

Ewart de Visser, Ph.D.

Curriculum Vitae

Birth date/place: September 23rd, 1983, Alphen aan de Rijn, The Netherlands

Address: 2931 Deer Hollow Way Apt 107
Fairfax, VA 22031

Email: edevisse@gmu.edu

Phone: 910.200.8596

Education

- 2012 **Ph.D.** – George Mason University, Fairfax, VA
Human Factors and Applied Cognitive Psychology
- 2007 **M.A.** – George Mason University, Fairfax, VA
Human Factors and Applied Cognitive Psychology
- 2005 **B.A.** – University of North Carolina at Wilmington, Wilmington, NC
Film Studies
- 2002 **1st year completion degree** – Utrecht University, Utrecht, The Netherlands
Cognitive Artificial Intelligence

Professional Experience

- 2012-present **Sr. Human Factors Scientist**
Perceptronics Solutions Inc., Arlington VA.
- 2006-2012 **Graduate Research Assistant**
George Mason University, Fairfax, VA.
- 2005-2012 **Human Factors Scientist**
Perceptronics Solutions Inc., Arlington VA.
- 2007 **Graduate Teaching Assistant**
George Mason University, Fairfax, VA.
- Summer 2007 **Human Factors Consultant**
Smart Information Flow Technologies, Minneapolis, MN.

Awards/Honors

- ◆ Best Student Paper Award (2nd place) of the 56th HFES Annual Meeting Cognitive Engineering Technical Group, 2012, for paper “The World is Not Enough: Trust in Cognitive Agents”.
- ◆ Dr. Kevin Corker Outstanding Student Award (\$500), 2012
- ◆ Commonwealth of Virginia Governor's Transportation Safety Award, 2012
- ◆ American Psychological Association Dissertation Research Award (\$1000), 2011
- ◆ “What Is Human Factors/Ergonomics?” YouTube Video Contest 1st Place Award (\$1000), 2011
- ◆ Inaugural Raymond S. Nickerson Award, Best Paper in Vol. 15 of the *Journal of Experimental Psychology: Applied*, American Psychological Association, “Detecting threat-related intentional actions of others: Effects of image quality, response mode, and target cueing on vigilance.” (with R. Parasuraman, E. Clarke, W. R. McGarry, E. Hussey, T. Shaw, & J. Thompson), 2009
- ◆ HFES Member with Honors, 2008
- ◆ APA Divisions 19 and 21, Society for Military Psychology, Best Presentation Award, 2007
- ◆ 50th HFES Annual Meeting Training Technical Group Best Student Paper Award, 2006

Professional Affiliations

- ◆ Human Factors and Ergonomics Society (HFES)
- ◆ Human Factors and Ergonomics Society (HFES) Training Technical Group (TTG)

- ◆ Human Factors and Ergonomics Society (HFES) Cognitive Engineering and Decision Making (CEDM) Technical Training Group
- ◆ Human Factors and Ergonomics Society GMU Student Chapter (HFES)
- ◆ Usability Professionals Association (UPA)
- ◆ American Psychological Association (APA)
- ◆ Association for Psychological Science (APS)

Professional Service

- ◆ Co-Founder, Distractions N Driving Outreach Campaign for Teenagers (distractionsndriving.com), 2012
- ◆ Arch Lab Website Development Chair, 2008-2009
- ◆ Human Factors and Ergonomics Society GMU Student Chapter President, 2007-2008
- ◆ Human Factors and Ergonomics Society GMU Student Chapter Vice-President, 2006-2007
- ◆ Human Factors and Ergonomics Society GMU Student Chapter Treasurer, 2005-2006
- ◆ Human Factors and Ergonomics Society GMU Student Chapter Treasurer, 2005-2006
- ◆ Co-Chair of Host Committee for HFES 51st Annual Meeting in Baltimore, MD 2007
- ◆ Served on design team for official Logo of ARCH Lab at George Mason University, Summer 2007
- ◆ Editor in Chief, GMU Student Chapter HFES Conference Newsletter Special Issue, 2005-2006
- ◆ Associate Editor, GMU Arch Lab Newsletter, 2006-2007
- ◆ Human Factors and Ergonomics Society (HFES) Training Technical Group (TTG) Newsletter Layout Editor, Spring 2007

Ad-Hoc Reviewing Activities

- ◆ Human Factors
- ◆ Journal of Cognitive Engineering and Decision Making

Undergraduates Supervised

- ◆ Rizhna Chener – Directed Research. (Fall 2010-present)
- ◆ Juan Cruz – Directed Research. (Fall 2010-present)
- ◆ Laya Muralidharan – Directed Research. (Fall 2010-present)
- ◆ Steven Scheid – Directed Research. (Fall 2010-present)
- ◆ Stephanie Chalk – Directed Research. (Fall 2010-present)
- ◆ Stephanie Johnson – Directed Research. (Fall 2010-present)
- ◆ Amira Mohamed-Ameen – Directed Research. (Spring 2008- Spring 2010)
- ◆ Landon Michaels – Directed Research. (Spring 2008)
- ◆ Mary O'Malley - Directed Research. (Spring 2008)
- ◆ Stephanie Szkutak – Directed Research. (Spring 2008)
- ◆ Seyed Mortavazi - Directed Research. (Spring 2008)

Invited Journal Reviews

- ◆ Human Factors
- ◆ Journal of Cognitive Engineering and Decision Making

Invited Presentations

- ◆ de Visser, E. (2014). Invited Panel, Trust in Cognitive Agents.
- ◆ **de Visser, E** (2012). The Adaptive Trust Toolbox. Invited Presentation at Summer Institute on Bounded Rationality at the Max Planck Institute for Human Development, Berlin (July 2nd – July 11th).

- ◆ **de Visser, E.**, & Parasuraman, R. (October, 2009). Neuroergonomics of etiquette. Invited Panel, Annual Meeting of the Human Factors and Ergonomics Society.
- ◆ **de Visser, E.J.**, Cohen, M. S., Le Goullon, M., Sert, O., Freed, A., Freedy, E., Weltman, G., Parasuraman, R. (2008, June). A design methodology for controlling, monitoring, and allocating unmanned vehicles. Invited Paper presented at the Third International Conference on *Human Centered Processes (HCP-2008)*, Delft, Netherlands.
- ◆ **de Visser, E.J.**, LeGoullon, M., Freedy, A., Freedy, E., Weltman, G. & Parasuraman, R. (2008). Designing an adaptive automation system for human supervision of unmanned vehicles: A bridge from theory to practice. Invited presentation at the United States Military Academy, West Point. New York.

Publications & Proceedings

In press

- ◆ Krueger, F., Parasuraman, R., Moody, L., Twieg, P., **de Visser, E.**, McCabe, K., Lee, M. (in press) Oxytocin selectively increases perceptions of harm for victims but not the desire to punish offenders of criminal offenses. *Social Cognitive and Affective Neuroscience*.

2014

- ◆ **de Visser, E.J.**, Marvin Cohen, Amos Freedy & Raja Parasuraman (2014). A design methodology for trust cue calibration in cognitive agents. *In Proceedings of the 16th International Conference on Human-Computer Interaction*. Crete, Greece.
- ◆ Muralidharan, L., de Visser, E.J., Parasuraman, R. (2014). The effects of pitch contour and flanging on trust in speaking cognitive agents. *In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. Toronto, Canada.

2013

- ◆ N. Brooks, **E. de Visser**, T. Chabuk, E. Freedy, and P. Scerri. An Approach to Team Programming with Markup for Operator Interaction (2013). In Proceedings of the 12th International Conference on Autonomous Agents and Multiagent Systems.
- ◆ Smith, M.A., Woo, H.J., Parker, J.P., Youmans, R.J., LeGoullon, M., Weltman, G., & de Visser, E.J. (2013). Using Iterative Design and Testing Towards the Development of SRTS: A Mobile, Game-Based Stress Resilience Training System. In *Proceedings of the Human Factors and Ergonomics Society 2013 Annual Meeting*. Vol. 57.
- ◆ **de Visser, E.J.**, Kidwell, B., Lu, L., Payne, J., Parker, J., Chabuk, T., Brooks, N., Scerri, P., Freedy, A., Parasuraman, R (2013). Best of both worlds: Design and evaluation of an adaptive delegation interface. In *Proceedings of the Human Factors and Ergonomics Society 2013 Annual Meeting*. Vol. 57, San Diego, CA.

2012

- ◆ **de Visser, E.**, Bob Jacob, Paul Scerri, Timur Chabuk, Amos Freedy (2012). Design and evaluation of the Adaptive Interface Management System (AIMS) for collaborative mission planning with unmanned vehicles. In Proceedings of AIAA InfoTech@Aerospace conference.
- ◆ **de Visser, E.** & Krueger, F. (2012). Interpersonal trust as a dynamic belief? In F. Krueger & J. Grafman (Eds.), *The Neural Basis of Human Belief Systems*. Hove, England: Psychology Press.
- ◆ Parasuraman, R., **de Visser, E.**, Lin, M., & Greenwood (2012). Dopamine beta hydroxylase (DBH) gene variants are associated with individual differences in decision making in an automated command and control task. *PLoS ONE*, 7(6), 1-9.

- ◆ **de Visser, E.**, Krueger, F., McKnight, P., Steve Scheid, Melissa Smith, Stephanie Chalk & Parasuraman, R. (2012). The world is not enough: Trust in cognitive agents. In *Proceedings of the 56th Annual Meeting of the Human Factors and Ergonomics Society*, Boston, MA.
- ◆ Saqer, H., **de Visser, E.**, Strohl J. & Parasuraman, R. (2012). Distractions N' Driving: Video game simulation educates young drivers on the dangers of texting while driving. *Work* 41, 5877-5879.
- ◆ **de Visser., E** (2012, September). QS+1: Lessons learned from assisting in trading FOREX currencies. In *Proceedings of the Quantified Self Conference 2012*, Palo Alto, CA.
- ◆ Weltman, G., Cohen, M., **de Visser E.**, Shuffler, M., Thayer, A., & Salas, E. (2011). The Automated Team Composition System: Design and Empirical Validation. *ARI Technical Report*.

2011

- ◆ **de Visser, E.**, & Parasuraman, R. (2011) Adaptive aiding of human-robot teaming: Effects of imperfect automation on performance, trust, and workload. *Journal of Cognitive Engineering and Decision Making*, 5(2), 209-231.
- ◆ Hancock, P.A., Billings, D.R., Schaefer, K. E., Chen, J. Y., **de Visser, E. J.**, Parasuraman, R. (2011). A meta-analysis of factors affecting trust in human-robot interaction. *Human Factors*, 53(5), 517-527.
- ◆ Saqer, H., **de Visser, E.**, Emfield, A., Shaw, T., Parasuraman, R (2011). Adaptive Automation to Improve Human Performance in Supervision of Multiple Uninhabited Aerial Vehicles: Individual Markers of Performance, *Paper presented at the Annual Conference of the Human Factors and Ergonomics Society*, Las Vegas, NV.
- ◆ Miller, C.A., Shaw, T.H., Emfield, A., Hamell, J.D., **de Visser, E.**, Musliner, D.J. & Parasuraman, R. (2011). Delegating to automation: Performance, complacency and bias effects under nonoptimal conditions, *Paper presented at the Annual Conference of the Human Factors and Ergonomics Society*, Las Vegas, NV.
- ◆ McKendrick, R., Shaw, T.H., Saqer, H., **de Visser, E.** & Parasuraman, R. (2011). Team Performance and Communication Within Networked Supervisory Control Human-Machine Systems, *Paper presented at the Annual Conference of the Human Factors and Ergonomics Society*, Las Vegas, NV.
- ◆ Jacobs, B., **de Visser, E.**, Freedy, A., & Scerri, P. (2011). [Application of Intelligent Aiding to Enable Single Operator Multiple UAV Supervisory Control](#), In *AAAI Spring Symposium on Help Me Help You*.

2010

- ◆ **de Visser, E.**, & Parasuraman, R. (2010). A neuroergonomic approach to human-computer etiquette. In C. Hayes & C. Miller (Eds.), *Human-Computer Etiquette: Understanding the Impact of Human Culture and Expectations on the Use and Effectiveness of Computers and Technology*. New York: Taylor & Francis.
- ◆ **de Visser, E.**, & Parasuraman, R. (2010). A neuroergonomic approach to human-computer etiquette and trust. In W. Karwoski & G. Salvendy (Eds). *Applied Human Factors and Ergonomics*. Boca-Raton: Taylor & Francis.
- ◆ **de Visser, E. J.**, LeGoullon, M., Horvath, D., Weltman, G., Freedy, A., Durlach, P., & Parasuraman, R (2010). TECRA: C2 application of adaptive automation theory. *Paper presented at the IEEE Aerospace Conference*, Big Sky, Montana.
- ◆ **de Visser, E.**, Shaw, T., Mohamed-Ameen, A., & Parasuraman, R. (2010, September). Modeling human-automation team performance in networked systems: Individual differences in working memory count. Paper presented at the Annual Conference of the Human Factors and Ergonomics Society, San Francisco, CA

- ◆ Cosenzo, K., Parasuraman, R., & **de Visser, E.** (2010). Adaptive automation strategies for facilitating human interaction with uninhabited vehicles. In F. Jenstch & M. Barnes (Eds.) *Human-Robot Interactions in Future Military Operations*. Farham, Surrey, UK: Ashgate.
- ◆ Shaw, T. H., Parasuraman, R., Guagliardo, L., & **de Visser, E.** (2010). Towards adaptive automation: A neuroergonomic approach to measuring workload during a command and control task. In W. Karwowski & G. Salvendy (Eds.). *Applied Human Factors and Ergonomics*.
- ◆ Shaw, T., Emfield, A., Garcia, A., **de Visser, E.**, Miller, C., Parasuraman, R., & Fern, L. (2010, September). Evaluating the benefits and potential costs of automation delegation for supervisory control of multiple UAVs. Paper presented at the Annual Conference of the Human Factors and Ergonomics Society, San Francisco, CA
- ◆ **de Visser, E.J.**, & Parasuraman, R. (2010, July). A neuroergonomic approach to human-computer etiquette and trust. Paper presented at the 1st International Conference on Neuroergonomics, Applied Human Factors and Ergonomics. Miami, FL

2009

- ◆ **de Visser, E.J.**, Shaw, T., Rovira, E. & Raja Parasuraman (2009). Could you be a little nicer? Pushing the right buttons with automation etiquette. In Proceedings of the 17th International Ergonomics Association Meeting, Beijing, China.
- ◆ **de Visser, E.**, & Parasuraman, R. (October, 2009). Neuroergonomics of etiquette. Invited Panel, Annual Meeting of the Human Factors and Ergonomics Society.
- ◆ Human Factors and Ergonomics Society, San Antonio, TX
- ◆ Parasuraman, R., Cosenzo, K., & **de Visser, E.J.** (2009). Adaptive automation for human supervision of multiple uninhabited vehicles: Effects on change detection, situation awareness, and mental workload. *Military Psychology*, 21.270-297.
- ◆ Parasuraman, R., **de Visser, E.J.**, Clarke, E., McGarry, W. R., Hussey, E., Shaw, T., & Thompson, J (2009). Detecting threat-related intentional actions of others: Effects of image quality, response mode, and target cueing on vigilance. *Journal of Experimental Psychology, Applied*.

2008

- ◆ **de Visser, E.J.**, LeGoullon, M., Freedy, A., Freedy, E., Weltman, G. & Parasuraman, R. (2008). Designing an adaptive automation system for human supervision of unmanned vehicles: A bridge from theory to practice. In Proceedings of the 52nd Annual Meeting of the Human Factors and Ergonomics Society, New York, NY.
- ◆ **de Visser, E.J.**, Cohen, M. S., Le Goullon, M., Sert, O., Freed, A., Freedy, E., Weltman, G., Parasuraman, R. (2008, June). A design methodology for controlling, monitoring, and allocating unmanned vehicles. Paper presented at the Third International Conference on *Human Centered Processes (HCP-2008)*, Delft, Netherlands.
- ◆ **de Visser, E.J.**, Horvath, D., & Parasuraman, R. (2008). Adaptive automation enhances human supervision of multiple uninhabited vehicles. In D. de Waard, F. O. Flemisch, B. Lorenz, H. Oberheid, & K. Brookhuis (Eds.) *Human Factors for Assistance and Automation*. (pp. 285-300). Maastricht, The Netherlands: Shaker Publishing.
- ◆ **de Visser, E.J.**, Horvath, D., Parasuraman, R., & Cosenzo, K. (2008). Adaptive automation for human interaction with uninhabited vehicles. Proceedings of the Midyear meeting of Division 21 of the American Psychological Association. Fairfax, VA: George Mason University.

2007

- ◆ **de Visser, E.J.**, Parasuraman, R., & Cosenzo, K. (2007, March). Effects of imperfect automation on human supervision of multiple uninhabited vehicles. *Paper presented at the Annual Meeting of Division 21 of the American Psychological Association*, George Mason University, Fairfax, VA.
- ◆ **de Visser, E.J.**, & Parasuraman, R.. (2007, October). Effects of imperfect automation and task load on human supervision of multiple uninhabited vehicles. *Paper presented at the Annual Meeting of the Human Factors and Ergonomics Society*, Baltimore, MD.
- ◆ Freedy, A., **de Visser, E. J.**, & Weltman, G., Coeyman, N.(2007). Measurement of trust in human-robot collaboration. In *Proceedings of International Symposium on Collaborative Technologies and Systems*, Orlando, FL.
- ◆ Freedy, A., de Visser, E., Weltman, G. and Coeyman, N. (2007). Mixed Initiative Team Performance Assessment System (MITPAS) for Training and Operation. *Proceedings of the Interservice/Industry Training Simulation and Education Conference, Orlando, FL.*

2006

- ◆ **de Visser, E.J.**, Parasuraman, R., Freedy,A., Freedy, E., & Weltman, G (2006). A comprehensive methodology for assessing human-robot team performance for use in training and simulation. In *Proceedings of the the 50th Annual Meeting of the Human Factors and Ergonomics Society*, San Francisco, CA.