Curt Hill Professor

Department of Computer Systems and Software Engineering Valley City State University

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Education

Ph.D. 2005 Computer Science, North Dakota State University, Fargo, ND. Dissertation: ProgrammingLand: An Automated System for Computer Science Education.

M.S. 1981 Computer Science, University of Nebraska, Lincoln, NE.
Thesis: Concurrent Extensions to the Programming Language Pascal.

B.S. 1974 Mathematics (second major in General Science), University of Iowa, Iowa City, IA.

Employment

1995-present Professor, Mathematics Dept., Valley City State University.

1990-1995 Instructor, Computer Science Dept., Iowa State University.

1983-1990 Instructor, Des Moines Area Community College, Boone, Iowa.

1978-1983 Academic Programmer/Analyst, University of Nebraska.

1976-1977 Programmer, First Data Resources, Omaha, NE.

1974-1976 Programmer, Mutual of Omaha, Omaha, NE.

Grants

"Turtle Mountain Community College MSEIP Project" Minority Science and Engineering Improvement Program (MSEIP), US Department of Education, \$195,176. Starting date: October 1, 2007. Consultant.

"Accelerating Computer Science Education" Information Technology Research (NSF-ITR EIA-0313154), National Science Foundation, \$266,403 for a three year project, October 1, 2003 to September 30, 2006. Principal Investigator. The web site for this project is at http://euler.vcsu.edu/pland.htm

Bush Travel Grant. November, 2004, for \$863.82.

Faculty Laboratory And Research Experience (FLARE) grants. Awarded by North Dakota EPSCoR. \$4,900 for summer research in 1999.

Faculty Laboratory And Research Experience (FLARE) grants. Awarded by North Dakota EPSCoR. \$6,400 for summer research in 1998.

Books

Slator, Brian M., Richard Beckwith, Lisa Brandt, Harold Chaput, Jeffrey T. Clark, Lisa M. Daniels, Curt Hill, Phil McClean, John Opgrande, Bernhardt Saini-Eidukat, Donald P. Schwert, Bradley Vender, and Alan R. White (2006). *Electric Worlds in the Classroom: Teaching and Learning with Role-Based Computer Games* New York: Teachers College Press.

Journals

- Slator, B., C. Hill and D. Del Val. May 2004. Teaching Computer Science with Virtual Worlds. *IEEE Transactions on Education*. New York. IEEE Press. Vol.47, pp. 269-275.
- Slator, Brian M., Paul Juell, Phillip E. McClean, Bernhardt Saini-Eidukat, Donald P. Schwert, Alan R. White, Curt Hill (1999). Virtual Environments for Education. Journal of Network and Computer Applications, 22(4), pp. 161-174.

Selective (Refereed) Conferences

- Hill, Curt, Rob Walsh. *Keep Nose Above Water* the World Conference on Educational Multimedia, Hypermedia & Telecommunications (ED-MEDIA 2010) June 29-July2, 2010, Toronto, Canada.
- Hill, Curt, Brian M. Slator, and Vijayakumar Shanmugasundaram. ProgrammingLand: A Visualization Enhanced Hypertextbook Frontiers in Education, 2007. October 10-13, Milwaukee, WI.
- Shanmugasundaram, Vijayakumar, Paul Juell, Curt Hill and Kendal Nygard. *A Cognitive Model for Learning Java* the World Conference on Educational Multimedia, Hypermedia & Telecommunications (ED-MEDIA 2007) June 25-29, 2007, Vancouver, Canada.
- Hill, Curt, Vijayakumar Shanmugasundaram and Martina Miteva. *Agents Help Students in ProgrammingLand*. Proceedings of the Eleventh Annual International ACM Conference on Innovation and Technology in Computer Science Education (ITICSE '06) June 26-28, 2006, Bologna, Italy, pp. 183-187.
- Shanmugasundaram, Vijayakumar, Paul Juell and Curt Hill. *Knowledge Building Using Visualizations*. Proceedings of the Eleventh Annual International ACM Conference on Innovation and Technology in Computer Science Education (ITICSE '06) June 26-28, 2006, Bologna, Italy, pp. 23-27.
- Shanmugasundaram, Vijayakumar, Paul Juell and Curt Hill. *Visualizations to Address Known Problems in Teaching Java* by the World Conference on Educational Multimedia, Hypermedia & Telecommunications (ED-MEDIA 2006) June 26-30, 2006, Orlando, FL, pp. 1983-1990.
- Hill, Curt, Brian M. Slator, Lisa M. Daniels (2005). *The Grader in ProgrammingLand*. Proceedings of the National ACM Computer Science Education Conference. Sheridan Publishing. February, 23-27, 2005, St. Louis, MO, pp. 211-215.
- Hill, C., Slator, B., and Daniels, L. An Online Resource for the Introductory Programming Class. In Proceedings of the 2nd International Conference Information Technology Research and Education (ITRE '04). London Metropolitan University, June 28 -July 1, 2004, London, UK, pp. 101-105.
- Hill, Curt, Slator, Brian M. (2000). Computer Science Instruction in a Virtual World. World Conference on Educational Media, Hypermedia and Telecommunications (ED-MEDIA 2000), June 26-July 1, 2000, Montreal, Quebec, Canada.
- Slator, B.M., P. Juell, P.E. McClean, B. Saini-Eidukat, D.P. Schwert, A. White, C. Hill (1999). Virtual Environments for Education at NDSU. *World Conference on Educational Media, Hypermedia and Telecommunications (ED-MEDIA 99)*, June 19-24, 1999, Seattle, WA, pp. 875-880. (*Outstanding Paper Award*).

Slator, Brian M., C. Hill (1999). Mixing Media for Distance Learning. *World Conference on Educational Media, Hypermedia and Telecommunications (ED-MEDIA 99)*, June 19-24, Seattle, WA, pp. 881-886.

Book chapters

Slator, Brian M., Jeffrey T. Clark, Lisa Daniels, Curt Hill, Phil McClean, Bernhardt Saini-Eidukat, Donald P. Schwert, Alan R. White (2002). *Use of Virtual Worlds to Teach the Sciences. Virtual Environments for Teaching and Learning*, edited by L. C. Jain, R. J. Howlett, N. S. Ichalkaranje, and G. Tonfoni. World Scientific Publishing Company: Singapore, pp. 1-40.

Conferences

- Hill, Curt. *Visualizing Live Data Structures*. Presented at Midwest Instructional and Computing Symposium 2018, April 6-7, 2018, Duluth, MN.
- Hill, Curt. *Serving the Underserviced*. Presented at Midwest Instructional and Computing Symposium 2017, April 7-8, 2017, La Crosse, WI.
- Hill, Curt and Razib Iqbal. *Musings on LMS, HCI, Clients and Native Programs*. Presented at Midwest Instructional and Computing Symposium 2015, April 10-11, 2015, Grand Forks, ND.
- Hill, Curt. *Marshalling Technology for Learning*. Presented at Midwest Instructional and Computing Symposium 2014, April 25-26, 2014, Verona, WI.
- Hill, Curt, Susan Pfeifer, Diane Keller, Colette Schimetz, Marlin Allery, Heidi M.
 Schneider, Jason P. Brandvold, and Ken Quamme. Share the Cost, Maximize the Return. Presented at E-Learn 2012 World Conference on E-Learning in Corporate, Government, Healthcare & Higher Education, October 10-12, 2012, Montreal, Canada.
- Hill, Curt. *Development Systems: A Review*. Presented at Midwest Instructional and Computing Symposium 2010, April 13-14, 2012, Cedar Falls, IA.
- Hill, Curt. *Instructor tools: Test Data Generation*. Presented at Midwest Instructional and Computing Symposium 2010, April 16-17, 2010, Eau Claire, WI.
- Hill, Curt. *Teaching in China, Teaching Chinese Students in the U.S.*. Presented at Midwest Instructional and Computing Symposium 2011, April 8-9, 2011, Duluth, MN.
- Hill, Curt and Brian M. Slator. A Visualization Enhanced Hypertextbook for Computer Science Education. Accepted for publication at Computers and Advanced Technology in Education (CATE'09), November 22-23, 2009, St. Thomas, Virgin Islands.
- Hill, Curt and Brian M. Slator. *Captured Presentations for Online Learning*. Presented at Midwest Instructional and Computing Symposium 2009, April 17-18, 2009, Rapid City, SD.
- Hill, Curt and Sara Hagen. *Towards Musical Analysis Tools*. Accepted for publication at Midwest Instructional and Computing Symposium 2008, April 11-12, 2008, Eau Claire, WI.
- Hill, Curt. *Looking Looking Forward*. Presented at Midwest Instructional and Computing Symposium 2007, April 20-21, 2007, Grand Forks, ND. [CD-ROM]
- Hill, Curt, Brian M. Slator and Vijayakumar Shanmugasundaram. *Measuring the Effectiveness of ProgrammingLand*. Proceedings of the Sixth IASTED

- International Conference on Web Based Education (WBE 2007) March 14-16, 2007, Le Majestic Centre De Congres, Chamonix, France, pp. 116-121. [CD-ROM]
- Hill, Curt. *The Importance of Alice*. Presented at Midwest Instructional and Computing Symposium 2006, April 7-8, 2006, Mount Pleasant, IA. [CD-ROM]
- Hill, Curt, Brian M. Slator, Vijayakumar Shanmugasundaram and Lisa M. Daniels. *An Online Computer Science Instructional Resource*. Proceedings of the IASTED International Conference on Web Based Education (WBE 2006) January 23-25, 2006, Puerto Vallarta, Mexico, pp. 332-336. [CD-ROM]
- Hill, Curt, Vijayakumar Shanmugasundaram and Martina Miteva. *Database Tools to Administer Programming Land*. ISCA 18th International Conference on Computer Applications in Industry and Engineering (CAINE 2005) November 2005, Honolulu, Hawaii, pp. 410-413. [CD-ROM]
- Hill, Curt. *The Challenges of Parallelism*. Midwest Instructional and Computing Symposium 2005, April 8-9, 2005, Eau Claire, WI. [CD-ROM]
- Hill, Curtis D., Brian M. Slator, and Lisa M. Daniels (2004). *Using and Validating ProgrammingLand*. Proceedings of the 7th IASTED International Conference on Computers and Advanced Technology in Education (CATE-04), V. Uskov (Ed.), August 16-18, Kauai, HI, pp. 291-296.
- Hill, Curt. Progress towards Automatic Grading of Programs in ProgrammingLand. Midwest Instructional and Computing Symposium 2004. April 16-17, 2004 Morris, MN. [CD-ROM]
- Hill, Curt. *Parsers and Learning Programming in ProgrammingLand*. Midwest Instructional and Computing Symposium 2003. Proceedings of the 36th Midwest Instructional Computing Symposium (MICS): April 11 12. College of St. Scholastica, Duluth, MN. [CD-ROM]
- Borchert, Otto, Aaron Bergstrom, Lisa Brandt, Rob Brantsig, Wade Burns, Jeffrey T. Clark, Bob Cosmano, Lisa Daniels, Ben Dischinger, Josh Dorothy, Joe Duncan, Derrick Eichele, Kellie Erickson, Shawn Fisher, Richard Frovarp, Elisa Goldade, Christina Grimsrud, Justin Hawley, Curt Hill, Guy Hokanson, Bill Jockheck, Christina Johnson, Eunice Johnston, Paul Juell, Ryan Kranitz, James Landrum, Mei Li, Jessica Mack, Atif Majeed, Kellie Martindale, Phil McClean, Dale Muchow, John Opgrande, Ganesh Padmanabhan, Patrick Regan, Carson Rittel, Roxanne Rogers, Bernhardt Saini-Eidukat, Donald P. Schwert, Brian M. Slator, Daniel Small, Doug Snider, Shannon Tomac, Liess Vantine, Bradley Vender, Karen Cassie, Curtis Vorthmann, Alan R. White, Shanhong Wu, and Melissa Zuroff (2003). Advances in Immersive Virtual Worlds for Science Education. Proceedings of the 36th Midwest Instructional Computing Symposium (MICS): April 11 12, 2003. College of St. Scholastica, Duluth, MN. [CD-ROM]
- Hill, Curt (2002). A Media-Enhanced Introductory Programming Class. Journal of Computing Sciences in Colleges, Proceedings of the Rocky Mountain Conference of the Consortium for Computing Sciences in Colleges. October 18-19, 2002 Denver, CO, Vol. 18, No. 1, pp. 134-143.
- Hill, Curt(2002). *Experience with GUI Programming in Lower Level Classes*. Midwest Instructional and Computing Symposium. April 5-6, 2002, Cedar Falls, IA. [CD-ROM]

- Slator, Brian M., Jeffrey T. Clark, Lisa M. Daniels, Phil McClean, Bernhardt Saini-Eidukat, Donald P. Schwert, Alan R. White, Curt Hill (2002). *Immersive Virtual Environments*. Proceedings of the Beyond Boundaries Conference: Integrating Technology into Teaching & Learning. University of North Dakota. September 19-20, 2002 Grand Forks, ND, [CD-ROM]
- Hill, Curt. *Collaboration in ProgrammingLand*. Advances in Education Technologies, International Conference on Intelligent Multimedia and Distance Education. June 1-3, 2001, Fargo, ND, USA, John Wiley, pp. 83-90.
- Hill, Curt. Evolution of ProgrammingLand. *Midwest Instructional and Computing Symposium*. April 5-9, 2001, Cedar Falls, IA. [CD-ROM]
- Borchert, Otto, Aaron Bergstrom, Jill Hockemeyer, Jeffrey Clark, Paul Juell, Phil McClean, Bernhardt Saini-Eidukat, Donald P Schwert, Brian M Slator, Alan R White, Curt Hill, John Bauer, Francis Larson, Brad Vender, Bryan Bandli, Bing Chen, Michelle Dean, Richard Frovarp, Guy Hokanson, Christina Johnson, Jeff Kittleson, Ned Kruger, James Landrum, Mei Li, Benjamin Nichols, John Opgrande, Rebecca Potter, Patrick Regan, Lai Ong Teo, Anurag Tokhi, Shannon Tomac, Joy Turnbull, Jane Willenbring, Qiang Xioo, Xinhai Ye, Melissa Zuroff. (2001), Recent Advances in Immersive Virtual Worlds For Education. Proceedings of the 34th Annual Midwest Instruction and Computing Symposium (MICS-01), April 5-7, 2001, Cedar Falls, IA. [CD-ROM]
- Hill, Curt and Paul Juell. *Telecommuting Arrives in the Classroom*. Midwest Instructional Computing Symposium, April 13-15, 2000, St. Paul, MN. [CD-ROM]
- Slator, Brian M., Jeff Clark, Paul Juell, Joe Latimer, Phil McClean, Bernhardt Saini-Eidukat, Don Schwert, Alan White, Neil Amalraj, Spencer Anderson, Radha Balakrishnan, John Bauer, Aaron Bergstrom, Otto Borchert, Jill Bozovsky, Bing Chen, Krista Dauner, Faye Erickson, Golam Farooque, Curt Hill, Lance Holden, Jason Huck, Kuo-Di Jian, William Jockheck, Beau Kautzman, Srinivas Kanala, Umesh Kedla, Trevor Klein, Srinivas Kolipaka, Ned Kruger, Atif Majeed, Suresh Maram, Kishore Peravali, Rebecca Potter, Mark Rose, Jaime Sebelius, Mahesh Sharma, Josh Stompro, Leah Tilly, Brad Vender, Dean Vestal, Pradeep Vorugu, Eric Vossler, Jin Wang, Hong Wu, Yihe Wu, Qiang Xiao, Jozef Zelenak, Jun Zhou (1999). Research and Development of Virtual Worlds for Immersive Instruction. In the Proceedings of the Small College Computing Symposium (SCCS99). April 15-17, 1999, La Crosse, WI. Online see: http://www.cs.ndsu.NoDak.edu/~slator/html/abstracts/sccs-wwwic-99.html.
- Hill, Curt and Brian M. Slator (1998) Virtual Lecture, Virtual Laboratory, or Virtual Lesson. In the Proceedings of the Small College Computing Symposium (SCCS98). April 17-18, 1998, Fargo, ND and Moorhead, MN. pp. 159-173.

Professional Organizations

Association of Computing Machines (ACM).

ACM Special Interest Group on Computer Science Education (SIGCSE).

Professional Service

Reviewed two proposals for West Virginia EPSCOR Research Challenge Grant program. Served as a reviewer for ITiCSE 2007.

Served as a reviewer for SIGCSE 2006, 2007, 2010-2013.

Served as a peer reviewer for <u>IEEE</u> Transactions on Education.

Named to the Program Committee of <u>Symposium on Virtual Worlds for Education</u> held in conjunction with <u>International Conference on Intelligent Multimedia and Distance Education (ICIMADE'01)</u>