WILLIAM R. KJELLSTROM

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EDUCATION

University of Virginia, Charlottesville, VA
> Ph.D. in Instructional Technology
> Dissertation: *Developing Preservice Teachers' Technological, Pedagogical, and Content Knowledge Through Face-to-Face and Online Learning Experiences*
> Awards: *Outstanding Graduate Teaching Assistant, HASTAC Scholar*

Harvard University, Cambridge, MA
> Ed.M. in Technology in Education, May 2005

Vanderbilt University, Nashville, TN
> M.Ed. in Elementary Education (PK - 6th Certification), May 2001
> Awards: *Kappa Delta Pi Honor Society, Golden Key National Honor Society*

Wake Forest University, Winston-Salem, NC
> B.A. in Psychology, May 1998
> Awards: *Psi Chi Honor Society, Donald Alan Memorial Scholarship*

HIGHER EDUCATION EXPERIENCE

Black Hills State University, 2013 - 2014
> **Assistant Professor:** Taught courses on technology integration and research methods for graduate students enrolled in an online Master's degree program
> **Committee Member:** Served on the University Technology Committee as well as the College of Education's Social Committee

University of Virginia, 2009 - 2013
> **Lab Manager:** Managed purchases, lab equipment, and IRB protocols for the Science, Technology, Engineering, and Mathematics lab
> **Director of the Technology Infusion Program:** Coordinated and supervised pre-service teacher placements in practicum classrooms that emphasized technology integration
> **Instructor:** Taught a graduate-level course for pre-service teachers focusing on the integration of technology into curricula and learning experiences: Applied Teaching with Technology (EDIS 5440)
> **Consultant:** Provided consultation for an unreleased software program designed by Fablevision
> **Graduate Fellow:** Supported and implemented research on use of digital fabrication systems to enhance elementary students' understanding of science, technology, engineering, and mathematics

Harvard University, 2004 - 2005
> **Intern at Tom Snyder Productions:** Conducted usability analysis and design consultation for *Go Solve Word Problems* and *FASTT Math*

Vanderbilt University, 1999 - 2001
> **Graduate Assistant:** Assisted four college professors with tasks including research in classroom management, class structure, and record keeping

K-12 EXPERIENCE

Albemarle County Public Schools, Albemarle, VA, 2015 - Present
Learning Technology Integrator: Served as a technology integration specialist for two middle schools
Maker Space Consultant: Provided advice and professional development for district-wide initiatives related to hands-on learning and maker spaces

Albemarle County Public Schools, Albemarle, VA, 2011 - 2013
Online Teacher: Co-taught an online course for in-service teachers on digital fabrication technologies
Consultant: Provided workshops and guidance on implementing digital fabrication systems in elementary classrooms
Informal Education Teacher: Taught afterschool classes in circuitry and educational toy design for fourth and fifth grade students

Trinity School, Atlanta, GA, 2006 - 2009
Sixth Grade Teacher: Served as a lead sixth grade teacher and taught language arts, social studies, and character education
Website Manager: Collaborated with administration and teachers to develop and implement a multifaceted, Web 2.0-enhanced website: http://www.trinityatl.org
Video Production Teacher: Managed Trinity School's video production studio and coordinated a bi-monthly, student-run closed circuit broadcasts for school members
Instructional Technology Specialist: Served as the primary professional development leader for instructional technology initiatives for all grades at Trinity School

Sussex County Public Schools, Sussex, VA, 2005 - 2006
Instructional Technology Resource Teacher: Provided technology professional development for six schools in the district and helped teachers integrate technology into daily instruction

The Lovett School, Atlanta, GA, 1999 and 2001 - 2003
Fifth Grade Teacher: Taught language arts, mathematics, social studies, and character education to fifth grade students
Athletic Coach: Coached middle and high school students in football and track
Fourth Grade Assistant Teacher: Prepared lesson plans, created the daily schedule, and graded student work in a fourth grade classroom consisting of twenty-one students
Substitute Teacher: Substitute taught in the upper and middle schools while assuming the coaching duties for the track team

The Summit School, Winston-Salem, NC, 1998
Tutor: Developed the linguistic, organizational, and scholastic skills of a third-grade student

PUBLICATIONS

Bull, G., Ferster, B., & Kjellstrom, W. (2012). Inventing the flipped classroom. *Learning and Leading with Technology,* 40(1).

Chiu, J. L., Bull, G. Berry, R. Q. & Kjellstrom, W. (2012). Teaching engineering design with digital fabrication: Imagining, creating, and refining ideas. To appear in N. Levine & C. Mouza (Eds.) *Emerging Technologies for the Classroom: A Learning Sciences Perspective*. Springer Science.

Kjellstrom, W., Tillman, D. & Cohen, J. (2012). The paper airplane contest: Fabricating for flight and mathematical problem solving. In *Proceedings of Society for Information Technology & Teacher Education 2012* (pp. 1046-1051). Chesapeake, VA: AACE.

Slykhuis, D., Cline, T., Kjellstrom, W., Bell, R., Tillman, D., Lenk, C., Thornburg, D., Spector, M. & Barbier, S. (2012). Creating a NASA MMS trans-media book. In *Proceedings of Society for Information Technology & Teacher Education 2012* (pp. 1066-1069). Chesapeake, VA: AACE.

Tillman, D., Ducamp, G., Dejaegher, C., Cohen, J., Kjellstrom, W. & Smith, S. (2012). A role for digital fabrication activities utilizing the engineering design process in developing preservice elementary teachers' mathematics and science pedagogy. In *Proceedings of Society for Information Technology & Teacher Education 2012* (pp. 1085-1090). Chesapeake, VA: AACE.

Cohen, J., Ducamp, G., Kjellstrom, W. & Tillman, D. (2012). What happens when children encounter the t-book?: The potential for transmedia books in teacher education. In *Proceedings of Society for Information Technology & Teacher Education 2012* (pp. 1033-1040). Chesapeake, VA: AACE.

Bull, G. & Kjellstrom, W. (2011). Introducing mechatronics in schools. *Learning and Leading with Technology*, 39(3).

Tillman, D., Kjellstrom, W., Smith, S. & Yoder, E. (2011). Digital fabrication scaffolds for developing preservice elementary teachers' mathematics pedagogy. In *Proceedings of Society for Information Technology & Teacher Education 2011* (pp. 892-897). Chesapeake, VA: AACE.

Alexander, C. & Kjellstrom, W. (2010). The influence of a technology-based internship on first-year teachers' instructional decision-making. In *Proceedings of Society for Information Technology & Teacher Education 2010* (pp. 2132-2137). Chesapeake, VA:AACE.

Bull, G. & Kjellstrom, W. (2009). Using interactive data. *Virginia Journal of Education*, 103(2).

PRESENTATIONS

Osborn, G., Kjellstrom, W. & Ellis, G. (2015). Immersive Learning and the Emerging World of Minecraft. 2015 VSTE Annual Conference, Roanoke, VA.

Kjellstrom, W. (2015). Revising the ISTE Technology Standards. Making Connections 2015, Charlottesville, VA.

Kjellstrom, W. (2015). Birds-of-a-Feather: Earth Science. Making Connections 2015, Charlottesville, VA.

Kjellstrom, W., Kinzie, M., & Bull, G. (2013). Hybrid course design at Curry: EDIS 3450 Teaching with Technology. EdTalk at University of Virginia, Charlottesville, VA.

Kjellstrom, W. & Cohen, J. (2012). Exploring Physical Objects and a Virtual Simulation in a Spatial Visualization Task. Virginia Education Research Association, Charlottesville, VA.

Kjellstrom, W., Tillman, D. & Cohen, J. (2012). The Paper Airplane Contest: Fabricating for Flight and Mathematical Problem Solving. Society for Information Technology and Teacher Education, Austin, TX.

Slykhuis, D., Cline, T., Kjellstrom, W., Bell, R., Tillman, D., Lenk, C., Thornburg, D., Spector, M. & Barbier, S. (2012). Creating a NASA MMS Trans-Media Book. Society for Information Technology and Teacher Education, Austin, TX.

Tillman, D., Ducamp, G., Dejaegher, C., Cohen, J., Kjellstrom, W. & Smith, S. (2012). A Role for Digital Fabrication Activities Utilizing the Engineering Design Process in Developing Preservice Elementary Teachers' Mathematics and Science Pedagogy. Society for Information Technology and Teacher Education, Austin, TX.

Cohen, J., Ducamp, G., Kjellstrom, W. & Tillman, D. (2012). What Happens When Children Encounter the T-Book?: The Potential for Transmedia Books in Teacher Education. Society for Information Technology and Teacher Education, Austin, TX.

Kjellstrom, W., Tillman, D., Cohen, J., Ducamp, G. (2012). Exploring project-based learning and digital fabrication through transmedia books. Society for Information Technology and Teacher Education, Austin, TX.

Stearns, P.H., Bull, G. & Kjellstrom, W. (2011). Children's engineering: Digital fabrication workshop. Society for Information Technology and Teacher Education. Nashville, TN.

Tillman, D., Kjellstrom, W., Smith, S., & Yoder, E. (2011). Digital fabrication scaffolds for developing preservice elementary teachers' mathematics pedagogy. Society for Information Technology and Teacher Education, Nashville, TN.

Kjellstrom, W., Tillman, D., Smith, S., & Yoder, E. (2011). Digital fabrication: Engaging elementary students with design and construction. Society for Information Technology and Teacher Education, Nashville, TN.

Kjellstrom et al. (2011). Fab@School: Children's engineering across the curriculum in your classroom. Society for Information Technology and Teacher Education, Nashville, TN.

Bull, G. & Kjellstrom, W. (2011). Digital fabrication in K-12 schools. Paper presented at the Fourth Annual STEM Learning Summit. Longwood, VA.

Alexander, C. & Kjellstrom, W. (2010). The influence of a technology-based internship on first-year teachers' instructional decision-making. Paper presented at the Society for Information Technology and Teacher Education 2010, San Diego, CA.

Bull, G., Marks, G., Sanham, N., & Kjellstrom, W. (2010). SITE's Digital Fabrication Initiative. Society for Information Technology & Teacher Education International Conference, San Diego, CA.

Bull, G., Moore, S., & Kjellstrom, W. (2010). Personal fabrication systems in the classroom: Lessons, examples, and learning. International Society for Technology in Education, Denver, CO.

Carson, E. & Kjellstrom, W. (2010). Fabrication systems: Engaging elementary and middle school students in meaningful, creative construction. Capital Region Society for Technology in Education, online.

GRANTS (ASSISTED IN WRITING AND/OR IMPLEMENTATION)

Graduate Fellow, *Interactive Video-based Teaching Cases*, Teaching Resource Center's Hybrid Challenge at the University of Virginia, Funded at $1,000 from August 2012 - December 2012, PIs Bull, G., & Kinzie, M.

Graduate Fellow, *The FabLab Classroom: Preparing Students for the Next Industrial Revolution*, National Science Foundation's Innovative Technology Experiences for Students and Teachers (ITEST), Funded at $1,199,967 from October 2010 - September 2013, PIs Bull, G., Berry, R. Q., Lipson, H., & Knezek, G.

Graduate Fellow, *Fab@School Digital Fabrication Initiative*, John D. and Catherine T. MacArthur Foundation's MacArthur Digital Media and Learning Award, Funded at $185,000 from July 2010 - June 2011, PIs Bull, G. & Berry, III, R. Q.

Graduate Fellow, *Designing a Digital Fabrication Laboratory for the Classroom*, Motorola Innovation Grant, Funded at $250,000 from July 2010 - June 2011, PIs Lipson, H., Bull, G., & Berry, R. Q.

Graduate Fellow, *FabLab Construction Station: Engaging Teachers and Students in Technology, Engineering, and Math,* Institute for Education Sciences (IES) Small Business Innovation Research Phase I Award, Funded at $100,000 from July 2010 - December 2010, PIs Goldberger, G., Bull, G., & Berry, R. Q.

Graduate Fellow, *STEM Innovation in Teacher Education: Children's Engineering,* University of Virginia's Commission on the Future of the University, Funded at $12,000 from February 2010 - May 2011, PIs Berry, R. Q., Bull, G., & Smolkin, L.

SERVICE

Workshop Facilitator, *KidVention,* Virginia Discovery Museum, Spring 2013

Teaching Assistant, *EDIS 7020: Courseware Tools*, University of Virginia, Spring 2013

Workshop Facilitator, *Young Women Leaders Program*, University of Virginia, Spring 2013

Volunteer Designer and Webmaster, *http://www.cedacademy.org*, Commonwealth Engineering Design Academies, Spring 2013

Reviewer, *Society for Information Technology and Teacher Education Conference*, New Orleans, LA, November 2012

Program Committee Member, *Society for Information Technology and Teacher Education Conference*, New Orleans, LA, November 2012 - Present

Volunteer Designer and Webmaster, http://*www.tpackcases*.org, National Technology Leadership Coalition, University of Virginia, November 2012 - Present

Video Production Consultant, *EDIS 7010: Courseware Tools,* University of Virginia, Fall 2012

Secretary, *American Society of Engineering Education Chapter*, University of Virginia, June 2012 - Present

Workshop Facilitator, *Making Connections Conference,* Albemarle County Public Schools, November 2012

Facilitator (Case Study Strand), *National Technology Leadership Summit*, Washington, DC, October 2012

Presider, *Society for Information Technology and Teacher Education Conference*, Austin, TX, March 2012

Invited Exhibitor, *National Science Foundation's ITEST Summit*, Washington, DC, February 2012

Facilitator (STEM Strand), *National Technology Leadership Summit,* Washington, DC, September 2011

Technology Supervisor, *Math, Men, and Mission (M-Cubed): Algebra Readiness Camp for Middle School African American Students*, Charlottesville, VA, June 2011

Committee Member, *Scholarship and Professional Development Committee of the Student Council*, University of Virginia, August 2010 - May 2011

Facilitator, *National Technology Leadership Summit,* Washington, DC, September 2010

Workshop Facilitator, *Digital Fabrication in the Middle School*, The Lovett School, Atlanta, GA, August 2010

Technology Supervisor, *Math, Men, and Mission (M-Cubed): Algebra Readiness Camp for Middle School African American Students*, Charlottesville, VA, June 2010

Volunteer Designer and Webmaster, http://*www.digitalfabrication.org (website moved to http://www.maketolearn.org)*, University of Virginia, August 2009 - December 2010

Committee Member, *Curry Library Innovation Commons*, University of Virginia, August 2009 - May 2010

PROFESSIONAL ASSOCIATIONS

- American Education Research Association (AERA)
- Virginia Education Research Association (VERA)
- Society for Information Technology and Teacher Education (SITE)
- International Society for Technology in Education (ISTE)
- American Society for Engineering Education (ASEE): *Student Chapter at the University of Virginia* and *National Organization*
- National Council of Teachers of Mathematics (NCTM): *Former Member*