Model for Documentation,” National Office of Aerospace Studies and Research (ONERA), Toulouse, France, May 24, 2004.

“Engineering interfaces for safety-critical systems,” Smith College, Northampton, MA, April 11, 2002.

“Conversational” dialogues in direct-manipulation interfaces,” National Office of Aerospace Studies and Research (ONERA), Toulouse, France, December 17, 2001.

“My Interest in situated computing,” CHI 2000 Workshop on Research Directions in Situated Computing, The Hague, The Netherlands, April 2, 2000.

“Abstracting from action to situated acts,” University of Edinburgh, Edinburgh, Scotland, August 20, 1999.

“New ways to engineer integrity into the use of safety-critical systems,” Bluecoat Forum 1999 Conference, Airbus Industrie, Toulouse, France, April, 1999.

“A multi-factor approach to mixed-initiative interaction,” University of Maryland, College Park, MD, April 30, 1997.

“Humans, computers and conversation: Behaviors, rules and laws,” University of Toulouse I, Toulouse, France, January 30, 1997.

“Building and using different kinds of contexts,” Laboratoire d’Informatique pour la Mécanique et les Sciences de l’Ingénieur (LIMSI), CNRS, Orsay, France, January 21, 1997.



“Developing usable systems,” Software Engineering Research Center, University of Florida, Gainesville, FL, November 16, 1995.

“Mixed initiative in dialogue,” SIGCHI Toulouse, Toulouse, France, November 29, 1996. “Lessons learned using the World-Wide Web for education,” NSF-CONACyT Workshop on Computer Science Education, Xalapa, MX, March, 1996

“Who uses ProShare?” Intel Corporation, Hillsboro, OR, August 11, 1995.

Career paths in HCI, CHI 95 Doctoral Consortium, Denver, CO, May, 1995.

“The promise and problems of spoken language understanding,” Xavier University, New Orleans, LA, March 6, 1995.

“An automated spoken questionnaire for the Year 2000 Census,” Clark Atlanta University, Atlanta, GA, March 1, 1995.

“The promise and problems of spoken language understanding,” Morgan State University, Baltimore, MD, February 28, 1995.

“Simulating natural conversations with computational agents,” University of Delaware, Newark, DE, February 27, 1995.

“The effects of technological mediation of conversation in cooperative tasks,” The Evergreen State College, Olympia, WA, May 19, 1994.

“Developing spoken language interfaces,” University of Texas at El Paso, El Paso, TX, March 18, 1994.

“The challenge of spoken language systems,” with Ronald A. Cole, Clark Atlanta University, Atlanta, GA, February 11, 1994.

“Building spoken language systems: The Year 2000 Census Project,” Southern Oregon State College, Ashland, OR, October, 1993.

“The case for cognitive models in user-system dialogue,” Fifteenth Annual Meeting of the Cognitive Science Society, Boulder, CO, June, 1993.

Laboratory profile, NATO Workshop on Burning Issues in Discourse, Maratea, Italy, April, 1993.

“Effective communication in the age of multimedia,” with Catherine R. Marshall, Chief Executive Roundtable, Portland, OR, April, 1993.

“Conversational tactics and strategies: Computational models of mutuality,” Reed College, Portland, OR, November, 1992.

“Feasibility of a voice questionnaire for the Year 2000 Census” (with Ronald A. Cole), U.S. Bureau of the Census, Washington, DC, July, 1992.

“Teamwork in software development,” U.S. Department of Education SuperQuest program, Portland, OR, July 1992.

“The case for usability testing of user interfaces,” Oregon Quality Assurance SIG, Mentor Graphics Corporation, Wilsonville, OR, April, 1992.

“Why interface design tools should reduce miscommunication in the design process,” CHIFOO Workshop on Requirements for the Next Generation of User Interface Development Environments, Beaverton, OR, April, 1992.

“Issues in understanding spontaneous speech,” NSF Workshop on Spoken Language Understanding, Washington, DC, February, 1992.

“Human-computer interaction in tomorrow’s workplace,” Work Now and in the Future 8 (invited talk), Portland, OR, November, 1991.

“Virtual conversants: Enhancing the efficiency of multiparty interaction through computer mediation,” U S WEST Advanced Technologies, Boulder, CO, June, 1991.

“Conversational effectiveness and multimedia communications,” Natural Language Working Group, Portland State University, Portland, OR, May, 1991.

“Interaction issues for scientific data management,” Scientific Information Management: Issues and Opportunities (invited talk), Pacific Northwest Laboratory, Richland, WA, February, 1991.

“A computational model of meta-locution,” Workshop on Discourse: What Cognitive Capacities are Necessary for Discourse? (invited talk), Cognitive and Decision Sciences Institute, University of Oregon, Eugene, OR, November, 1988.

### **Patents**

Dynamic control of voice CODEC data rate, U.S. Patent 13/858,605, Nigel Ward and David Novick, filed April 4, 2013, granted August 31, 2015.

## **Service**

*Served the research community on journal editorial boards and conference program committees, served as conference chair and program chair for conferences, and organized workshops and special interest groups.*

### Current Editorial Board Memberships

International Journal of Speech Technology  
Journal of Dialogue Systems

### Past Editorial Board Memberships

Co-editor, special issue of Interacting with Computers on the topic of universal usability, 2001  
Co-editor, special issue of International Journal of Speech Technology on the topic of natural-language interfaces, 2002  
Language Learning & Technology, 1999-2006  
Information, Technology & People, 1992-1999  
Journal of Intercultural Communication, 2012-2019

### Board Memberships

Board of Advisors, Department of Computer Science, Texas A&M Corpus Christi, 2005-2006  
Board of Trustees, Insights El Paso Science Museum, 2004-2007

### Proposal Referee, Panelist, and Site Visitor

Directorate for Computer & Information Science & Engineering, NSF, 1989-2001, 2003-2004, 2007, 2009-2010, 2012  
Directorate for Education and Human Resources, 2008, 2018-2019.  
Directorate for Social Behavioral and Economic Sciences, NSF, 1993

### Education

President (1994-95), Secretary (1993-94), Member (1992-93), Faculty Senate, Oregon Graduate Institute  
Adjunct Member of Graduate Faculty, Department of Computer Science, Oregon State University, 1993-1995  
Adjunct Assistant Professor of Applied Linguistics, Portland State University, 1990-1995  
Coordinator, EURISCO Reading Group, EURISCO, 1996-1999

### Professional Organizations

#### *Computing Research Association*

Member, Deans Group, 2006-2014  
Co-organizer and panelist, Workshop on Developing a Research Environment, CRA Conference at Snowbird 2002, Computing Research Association, Snowbird, UT, July 15, 2002.  
Chair (2003-2004) and member (2006, 2008), CRA Outstanding Undergraduate Award Competition Committee,  
Member, Taulbee Survey Committee, 2004-2006

*ACM SIGCHI and SIGDOC*

Member, ACM SIGDOC Executive Committee, 2003-2013

Conference chair, ACM SIGDOC 2007, El Paso, TX, October, 2007

Program chair, ACM SIGDOC 2003, San Francisco, CA, October, 2003

Panelist, When I'm Sixty-Four: Are there Real Strategies for Providing Universal Accessibility for the Elderly?, CHI 2002, Minneapolis, MN, April 23, 2002

Co-organizer, CHI 2002 SIG on Broadening Participation through Universal Usability, Minneapolis, MN, April, 2002

Co-organizer CHI 2001 SIG on Natural Language in Human-Computer Interaction, Seattle, Washington, April 5, 2001

General Co-chair, ACM Conference on Universal Usability, Washington, D.C., November 16-17, 2000

Editor for World-Wide CHI, SIGCHI Bulletin, 1998-2001

Member, SIGCHI Advisory Task Force on International Issues, 1997, SIGCHI International Issues Committee, 1999-2000

Member, 1998 SIGCHI nominating committee

Co-founder and member, SIGCHI Toulouse (local chapter for Toulouse, France, of the ACM Special Interest Group on Computer-Human Interaction), 1996-present; President, 1998-1999

Founding president and member, CHIFOO (local chapter for Oregon of the ACM Special Interest Group on Computer-Human Interaction), 1989-1996

Co-organizer, CHI 2001 special interest group on Natural Language in Computer-Human Interaction, Seattle, WA, April 5, 2001

Co-organizer, CHI 2000 Workshop on Natural-Language Interaction, CHI 2000, The Hague, The Netherlands, April 3, 2000

Co-organizer, CHI 99 Workshop on Development of an HCI Research Agenda, Pittsburgh, PA, May 16, 1999

Co-organizer, CHI 99 Workshop on HCI in Domains: Common Ground and Key Differences, Pittsburgh, PA, May 17, 1999

Co-organizer, CHI 99 special interest group on Natural Language in Computer Human Interaction, Pittsburgh, PA, May, 20, 1999

Organizer, CHI 98 special interest group on The SIGCHI International Issues Committee: Taking Action, Los Angeles, CA, April, 1998

Co-organizer, CHI 97 special interest group on Improving International Cooperation and Communication in SIGCHI, Atlanta, GA, March 1997

Co-organizer, CHI 96 Workshop on the CHI Ten-Year View: Creating and Sustaining Common Ground, Vancouver, BC, April, 1996

Co-organizer, CHIFOO Workshop on Requirements for the Next Generation of User Interface Development Environments, Beaverton, OR, April, 1992

*AAAI*

Co-organizer, AAAI Fall Symposium on Psychological Models of Communication in Collaborative Systems, North Falmouth, MA, November, 1999.

Co-organizer, Computational Models for Mixed Initiative Interaction, AAAI Spring Symposium, Stanford, CA, March, 1997

*Other*

Co-organizer, *InterSpeech 2012 Workshop on Feedback Behaviors in Dialog*, Stevenson, WA, September, 2012

Board of Advisors, Young Researchers Roundtable on Spoken Dialog Systems, 2006-present

Co-organizer, ACL/EACL 2001 Workshop on Evaluation Methodologies for Language and Dialogue Systems, Toulouse, France, July, 2001

Co-founder and liaison for ACM SIGCHI, ACL SIGDIAL (special interest group on dialogue of the Association for Computational Linguistics) (1997-2001)

Member, advisory panel, Spoken Language Dialogue Systems and Components (DISC), ESPRIT Long-Term Research Concerted Action, 1997-1999

Co-organizer, Symposium on Cognitive Models in User-System Dialogue, Fifteenth Annual Meeting of the Cognitive Science Society, Boulder, CO, June, 1993

Invited Workshop Participation

Computer Science outside the Box, National Science Foundation and Computing Research Association, Washington, DC, November, 2008.

Workshop on Multimodal Grounding for Virtual Humans and Robots, Institute for Creative Technologies (ICT), University of Southern California's, September, 2008.

Workshop on Dialogue Research, Institute for Creative Technologies (ICT), University of Southern California, May, 2008

Workshop on Multi-party Communication, Institute for Creative Technologies (ICT), University of Southern California, June, 2005

NSF Workshop on Broadening Participation in Computer Science, Arlington, VA, October, 2004

CHI 2000 Workshop on Research Directions in Situated Computing, The Hague, The Netherlands, April, 2000

Third International Workshop for Discourse Research Initiative, Chiba, Japan, May, 1998

AAAI Fall Symposium on Communicative Action in Humans and Machines, Cambridge, MA, November, 1998

NSF-CONACyT Workshop on Computer Science Education, Xalapa, MX, March, 1996.

Discourse Tagging Workshop 1, Pittsburgh, PA, February, 1996

ARPA Workshop on Portability of Language Tools, Chatham, MA, October, 1994

CHI 97 Workshop on HCI Research and Practice Agenda based on Human Needs and Social Responsibility, Atlanta, GA, March, 1997

CHI 97 Workshop on Local SIGS, Atlanta, GA, March, 1997

NSF Workshop on New Directions in Human Computer Interaction Education and Research, Washington, DC, February, 1994

NSF Workshop on Spoken Language Understanding, Washington, DC, February, 1992

Conference Reviews and Service  
(Partial List)

Program committee, SIGDOC 2002-2013

Reviewer, International Conference on Multimodal Interaction, 2017-2019.

Reviewer, ASEE Annual Conference, 2017-2019.

Program committee, International Cross-Disciplinary Conference on Web Accessibility (W4A), 2007-2016.

Reviewer, ACM International Conference on Multimodal Interaction, 2013-2019.

Reviewer, 45<sup>th</sup> Annual Meeting of the Association for Computational Linguistics, 2007

Reviewer, Conference on Empirical Methods in Natural Language Processing—Conference on Computational Natural Language Learning, 2007

Session chair, Frontiers in Education, San Diego, CA, 2006

Program committee, 2nd IJCAI Workshop on Knowledge and Reasoning in Practical Dialogue Systems, Seattle, WA, 2001

Program committee, Towards Standards and Tools for Discourse Tagging," Association for Computational Linguistics Workshop, 1999

Program committee, HCI-Aero 2000

Program committee, HCI-Aero 98, 1998

Program committee, Participatory Design Conference (PDC 98), 1998

Program committee, AAAI 97, 1997

Program committee, Interaction Homme-Machine (IHM 97), 1997

Session chair, SIGDOC 98, 1998

Session chair, IPCC/SIGDOC 2000

Session chair, Twente Workshop on Language Technology 11 (TWLT 11), 1996

Session chair, International Conference on Spoken Language Processing (ICSLP 96), 1996

Discussant, European Conference on Cognitive Ergonomics (ECCE 8), 1996

Reviewer, European Conference on Cognitive Ergonomics (ECCE-9), 1998

Technical program committee, European Conference on Cognitive Ergonomics (ECCE 10), 1999

Reviewer, Human Factors in Computing Systems (CHI), 1994-99

Reviewer, Human-Computer Interaction, 1997, 1998

Reviewer, Pacific Association for Computational Linguistics (PacLing), 1993

Reviewer, NATO Workshop on Burning Issues in Discourse (post-workshop book), 1993

Reviewer, IFIP WG 8.2 Working Conference on Information Systems Development: Human, Social and Organizational Aspects, 1992

Reviewer, International Conference on Logic Programming (ICLP 90), 1990

Journal Reviews

(Partial list)

Human Computer Interaction

Information Technology & People

Natural Language Engineering

International Journal of Speech Technology

Language Learning & Technology

International Journal of Cognition, Technology & Work

ACM Transactions on Computer-Human Interaction

Behavior and Information Technology

Memberships

American Society for Engineering Education, 2013-present

Association for Computing Machinery, 1988-present

Oregon State Bar, 1977-present

District of Columbia Bar, 1979-present

Federal Communications Bar Association, 1979-present

ACM Special Interest Group on Computer-Human Interaction, 1989-2010

ACM Special Interest Group on Design of Communication, 1999-2013

CHIFOO (Oregon Chapter, ACM SIGCHI)

President, 1989-1991

Secretary, 1991-1992

Executive Board Member, 1992-1996

IHM-Toulouse (Toulouse Chapter, SIGCHI)

President, 1998-1999

American Association for Artificial Intelligence, 1989-2006

Association for Computational Linguistics, 1989-present

European Association for Cognitive Ergonomics, 1996-2006

European Speech Communications Association, 1993-1998

Association Francophone de l'Interaction Homme-Machine, 1996-1999

### **Consulting and Program Reviews**

*Provided consulting and program review services for private companies, and universities.*

Peacock, Myers & Adams, PC, 2004

BGV Strategies, LLC, Principal, 2003-2004

Norfolk State University, 2002

Texas A&M Corpus Christi, 2002, 2003

University of Texas at Arlington, 2001

Universidad Inter-Americana, Recinto de San German, 2000

Office Nationale d'Etudes et de Recherches Aérospatiales, 2000

European Institute of Cognitive Sciences and Engineering (EURISCO), 1996

Network General Corporation, 1995

InterSolv, 1994

Intel Corporation, 1993

NYNEX, 1992-1993

Mentor Graphics Corporation, 1992

Servio Logic Development Corporation, 1990



### Teaching

*Supervised 20 theses, dissertations, and post-doctoral researchers. Taught courses in computer science at the lower-division, upper-division, and graduate levels, including graduate courses at Georgia Institute of Technology—Lorraine. Recent teaching includes courses related to innovation and entrepreneurship.*

#### Theses, projects, dissertations, and post-docs supervised, The University of Texas at El Paso

Laura Rodriguez, “The Boston Massacre History Experience,” MS, December 2018.

Ivan Gris, post-doctoral fellow, 2015-2017.

Alex Rayon, “Analysis of gesture frequency and amplitude as a function of personality in virtual agents,” M.S., December, 2016.

Jacqueline Brixey, “Virtual rapport with extraverted agents,” M.S., December 2015.

Ivan Gris, “Physical engagement as a way to increase emotional rapport in interactions with embodied conversational agents,” Ph.D., August, 2015.

Mario Gutierrez, “Script interpreter for embodied conversational agent system,” MS project, October, 2014.

Juan Vicario and Baltazar Santaella, “Video game playability,” MSIT project, April, 2013.

David Herrera, “Realistic representations of proxemics and gaze behaviors across cultures,” Ph.D., May, 2010.

Oscar Andrade, “Enabling users to find the right level of help across multiple dimensions,” M.S., December, 2009.

Maria Flecha-Garcia, post-doctoral fellow, 2008.

Edith Elizalde, “The role of help resources in user’s solution patterns: Comparison of methods,” M.S., May, 2008.

Joaquin A. Aguilar, “Can agent-agent simulation of conversation be extended to create literary works?” B.S., 2007

Annette Arrigucci, “Multi-modal intelligibility,” M.S., 2005.

Veronica Mendoza, “Usability of technology: The causes and levels of frustration over time,” M.S., 2005

Kenneth Sayles, “Personality and effectiveness of user interfaces,” M.S., 2003

Fernando Chaidez, “Extended direct manipulation in a videogame,” M.S., 2003

Sam Snoddy, “Effectiveness of training methods for software systems,” M.S., 2002

#### Theses, dissertations and post-docs supervised, Oregon Graduate Institute

Karen Ward, “Integrating knowledge sources for spoken-language understanding,” Ph.D., 2001

James Blakely, “Graphical representations of heterogeneous data sources,” M.S., 1996

David House, “Spoken-language access to multimedia,” M.S., 1995

Stephen Sutton, post-doctoral fellow, 1993-1995

Karen Ward, “A speech-act model of air-traffic control dialogue,” M.S., 1993

Doctoral Defense Committees and Juries (since 2000)

Ivan Gris, The University of Texas at El Paso, July 17, 2015 (dissertation advisor)

David E. Herrera, The University of Texas at El Paso, May 26, 2010 (dissertation advisor)

Jaime Acosta, The University of Texas at El Paso, November 25, 2009 (dissertation committee)

Frederic Dehais, Université de Toulouse I, May 24, 2004 (defense committee)

Yahya Al Tawki, Université de Toulouse I, April 29, 2002 (defense committee)

Marc Boyer, Ecole Nationale Supérieure de l'Aéronautique et de l'Espace, December 17, 2001 (defense committee)

Karen Ward, Oregon Graduate Institute of Science & Technology, May 11, 2001 (dissertation advisor)

Joris Hulstijn, University of Twente (NL), April 7 2000 (defense committee)

Courses, Department of Engineering Education and Leadership, The University of Texas at El Paso

EL 3331 Engineering Design: People to Products

Fall Semester, 2016-2017, junior level, co-teacher  
Fall Semester, 2017-2018, junior level, co-teacher  
Fall Semester, 2018-2019, junior level, co-teacher  
Fall Semester, 2019-2020, junior level, co-teacher

EL 3304 Engineering Entrepreneurship: Products to People

Spring Semester, 2016-2016, junior level, co-teacher  
Spring Semester, 2017-2018, junior level, co-teacher  
Spring Semester, 2018-2019, junior level, co-teacher  
Spring Semester, 2019-2020, junior level, co-teacher

EL 4330 Innovation in Technology

Fall Semester, 2017-2018, senior-level  
Fall Semester, 2018-2019, senior-level  
Fall Semester, 2019-2020, senior-level

EL 4331 Intellectual Property Law

Spring Semester, 2017-2018, senior-level  
Spring Semester, 2018-2019, senior-level  
Spring Semester, 2019-2020

EL 4395 Senior Design I

Fall Semester, 2016-2017, senior level, co-teacher  
Fall Semester, 2017-2018, senior level, co-teacher  
Fall Semester, 2018-2019, senior level, co-teacher  
Fall Semester, 2019-2020, senior level, co-teacher

EL 4396 Senior Design II

Spring Semester, 2016-2017, senior level, co-teacher  
Spring Semester, 2017-2018, senior level, co-teacher  
Spring Semester, 2018-2019, senior level, co-teacher  
Spring Semester, 2019-2020, senior level, co-teacher

Courses, Department of Computer Science, The University of Texas at El Paso

- CS 4390 & COMM 4350 Special Topic: Innovation in Technology
  - Spring Semester, 2013-2014, senior level
  - Spring Semester, 2015-2016, senior level
  - Spring Semester 2016-2017, senior level
- CS 4390/5390 & POLS 4325 Special Topic: Intellectual Property Law
  - Spring Semester, 2010-2011, senior and graduate level
  - Spring Semester, 2011-2012, senior and graduate level
  - Fall Semester, 2013-2014, senior and graduate level
  - Spring Semester, 2014-2015, senior and graduate level
  - Fall Semester, 2016-2017, senior level
- CS 4320/CS 5314 Artificial Intelligence
  - Spring Semester, 2012-2013, senior and graduate level
  - Spring Semester, 2015-2016, senior and graduate level
- CS 5392 Graduate Research Methods
  - Spring Semester, 2005-2006, graduate level
  - Spring Semester, 2006-2007, graduate level
  - Fall Semester, 2009-2010, graduate level
  - Fall Semester, 2010-2011, graduate level
  - Fall Semester, 2014-2015, graduate level
- CS 5317 Human-Computer Interaction
  - Fall Semester, 2009-2010, graduate level
  - Fall Semester, 2010-2011, graduate level
  - Fall Semester, 2011-2012, graduate level
  - Fall Semester, 2012-2013, graduate level
  - Fall Semester, 2015-2016, graduate level
- CS 4317 Human-Computer Interaction
  - Fall Semester, 2011-2012, upper-division undergraduate level
  - Fall Semester, 2012-2013, upper-division undergraduate level
  - Fall Semester, 2015-2016, upper-division undergraduate level
- MIT 5390 Special Topic: Web-Site Usability
  - Summer Term, 2003-2004, senior and graduate level
- CS 5390 Special Topic: Software Engineering
  - Spring Semester, 2008-2009
- CS 5390 Special Topic: Human Computer Interaction
  - Spring Semester, 1999-00, senior and graduate-level
  - Fall Semester, 2001-02, senior and graduate-level
- CS 5694 Introduction to Computer Science for Graduate Students
  - Fall Semester, 2001-02, graduate-level
- CS 1401 Introduction to Computer Science
  - Fall Semester, 2000-01, lower-division undergraduate-level
  - Spring Semester, 2000-01, lower-division undergraduate-level
  - Fall Semester, 2002-03, lower-division undergraduate-level
  - Spring Semester, 2002-03, lower-division undergraduate-level

Fall Semester, 2008-09, lower-division undergraduate-level  
Spring Semester, 2014-15, lower-division undergraduate-level

CS 2401 Elementary Algorithms and Data Structures  
Spring Semester, 2011, lower-division undergraduate level  
Fall Semester, 2003, lower-division undergraduate level

CS 3330 Problem Oriented Programming Languages: Fortran  
Maymester, 2002, undergraduate-level

CS 3331 Advance Object-Oriented Programming  
Spring Semester, 2003-2004, undergraduate level

CS 3195 Junior Professional Orientation

CS 4195 Senior Professional Orientation  
Fall Semester, 2002-2003, undergraduate level  
Spring Semester, 2002-2003, undergraduate level  
Spring Semester, 2009-2010, undergraduate level

CS 4317 Human-Computer Interaction  
Fall Semester, 2011-2012, undergraduate level  
Fall Semester, 2012-2013, undergraduate level

Courses, College of Computing, Georgia Tech University – Lorraine

CS4803/CS8803 – Empirical Methods in HCI  
Spring Semester, 2009-2010, senior and graduate level

CS4650/CS7650 – Natural Language  
Spring Semester, 2009-2010, senior and graduate level

Courses, Department of Computer and Science and Engineering, Oregon Graduate Institute  
(all courses graduate-level)

CSE 507 Logic Programming  
Spring Term 1989-90

CSE 560 Symbolic Reasoning Systems  
(formerly CSE 506 Introduction to Artificial Intelligence, 1989-1991)  
Annually, 1989-1995

CSE 562 Natural Language Processing  
Fall Term 1992-1993

CSE 566 Principles of Knowledge Engineering  
Winter Term 1989-1990  
Spring Term, 1991-1992  
Fall Term, 1993-1994

CSE 567 Developing User-Oriented Systems  
Fall Term, 1994-1995

CSE 581 Models of Human-Computer Interaction  
Winter Term, 1990-1991

CSE 584 Building Hypermedia Systems  
Spring Term, 1993-1994

Courses, Portland State University

LING 404/507 Cognitive Science Seminar on Learning  
Winter Term, 1992-93, team teaching, senior and graduate-level

Courses, Department of Computer and Information Science, University of Oregon

CIS 425 Survey of Programming Languages  
Winter Term, 1988-1989, senior-level

CIS 445 Modeling and Simulation  
Winter Term, 1988-1989, senior and graduate-level

CIS 507 Artificial Intelligence Seminar  
Spring Term, 1988-1989, graduate-level

CIS 575 Natural Language Processing  
Spring Term, 1988-1989, graduate-level

Courses, School of Law, University of Oregon

Communications Law  
Annually, 1981-1985, graduate-level

Workshops and short courses

Continuous Quality Improvement in Computer Science Education,  
XIII Reunión Nacional de Directores de Escuelas y Facultades de Informática y Computación 2004  
Ciudad Juárez, MX, June 10, 2004

Designing and Testing Spoken Dialogue Systems (with Norman Fraser and Harald Aust)  
European Network in Language and Speech (ELSNET), University of Utrecht  
Zeist, The Netherlands, April 16-18, 1997

Documentation Electronique et Mémoire d'Entreprise: la GED  
(organized by Guy Boy)  
Société des Amis de l'ENSAE et de l'ENSTA  
Toulouse, France, October 14-18, 1996  
Toulouse, France, October 13-17, 1997

Building Prototype Spoken-Language Systems (with Stephen Sutton and Don Colton)  
Clark Atlanta University  
Atlanta, GA, April 27, 1995

Testing User Interfaces  
Pacific Northwest Software Quality Conference  
Portland, OR, May 20, 1991  
Portland, OR, October 8, 1991

Design and Testing of Graphical User Interfaces (with Sarah A. Douglas)  
Oregon Graduate Institute Office of Continuing Education  
Beaverton, OR, April 17-19, 1991  
Beaverton, OR, May 19-21, 1992