

VITA
Varun Dutt

GENERAL INFORMATION

Home Address:
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OBJECTIVE

An opportunity to undertake research that tries to probe the question "Why do we wait and see for policy actions that are aimed to mitigate future climate change?"

ACADEMIC TRAINING

Graduate:	3 rd year Ph.D. Student, Engg. and Public Policy, Carnegie Mellon	Current
	Graduate Research Assistant, Dynamic Decision Making Lab, Carnegie Mellon (Advisor: Professor Cleotilde Gonzalez, coty@cmu.edu; GPA: 4.0)	Current
	M.S., Rational Simulation (in ACT-R), Carnegie Mellon	2007
	M.S., Software Engineering, Carnegie Mellon	2006
Undergraduate:	B. E., Computer Science and Engineering, T.I.E.T., Patiala, India	2004

SKILLS

I am a Ph.D. Student in the Department of Engineering and Public Policy at Carnegie Mellon University. I am currently applying my knowledge and skills in the fields of psychology, public policy and computer science to explore how humans make CO₂ emission policy decisions in simple climate like dynamic systems. Such dynamic systems involve a single CO₂ stock (accumulations and depletions) and two flows i.e. manmade CO₂ emissions and natural CO₂ absorptions (that indirectly affect the stock) in the context of Earth's climate over time. I have used lab based methods to investigate human decision making and control in research concerning climate where I have made use of realistic climate models in the form of computer management flight simulator tools called "microworlds".

Programming Languages: ACT-R, VB-ACT-R (my own creation), LISP, Visual Basic, ASP.NET, VB.NET, JAVA, HTML, MS SUITE 2003, 2007, C, C++

Operating Systems: Windows, Linux, UNIX, MAC OS X

ACEDOMIC AND RESEARCH EXPERIENCE

INSTITUTION	POSITION	DATES
Dynamic Decision Making Lab, Carnegie Mellon	Graduate Research Assistant	Aug 2007 - Present
Dynamic Decision Making Lab, Carnegie Mellon	Research Programmer	May 2006 - Jul 2007
Cylab, Carnegie Mellon	Graduate Research Assistant	May 2006 - Jul 2006

TEACHING EXPERIENCE

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INSTITUTION	POSITION	DATES
88431: Dynamic Decision Making, Carnegie Mellon University, Doha, Qatar	Graduate Teaching Assistant	May 2007 - July 2007

PROFESSIONAL EXPERIENCE

INSTITUTION	POSITION	DATES
Newspaper Financial Chronicle, Inc., India	Knowledge Editor	Dec 2008 - Present
Messenger Service Inc., Pittsburgh, PA, USA	Software Engineer	Aug 2006 - Sep 2006
Tata Consultancy Services, (TCS), India	Software Engineer	Feb 2005 - Jun 2005
MothersonSumi INFotech and Designs Ltd., India	Software Engineer	Aug 2004 – Jan 2005

SCHOLARSHIPS AND FELLOWSHIPS

INSTITUTION	NAME	DATES
Carnegie Mellon	Steinbrenner Fellowship	Aug 2008 – Present
Carnegie Mellon	Dean’s Fellowship	Aug 2007 - May 2008
Carnegie Mellon	ACT-R Summer School	Jul 2007 – Aug 2007

SELECTED PUBLICATIONS

Dutt, V., & Gonzalez, C. (In preparation). How do we perceive carbon-dioxide lifetimes?

Dutt, V., & Gonzalez, C. (In preparation). Decisions from Experience Cures Wait and See on Climate.

Gonzalez, C., & **Dutt, V.** (In preparation). Instance and Strategy Based Models of Dynamic Stocks and Flows.

Gonzalez C., **Dutt, V.**, & Lebiere, C. (In preparation). IBL – An Instance-Based Learning Tool.

Gonzalez, C., & **Dutt, V.** (Under review). Slope of inflow impacts dynamic decision making.

Young, M. D., Healy, A. F., Gonzalez, C., **Dutt, V.**, & Bourne, L. E., Jr. (Under Review). Effects of training with added relevant responses on RADAR detection.

Dutt, V., & Gonzalez, C. (2009a). Human Control of Climate. In *Poster presented at the 2009 Summer Institute on Bounded Rationality*. Berlin, Germany.

Dutt, V., & Gonzalez, C. (2009b). Climate Risk Communication: A Cure for People’s Mental Models. In *Paper to be presented at the 2009 Society of Risk Analysis Annual Meeting*. Baltimore, MD.

Lebiere, C., Gonzalez, C., **Dutt, V.**, Warwick, W. (2009). Predicting cognitive performance in open-ended dynamic tasks a modeling comparison challenge. In *Symposium at 2009 9th International Conference on Cognitive Modeling*. Manchester: UK.

Gonzalez, C., **Dutt, V.**, Healy, A., Young, M. & Bourne, L. (2009). Comparison of instance and strategy models in ACT-R. In A. Howes, D. Peebles, R. Cooper (Eds.), *9th International Conference on Cognitive Modeling – ICCM2009*, Manchester, UK.

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Dutt, V., Yamaguchi, M., Gonzalez, C., & Proctor, R. (2009). An Instance-Based Learning Model of Stimulus-Response Compatibility Effects in Mixed Location-Relevant and Location-Irrelevant Tasks. In *Poster presented at 2009 9th International Conference on Cognitive Modeling*. Manchester: UK.

Dutt, V., & Gonzalez, C. (Under review). Human Control of Climate. *Journal of Climatic Change*.

Dutt, V., & Gonzalez, C. (2009c). A Model of Human Perceptions of Climate Change. In *Paper to be presented at American Society for Engineering Education (ASEE) Spring 2009 Northeast Conference*. Bridgeport, CT.

Dutt, V., & Gonzalez, C. (2009d). How do we perceive carbon-dioxide lifetimes? In *Paper to be presented at USSEE 2009 Conference*. Washington D.C., MD.

Dutt, V., & Gonzalez, C. (2009e). Human "Mis"-perceptions of Climate Change. In *Paper to be presented at the HFES 53rd Annual Meeting*. San Antonio, TX.

Dutt, V., & Gonzalez, C. (2008a). Human Perceptions of Climate Change. In *Paper presented at the 26th International Conference of the System Dynamics Society*. Athens, Greece.

Dutt, V., & Gonzalez, C. (2008b). Human Perceptions of Climate Change. In *Paper presented at the 3rd Annual - Student Industrial Ecology Conference*, University of Pittsburgh – Benedum Hall, Kresge Auditorium Rm. 1175, Pittsburgh, PA.

Dutt, V., & Gonzalez, C. (2008c). Instance and strategy based models in ACT-R. *Proceedings of 2008 Modeling, Simulation & Gaming (MS&G) Student Capstone Conference* (pp. 19). Suffolk, VA: ODU-VMASC.

Dutt, V., & Gonzalez, C. (2008d). Instance and Strategy ACT-R models of choice in a dynamic control task: a model comparison story. *Proceedings of 2008 Fifteenth Annual Workshop and Summer School* (pp. 43). Pittsburgh, PA: ACT-R RESEARCH GROUP.

Dutt, V., & Gonzalez, C. (2008e). Risk Perceptions of Climate Change. In *Paper presented at the 2008 Society of Risk Analysis Annual Meeting*. Boston, MA.

Young, M. D., Healy, A. F., Gonzalez, C., **Dutt, V.,** & Bourne, L. E., Jr. (2008f). Effects of training with added relevant responses on RADAR detection. *The Experimental Psychology Society and the Psychonomic Society*, Chicago, IL.

Dutt, V., & Gonzalez, C. (2007). Slope of inflow impacts dynamic decision making. In *Paper presented at the 25th (2007) International Conference of the System Dynamics Society*. Boston, MA, USA.

Gonzalez, C., & **Dutt, V.** (2007). Learning to control a dynamic task: A system dynamics cognitive model of the slope effect. In *Paper presented at the 8th International Conference on Cognitive Modeling*, Ann Arbor, MI, 26th July 2007, 61-66.

Dutt, V., Schmerl, B., & Garlan, D. (Unpublished). Discovering Communication Protocols between Software Elements (runtime objects) in Software Architectures. Part of Independent Study taken when pursuing Master's in Software Engineering, Carnegie Mellon University, Pittsburgh, PA.

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Dutt, V. & Kumar, S. (2006). Learning Transistor Characteristics using Neural Networks. *Published in ECCS 2006*. Patiala, India.

Dutt, V. & Thiagaraj, V. (2005). The Concept of Classification in Data Mining using Neural Networks. *Published in NCBC 2005*. Patiala, India.

AWARDS, HONORS AND INVITED TALKS

HONORS	DATE
Marquis Who's Who of the World	2006 – Present
Talk in EESM Seminar Steinbrenner Institute, Carnegie Mellon	2009
Talk in Dynamic Decision Making Lab, Carnegie Mellon	2007, 2009
1000 Greatest Minds of 21 st Century	2008

ACTIVITIES AND AFFILIATIONS

Student active member of Institute of Electrical and Electronics Engineers (IEEE), Inc, USA (www.ieee.org)

Student active member of System Dynamics Society (SDS), USA (<http://www.systemdynamics.org>)

Knowledge Editor, Newspaper Financial Chronicle EDGE (<http://www.mydigitalfc.com/columnists/Varun-Dutt>)

Freelance Journalist, Financial Chronicle (<http://www.mydigitalfc.com/columnists/Varun-Dutt>)