

Jay Pfaffman
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Education

Vanderbilt University, Nashville, TN

Peabody College, Education and Human Development, Ph.D, August 2003

Specialization: Technology

Minor area: Cognitive Studies

Dissertation:

Manipulating and Measuring Student Engagement in Computer-Based Instruction

Committee: Gautam Biswas, John D. Bransford, Charles K. Kinzer,

Robert D. Sherwood (Adviser), Daniel L. Schwartz (Stanford University)

Vanderbilt University, Nashville, TN

B.S. Computer Science, 1987

Academic and Research Experience

Assistant Professor of Instructional Technology

The University of Tennessee, Knoxville, TN, 2003–present

Department of Instructional Technology, Health and Education Studies, College of Education, Health and Human Sciences.

Courses taught: IT521: Computer Applications in Education, IT566: Administration of Instructional Media, IT669 Instructional Media Research.

Research Assistant, Teachable Agents Project

Stanford University, Stanford, CA, 2001–2003

Designed computer environments built on the common belief that teaching is the best way to learn. Designed and ran studies to evaluate their impact on learning.

Research Assistant, Imagery Project

Stanford University, Stanford, CA 2001–2003

Participated in designing and conducting experiments investigating the effects of action on imagination.

Research Assistant, Challenge Zone Project

Vanderbilt University, Nashville, TN, 1998–2000

Designed a web-based system that helped students learn by providing feedback and access to resources to investigate how those features affected learning.

Research Assistant, Scientists in Action Project

Vanderbilt University, Nashville, TN, 1995–1997

Helped develop multimedia adventures that support project-based science instruction and studied how to design instruction to capitalize on engaging stories about scientists.

Instructor: Introduction to Classroom Technologies

Vanderbilt University, Nashville, TN, 1997–1999

Taught a course for education majors introducing students to the technology, skills, and tools needed at Vanderbilt.

Employment

Educational Computer Consultant

Nashville, TN 1995–2001

Trained teachers, wrote technology assessments, and administered Internet servers.

Educational Computer Consultant

Bristol, VT 1993–1995

Helped teachers integrate computers and the Internet into their curricula. Helped computer coordinators establish Internet connections.

Computer Coordinator and Computer Science Teacher

Dwight-Englewood School, Englewood, NJ, 1990–1993

Helped teachers to use computers to support learning in their classrooms. Taught Advanced Placement computer science and middle and upper school computer literacy courses.

Computer Science Teacher

Perkiomen School, Pennsburg, Pennsylvania, 1987–1990

Established the computer department, selecting, acquiring, and installing all software and additional hardware. Developed and taught computer literacy and computer science courses.

Honors

Invited Participant for Writing Effective Federal Grant Proposals symposium. Sponsored by the National Science Foundation; hosted by the Association for Educational Communications and Technology (AECT) Research and Theory Division. October 25, 2007.

Invited Participant for Computer Supported Collaborative Learning (CSCL) 2007 Early Career Workshop. Sponsored by the International Society for Learning Sciences and the National Science Foundation. July 17-18, 2007.

Super Student Scholarship. Vanderbilt University. 1995–2000.

NASA Space Grant Fellow. Vanderbilt University, Nashville, TN. 1997–1999.

Refereed Publications ¹

Pfaffman, J. (2008) It's Time for an Open Source Software Revolution. *The High School Journal*, 91,3, 25–31.

Hautau, B. L., Skinner, C. H., Pfaffman, J., Foster, S. and Clark, J. C. (2008). Extending the external validity of the Color Wheel: Increasing on-task behavior in an urban, kindergarten classroom. *Journal of Evidence-Based Practices for Schools*, 9(1), 3-17.

Skinner, A. L., Pfaffman, J., Jaspers, K. E., and Skinner, C. H. (2008). Supplementing Color Wheel procedures with interdependent group-oriented rewards: Implementation guidelines. *Journal of Evidence-Based Practices for Schools*, 9(1), 47-56.

Pfaffman, J. A. (2007). Computer-mediated communications technologies. In J. M. Spector, M. D. Merrill, J. J. G. van Merriënboer, & M. P. Driscoll (Eds.) *Handbook of Research on Educational Communications and Technology (3rd ed.)* (p. 226-230). Mahwah, NJ: Lawrence Erlbaum Associates.

Pfaffman, J. A. (2007). It's Time to Consider Open Source Software. *TechTrends*, 51(3), 38-43. Also retrieved from <http://www.linuxinsider.com/story/57759.html> and <http://www.linuxinsider.com/story/57760.html> June 10, 2007.

¹**Bold-faced** names are students.

- Pfaffman, J. A. (2007). Transforming instruction without training: A case study of the k12 Linux Terminal Server Project. *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2007* (p. 363-366), Chesapeake, VA: AACE.
- Perkins, M.**, & Pfaffman, J. (2006). Using a course management system to improve classroom communication. *The Science Teacher*, 73(7), 33-37.
- Schwartz, D., Martin, T., & Pfaffman, J. (2005). How mathematics propels the development of physical knowledge. *Journal of Cognition and Development*, 6(1), 65-88.
- Pfaffman, J., & Elhanany, I. (2004). Adaptation of a computer networks curriculum for non-technical audience. In *Proceedings of the 34th ASEE/IEEE frontiers in education conference*. (p. F4C22-F4C23). Piscataway, NJ: IEEE. Available online <http://fie.engrng.pitt.edu/fie2004/papers/1170.pdf>.
- Pfaffman, J. A. (2004). Integrating Moodle into a Course for Pre- and In-Service Teachers. In R. Ferdig & C. Crawford (Eds.), *Society of Information Technology & teacher Education International Conference Annual* (p. 1354-1358). Norfolk, VA: Association for the Advancement of Computing in Education.
- Vye, J. J., Schwartz, D. L., Bransford, J. D., Zech, L., & Cognition and Technology Group at Vanderbilt. (1998). SMART environments that support monitoring, reflection, and revision. In D. Hacker, J. Dunlosky, & A. Graesser (Eds.), *Metacognition in educational theory and practice*. Hillsdale, NJ: Lawrence Erlbaum Associates.²
- Petrosino, A. J., & Pfaffman, J. (1997, December). The Mission to Mars Webliographer: A principled approach to the design of a CSCL tool. In R. Hall, N. Miyake, & N. Enyedy (Eds.), *Proceedings of the computer support for collaborative learning 1997 conference*. Toronto, Ontario, Canada: University of Toronto. Retrieved August 2, 2007 from <http://www.oise.utoronto.ca/cscl/papers/petrosino.pdf>.
- Pfaffman, J. (1994, June). Inexpensive E-mail systems for LANs and dial-up. In *Recreating the Revolution*. Proceedings of the annual National Educational Computing Conference, Boston, MA (15th ed., p. 13-15). Eugene, OR: International Society for Technology in Education.

Articles and Research Reports ³

- Pfaffman, J. A. (2006). Ultimate boot CD. *Learning & Leading with Technology*, 33(7), 40-41.
- Chastain, Steve** and Pfaffman, J. A. (2006). GIMP: GNU Image Manipulation Program *Learning & Leading with Technology*, 33(5), 54-55.
- Pfaffman, J. A. (2005). NVU: Web Authoring. *Learning & Leading with Technology*, 33(4), 40-41.
- Pfaffman, J. A. (2005). Open source solutions: The OpenCD. *Learning & Leading with Technology*, 33(3), 39-40.
- Pfaffman, J. A. (2005). Open source solutions: Moodle. *Learning & Leading with Technology*, 33(2), 42-45.
- Pfaffman, J. A. (2003). *Manipulating and measuring student engagement in computer-based instruction*. Doctoral Dissertation. Vanderbilt University, Nashville, TN. <http://etd.library.vanderbilt.edu/ETD-db/available/etd-11262003-090736/unrestricted/pfaffman.pdf>
- Biswas, G., Schwartz, D., Bhuvra, B., Bransford, J., Holton, D., Verma, A., and Pfaffman, J. (2001). *Assessing student understanding of concepts in electricity to inform instructional decisions*. [Online.] Available: <http://www.vuse.vanderbilt.edu/~biswas/Research/ile/onr/final/final4.html>. (Final Report for Office of Naval Research Grant #N00014-96-1-0444.)

²Contributed as a member of CTGV.

³**Bold-faced** names are students.

Presentations

- Pfaffman, J. A. (2007, November). Free/Open Source Software: Why Aren't You Using it? Presentation at the *Tennessee Educational Technology Conference*, Nashville, TN.
- Pfaffman, J. A. (2007, November). Moodle: Like Blackboard (but Better) and Free Presentation at the *Tennessee Educational Technology Conference*, Nashville, TN.
- Pfaffman, J. A. (2007, November). Affordable Ubiquitous Computing Presentation at the *Tennessee Educational Technology Conference*, Nashville, TN.
- Pfaffman, J. A. (2007, October). Update on the Third Edition of the Handbook of Research on Educational Communications and Technology. Presentation at the *Association of Educational Communications and Technology's Annual International Convention*, Anaheim, CA.
- Pfaffman, J. A. (2006, July). Open Source Software: Why Aren't You Using It? Presentation at the *Tennessee Educational Technology Association Summer Institute*, Franklin, TN.
- Pfaffman, J. A. (2006, July). Teacher web pages without training. Presentation at the *Tennessee Educational Technology Association Summer Institute*, Franklin, TN.
- Pfaffman, J. A. (2006, July). Moodle: An Open Source course management system (think Blackboard). Presentation at the *Tennessee Educational Technology Association Summer Institute*, Franklin, TN.
- Pfaffman, J. A. (2006, July). K-12 and higher education technology partnership round table. Presentation at the *Tennessee Educational Technology Association Summer Institute*, Franklin, TN.
- Pfaffman, J. A. (2005, December). Moodle: Web Presence and Parent Commuiation the Easy Way. Presentation at the *Tennessee Educational Technology Technology Conference*, Nashville, TN.
- Pfaffman, J. A. (2005, December). Web Pages without Training or Software. Presentation at the *Tennessee Educational Technology Technology Conference*, Nashville, TN.
- Pfaffman, J. A. (2005, December). Create your own Linux Terminal Server. Presentation at the *Tennessee Educational Technology Technology Conference*, Nashville, TN.
- Pfaffman, J. A. (2005, December). What School Administrators Should Know about Open Source Software. Presentation at the *Tennessee Educational Technology Conference*, Nashville, TN.
- Pfaffman, J. A. (2005, December). What Geeks Should Know about Open Source Software. Presentation at the *Tennessee Educational Technology Technology Conference*, Nashville, TN.
- Pfaffman, J. A. (2005, July). How to upgrade an entire computer lab for \$3000. Presentation at the *Tennessee Educational Technology Association Summer Institute*, Greeneville, TN.
- Pfaffman, J. A. (2005, July). Moodle: A free replacement for Blackboard. Presentation at the *Tennessee Educational Technology Association Summer Institute*, Greeneville, TN.
- Pfaffman, J. A. (2005, July). Open Source Software: Why aren't you using it? Presentation at the *Tennessee Educational Technology Association Summer Institute*, Greeneville, TN.
- Pfaffman, J. A. (2005, July). Personal computers won't change schools until schools have personal computers. Presentation at the *Tennessee Educational Technology Association Summer Institute*, Greeneville, TN.
- Pfaffman, J. A. (2005). Tracking student engagement by logging access to online resources. Paper presented at the *American Educational Research Annual Meeting*, Montreal, Quebec.
- Pfaffman, J. (2004). Create your own mini-Yahoo for your school. Breakout Session presented at the *Tennessee Educational Technology Association Summer Institute*, Paris, TN.
- Pfaffman, J. (2004). Free software for Microsoft Windows users. Breakout Session presented at the *Tennessee Educational Technology Association Summer Institute*, Paris, TN.

- Pfaffman, J. A. (2004). Moodle a free alternative to Blackboard or WebCT. Breakout Session presented at the *Tennessee Educational Technology Association Summer Institute*, Paris, TN.
- Pfaffman, J. A. (2003, March). Building robust online assessment systems. Invited presentation to the *Stanford Center for Innovations in Learning Special Interest Group on Assessment* Stanford, CA.
- Pfaffman, J. A., & Schwartz, D. L. (2003). What makes hobbies motivating and their relationship to education. Poster presented at the *Annual Meeting of the American Educational Research Association*. Chicago, IL.
- Pfaffman, J. A. (2003). Building your own search engine with Webligrapher. Workshop presented at the *Tennessee Educational Technology Conference*, Nashville, TN.
- Petrosino, A., & Pfaffman, J. (2001, April). Mission to Mars: A flexible design for an evolving curriculum. Symposium presented at the *annual meeting of the American Educational Research Association*, Seattle, WA.
- Pfaffman, J., Schwartz, D., & Martin, T. (2001, April). Web-based self-assessments for learning. Paper presented at the *American Educational Research Annual Meeting*, Seattle, WA.
- Pfaffman, J., & Vye, N. (2000, April). Developing adaptive expertise through formative assessment. In N. Vye (Chair), *Adaptive expertise as a goal for learning environments*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Merrick, S., & Pfaffman, J. (2000, April 14). Using webligrapher in your lower school classroom. (In-service workshop, University School of Nashville)
- Pfaffman, J. (2000, July). First steps in Linux. Workshop presented at the *Tennessee Education Technology Association Institute*, Nashville, TN.
- Pfaffman, J. (2000, July). Issues and answers in Linux. Workshop presented at the *Tennessee Education Technology Association Institute*, Nashville, TN.
- Pfaffman, J., & Cameron, T. (1999, June). Multiple uses of a a URL database. Workshop presented at *National Educational Computing Conference 1999*, Atlantic City, NJ.
- Thomas, L. J., & Larson, A. E. (1999, May). Technology standards in teacher education: What is missing? Jay Pfaffman, discussant. Roundtable discussion conducted at the *annual meeting of the American Educational Research Association*, San Diego, CA.
- Petrosino, A. J., & Pfaffman, J. A. (1998, December). The Mission to Mars Webligrapher: A URL database search engine for the classroom. Poster presented at the *Third Annual Meeting of the International Conference of the Learning Sciences*, 1998. Atlanta, GA.
- Pfaffman, J. A., & Barnes, G. F. (1998). The virtual watershed Webligrapher: An electronic tool to support teacher professional development. Paper presented at the *National Association for Research in Science Teaching Conference*, San Diego, CA.
- Pfaffman, J. (1997, November). Webligrapher: Managing web resources for a virtual community. *Sixth Annual International Conference on Telecommunications and Multimedia in Education 97*, Austin, Texas.

Web-Based Software Tools

Pfaffman, J (2003). Web Tracking Facility.

The Web Tracking Facility is a system that allows teachers and researchers to track access to web-based resources, logging user and time data.

Pfaffman, J. (2003). Engagement Sampling Tool.

The Engagement Sampling Tool periodically polls users about their current state of engagement. It can easily be modified to periodically ask users about other issues.

Pfaffman, J. and Cognition and Technology Group at Vanderbilt (CTGV) (1999–2001). SysTER formative assessment system.

SysTER is a system for building online assessments for learning. Using SysTER students access online resources, have multiple opportunities to reflect on their answers, and receive feedback that encourages reflection on their thinking.

Pfaffman, J. and CTGV (1998-1999). Challenge Zone Assessment System

This system allows students to direct their own learning by choosing what topic to work on next, provides access to resources during the assessment, and gives continual feedback on their progress.

CTGV and Pfaffman, J. (1997-1998). SMARTlab Catalog System

SMARTlab provides a catalog of tools for helping to determine water quality. The system provides immediate feedback which motivates learners to do more research to improve their answers.

Pfaffman, J. (1996). CPB Boyer Next Step Grant Submission and Review system.

The Corporation for Public Broadcasting held a series of grant competitions designed to make connections between higher education and K–12 schools. I helped develop the rubric that reviewers used to evaluate the proposals and created the web-based system that accepted proposals, and the reviewer feedback.

Pfaffman, J. (1995–present). Webliographer

<http://webliographer.com/webliographer/>

Webliographer allows teachers, librarians, and instructional designers to build annotated lists of URLs that can be searched or browsed in a variety of ways. It is based on the assumption that no general-purpose search engine can adequately suit the needs of individual schools or classrooms. Webliographer is free software and continues to be improved.

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