Donald D. Chinn

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Professional Positions

2008 – present	Associate Professor, Institute of Technology, University of Washington, Tacoma
2002 – 2008	Assistant Professor, Institute of Technology, University of Washington, Tacoma
2001 – 2002	Lecturer, University of Washington, Seattle
1996 – 2000	Software Design Engineer, Microsoft Corporation
1995 – 1996	Postdoctoral Fellow, York University
1995	Postdoctoral Fellow, University of Washington, Seattle
1990, 1994	Intern, Microsoft Corporation

Education

Years	University	Department	Degree
1991-95	University of Washington, Seattle	Computer Science and Engineering	Doctor of Philosophy
1988-91	University of Washington, Seattle	Computer Science and Engineering	Master of Science
1984-88	University of California, Berkeley	Computer Science	Bachelor of Arts (*magna cum laude*)

Honors and Awards

2014	Awarded the Distinguished Teaching Award, University of Washington Tacoma
2006	Nominated for the Distinguished Teaching Award, University of Washington Tacoma
2005	Nominated for the Distinguished Teaching Award, University of Washington Tacoma
2004	Nominated for the Distinguished Teaching Award, University of Washington Tacoma
2002	Nominated for the ACM Undergraduate Teaching Award, University of Washington Seattle
1988	Phi Beta Kappa
1987	Chevron USA / Electrical Engineering and Computer Science Scholarship (six juniors in the major receive this each year)
1984	Edward F. Kraft Scholarship, University of California, Berkeley (top 100 in the freshman class)

SCHOLARSHIP

Patents

Dresevic, B., Chinn, D. D., and Hitchcock, G. Method Validating a Signed File or an Unsigned File Prior to Execution. U.S. Patent No. 6,253,374 (June 26, 2001).

Simon, D., Benaloh, J., Chinn, D. D., Hitchcock, G. and Meltzer, D. System and Method for Secure Font Distribution. U.S. Patent No. 6,065,008 (May 16, 2000).

Peer-Reviewed Publications

A. Miles, Y. Bai, D. Chinn, and B. Bhargava. An Experimental Study of Hybrid Energy-Aware Scheduling in a Cloud Testbed. *Proceedings of the 6th Global Information Infrastructure and Networking Symposium*, Montreal, Canada, September 2014, 6 pages.

Sheard, J., Carbone, A., Chinn, D., and Laakso, M.-J. Study Habits of CS1 Students: What do they say they do? *Learning and Teaching in Computing and Engineering* (LaTiCE) conference, Macau, March 22-24, 2013.

Sheard, J., Simon, Carbone, A., Chinn, D., Clear, T., Corney, M., D'Souza, D., Fenwick, J., Harland, J., Laakso, M.-J., and Teague, D. How difficult are exams? A framework for assessing the complexity of introductory programming exams. *Fifteenth Australasian Computing Education Conference* (ACE 2013). CRPIT, 136. Adelaide, Australia, ACS, January 29-February 1, 2013, 145-154.

Feuerborn, L. and Chinn, D. Teacher perceptions of student emotional and behavioral needs: Implications for Positive Behavior Supports. *Behavioral Disorders*, 37(4), August 2012, 219-231.

Simon, Sheard, J., Carbone A., Chinn, D., Laakso, M.-J., Clear, T., de Raadt, M., D'Souza, D., Lister, R., Philpot, A., Skene, J., and Warburton, G. Introductory programming: examining the exams. *Proceedings of the Fourteenth Australasian Computing Education Conference* (ACE 2012). CRPIT, 123. Melbourne, Australia, ACS, January 2012, 61-70.

Sheard, J., Simon, Carbone, A., Chinn, D., Laakso, M.-J., Clear, T., de Raadt, M., D'Souza, D., Harland, J., Lister, R., and Philpot, A., Warburton, G. Exploring programming assessment instruments: a classification scheme for examination questions. *International Computing Education Research Workshop* (ICER 2011), Providence, RI, August 2011, 33-38.

Sheard, J., Carbone, A., Chinn, D., and Laakso, M.-J., Sheard, J. Exam Taxonomy Workshop: What is the nature of introductory programming exam papers? Workshop at the *Thirteenth Australasian Computing Education Conference* (ACE 2011), Perth, Australia, January 2011.

Chinn, D., Sheard, J., Carbone, A., Laakso, M.-J. Study Habits of CS 1 Students: What do they do outside the classroom? *Proceedings of the Twelfth Australasian Computing Education Conference* (ACE 2010), Brisbane, Australia, CRPIT, 103. Clear, T. and Hamer, J. Eds., ACS. 53-62. (Won Best Paper Award)

Feuerborn, L., Chinn, D., and Morlan, G. Improving Mathematics Teachers' Content Knowledge via Brief In-Service: A United States Case Study. Improving Mathematics Teachers' Content Knowledge via Brief In-Service: A United States Case Study. *Professional Development in Education*, 35(4), December 2009, 531-545.

Bryant, R., Chinn, D., Folsom, M., Hauser, G., and Wallace, S. Panel on Computational Thinking – What is it, How is it relevant, Who's doing what with it? *The Journal of Computing Sciences in Colleges*, 25(1), October 2009, 170-171.

Chinn, D. Peer Assessment in the Algorithms Course. *Annals of Research on Engineering Education*, vol. 4, no. 3 (Spring/Summer 2009). http://www.CLEERhub.org/ (there are plans to move the articles from http://www.areeonline.org to this new site, but it has not happened yet)

VanDeGrift, T. and Chinn, D. An Exercise to Engage Computing Students in Discussion of Professional Issues. *2009 ASEE Annual Conference and Exposition*, June 2009, AC 2009-2512.

Parham, J., Chinn, D., and Stevenson, D. E. Using Bloom's Taxonomy To Code Verbal Protocols of Students Solving a Data Structure Problem. *2009 ACM Southeast Regional Conference*, March 2009, article no. 39. (6 pages)

Chinn, D. and VanDeGrift, T. Gender and Diversity in Hiring Software Professionals: What Do Students Say? *Proceedings of the Fourth International Computing Education Research Workshop*, Sydney, Australia, September 2008, 39-50.

Chinn, D. and VanDeGrift, T. What Students Say about Gender in Hiring Software Professionals (poster). *Proceedings of the 13th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education*, Madrid, Spain, June 2008, 344.

Huss-Lederman, S., Chinn, D., and Skrentny, J. Serious Fun: Peer-Led Team Learning in CS. *Proceedings of the Thirty-Ninth SIGCSE Technical Symposium on Computer Science Education*, Portland, OR, March 2008, 330-331.

Chinn, D. and VanDeGrift, T. Uncovering Student Values for Hiring in the Software Industry. *Journal on Educational Resources in Computing*, volume 4, issue 7 (January 2008), article no. 4. (33 pages)

Chinn, D. Tutorial: Treisman Workshops for Computer Science. *The Journal of Computing Sciences in Colleges*, vol. 23, no. 2 (Dec. 2007), 67-68.

Chinn, D. and VanDeGrift, T. Uncovering Student Values for Hiring in the Software Industry. *Proceedings of the Third International Computing Education Research Workshop*, Atlanta, GA, September 2007, 145-158.

Chinn, D., Spencer, C., and Martin, K. Problem Solving and Student Performance in Data Structures and Algorithms. *Proceedings of the 12th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education*, Dundee, Scotland, June 2007, 241-245.

Chinn, D., Martin, K., and Spencer, C. Treisman Workshops and Student Performance in CS. *Proceedings of the Thirty-Eighth SIGCSE Technical Symposium on Computer Science Education*, Covington, KY, March 2007, 203-207.

Chinn, D. and Martin, K. Work in Progress: Adapting the Treisman Model to Computer Science. *36th Annual Frontiers in Education Conference*, San Diego, CA, October 2006, T2C-23-24.

Chinn, D. and Martin, K. Collaborative, Problem-based Learning in Computer Science. *The Journal of Computing Sciences in Colleges*, vol. 21, no. 1 (Oct. 2005), 239-245.

Chinn, D. Peer Assessment in the Algorithms Course. *Proceedings of the 10th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education*, Lisbon, Portugal, June 2005, 69-73.

Gehringer, E., Chinn, D., Pérez-Quiñones, M., and Ardis, M. Panel: Using Peer Review in Teaching Computing. *Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education*, St. Louis, MO, February 2005, 321-322.

Fincher, S., Petre, M., Tenenberg, J., *et al*. Students designing software: a multi-national-multi-institutional study. *Informatics in Education,* 4(1), 2005, 143-162.

Fincher, S., Petre, M., Tenenberg, J., *et al*. (2004a) A multi-national, multi-institutional study of student-generated software designs. *Fourth Annual Finnish / Baltic Sea Conference on Computer Science Education*, Koli Calling, Joensuu, Finland, 2004, R/03, 1-8.

Parlante, N., Mutuszek, D., Lehman, J., Reed, D., Estell, J. K., and Chinn D. Digital Signatures, Font Files, and Recursion. In the *Nifty Assignments* special session in the *Proceedings of the Thirty-fifth SIGCSE Technical Symposium on Computer Science Education* (March 2004), 46-47.

Chinn, D., Prins, P., and Tenenberg, J. The Role of the Data Structures Course in the Computing Curriculum (panel). *The Journal of Computing Sciences in Colleges*, vol. 19, no. 2 (Dec. 2003), 91-93.

Edmonds, J., Chinn, D. D., Brecht, T., and Deng, X. Non-clairvoyant Multiprocessing Scheduling of Jobs with Changing Execution Characteristics. *Journal of Scheduling* **6**: 231-250, 2003.

Ben-Aroya, I, Chinn, D. D., and Schuster, A. A Lower Bound for Nearly Minimal Adaptive and Hot Potato Algorithms. *Algorithmica* 21 (1998), 347-376.

Edmonds, J., Chinn, D. D., Brecht, T., and Deng, X. Non-clairvoyant Multiprocessor Scheduling of Jobs with Changing Execution Characteristics. *Proceedings of the Twenty-ninth Annual ACM Symposium on Theory of Computing* (STOC), El Paso, TX, May 1997, 120-127.

Ben-Aroya, I, Chinn, D. D., and Schuster, A. A Lower Bound for Nearly Minimal Adaptive and Hot Potato Algorithms. *European Symposium on Algorithms*, 1996, 471-485.

Chinn, D. D., Leighton, T., and Tompa, M. Minimal Adaptive Routing on the Mesh with Bounded Queue Size. *Journal of Parallel and Distributed Computing*, **34** (1996), 154-170.

Chinn, D. D., Leighton, T., and Tompa, M. Minimal Adaptive Routing on the Mesh with Bounded Queue Size. *Proceedings of the Sixth Annual ACM Symposium on Parallel Algorithms and Architectures*, Cape May, NJ, June 1994, 354-363.

Chinn, D. D. The Performance of Adaptive Routers on Worst Case Permutations. *Parallel Computer Routing and Communication Workshop* (Springer–Verlag Lecture Notes in Computer Science, volume 853), Seattle, WA, May 1994, 60-71.

Chinn, D. D. and Sinha, R. K. Bounds on Sample Space Size for Matrix Product Verification. *Information Processing Letters*, 48 (1993), 87-91.

Technical Report

Fincher, S., Petre, M., Tenenberg, J., *et al*. (2004b) Cause for alarm?: A multi-national, multi-institutional study of student-generated software designs. Technical Report 16-04, Computing Laboratory, University of Kent, Canterbury, September 2004.

Presentations

Chinn, D. and Tenenberg, J. Power and Epistemology in the CS Classroom. Lightning talk, *Proceedings of the Eleventh Annual Conference on International Computing Education Research*, Omaha, NE, August 11, 2015.

Chinn, D. Keating, Kingsfield, and Watson: Reflections on the Fiction and Reality of Teaching. University of Washington Tacoma, October 30, 2014.

Chinn, D. Invited Workshop: CS Unplugged Activities to Promote Computer Science. *15th Western Canadian Conference on Computing Education,* Kelowna, British Columbia, May 7-8, 2010.

Chinn, D. Treisman Workshops for Computer Science. Kean University. Union, NJ. March 3, 2009.

Chinn, D. Team Teaching. University of Washington Tacoma, June 13, 2007.

Tenenberg, J., Ash, J., Chinn, D., Gandham, R., Gelotte, M., Hoagland, R., Murphy, L., Richards, B., Staneff, J., Topham, P., Weiss, J. Building a *Disciplinary Commons* using Course Portfolios. *Pacific Northwest Higher Education Teaching and Learning Conference*, Vancouver, WA, May 2006.

Chinn, D. Discovering Our Values As Teachers Through Our Students. 2006 Teaching and Learning Symposium, University of Washington, Seattle, April 2006.

Chinn, D. Learning Environments Outside the Lecture Course. 2005 Teaching and Learning Symposium, University of Washington, Seattle, April 2005.

Grants

2013 co-Principal Investigator (with John Tenenberg, PI). Industry Fellows: Making Expert Practice Visible, NSF 13-555, EHR Core Research ($357,132). Unfunded.

2013 co-Principal Investigator (with John Tenenberg, PI). The Role of Artifacts in Mediating Student Software Design, NSF 12-609, Computing Education for the 21st Century ($595,952). Unfunded.

2012   Principal Investigator (with Yan Bai, co-PI). Academy for K-12 Cybersecurity Education, NSF: 12-585, CyberCorps: Scholarship for Service (SFS) ($299,593). Unfunded.

2008   co-Principal Investigator (with Laura Feuerborn, PI). Investigating the influence of student race and teacher experience on teacher perceptions. University of Washington, Tacoma Founders' Endowment ($4926). Funded.

2007   co-Principal Investigator (with Ankur Teredesai, Menaka Muppa, Larry Wear, and Daniel Zimmerman). Attracting Students to Computing with Courselets. National Science Foundation, Broadening Participation in Computing ($498,675). Unfunded.

2005 – 2006   Principal Investigator. Collaborative, Problem-Based Learning in Computer Science. University of Washington, Tacoma Founders' Endowment ($9000). Funded.

2004   Principal Investigator (with Ed Gehringer). Peer Review of Student Work: Enhancing Learning and Building Electronic Resources. National Science Foundation, Course, Curriculum, and Laboratory Improvement Program-Educational Materials Development ($463,061). Unfunded.

Doctoral Thesis

Packet Routing in Multiprocessor Networks. University of Washington, March 15, 1995. Also appears as University of Washington Technical Report 95-03-06, March 24, 1995. Thesis advisor: Martin Tompa.

> A theoretical and experimental study of adaptive strategies for packet routing in mesh networks. The main results are a lower bound on a large class of adaptive algorithms when queues are bounded, and an experimental study of the standard mesh routing algorithm and the Chaos routing algorithm on the worst case permutations of the lower bound.

Graduate Students Supervised

Yao Pan (masters thesis, committee member)

Phil Adriaan (masters project, committe member)

Alan Miles (masters project, committee member)

Eric Johnson (independent study)

Brent Lessley (masters thesis, chair)

Suma Gopalakrishna (independent study)

Charles Bryan (masters project, chair)

Amalia Annest (masters project, committee member)

Craig Niiyama (masters project, committee member)

Mark Paul (independent study; masters thesis, committee member)

Catherine Spencer (independent study)

Kameron Romines (masters project, committee member)

Kristen Shinohara (masters project, committee member)

Preetam Sarnaik (masters project, chair)

Dan Bahrt (masters project, committee member)

TEACHING EXPERIENCE

Fall 2002 – present: Instructor for various CSS courses at UWT, including: object-oriented programming, data structures, algorithm design and analysis (undergraduate and graduate), computer ethics, discrete mathematics, databases, and theory of computing (undergraduate and graduate).

Winter 2010, Spring 2011: Instructor for a course on logic and science in the freshman core at UWT.

Winter 2007, 2008: Co-instructor for an interdisciplinary course on science, technology, and society in the freshman core at UWT.

Winter 2001, Fall 2001 – Spring 2002: Instructor for various CSE courses at UW Seattle, including: data structures, introductory programming (with Senior Lecturer Hal Perkins), and formal languages and finite automata.

Spring 1996: Instructor for an introductory course on formal languages, finite automata, and computational complexity at York University (Toronto, Ontario).