

Johannes Strobel, Ph.D.

Institute for P-12 Engineering Research and Learning (INSPIRE),
School of Engineering Education, Purdue University

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Education

Munich School of Philosophy, Germany, Philosophy, B.Ph., 1997
Saarland University, Germany, Information Science, B.S. (equiv.), B.A. Theology (equiv.), 1999
University of Missouri-Columbia, Learning Technologies, M.Ed., 2002
University of Missouri-Columbia, Information Science and Learning Technologies, Ph.D., 2004

Appointments:

Director, INSPIRE, Institute for P-12 Engineering Research and Learning, Purdue University, 2008 – current
Affiliate Faculty, Division of Environmental and Ecological Engineering, 2010 – current, Purdue University
Assistant Professor, School of Engineering Education & Learning Design and Technology, Purdue University, 2007 – current
Assistant Professor, Department of Education, Concordia University, Montreal, 2005 – 2007
GRA, Manager & Fellow in Learning Sciences, University of Missouri-Columbia, 2000 – 2004

Selected Journal Publications

- Jonassen, D., Strobel, J., & Lee, C.B. (2006). Everyday problem solving in engineering: Lessons for engineering educators, *Journal of Engineering Education*, 95, 2, 139-151.
- Niederhauser, D., Lindstrom, D. & Strobel, J. (2007). Addressing the NETSS in K-12 classrooms: Implications for teacher education. *Journal of Technology and Teacher Education*. 15 (4), 483-512.
- Hyslop-Margison, E. & Strobel, J. (2008). Constructivism and education: Misunderstandings and pedagogical implications. *The Teacher Educator*, 43 (1), 72 – 86.
- Strobel, J., Jonassen, D.H. & Ionan, I.G. (2008). The evolution of a collaborative authoring system for non-linear hypertext: A design-based research study. *Computers & Education*, 51, 1, 67-85.
- Strobel, J. & van Barneveld, A. (2009). When is PBL more effective? A meta-synthesis of meta-analyses comparing PBL to conventional classrooms. *Interdisciplinary Journal of Problem-based Learning*, 3, 1, 44-58.
- Liu, W., Carr, R., & Strobel, J. (2009). Extending teacher professional development through an online learning community: A case study. *Journal of Educational Technology Development and Exchange*, 2 (1), 99-112.
- Strobel, J., Hua, I., Fang, J. & Harris, C. (2010). Not all constraints are equal: Stewardship and boundaries of sustainability as viewed by first-year engineering students. *International Journal of Engineering Education*, 26, 2, 339-348. Special Issue on Sustaining Sustainable Design.
- Strobel, J. & Hawkins, C. (2010). Designing in second life: Identity construction and learning in a virtual informal environment. *Journal of Online Engineering Education*, 1, 1, a2.
- Weber, N., Duncan, D., Dyehouse, M., Strobel, J. & Diefes-Dux, H. (2011). The development of a systematic coding system for elementary students' drawings of engineers. *Inaugural issue of the Journal of Pre-College Engineering Education Research*, 1, 1, 49–62.
- Tillberg-Webb, H. & Strobel, J. (2011) Analysis of Technological Ideologies in Education: A Translation of Lessons from Technological Dystopian Literature into Educational Theory. *Techné: Research in Philosophy and Technology*, 15, 2, 170-181.
- Fang, J. & Strobel, J. (2011). How ID models help with game-based learning: an examination of the Gentry model in a participatory design project. *Educational Media International*, 48, 4, 287–306.
- Strobel, J. & Pan, R. (2011). Compound problem solving: Workplace lessons for engineering education. *American Society of Civil Engineering (ASCE) Journal of Professional Issues in Engineering Education and Practice*. 137, 4, 215-222.
- Carr, R., Bennett, L. & Strobel, J. (2012). Engineering in the K-12 STEM Standards of the 50 U.S. States: An Analysis of Presence and Extent. *Journal of Engineering Education*, 101, 3, 539–564.

- Mendoza-Diaz, N. & Strobel, J. (2012, accepted). Exploration of NSF-ATE approaches in the integration of technology and engineering education at the K-12 levels. *Advances in Engineering Education*. Invited paper to special issue on K-12 Engineering Education.
- Pan, R., Kuo, S.-P. & Strobel, J. (2012, accepted). Interplay of computer and paper-based sketching in graphic design. *International Journal of Technology and Design Education*. (DOI: 10.1007/s10798-012-9216-6).
- Yu J.H., Luo, Y., Sun, Y. & Strobel, J. (accepted) A Conceptual K-6 Teacher Competency Model for Teaching Engineering. *Procedia-Social and Behavioral Sciences Journal*.
- Purzer, S., Duncan-Wiles, D. & Strobel, J. (accepted). Teaching About Engineering Optimization and Trade-offs to Fourth and Fifth Graders. (*Special Issue on Engineering and Science*) *Science and Children*.

Synergistic Activities:

- Private Foundation: INSPIRE: Funding for the Institute for P-12 Engineering Research and Learning. \$3,000,000 (2008 – 2011, Director)
- National Science Foundation: R&D: Quality Cyber-Enabled, Engineering Education Professional Development to Support Teacher Change and Student Achievement (E2PD). \$2,970,000. NSF DR K-12. (2008 – 2013 Co-PI)
- National Science Foundation: VOSS: Transforming Loose Networks into Sustainable Interdisciplinary Virtual Organizations. \$374,769 (2009 – 2011, PI)
- National Science Foundation: CCLI Type III: Collaborative Research: ciHUB a virtual Community to Support Research, Development, and Dissemination of Concept Inventories. \$754,667.00 (2009 – 2013, Co-PI).
- National Science Foundation: NSF MSP: Science Learning through Engineering Design (SLED), Targeted Partnership (MSP). \$6,793,800 (2010 – 2015, Key Personnel, Co-Director, Student Research)