

Eric Chown

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Education

- Ph.D. 1994 **University of Michigan** Ann Arbor, MI
Major: Computer Science
Specialization: Artificial Intelligence
Advisor: Stephen Kaplan
Fellowships: Rackham Research Fellowship
 Nissan Cognitive Science Fellowship
Honors. Given "Outstanding Teaching Assistant" award.
- M.S 1987 **Northwestern University** Evanston, IL
Fellowships: Walter J. Freeman Fellowship
- B.A. 1985 **Northwestern University** Evanston, IL
Major: Computer Science
Honors: Departmental Honors

Academic Positions

- 1994-1998 **Oregon State University** Corvallis, OR
Postdoctoral Assistant in Machine Learning
- 1998-Present **Bowdoin College** Brunswick, ME
Assistant Professor of Computer Science

Publications

Journals

- Chown, E. (1999). Making predictions in an uncertain world: Environmental structure and cognitive maps. *Adaptive Behavior*, 1-17.
- Chown, E., Kaplan, S. & Kortenkamp, D. (1995). Prototypes, Location and Associative Networks (PLAN): Towards a unified theory of cognitive mapping. *Cognitive Science.*, 19, 1-52.

Kaplan, S., Sonntag, M. & Chown, E. (1991) Tracing recurrent activity in cognitive elements (TRACE): A model of temporal dynamics in a cell assembly. *Connection Science*, 3, 179-206.

Highly Refereed Conferences

Chown, E. (2002). Reminiscence and arousal: A connectionist model. To appear in the Proceedings of the Twenty Fourth Annual Meeting of the Cognitive Science Society.

Chown, E. & Dietterich, T. G. (2000). A divide and conquer approach to learning from prior knowledge. In *Proceedings of the Seventeenth International Conference on Machine Learning*, Langley, P. (ed.), Morgan Kaufman, 143-150.

Chown, E., Jones, R.M., & Henninger, A.E. (2002). An architecture for emotional decision-making agents. To appear in the proceedings of The First Annual Conference on Autonomous Agents & Multiagent Systems

Forbell, E., & Chown, E. (2000). Lexical contact during speech perception: A connectionist model. In *Proceedings of the Twenty Second Annual Meeting of the Cognitive Science Society*.

Henninger, A.E., Jones, R.M. & Chown (2003). Behaviors that emerge from emotion and cognition: Implementation and evaluation of a symbolic-connectionist architecture. To appear in the proceedings of The Second Annual Conference on Autonomous Agents & Multiagent System.

Kortenkamp, D. & Chown, E. (1993). A directional spreading activation network for mobile robot navigation. *From Animals to Animats 2, Proceedings of the Second International Conference on Simulation of Adaptive Behavior*, Meyer, J.-A., Roitblat H. L. and Wilson, S.W. (eds.), MIT-Press.

Book Chapters

Chown, E. (1999). Error tolerance and generalization in cognitive maps: Performance without precision. In Golledge, R. (ed.) *Wayfinding Behavior: Cognitive Mapping and Other Spatial Processes.*, 349-369 The Johns Hopkins University Press.

Chown, E., (2003). Cognitive Modeling. To appear in Tucker, A. (ed.) *CRC Handbook of Computer Science and Engineering*. CRC press.

Commentaries

Chown, E. (1995). Reverberation reconsidered: On the path to cognitive theory. *Behavioral and Brain Sciences*, 18, 628-629.

Chown, E., Booker, L.B., & Kaplan, S. (2002). Perception, Action Planning, and Cognitive Maps. To appear in Behavioral and Brain Sciences.

Chown, E. & Kaplan, S. (1992). Active symbols, limited storage and the power of natural intelligence. *Behavioral and Brain Sciences*, 15:3, 442-443.

Other

- Chown, E. (2000). Gateways: An approach to parsing spatial domains. In *ICML-2000 Workshop on Machine Learning of Spatial Knowledge*, 1-6.
- Jones, R.M., Chown, E., & Henninger, A.E. (2001). A hybrid symbolic-connectionist approach to modeling emotions. In AAAI Fall Symposium *Emotional and Intelligent II: The Tangled Knot of Social Cognition*. Technical Report FS-01-02. AAAI Press.
- Henninger, A.E., Jones, R.M., and Chown, E. (2002). Behaviors that emerge from emotion and cognition: A first evaluation. In the *Proceedings of Interservice/Industry Training Simulation and Education Conference (IITSEC)*, 2002. Orlando, FL
- Henninger, A.E., Jones, R.M., and Chown, E. (2001). Framework for Attention, Cognition and Emotion in Synthetic Forces. In the *Proceedings of Interservice/Industry Training Simulation and Education Conference (IITSEC)*, November 26-29, 2001. Orlando, FL.
- Chown, E. (1994). Consolidation and Learning: A Connectionist Model of Human Credit Assignment. Doctoral dissertation. The University of Michigan.

Competitive Grants and Awards

- 1985-1986 *Walter P. Murphy Fellowship*.
1991 *Nissan Cognitive Science Fellowship*
1991-1992 *Rackham Research Partnership Fellowship* (with Stephen Kaplan)
1995-1997 *CISE Post-Doctoral Associateship in Experimental Science*
1999 *CBB Mellon Grant* (with David Garnick and Clare Congdon)
1999 *NSF Grant* (with Carrie Phillips and Louisa Slowiaczek).
2001-2006 NSF CAREER Grant

Invited Talks

- (1999). Fitting Parameters to Ecosystem Models Using Surface Data. *1999 NASA Workshop on Data Mining and Data Fusion*
- (2000). Gateways: An approach to parsing spatial domains. *ICML-2000 Workshop on Machine Learning of Spatial Knowledge*.

Students

Undergraduate Honors Thesis Supervision

- Eric Forbell, Bowdoin College
Anthony Roy, Bowdoin College
Doug Vail, Bowdoin College
Byron Boots, Bowdoin College

Masters Committee Membership

- Russ Tedrake, University of Michigan

Collaborators

Other collaborators in past 48 months

Tom Dietterich, Oregon State University

Stephen Kaplan, University of Michigan

David Garnick, Bowdoin College

Randy Jones, Colby College

Amy Henninger, Soar Technology

Lashon Booker, MITRE