

Brian K. Smith

mailto:alt.bsmith@gmail.com
http://about.me/brian.k.smith

Research Interests

Design of computational learning environments; human-computer interaction; design sciences; informal/everyday learning

Education

Northwestern University, Ph.D., Learning Sciences, 1998
University of California at Los Angeles, B.S., Computer Science & Engineering, 1991

Honors & Awards

National Science Foundation Special Act Award, 2021
Apple Distinguished Educator, Apple Computer Inc., 2004
Jan Hawkins Award for Early Career Contributions to Humanistic Research and Scholarship in Learning Technologies, American Educational Research Association, 2004
Featured as one of Ten Individuals Redefining Information Technology in *Higher Issues in Black Education*, February 2002
National Science Foundation Faculty Early Career Development (CAREER) Award, 2000
LG Electronics Career Development Chair (MIT), 1998-2001
IEEE Commendation for Reviewing, 1997
Patricia Roberts Harris Fellowship (U.S. Dept. of Education) Recipient, 1993
Ford Foundation Fellowship Recipient, 1991
National Science Foundation Graduate Fellowship, Honorable Mention, 1991
TRW Chairman's Award for Innovation, 1990
ARCO Scholarship, Student Recognition, 1988
ARCO Scholarship, Most Improved GPA, 1987

Professional Experience

Boston College (7/20 – present) Chestnut Hill, MA
Honorable David S. Nelson Professorial Chair + Associate Dean of Research, Lynch School of Education and Human Development. Responsible for the School of Education's research operations, including pre- and post-award management, grant-related hires, mentoring faculty and doctoral students, and legal compliance. Worked with faculty and students during the 2020 pandemic to maximize research productivity, often routing them to alternate data sources or research sites. Involved in recruiting new faculty to increase our research portfolio. Also co-director of BC's Learning Engineering M.A. degree, worked on developing an Instructional Design certificate, and currently developing BC's M.S. degree in Data Science.

Drexel University (7/18 – 6/20) Philadelphia, PA
Senior Associate Dean of Academic Affairs + Professor of Information Sciences, College of Computing & Informatics. Responsible for academic operations including program development and improvement, advising and student engagement, accreditation and compliance, and enrollment management and recruiting. Oversaw the improvement of college first-year student retention from 86% to 92% as well as the Women-in-Tech initiative that led to a 70% increase in undergraduate female student enrollment in the college in less than three years. Also led industry partnerships with DXC Technologies and Comcast, creating new models for graduate education for reskilling and upskilling. Worked closely with faculty to develop new master's degrees in Data Science, Artificial Intelligence and Machine Learning, Information Science, and Business IT.

Professional Experience, cont'd

National Science Foundation (9/17 – 9/18; 2/20 – 2/22) Alexandria, VA
Program director in Division of Research on Learning under Intergovernmental Personnel Act (IPA). Responsible for proposals submitted to: Innovative Technology Experiences for Students & Teachers (ITEST), Advancing Informal STEM Learning (AISL), Discovery Research preK-12 (DRK-12), Cyberlearning and Work at the Human Technology Frontier, and CS For All: Research-Practice Partnerships. Served as an Intermittent Expert from 2020-22.

Drexel University (9/13 – 6/20) Philadelphia, PA
Professor of Learning Technologies, School of Education. Courtesy appointment with the Department of Computer Science, College of Computing and Informatics.

Rhode Island School of Design (1/10 – 8/13) Providence, RI
Dean of Continuing Education. Responsible for non-credit course offerings for 4500+ children, teenagers, and adult students per year, managing a staff of 21 individuals, and generating ~\$5M in revenues. Also co-developed RISD's *STEM to STEAM* initiative, the inclusion of art and design thinking into STEM education.

The Pennsylvania State University (9/02 – 12/09) University Park, PA
Associate professor of Information Sciences and Technology. Courtesy appointments with the College of Education and Department of Computer Science and Engineering.

Massachusetts Institute of Technology (2/02 – 9/02) Cambridge, MA
Associate professor of Media Arts and Sciences, MIT Media Laboratory.

Massachusetts Institute of Technology (9/97 – 2/02) Cambridge, MA
Assistant professor of Media Arts and Sciences, MIT Media Laboratory.

Northwestern University (9/92 - 9/97) Evanston, IL
Graduate research assistant. Prototyping of systems for music education + development, deployment, and evaluation of an interactive video system for biology education.

Inference Corporation (Summer 92) El Segundo, CA
Consulting for Compaq Computer Corporation requiring the reengineering of a large case-based reasoning system and knowledge-based, multimedia applications development.

Interactive Systems Corporation (Summer 91) Calabasas, CA
Software engineering position in color science and software development for the Kodak Color Management System and Photo Compact Disc.

Nevis Technologies/Siemens Nixdorf (Summer 91) Culver City, CA
Test engineer developing automated, distributed software testing systems for financial software applications.

UCLA Department of Radiology (2/91 - 6/91) Sylmar, CA
Research involving computer vision segmentation and 3D registration of CT and MRI scans of brain tissue.

RAND Corporation (10/90 - 4/91) Santa Monica, CA
Knowledge acquisition and expert systems development for military logistics for Desert Shield/Desert Storm.

TRW (Summer 90) Redondo Beach, CA
Design and development of *Marple*, a real-time, autonomous, fault diagnosis system for satellites.

Professional Experience. cont'd

TRW (Summer 89) Redondo Beach, CA
 Design and development of the *Command Constraint Checker*, an expert system for verification of satellite command sequences connected with the Compton Gamma Ray Observatory. Awarded the TRW Chairman's Award for Innovation for the software and its deployment at Goddard Space Center.

NCR Corporation (Summer 88) Rancho Bernardo, CA
 Summer intern doing network systems programming for NCR mainframes.

Exxon Company, USA (Summer 87) Thousand Oaks, CA
 Summer intern responsible for IBM mainframe/workstation system administration and development of geological visualization programs.

Teaching Experience*Courses Taught at Boston College:*

Design Studio I, III (2021-3)
 Foundations of Learning Technologies (2022-3)
 The ABCs of User Experience (2022-3)

Courses Taught at Drexel University:

Internship in Computing & Informatics (2019-20)
 Critical Issues in Education (Spring 2016, 2017)
 Computer Applications in Teaching (Winter 2016)
 Multimedia in Instructional Design (Winter 2016)
 New Media Literacies (Spring, Fall 2015)
 Learning with Social Media and Mobiles (Spring, Fall 2014)
 Researching and Evaluating Technologies (Spring, Fall 2014-5)
 Designing Multimedia Applications for Learning (Winter 2014)
 Developing Virtual Communities for Staff Development (Winter 2014-5, Summer 2015)
 Social Foundations in STEM Education (Fall 2013, Winter 2017)

Courses Taught at The Pennsylvania State University:

Interdisciplinary Digital Studio Seminar (Fall 2009, co-instructor w/School of Visual Arts)
 Human Computer Interaction Theories and Frameworks (Fall 2009)
 Instructional Systems Design Studio (Spring 2008)
 Introduction to Information Sciences and Technology (Spring 2008)
 Learning and Games (Spring 2007)
 Organization and Design of Information Systems: User and System Principles (2004-10)
 Theoretical Foundations of Instructional Systems (Fall 2004, 2006)
 Instructional Systems Research Apprenticeships (2003-8)
 Pervasive and Ubiquitous Computing (Fall 2004)
 Survey of Research in Instructional Systems (2003, 2005)
 Special Topics in Existing Technology (Spring 2003)
 New Media and the Web (Fall 2002, 2003)

Courses Taught at MIT:

Narrating the Urban Environment (Fall 2001)
 Preparation for the Master's Thesis (Fall 1999, 2000)
 Media and Computation (Fall 1999, 2000)
 Tools for Thought (Spring 1998, 2000)
 no representation without explanation (Spring 1999)
 designing interaction (Fall 1998)

Teaching Experience. cont'dK-12 Teaching:

Ecology and Evolution (grades 9-12), Northwestern University, Maine East High School,
Evanston Township High School, 1996-7

Lego/Logo (grades 5-6), Northwestern University, 1996

**Administrative
Experience**Boston College

Member, Design and Making Advisory Committee (2022-3)

Member, University Research Computing Committee (2022-3)

Member, OSP Research Software Committee (2022-3)

Member, BC Data Science Committee (2022-3)

Chair, Research Misconduct Committee (2022)

Member, Schiller Institute Faculty Search (2021-22)

Member, University Research Council (2021-23)

Member, School of Education PhD Task Force (2022)

Chair, School of Education internal research grant committee (2020-23)

National Science Foundation

Member, EHR Employee Engagement Coordination Group (2018)

Member, Program Director Search Committee, Division of Research on Learning (2017-8;
2020-1)

Representative, Combined Federal Campaign, Division of Research on Learning (2017)

Drexel University

Member, University Emeritus Committee (2017-9)

Member, University Faculty Career Development Award Committee (2017)

Co-Chair, Critical Conversations in Urban Education Committee (2016-8)

Co-Chair, Drexel Online Emerging Technologies Committee (2016-8)

Reviewer, STAR Scholars Summer Showcase (2016)

Reviewer, Graduate College Student Excellence Awards (2016)

Reviewer, ExCITe Center Faculty Fellows Program (2016)

Chair, School of Education Program Manager Search Committee (2016)

Member, University Tenure and Promotion Committee (2016-17)

Member, Educational Improvement & Transformation M.S. Advisory Committee (2016)

Member, Special Education Clinical Faculty Search (2016)

Member, Strategic Planning Task Force [Education Laboratory] (2016)

Program Director, Learning Technologies, Creativity + Innovation (2015-17)

Member, Ed.D. Advisory Committee (2015-18)

Alternate Parliamentarian (2015-17)

Chair, Expedited Tenure & Promotion Review Committee (2015)

Member, Learning, Culture, and Technology Undergraduate Major Committee (2015)

Outside Member, College of Media Arts & Design Tenure Committee (2015)

Member, Assessment/Quantitative Methods Faculty Search (2015)

Chair, School of Education Ph.D. Research Methods Course Review (2015)

Core Faculty Member, ExCITe Center (2014-20)

Member, Senate Nominations Committee (2014-20)

Member, School of Education Tenure & Promotion Committees (x3, 2014)

Member, Critical Conversations in Urban Education Colloquia Committee (2014-6)

Co-Chair, Math Forum Strategic Planning Group (2014)

Member, School of Education Faculty Steering Committee (2014-16)

Member, University Sabbatical Committee (2014-15)

Member, University Strategic Plan Implementation Task Force, Global Impact (2014-)

Member, School of Education Online Ed.D. Faculty Search (2013)

Academic Experience, cont'dRhode Island School of Design

Member, President's Extended Cabinet (2012-13)
Member, RISD Research Initiatives Committee (2011-13)
Member, Facilities Master Planning Committee (2011-13)
Member, Information Technology Steering Committee (2011-13)
Member, Digital+Media Faculty Search Committee (2011-12)
Member, Dean of Architecture+Design Search Committee (2012)
Member, Provost Search Committee (2012)
Member, Local/Global Strategic Planning Committee (2010)
Member, Provost's Council (2010-13)

The Pennsylvania State University

Director, IST Solutions Institute (2007-8)
Honors student advisor, Schreyer's Honors College (2009-10)
Chair, IST Academic Integrity Committee (2009-10)
Member IST Diversity Taskforce (2009)
Member, IST Graduate Recruiting Committee (2009-10)
IST Ombudsman (2009-10)
Member, IST Faculty Advisory Committee (2008-10)
Co-chair, Learning Sciences Faculty Search Committee, College of Education (2007-8)
Member, Penn State Educational Gaming Commons Steering Committee (2007-10)
Member, IST Dean's Administrative Committee (2007-8)
Member, e-Education Council (2007-8)
Member, Penn State Online Coordinating Council (2007-8)
Member, IST Distinguished Lecture Series Committee (2006-10)
Member, IST eLearning Strategies Committee (2006)
Member, IST Core Values Committee (2006)
Member, IST Dean Search Committee (2006)
Coordinator, IST Medical Informatics Speaker Series (2005)
Member, IST Undergraduate Advisory Committee (2005-6)
Member, IST Classroom Software Committee (2005-8)
Member, Learning Sciences Faculty Search Committee, College of Education (2005-6)
Member, IST/Solutions Institute Instructional Designer Search Committee (2006)
Chair, IST Medical Informatics Faculty Search Committee (2004-5)
Research investigator, Apple Computer Digital Campus Initiative (2003-8)
Co-investigator, IST Medical Informatics Consortium (2003-5)
Faculty mentor, PSU Minority Undergraduate Research Experience (2003)
Member, IST Web Presence Committee (2002-3)

Massachusetts Institute of Technology

MIT Teacher Education Program Advisory Board (1999-2002)
MIT Freshman Advising (1999-2002)
Media Arts and Sciences Departmental Committee on Graduate Studies (1999-2002)
Coordinator, Media Lab Colloquium Series (1998-9)
Media Arts and Sciences Alternative Freshman Year Committee (1997-8)
Media Arts and Sciences Undergraduate Program Committee (1997-8)

Northwestern University/University of Leeds

Co-coordinator, Institute for the Learning Sciences Speaker Series (1994-5)
Co-editor, *Computer Studies Postgraduate Handbook* (University of Leeds, 1992)

Professional Activities

Technical Program Committees:

Mentor, CIRCLS Emerging Scholars Mentoring Series (2022)
 Member, Program Committee, Center for Integrative Research in Computing and Learning Sciences Conference (2021)
 Member, Center for Integrative Research in Computing and Learning Sciences (CIRCLS), Artificial Intelligence and Education Policy Expertise Exchange (2021)
 Juror, ACM World Usability Day Design Challenge (x3, 2021-2)
 Member, Program Committee, AAAI National Conference (2018)
 Member, AERA Jan Hawkins Award Committee (2018)
 Member, Advisory Committee, International Conference on the Learning Sciences (2017-8)
 Program Chair, Computer Supported Collaborative Learning Conference (2017)
 Reviewer, ACM Computer Supported Collaborative Work (2016)
 Member, Program Committee, AAAI Doctoral Consortium (2014, 2016, 2017)
 Senior Reviewer, International Conference of the Learning Sciences (2013)
 Member, ACM SIGCHI Student Game Competition (2013)
 Mentor, MacArthur Foundation Digital Media & Learning Fellows (2012)
 Member, International Conference on Innovations in Information Technology (2012)
 Member, Steering Committee, Centers for Ocean Sciences Education Excellence, National Science Foundation (2010)
 Member, Committee on Learning Science in Informal Environments, National Research Council (2006-8)
 Co-Chair, AERA Jan Hawkins Award Committee (2005-7)
 Co-Chair, AERA Technology Research Section, Division C (2004-5)
 Member, IEEE Workshop on Technology for Education in Developing Countries (2003-4)
 Member, International Association for Development of the Information Society (IADIS) International Conference on e-Society (2003-4)
 Member, International Conference on the Learning Sciences (2002, 2009)
 Member, ACM Universal Usability Conference (2000)
 Member, ACM Intelligent User Interface Conference (1999)
 Co-chair, Special Interest Group on AERA Advanced Technologies for Learning (1998-9)
 Member, ACM SIGCHI Nominating Committee (1998-9)
 Co-Chair, ACM Multimedia 98 Workshop on Multimedia & Educational Practice (1998)
 Co-Chair, IJCAI-95 Workshop on Artificial Intelligence and Music (1995)

Technical Advisory Boards:

Information and Learning Sciences (2018-)
 Journal of Continuing Education and Professional Development (2014-)
 Educational Technology and Society Journal (1997-2009)

Technical Societies:

American Educational Research Association
 Association for Computing Machinery
 Institute of Electrical and Electronics Engineers (IEEE) Computer Society
 Interaction Design Foundation

Peer Reviewing:

ACM Conference on Human Factors in Computing Systems, ACM GROUP Conference, ACM Journal of Educational Resources in Computing, ACM Transactions on Computer-Human Interaction, ACM/AIGA Designing for User Experiences Conference, American Association of Artificial Intelligence Conference, American Education Research Association Conference, American Educational Research Journal, Educational Researcher, Communications of the ACM, Educational Technology and Society Journal, Journal of the Learning Sciences, Journal of Science Education and Technology, IEEE International Conference on Advanced Learning Technologies, IEEE Computer, IEEE Multimedia, IEEE Transactions on Learning Technologies, Information Resources Management Association Conference, Innovations in Education and

Professional Activities, cont'd

Teaching International, Interacting with Computers Journal, International Conference on Computers in Education, SN Operations Research Journal, International Conference on Information Systems, International Conference on Innovations in Information Technology, International Conference on the Learning Sciences, International Conference on Computer Supported Collaborative Learning, ISRN Education, Patient Education and Counseling, Personal and Ubiquitous Computing, Urban Education, SN Operations Research Forum, Annals of Global Health, MIT Press, Teachers College Press, U.S. Department of Education, National Science Foundation, National Endowment for the Arts

Funding

2022-23: Development of an Educational, Multiplayer Video Game to Address Environmental Racism and Drive Political and Community Action, Boston College, Schiller Institute Grants for Exploratory Collaborative Scholarship, \$45,770. Principal Investigators: J. DeVoy, B.K. Smith, M. Cooper, D.A. Deese, S. Bhattacharya, & M. Scanlan.

2021-2022: Assessing public health and environmental racism impacts of textile pollution through computer-based social justice research and multimedia art and data dissemination, Boston College, Schiller Institute Grants for Exploratory Collaborative Scholarship, \$49,988. Principal Investigators: J. DeVoy, B.K. Smith, M. Scanlan, & M. Cooper.

2019-2024: CyberCorps Mentoring and Scholarship Program (CMSP), National Science Foundation, \$3,999,962. Principal Investigators: B.K. Smith, T. Heverin, W. Mongan, A. Allen-Handy, & M. Rogers.

2019-2022: Collaborative Research: Open Player and Community Modeling as a Learning Tool, National Science Foundation, \$264,000. Principal Investigators: J. Zhu & B.K. Smith.

2017-2018: Skyscraper Games: Regional Contest, Intel Corporation, \$158,473. Principal Investigators: F. Lee & B.K. Smith.

2016-2017: Learning Innovation, Ember at Spring Point, \$949,995. Principal Investigators: Y. Kim, B.K. Smith, & K. Lindstrom.

2015-2016: World's Largest Video Game Contest, Intel Corporation, \$100,000. Principal Investigators: F. Lee, A. Gass, & B.K. Smith.

2015-2018: Learning Parallel Programming through an Adaptive Game, National Science Foundation, \$549,770. Principal Investigators: S. Ontañón, B.K. Smith, J. Zhu, & B. Char.

2013-2014: Exploring Scholarly Discourse in MOOC Discussion Forums, The Pennsylvania State University Center for Online Innovation in Learning, \$30,383. Principal Investigators: B.J. Jansen, B. Pursel, P. Sharma, B.K. Smith, C. Brooks, & S. Lonn.

2010-2011: Workshop: Bridging STEM to STEAM: Developing New Frameworks for Art/Science Pedagogy, National Science Foundation, \$49,978. Principal Investigators: C. Rose & B.K. Smith.

2009-2010: Learning Sciences Collaborative Consortium, The Pennsylvania State University Social Science Research Institute, \$5,000. Principal Investigators: R. Duschl, L. Liben, D. Smith, C. Zembal-Saul, B.K. Smith, & P.K. Murphy.

2008-2012: MRI: Acquisition of a Scalable Instrument for Discovery through Computing, National Science Foundation, \$1,855,501. Principal Investigators: P. Raghavan, P. Hudson, M. Kandemir, B.K. Smith, & L.-Q. Chen.

Funding, cont'd

- 2008-2009: Interactive Web-Based Diabetes Self-Management Tool, Penn State Clinical and Transitional Science Award Initiative, \$53,046. Principal Investigators: R. Gabbay, H. Stuckey, B.K. Smith, S.S. Sundar, & D. Mauger.
- 2007-2008: Developing Communities of Practice for Sales and Service Representatives, Subaru of America, \$73,869. Principal Investigators: B.K. Smith & S. Land.
- 2007-2008: Technology Coordination and Integration, Young Scholars of Central Pennsylvania Charter School, \$30,974. Principal Investigators: S. Land & B.K. Smith.
- 2006-2007: Automatic vs. Manual Capture of Health-Related Experiences, Microsoft Research, Equipment donations, \$12,578. Principal Investigators: B.K. Smith & J. Frost.
- 2006: IST Medical Informatics Research Initiative, Personal donation from Raymond and Diana Tronzo, \$100,000. Principal Investigators: J. Thomas & B.K. Smith.
- 2005-2008: Fantasy Sports Games as Cultures for Informal Learning, National Science Foundation, \$751,120. Principal Investigators: B.K. Smith & P. Sharma.
- 2000-2006: Faculty Early Career Development (CAREER) Award, National Science Foundation, \$499,404.
- 2000-2002: Information: Organized Research Consortium, MIT Media Laboratory, \$4,501,120. Principal Investigators: B.K. Smith, J. Maeda, & W. Bender.
- 1999-2000: News in the Future Research Consortium, MIT Media Laboratory, \$2,135,835. Principal Investigators: W. Bender, J. Maeda, & B.K. Smith.
- 1997-1999: Unrestricted research grant, Eastman Kodak Company, \$30,000.

Refereed Journal Publications

- Kanharaju, P., Alderfer, K., Zhu, J., Char, B., Smith, B., Ontañón, S. (2022). Modeling player knowledge in a parallel programming educational game. *IEEE Transactions on Games*, 14(1): 64-75.
- Smith, B.K. (2014). Bodystorming mobile learning experiences. *TechTrends*, 58(1): 71-76.
- Baytak, A., Land, S.M., and Smith, B.K. (2011). Children as educational game designers: An exploratory study. *Turkish Online Journal of Educational Technology*, 10(4): 84-92.
- Land, S.M., Smith, B.K., Park, S., Beabout, B., and Kim, K. (2009). Supporting school-home connections through photojournaling: Capturing everyday experiences of nutrition concepts. *TechTrends*, 53(6): 61-65.
- Land, S.M., Draper, D., Ma, Z., Hsieh, H.-W., Smith, B.K., and Jordan, R. (2009). An investigation of knowledge building activities in an online community of practice at Subaru of America. *Performance Improvement Quarterly*, 22(3): 23-36.
- Jansen, B.J., Booth, D., and Smith, B. (2009). Using the taxonomy of cognitive learning to model online searching. *Information Processing and Management*, 45(6): 643-663.
- Purao, S., Baldwin, C., Hevner, A., Storey, V.C. Pries-Heje, J., Smith, B.K., and Zhu, Y. (2008). The sciences of design: Observations on an emerging field. *Communications of the Association for Information Systems*, 23: Article 29.

Refereed Journal Publications, cont'd

- Yang, S.P., Smith, B.K., and Graham, G.M. (2008). Healthy video gaming: Oxymoron or possibility? *Innovate: Journal of Online Education*, 4(4).
- Smith, B.K., Frost, J., Albayrak, M., and Sudhakar, R. (2007). Integrating glucometers and digital photography as experience capture tools to enhance patient understanding and communication of diabetes self-management practices. *Personal and Ubiquitous Computing*, 11(4): 273-286.
- Smith, B.K., Sharma, P., and Hooper, P. (2006). Decision making in online fantasy sports communities. *International Journal of Interactive Technology and Smart Education*, 4: 347-360.
- Smith, B.K., Frost, J., Albayrak, M., and Sudhakar, R. (2006). Facilitating narrative medical discussions of type 1 diabetes with computer visualizations and photography. *Patient Education and Counseling*, 64(1-3): 313-321.
- Smith, B.K. (2006). Design and computational flexibility. *Digital Creativity*, 17(2): 65-72.
- Seif El-Nasr, M. and Smith, B.K. (2006). Learning through game modding. *ACM Computers in Entertainment*, 4(1): Article 3B.
- Smith, B.K. and Reiser, B. J. (2005). Explaining behavior using video for observational inquiry and theory articulation. *The Journal of the Learning Sciences*, 14(3): 315-360.
- Blankinship, E., Smith, B., Bender, W., and Holtzman, H. (2004). Closed caption, open source. *British Telecom Technology Journal*, 22(4): 151-159.
- Smith, B.K., Blankinship, E., and Lackner, T. (2000). Annotation and education. *IEEE Multimedia*, 7(2): 84-89.
- Smith, B.K. and Blankinship, E. (2000). Justifying imagery: Multimedia support for learning through explanation. *IBM Systems Journal*, 39(3&4): 749-767.
- Smith, B.K., Endter, I., Driscoll, J., Bender, W., Turpeinen, M. and Quan, D. (2000). Silver Stringer and Junior Journalists: Active information producers. *IBM Systems Journal*, 39(3&4): 730-748.

Books

- Land, S.M. & Smith, B.K. (eds.). (in preparation). *Theoretical foundations of learning environments (Volume 3)*. New York: Routledge.
- Smith, B.K., Borge, M., Mercier, E., & Lim, K.Y. (Eds.). (2017). *Making a difference: Prioritizing equity and access in CSCL, 12th international conference on computer supported collaborative learning*. Philadelphia, PA: International Society of the Learning Sciences.

Parts of Books

- Donaldson, J.P., Barany, A., & Smith, B.K. (2020). Situated learning through situating learning as designers. In M.J. Bishop, E. Boling, J. Elen, & V. Svihla (eds.), *Handbook of research on educational communications and technology* (5th Edition, pp. 819-835). New York, NY: Springer.
- Alderfer, K., Zhu, J., Freed, E., Smith, B.K., Char, B., & Ontañón. (2019). Parallel. In K. Schrier (ed.), *Learning, education, & games: 100 games to use in the classroom and beyond* (pp. 283-286). Pittsburgh, PA: ETC Press.

Parts of Books. cont'd

- Donaldson, J. & Smith, B.K. (2017). Design thinking, designerly ways of knowing, and engaged learning. In J.M. Spector, B.B. Lockee, & M.D. Childress (eds.), *Learning, design, and technology: An international compendium of theory, research, practice, and policy*. Bloomington, IN: AECT.
- Smith, B.K. (2017). Health and online learning. In K.A. Peppler (ed.), *The SAGE encyclopedia on out-of-school learning* (pp. 338-341). Los Angeles, CA: SAGE Publications, Inc.
- Katz-Buonincontro, J., Genovesi, J., & Smith, B.K. (2017). STEAM-based approaches to out-of-school learning. In K.A. Peppler (ed.), *The SAGE encyclopedia on out-of-school learning* (pp. 747-750). Los Angeles, CA: SAGE Publications, Inc.
- Smith, B.K. (2016). Living in the fourth quadrant: Valuing the process of design. In V. Svihla and R. Reeve (eds.), *Design as scholarship: Case studies from the learning sciences* (pp. 55-70). New York, NY: Routledge.
- Land, S.M., Smith, B.K., and Zimmerman, H.T. (2013). Mobile technologies as tools for augmenting observations and reflection in everyday informal environments. In J.M. Spector, B.B. Lockee, S.E. Smaldino, and M. Herring (eds.), *Learning, problem solving, and mind tools: Essays in honor of David Jonassen* (pp. 214-228). New York, NY: Routledge.
- Smith, B.K., Sharma, P., Lim, K.-Y., Akilli, G.K., Kim, K., Fujimoto, T., and Hooper, P. (2008). Finding meaning in online, very-large scale conversations. In B. J. Jansen, A. Spink, and I. Taksa (eds.), *Handbook of web log analysis* (pp 307-327). Hershey, PA: Idea Group, Inc.
- Smith, B.K. (2008). Video, toys, and beyond being there. In T. Erickson and D. McDonald (eds.), *HCI remixed: Reflections on works that have influenced the HCI community* (pp. 141-146). Cambridge, MA: The MIT Press.
- Land, S.M., Smith, B.K., Beabout, B., Park, S., and Kim, K. (2007). Supporting young children's reflection on everyday experiences in a project-based learning environment: Using digital images as data. In M. Orey (ed.), *Educational media and technology yearbook* (Vol. 32, pp. 20-26). Westport, CT: Libraries Unlimited.
- Reiser, B.J., Tabak, I., Sandoval, W.A., Smith, B.K., Steinmuller, F., and Leone, A.J. (2001). BGulLE: Strategic and conceptual scaffolds for scientific inquiry in biology classrooms. In S.M. Carver and D. Klahr, (eds.), *Cognition and instruction: Twenty five years of progress* (pp. 263-305). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Smith, B.K., Blankinship, E., Ashford III, A., Baker, M., and Hirzel, T. (2000). Image Maps: Exploring urban history through digital photographs. In T. Ishida and K. Isbister (eds.), *Digital cities: Technologies, experiences, and future perspectives* (pp. 326-337). Berlin: Springer-Verlag.
- Smith, B.K. (2000). Artificial intelligence and music education. In E.R. Miranda (ed.), *Readings in music and artificial intelligence* (pp. 222-237). Amsterdam: Harwood Academic Publishers.
- Smith, B.K. and Smith, Jr., W.H. (1994). Uncovering cognitive processes in music composition: Educational and computational approaches. In M. Smith, A. Smaill, and G.A. Wiggins (eds.), *Music education: An artificial intelligence approach, Edinburgh 1993*, London: Springer-Verlag.

Non-Refereed Journal Publications

- Smith, B.K. (2022). Asking the right questions can help AI mean more. *Conversations on Jesuit Higher Education*, 61: 22-23.
- Richard, G.T., Clegg, T., and Smith, B.K. (2020). Culturally-situated and social justice research approaches in the learning and information sciences. *Information and Learning Sciences*, 21(9/10): 705-709.
- Smith, B.K. (2005). Physical fitness in virtual worlds. *IEEE Computer*, 38(10): 101-103.
- Smith, B.K. (2004). Instructional Systems and Learning Sciences: When universes collide. *Educational Technology*, 44(3): 20-25.
- Smith, B.K. (2002). You prick your finger, we do the rest: Glucose meter evolution. *User Experience: The Magazine of the Usability Professional's Association*, 3: 31-34.
- Smith, B.K. (July, 2001). Visualizing thinking with digital imagery. *IEEE Learning Technology Newsletter*, 3(3): 64-68.

Refereed Conference Proceedings

- Zhu, J., Alderfer, K., Furqan, A., Neblosky, J., Char, B., Smith, B., Villareale, J. & Ontañón, S. (2019). Programming in game space: How to represent parallel programming concepts in an educational game. In S. Deterding, F. Hosmood, J. Pirker, & T. Apperley (eds.), *Proceedings of the 14th International Conference on the Foundations of Digital Games* (Article No. 4). New York, NY: ACM Press.
- Kantharaju, P, Alderfer, K., Zhu, J., Char, B., Smith, B.K., and Ontañón, S. (2018). Tracing player knowledge in a parallel programming educational game. In J. Rowe & G. Smith (eds.), *Proceedings of the 14th AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE'18)* (pp. 173-179). Palo Alto, CA: The AAAI Press.
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- Duvall, M., Lee, F.J., & Smith, B.K. (2018). Professional development for middle school teachers to promote computational thinking for populations underrepresented in STEM fields. In E. Longran & J. Borup (eds.), *Proceedings of the Society for Information Technology & Teacher Education (SITE) International Conference 2018* (pp. 1427-1434). Waynesville, NC: Association for the Advancement of Computing in Education.
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Refereed Conference Proceedings, cont'd

- Duvall, M., & Smith, B.K. (2017). Authentic audiences for struggling readers: A case study using Goodreads in a high school classroom. In P. Resta & S. Smith (eds.), *Proceedings of the Society for Information Technology & Teacher Education (SITE) International Conference* (pp. 1324-1332). Waynesville, NC: Association for the Advancement of Computing in Education.
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- Hsieh, W-L., Smith, B.K., and Stefanou, S. (2006). How problem solving tasks and learner goals affect the use of stories within a case library. In *Proceedings of the 36th Annual Conference of the International Society for Exploring Teaching and Learning* (pp. 138-139), Palm Springs, CA, Oct 19-21.
- Land, S., Smith, B., Beabout, B., Kim, K., Park, S., and Hill, D. (2005). Scaffolding reflection in everyday experiences: Using digital images as artifacts. In *Proceedings of the 2005 International Conference of the Association for Educational Communications and Technology*, Orlando, FL, Oct 12-22.
- Frost, J., Albayrak, M., and Smith, B.K. (2005). Picture health: Using personal photo diaries to improve diabetes self-management. In *Proceedings of HCI International 2005*, Las Vegas, NV, Jul 22-27.
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Refereed Conference Proceedings, cont'd

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- Frost, J. and Smith, B.K. (2002). Visualizing health in diabetes education. In *Proceedings of CHI2002 Conference Extended Abstracts on Human Factors in Computing Systems* (pp. 606-607). New York: ACM Press.
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- Tabak, I., Smith, B.K., Sandoval, W.A., and Reiser, B.J. (1996). Combining general and domain-specific strategic support for biological inquiry. In *Proceedings of the Third International Conference on Intelligent Tutoring Systems* (pp. 288-296). New York: Springer-Verlag.
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- Smith, B.K. (1991). Affect and musical composition from natural environment representations. In *Proceedings of the Eighth Brazilian Conference on Artificial Intelligence*, Brasilia, Brazil.

Refereed Conference Proceedings, cont'd

Fesq, L.M., Stephan, A., and Smith, B.K. (1990). Spacecraft command verification: The AI solution. In *Proceedings of the Goddard Conference on Space Applications of Artificial Intelligence* (pp. 157-163), Washington, DC.

**Refereed
Conference
Presentations**

Ranger, B., Hira, A., Smith, B.K., Zhang, X., and Anthoby, B.W. (2022). Work in progress: Cost-effective table-top ultrasound systems as platform for biomedical engineering education. Paper presented at the *American Society for Engineering Education (ASEE) 2022 Conference*, June 26-29, Minneapolis, MN.

Christie, J., Rosenzweig, E., Shamonsky, D., Smith, B.K., and Zollman, D. (2021). Five concrete actions UX designers can take today to improve the world. Panel presentation at *User Experience Professional Association (UXPA) Boston Conference 2021*, September 24, online.

Perry, J. and Smith, B.K. (2017). Examining a sport and recreation management internship program at a historically black university. Paper presentation at the *North American Society for Sport Management Conference*, May 30-June 3, Denver, CO.

Fontecchio, A., Smith, B.K., Fishman-Johnson, E., and Kim, Y. (2015). Making a STEAM-powered interactive musical performance. Workshop presentation at the *International Society for Technology in Education Conference*, June 28-July 1, Philadelphia, PA.

Katz-Buonincontro, J. and Smith, B.K. (2015). Gathering STEAM: The integration of arts-based educational projects into science, technology, engineering, and math curricula. Co-organizer/chair, paper session at *2015 American Educational Research Conference*, April 16-20, Chicago, IL.

Smith, B.K. (2014). Redesigning discussion forums for online learning. Paper presented at the *CSCW '14 Workshop on Designing Futures for Peer-to-Peer Learning*, February 15-19, Baltimore, MD.

Yajima, R., McDougall, M., Nadarajan, G., Smith, B.K., and Talasek, T.D. (2013). Benefits beyond beauty: Integration of art into STEM education and research. Panel presentation at the *2013 American Association for the Advancement of Science Annual Meeting*, February 14-18, Boston, MA.

Fantauzzacoffin, J., Berzowska, J., Edmonds, E., Goldberg, K., Harrell, D.F., and Smith, B.K. (2012). The arts, HCI, and innovation discourse. Panel presentation at the *ACM SIGCHI Conference on Human Factors in Computing Systems*, Austin, TX, May 5-10.

Maeda, J., Gist, D., McDougall, M., Blythe, S.G., and Smith, B.K. (2012). Turning STEM to STEAM in modern curriculum. Panel presentation at *SXSWedu*, March 6-8, Austin, TX.

Stuckey, H., Mincemoyer, S., Akilli, G., Smith, B., and Gabbay R. (2010). Development of an interactive web-based diabetes self-management and social networking tool. Paper presented at *American Diabetes Association's 70th Scientific Sessions*, June 25-29, Orlando, FL.

Lewenstein, B.V., Bell, P., Martin, L., Michalchik, V., Smith, B.K., and Ellenbogen, K. (2010). Learning science in informal environments. Panel presentation at the *2010 American Association for the Advancement of Science Annual Meeting*, February 18-22, San Diego, CA.

Refereed Conference Presentations, cont'd

- Gabbay, R., Stuckey, H., Smith, B., Sundar, S. S., and Mincemoyer, S. (2008). Interactive web-based diabetes self-management tool to promote behavioral change through education and social networking: A proposed study. Poster presentation at *The 5th Penn State Diabetes Research Retreat*, April 21, University Park, PA.
- Lim, K.Y., Smith, B.K., and Sharma, P. (2008). Knowledge sharing in fantasy sports games. Paper presented at the *American Educational Research Conference*, March 24-28, New York, NY.
- Smith, B.K., Sharma, P., Akilli, G.K., Lim, K.Y., Kim, K., Fujimoto, T., and Hooper, P. (2008). Designing fantasy sports games to support statistical reasoning. Paper presented at the *American Educational Research Conference*, March 24-28, New York, NY.
- Jansen, B.J., Smith, B.K., and Booth, D. (2007). Viewing online searching as a learning paradigm. Poster presentation at *The 30th Annual International ACM SIGIR Conference*, July 23-27, Amsterdam, The Netherlands.
- Jansen, B.J., Smith, B.K., and Booth, D. (2007). Understanding web search via a learning paradigm. Poster presentation at *The 16th International World Wide Web Conference (WWW2007)*, May 8-12, Banff, Alberta, Canada.
- Jansen, B.J., Smith, B.K., and Booth, D. (2007). Learning as a paradigm for understanding exploratory search. Paper presentation at *SIGCHI Conference on Human Factors in Computing Systems, Workshop on Exploratory Search Interaction*, April 29, San Jose, CA.
- Smith, B.K. (2007). Designing exertion interfaces for health. Paper presentation at *SIGCHI Conference on Human Factors in Computing Systems, Workshop on Exertion Interfaces*, April 29, San Jose, CA.
- Jansen, B.J., Smith, B.K., and Booth, D. (2007). Understanding web search via a learning paradigm. Poster presentation at *The 16th International World Wide Web Conference (WWW2007)*, May 8-12, Banff, Alberta, Canada.
- Land, S., Smith, B.K., Park, S., Beabout, B., Kim, K., and Suh, W. (2007). Capturing everyday experiences for reflection on nutrition concepts: Using digital images as data. Presented at the *American Education Research Association National Conference*, April 9-13, Chicago, IL.
- Yang, S.P. and Smith, B.K. (2005). Exergames: A moving video game experience. Paper presented at *The 2005 New Media Consortium Online Conference on Educational Gaming*, December 7-8.
- Smith, B.K., Sharma, P., Sudhakar, R., and Hooper, P. (2005). Real learning with fantasy sports. Paper presented at *The 26th Annual Conference of the North American Society for the Sociology of Sport*, October 26-29, Winston-Salem, NC.
- Seif El-Nasr, M. and Smith, B.K. (2005). Learning through game modding. Paper presented at *The Games, Learning, and Society Conference*, June 23-24, Madison, WI.
- Smith, B.K., Sharma, P., and Sudhakar, R. (2005). Informal learning through fantasy sports. Interactive presentation at *The Games, Learning, and Society Conference*, June 23-24, Madison, WI.
- Yang, S. and Smith, B.K. (2005). Sweatin' with Nintendo: Exergaming for health. Interactive presentation at *The Games, Learning, and Society Conference*, June 23-24, Madison, WI.

Refereed Conference Presentations, cont'd

- Smith, B.K. and Yang, S.P. (2005). Reducing diabetic complications with video games. Poster presentation at *The 2nd Penn State Diabetes Research Retreat*, May 6, University Park, PA.
- Smith, B.K., Sudhakar, R., Mauser, J., Parker-Klees, L., and Ulbrecht, J. (2005). Assisting patient-physician communication with digital visualizations of glucose/behavioral data. Poster presentation at *The 2nd Penn State Diabetes Research Retreat*, May 6, University Park, PA.
- Frost, J. and Smith, B.K. (2003). Visualizing health. Poster presentation at the *Third Annual Diabetes Technology Meeting*. San Francisco, CA.
- Frost, J. and Smith, B.K. (2003). Picture of health: Photography use in diabetes self-care. Demo presentation at *The Fifth International Conference on Ubiquitous Computing (UBICOMP 2003)*. Seattle, WA.
- Smith, B.K. and Blankinship, E. (1999). Building models with imagery. Demo presentation at *Computer Supported Collaborative Learning 99*.
- Smith, B.K., Bers, M.U., Best, M., and Endter, I. (1999). Communities of news. Demo presentation at *Computer Supported Collaborative Learning 99*.
- Smith, B.K. (April, 1998). Learner-centered design in the classroom. Presented at the *CHI 98 Workshop on Learner-Centered Design*. Los Angeles, CA.
- Smith, B.K. (April, 1998). Time on task: Interface impedance in learning environments. Presented at the *CHI 98 Workshop, Too Much of a Good Thing? Identifying and Resolving Bloat in the User Interface*. Los Angeles, CA.
- Tabak, I., Sandoval, W., Smith, B.K., Steinmuller, F., and Reiser, B.J. (1998). BGulle: Facilitating reflection as a vehicle towards local and global understanding. Paper presented at the *American Education Research Conference*, San Diego, CA.
- Tabak, I., Smith, B.K., Sandoval, W.A., Agganis, A., and Reiser, B.J. (1996). BGulle: Supporting inquiry in a learning environment for biology. Paper presented at the *American Education Research Association Conference*, New York, NY.
- Smith, B.K., Agganis, A., and Reiser, B.J. (1995). Children and artificial life revisited. In *Working Notes of the IJCAI-95 Workshop on Entertainment and Artificial Intelligence/Artificial Life*, Montreal, Canada.
- Smith, B.K. and Reiser, B.J. (1995). Interactive story systems: They're not just for entertainment anymore. In *Working Notes of the AAAI Spring Symposium on Interactive Story Systems: Plot and Character*. Palo Alto, CA.
- Smith, B.K. and Reiser, B.J. (1994). You can learn a lot from film scoring. In *Working Notes of the AAAI Workshop on Artificial Intelligence, Artificial Life, and Entertainment*. Seattle, WA.
- Smith, Jr., W.H. and Smith, B.K. (1993). Representing expert thought processes in music composition: a comparison of cognitive modeling tactics. In *Proceedings of the Workshop on Music Education: An Artificial Intelligence Perspective*, World Conference on Artificial Intelligence in Education, Edinburgh, Scotland.
- Smith, B.K. (1992). MILES: Algorithmic musical composition via textual and visual inputs. Presented at the *Society of Artificial Intelligence and Simulation of Behaviour (AISB) Postgraduate Workshop*, Nottingham, England, January 1992.

Refereed Conference Presentations, cont'd

Smith, B.K. (1991). Cognitive models of cultural influence in musical composition. Presented at the *1991 University of California Undergraduate Research Conference*, Davis, CA, March 1991.

Invited Talks/Panels

Boston College, Invited panelist: ChatGPT: Implications for teaching and learning. Chestnut Hill, MA (February 2023).

National Science Foundation, Invited facilitator: STEM for all 2022 video showcase. Online forum (June 2022).

University of Washington, Invited participant: Creating a university-based data for good program: A decisions points workshop. Virtual workshop, four sessions (January-February 2022).

National Science Foundation and National Endowment for the Arts, Invited speaker + closing panelist: Algorithmic arts workshop: Exploring hybrid practices of innovation through computer science and the arts. Virtual workshop (January 2022).

Association of Educational Communication and Technology, Invited panelist: Presidential session on learning engineering. 2021 AECT International Conference, Chicago, IL (November 2021).

Ateneo University, Invited keynote speaker: Engineering learning for learning engineers. The 2nd International Conference on Education Frontiers. Virtual conference (November 2021).

Society for College and University Planning, Invited panelist: Libraries as Place in Institutional Transformation. Virtual webinar (September 2021).

Boston College, Invited panelist: How COVID-19 has changed the landscape of education. Virtual webinar (February 2021).

SRI International, Invited participant: Mid-Scale Research Infrastructure for the Future of Learning. Virtual meeting (October 2020).

Training Pros, Invited talk: Training AI leaders at DXC and Drexel. Virtual webinar (August 2020).

Digital Promise, Invited participant: Expert panel on AI and the future of learning. Virtual meeting (June 2020).

Shanghai Hongqiao International School, Invited talk: Learning engineering. Shanghai, China (May 2020)

Schmidt Futures and Chan Zuckerberg Initiative, Invited participant: Learning engineering and educational technology platforms workshop. New York, NY (February 2020).

Philadelphia Office of Workforce Development, Invited participant: Working group on automation and education policy. Philadelphia, PA (September 2019).

Philadelphia Museum of Art, Invited keynote: Speculative design. Philadelphia, PA (September 2019).

The Society for College and University Planning, Invited panelist: Mid-atlantic symposium | Informal learning environments: Do they matter? Philadelphia, PA (July 2019).

Invited Talks/Panels. cont'd

National Endowment for the Arts, Invited panelist: The arts, entrepreneurship, and innovation. Washington, DC (June 2019).

Schmidt Futures and Chan Zuckerberg Initiative, Invited participant: Learning engineering workshop. Arlington, VA (May 2019).

Boston College, Invited talk: Theory to Practice: How research informs (my) administrative decision making (April 2019).

University of Wisconsin, Madison, Invited talk: Play and designing for engaged learning. Madison, WI (March 2019).

American Association for Artificial Intelligence, Invited participant: AI for K-12 symposium. Arlington, VA (October 2018).

Nanjing Agricultural University, Invited talk: Computational fluency and STEAM education. Nanjing, China (September 2018).

Nanjing University, Invited talk: Computational fluency and STEAM education. Nanjing, China (September 2018).

Beijing Normal University, Invited talk: Computational fluency and STEAM education. Beijing, China (September 2018).

Lanzhou University, Invited talk: Computational fluency and STEAM education. Lanzhou, China (September 2018).

National Science Foundation, Invited talk: The majors that refused to sing. Alexandria, VA (June 2018).

Philadelphia Museum of Art, Invited keynote: Silos are for grain and missiles: The importance of being interdisciplinary. Philadelphia, PA (July 2017).

National Academies of Sciences, Engineering, and Medicine, Invited participant: Integration of education in the sciences, engineering, and medicine with the arts and humanities at the undergraduate and graduate levels (Session 3). Cambridge, MA (February 2017).

National Science Foundation. Invited talk: Computation + education. Arlington, VA (January 2017).

Westphal College of Media, Art, and Design, Design Research Symposium, Invited panelist: Systems and processes in design research. Philadelphia, PA (October 2016).

National Academies of Sciences, Engineering, and Medicine, Invited participant: Integration of education in the sciences, engineering, and medicine with the arts and humanities at the undergraduate and graduate levels (Session 2). Cambridge, MA (October 2016).

National Academies of Sciences, Engineering, and Medicine, Invited participant: Integration of education in the sciences, engineering, and medicine with the arts and humanities at the undergraduate and graduate levels (Session 1). Washington, DC (July 2016).

Drexel University Expression and Creative Technologies (ExCITe) Center, STEAM Workshop, Invited talk: Major making. Philadelphia, PA (February 2016).

Network for Science, Engineering, Arts, and Design, Invited participant: Steps to an ecology of networked knowledge and innovation. Washington, DC (February 2016).

Invited Talks/Panels. cont'd

National Academies of Sciences, Engineering, and Medicine, Invited participant: Integration of education in the arts and humanities with education in sciences, engineering, technology, and medicine. Washington, DC (December 2015).

Crystal Bridges Museum of American Art, Invited participant: Distance learning summit: Art museums & educational innovation. Bentonville, AR (November 2015).

Drexel University, Invited panelist: Multi and interdisciplinary research opportunities and support, 2015 New Faculty Orientation. Philadelphia, PA (September 2015).

New York Hall of Science, Invited participant: Tracing learning across time and space. Queens, NY (July 2015).

University of Alaska at Fairbanks & Nevada Museum of Art, Invited participant: Perspectives: Examining complex ecological dynamics through arts, humanities, and science integration. Reno, NV (June 2015).

Americans for the Arts, Invited presenter: How can we move from framing to action in STEAM education. Chicago, IL (June 2015).

Drexel University Expression and Creative Technologies (ExCITe) Center, STEAM Workshop, Invited talk: Art. Action. Attitude. Philadelphia, PA (February 2015).

Penn State Center for Online Innovation in Learning (COIL), Invited Fischer series keynote talk: Building innovation and identity with STEAM. University Park, PA (January, 2015).

USA Science & Engineering Festival, Invited panelist: Discover how STEAM is powering innovation of tomorrow. Washington, DC (April 2014).

United States Department of Veteran Affairs, Invited participant: The future of education: Foresight workshop and analysis. Washington, DC (February 2014).

Rhode Island School of Design and The Congressional STEAM Caucus, Invited participant: A workshop to investigate the growing activity in STEAM education and its impact on U.S. innovation and economic potential in the 21st century. Washington, DC (October, 2013).

Barnard Center for Research on Women, Gender Amplified Music Festival, Invited panelist: Women in music production. New York, NY (September 2013).

National Endowment for the Arts, Invited panelist: Networking sciences, engineering, arts, and design. Washington, DC (May 2013).

Drexel University, Invited talk: Playing with data. School of Education, Philadelphia, PA (April 2013).

The Concord Consortium, Invited talk: Playing with data. Concord, MA (March 2013).

University at Buffalo, Invited talk: Playing with data. School of Education, Buffalo, NY (February 2013).

Worcester Polytechnic Institute, Invited talk: Amateurs built the ark, professionals built the Titanic. Department of Social Sciences & Policy Studies, Worcester, MA (February 2013).

Northeastern University, Invited talk: Playing with data. Colleges of Arts, Media, & Design and Computer & Information Sciences, Boston, MA (February 2012).

Invited Talks/Panels. cont'd

Greater Providence Chamber of Commerce, Innovation Providence Implementation Council,
Invited talk: Creativity at the intersections of science, engineering, arts, and design.
Providence, RI (December 2011).

National Science Foundation, Invited participant: Establishing a network for science,
engineering, arts, and design (NSEAD). Baltimore, MD (November 2011).

National Science Foundation, Invited participant: Establishing a network for science,
engineering, arts, and design (NSEAD). Winston-Salem, NC (October 2011).

United States House of Representatives, Invited panelist: STEM to STEAM. Washington, DC
(June 2011).

National Science Foundation, Invited participant: Establishing a network for
art+science+technology research: Infrastructural and intellectual foundations. Troy, NY
(March 2011).

National Science Foundation/National Endowment for the Arts, Invited participant: Identifying
synergies and fostering collaborations: A joint workshop of the National Science Foundation
and the National Endowment for the Arts. Arlington, VA (September, 2010).

National Science Foundation, Invited participant: Articulating a research and development
agenda for learning designers. Lansdowne, VA (May 2010).

O'Reilly Media, Invited participant: Foo East. Cambridge, MA (April 2010).

American Association of Physics Teachers, Invited panelist: Science learning in informal
settings. Washington, DC (February 2010).

National Science Foundation, Invited participant: Blue sky workshop: Future of STEM curricula
and instructional design. Lansdowne, VA (December 2009).

Union Square Ventures, Invited panelist: Hacking education. New York, NY (March 2009).

Simon Fraser University, Invited talk: Digital media and informal learning. School of
Interactive Arts and Technology, Burnaby, British Columbia, Canada (October 2007).

Massachusetts Institute of Technology, Invited talk: Experience capture and health
maintenance. The Media Laboratory, Cambridge, MA (July 2007).

Northwestern University, Invited talk: Computational supports for understanding and
enhancing everyday knowledge use. School of Education and Social Policy, Evanston, IL
(February 2007).

University of Illinois at Chicago, Invited talk: Acts into artifacts: Computational supports for
experience capture and reflection. Chicago, IL (January 2007).

TERC, Invited talk: Acts into artifacts: Computational supports for experience capture and
reflection. Cambridge, MA (October 2006).

The Pennsylvania State University, Invited talk: Live and learn: Supporting everyday cognition
with computation. University Park, PA (October 2006).

Center for Children and Technology. Invited talk: Everyday learning with ubiquitous computing.
New York (July 2005).

Invited Talks/Panels. cont'd

The Pennsylvania State University, ACM Student Chapter. Invited talk: No pain, no game. University Park, PA (April 2005)

American Education Research Association. Jan Hawkins Award invited talk: Where the learning is (or isn't): Capturing, communicating, and critiquing everyday experiences. Montreal, Canada (April 2005).

Fantasy Sports Trade Association. Invited presentation: Real learning with fantasy sports. Las Vegas, NV (September 2004).

American Education Research Association, *Panel on New Technologies to Study Learning*. Invited talk: Take (learning with) pictures...further. San Diego, CA (April 2004).

The Pennsylvania State University, *Diabetes Research Center Symposium Series*. Invited talk: Digital visualizations of diabetic lifestyles. State College, PA (December 2003).

National Science Foundation and Deutsche Forschungsgemeinschaft, *NSF/DFG Creation of an American-German Research Network in the Field of Technology Supported Education Workshop*. Invited participant (with C. Hoadley and J. Kirby): Bringing online and offline lives together: Computer support for collaboration, learning, and reflection. Tübingen, Germany (November 2003).

Environmental Protection Agency. Invited workshop talk: Innovative Technologies for the Remote Collection of Data for the National Children's Study. Boston, MA (May 2003).

The Pennsylvania State University, College of Education. Invited Talk: The evolution of the glucose meter: Visualizing behavior for reflection. State College, PA (January 2002).

Atex Media Solutions, *Advertising Trends and Technologies Conference*. Keynote Address: Information: Organized. Boston, MA (May 2001).

Stanford University, *Symposium on Using Technology to Close the Achievement Gap*. Invited talk: Critical computation. Palo Alto, CA (April 2001).

Eastman Kodak. Invited talk: Take (learning with) pictures...further. Rochester, New York (April 2001).

The Pennsylvania State University, College of Education. Invited talk: Critical computation. State College, PA (March 2001).

New York University, Center for Advanced Technology, Media Art Or Whatever (MeAOW) Speaker Series. Invited talk: Community imaging. New York (March 2001).

American Association for the Advancement of Science, *2001 Annual Meeting and Exposition*. Invited talk: Experimenting with science television. San Francisco, CA (February 2001).

MIT, *Media in Transition: We Wired the Classroom, Now What?* Invited Keynote: (yet another) digital divide: research vs. practice. Cambridge, MA (February 2001).

Intel Architecture Labs. Invited Talk: What's the point of enjoying programming when it gets harder every year? Hillsboro, OR (January 2001).

Intel Architecture Labs. Invited Talk: Explanation and the digital image. Hillsboro, OR (December 2000).

Invited Talks/Panels. cont'd

American Center for Children and Media and The Markle Foundation. Invited Talk: Explanatory television. New York (October 2000).

New Jersey Association of Independent Schools. *Conference 2000 — The Value of a Liberal Arts Education in a Technological Era*. Keynote address: Digital Lenses for Arts and Humanities Learning. Lawrenceville, NJ (October 2000).

Jupiter Communications, *Interactive Knowledge Forum: Internet Commerce for Educational and Cultural Institutions*. Invited Panelist: 21st Century Learning: The Future Of Interactive Knowledge. New York (September 2000).

GTE Laboratories and The United Negro College Fund, Invited talk: Explaining explanation. Waltham, MA (July 2000).

CBC Television. *Summit 2000: Children, Youth and the Media — Beyond the Millennium Conference*. Invited panelist: Interaction + construction = learning. Toronto, Canada (May 2000).

Bank of Sweden Tercentenary Foundation. *Symposium on Education, Cognition, and Communication Technology*. Keynote address: The 21st century Big Bird plan (or, Digital killed the video star). Stockholm, Sweden (March 2000).

Intel Architecture Labs. *Human-Centered Product Innovation Conference*. Invited talk: Human-centered computing at the Media Laboratory. Portland, Oregon (January 2000).

Dublin City University. *Conference on Building an Intelligent Island: The Challenge of Transformation in the Knowledge Industry*. Invited talk: New technologies and the transformation of learning. Dublin, Ireland (January 2000).

Telmex. *Forum on Digital Culture and its Impact on Tomorrow's Society*. Invited talk: Historical insight though digital imaging. Mexico City (November 1999).

Catholic University. Invited talk: The verbosity of computing. Sao Paulo, Brazil (August, 1999).

Eastman Kodak. *Electronic Shoebox Workshop*. Invited talk: What can you learn with an image? Rochester, NY (May 1999).

American Center for Children and Media. Invited talk: Digital television: Thinking *around* the box. New York, NY (May 1999).

Annual Meeting of the American Educational Research Association. Session chair/Discussant: Creating collaborative learning environments on the web. Montreal, Canada (April 1999).

SRI International. *Center for Innovative Learning Technologies Conference 99*. Invited presentation, Ubiquitous Computing Track: Adventures in imaging. San Jose, CA (April 1999).

Academy of Television Arts and Sciences. Conference: *Through the Eyes of Children*. Invited talk: Just-in-time television. Los Angeles, CA (March 1999).

University of Maryland, College of Library and Information Services. Invited talk: Evolving an architecture for schools. College Park, MD (November 1998).

Harvard University. *Harvard Conference on Internet and Society*. Invited panelist: Building a commons in cyberspace. Cambridge, MA (May 1998).

Invited Talks/Panels, cont'd

Harvard University. *Harvard Conference on Internet and Society*. Invited presentation: Online communities or communities online? Cambridge, MA (May 1998).

**Supervision of
Dissertations**

Boston College

School of Education and Human Development
Fahd Abdus-Sabur, Ph.D. chair

Drexel University

School of Education

Laurie Bobley, Ed.D. chair, degree conferred in 2016
Katelyn Bright Alderfer, Ph.D. co-chair, degree conferred in 2020
Jonan Donaldson, Ph.D. chair, degree conferred in 2019
Matthew Duvall, Ph.D. chair, degree conferred in 2017
Magdalene Moy, Ph.D. chair, degree conferred in 2021
Jason Perry, Ed.D. chair, degree conferred in 2017
Elena Wilson, Ed.D. chair, degree conferred in 2017
Anthony Womack, Ed.D. chair, degree conferred in 2017

The Pennsylvania State University

College of Information Sciences and Technology

Joey Lee, Ph.D. co-chair, degree conferred in 2009
Ibrahim Yucel, Ph.D., co-chair, degree conferred in 2011
Joseph Zupko, Ph.D. chair, degree conferred in 2009

College of Education, Instructional Systems Program

Goknur Kaplan Akilli, Ph.D. chair, degree conferred in 2010
Toru Fujimoto, Ph.D. chair, degree conferred in 2010
Sunghyun Park, Ph.D. co-chair, degree conferred in 2007
Wen-Fan Hsieh, D.Ed. chair, degree conferred in 2005

Department of Computer Science and Engineering

Rajneesh Sudhakar, M.S. chair, degree conferred in 2005

Department of Electrical Engineering

Anurag Dalmia, M.S. chair, degree conferred in 2007
Manisha Mishra, M.S. chair, degree conferred in 2007

Massachusetts Institute of Technology

School of Architecture, Program in Media Arts and Sciences

Nell Breyer, S.M. chair, degree conferred in 2002
Timothy Hirzel, S.M. chair, degree conferred in 2002
Jeana Frost, S.M. chair, degree conferred in 2001
Martin Hadis, S.M. chair, degree conferred in 2002
Jonah Peretti, S.M. chair, degree conferred in 2001
Erik Blankinship, S.M. chair, degree conferred in 2000
Tamara Lackner, S.M. chair, degree conferred in 2000
Laurie Hiyakumoto, S.M. chair, degree conferred in 1999

School of Electrical Engineering and Computer Science

Shane Cruz, M.Eng. chair, degree conferred in 2002

**Membership on
Graduate Degree
Committees**

Boston College

Lynch School of Education and Human Development

Jenny (Ji Yook) Jung, Ph.D. committee

Melita Morales, Ph.D. committee, degree conferred in 2022

Drexel University

College of Computing and Informatics

Adam Johs, Ph.D. committee

Meen Chul Kim, Ph.D. committee, degree conferred in 2021

School of Education

Helena Abraham, Ed.D committee, degree conferred in 2017

Amanda Barany, Ph.D. committee, degree conferred in 2020

Jessica Cellitti, Ph.D. committee, degree conferred in 2019

Christopher Ferraro, Ph.D. committee

Tamara Galoyan, Ph.D. committee, degree conferred in 2019

Lucy Heacock, Ed.D. committee, degree conferred in 2016

Rasheda Likely, Ph.D. committee, degree conferred in 2020

Anthony Matranga, Ph.D. committee, degree conferred in 2017

Kimberly Rhone, Ed.D. committee, degree conferred in 2018

Hamideh Talafian, Ph.D. committee, degree conferred in 2020

College of Engineering, Department of Electrical and Computer Engineering

Ophelia Wells, Ph.D. committee

College of Media, Arts, & Design, Department of Digital Media

Jennifer Villareale, Ph.D. committee

The Pennsylvania State University

College of Information Sciences and Technology

Louise Campbell, M.S. committee, degree conferred in 2009

Cong Chen, Ph.D. committee, degree conferred in 2006

Benjamin Heller, B.S. thesis committee, degree conferred in 2004

Roderick Lee, Ph.D. committee, degree conferred in 2008

Helena Mentis, Ph.D. committee, degree conferred in 2010

Umber Shahim, M.S. committee, degree conferred in 2007

Yin Yang, M.S. committee, degree conferred in 2005

College of Education, Instructional Systems Program

Luis Almeida, Ph.D. committee, degree conferred in 2008

Bradley Ausman, Ph.D. committee, degree conferred in 2007

Ahmet Baytak, Ph.D. committee, degree conferred in 2009

Brett Bixler, Ph.D. Committee, degree conferred in 2007

Darryl Draper, Ph.D. committee, degree conferred in 2010

Ben Harwood, M.S. committee, degree conferred in 2004

Barry Hill, D.Ed. committee, degree conferred in 2005

Kyu-Yon Lim, Ph.D. committee, degree conferred in 2008

Raymond Pastore, Ph.D. committee, degree conferred in 2009

College of Education, Workforce Education Program

Barton Pursel, Ph.D. committee, degree conferred in 2009

Membership on Graduate Degree Committees, cont'd

College of Education, Curriculum and Instruction Program

Tsung-Yen Chuang, Ph.D. committee, degree conferred in 2006

College of Health and Human Development, Department of Kinesiology

Stephen Yang, Ph.D. committee

College of Arts and Architecture, School of Visual Arts, Art Education Program

Ryan Patton, Ph.D. committee, degree conferred in 2011

Massachusetts Institute of Technology

School of Electrical Engineering and Computer Science

Wesley Chan, M.Eng. committee, degree conferred in 2001

School of Architecture, Program in Media Arts and Sciences

Erik Blankinship, Ph.D. committee, degree conferred in 2005

Hyun-Yeul Lee, S.M. committee, degree conferred in 2002

Jose M. G. Pinto, S.M. committee, degree conferred in 2002

Vanessa Colella, Ph.D. committee, degree conferred in 2001

Aisling Kelleher, S.M. committee, degree conferred in 2001

Kwan Lee, S.M. committee, degree conferred in 2001

Cameron Marlow, S.M. committee, degree conferred in 2001

Randal Pinkett, Ph.D. committee, degree conferred in 2001

Barbara Barry, S.M. committee, degree conferred in 2000

David Cavallo, Ph.D. committee, degree conferred in 2000

Nyssim Lefford, S.M. committee, degree conferred in 2000

Fernanda Viegas, S.M. committee, degree conferred in 2000

Kevin Brooks, Ph.D. committee, degree conferred in 1999

Jonathan Dakss, S.M. committee, degree conferred in 1999

Ingeborg Endter, S.M. committee, degree conferred in 1999

Paul Nemirovsky, S.M. committee, degree conferred in 1999

Pengkai Pan, S.M. committee, degree conferred in 1999

Maria Redin, S.M. committee, degree conferred in 1999

Philip Tiongson, S.M. committee, degree conferred in 1998

Consulting

Miami College of Design, Board member (2016)

The Innovation Collaborative, Founding board member (2013-)

Discovery Space Science Center, Member, Content committee (2009)

Media Modifications, LLC, Advisory board member (2007-2010)

Package of Prevention, Chairman (2006-2011)

The Energy Factory, Technical advisor (2005-6)