

CHRISTOPHER PROCTOR

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EDUCATION

STANFORD UNIVERSITY	PhD in Education (anticipated 2020) Learning Sciences & Technology Design Brigid Barron, Paulo Blikstein, Antero Garcia & Roy Pea MS in Computer Science (2018) Artificial Intelligence & Human-Computer Interaction MA in Education (2007) Teaching Secondary English BS in Symbolic Systems (2006) Decision-Making & Rationality BA in English (2006) Critical Theory & Early Modern Period
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PUBLICATIONS (PEER REVIEWED)

Proctor, C. & Garcia, A. (In press). Student voices in the digital hubbub. In L. Hogg, C. Achieng-Evensen, & K. Stockbridge (Eds.), *Giving student voice due weight: Possibilities and challenges in USA and New Zealand*.

Proctor, C. & Blikstein, P. (In press). Unfold.studio: Supporting critical literacies of text & code. *Information and Learning Science*, 1(2).

Crocker, M., Proctor, C., & Taylor, V. (2011) Webbing and the Reading Process. *English in Texas*, 41(1), 38-43.

CONFERENCE PROCEEDINGS (PEER REVIEWED)

Proctor, C. (Submitted). *Measuring the computational in computational participation: Debugging interactive stories in middle school computer science*. Full paper submitted to Computer Supported Collaborative Learning (CSCL) 2019, Lyon, France.

Kafai, Y., Proctor, C., Lui, D. (Accepted). *Computational thinking as critical literacy*. Full paper to be presented at the Weisenbaum Conference 2019, Berlin, Germany.

Proctor, C., Bigman, M., & Blikstein, P. (2019). *Defining and designing computer science education in a k-12 public school district*. Full paper to be presented at ACM SIG Computer Science Education conference (SIGCSE) 2019, Minneapolis, MN.

Boles, K., Macedo, L., Proctor, C., & Blikstein, P. (2018). *Manipul8: An Interactive Experience to Inspire Pattern-Based Algebraic Thinking and Representational Fluency*. Demo presented at Interaction Design & Children (IDC), Trondheim, Norway.

Mongkhonvanit, K., Zau, C., Proctor, C., & Blikstein, P. (2018). *Testudinata: A Tangible Interface for Exploring Functional Programming*. Demo presented at Interaction Design & Children (IDC), Trondheim, Norway.

Proctor, C., & Blikstein, P. (2018). *How broad is computational thinking? A longitudinal study of practices shaping computer science learning*. Full paper presented at International Conference of the Learning Sciences (ICLS) 2018, London, UK. (32% accepted)

Davis, R., Proctor, C., Friend, M., & Blikstein, P. (2018). *Solder and wire or needle and thread: do the tools we use change the way we think?* Full paper presented at International Conference of the Learning Sciences (ICLS) 2018, London, UK. (32% accepted)

Proctor, C. (2018). *Interactive Storytelling*. Workshop presented at Computer Science Teachers Association (CSTA) annual conference, Omaha, NE.

Proctor, C., & Blikstein, P. (2017). *Interactive Fiction: Weaving together literacies of text and code*. Work-in-progress paper presented at Interaction Design and Children (IDC), Stanford, CA. doi: 10.1145/3078072.3084324

Proctor, C. & Blikstein, P. (2016). *Grounding how we teach programming in why we teach programming*. Full paper presented at Constructionism 2016, Bangkok, Thailand.

RESEARCH EXPERIENCE

- 2018 **Research assistant** Daniel McFarland, Stanford University
Used topic models and NLP embeddings to model how academic fields change over time and how diversity of participants drives innovation.
- 2017 **Research consultant** Digital Promise
Developed ten micro-credentials to support professional development in teaching computational thinking. Published on Bloomboard.
- 2015-
2018 **Research assistant** Paulo Blikstein, Stanford University
Led several participatory design-based research projects to design and develop constructionist learning technologies.

UNIVERSITY TEACHING EXPERIENCE

- 2019 **Instructor**, Teachers College MSTU 5199 001 / 002, Beyond Bits and Atoms: Designing Technical Tools.
- 2018 **Instructor**, Stanford EDUC 211 / CS 402L, Beyond Bits and Atoms: Designing Technical Tools.
- 2018 **TA**, Stanford EDUC 289, The Centrality of Literacies in Teaching & Learning.
- 2017 **TA**, Stanford EDUC 211 / CS 402L, Beyond Bits and Atoms: Designing Technical Tools.
- 2017 **TA**, Stanford EDUC 289, The Centrality of Literacies in Teaching & Learning.

K12 TEACHING EXPERIENCE

Certifications: National Board (2012), Texas English (2009), California English & Math (2007, 2009)

- 2013- **Computer Science Teacher** at The Girls' Middle School, Palo Alto, CA
- 2015 Developed interdisciplinary two-year CS curriculum in Scratch and Python based on creative media production. Designed and implemented interface for new school information system. Led a yearlong design process to incorporate Maker pedagogy more deeply into school.
- 2010 **Teaching Shakespeare Institute**, Folger Shakespeare Library, Washington, DC
National Endowment for the Humanities summer institute focused on teaching Shakespeare through performance and primary source research.
- 2009- **English Teacher** at Westlake High School, Austin, TX
- 2011 Designed, taught, and published curriculum units emphasizing blogs, wikis, groupwork, performance assessments with outside audiences. Developed and new educational technologies to support reading and writing. Awarded Golden Apple teaching award.
- 2007- **English Teacher** at Palo Alto Senior High School, Palo Alto, CA
- 2009 Proposed and piloted equitable detracked freshman English course. Lead author on departmental scope-and-sequence plan and schoolwide summary of assessment practices. Recommended for tenure.

SOFTWARE DEVELOPMENT EXPERIENCE

Full-stack developer with specialty in user research, UI, UX, machine learning, academic computing. Expert in Python, Javascript, web technologies. Proficient in Swift, R, C, C++.

- 2017- **Research Software Developer** for PeerTeach, Palo Alto, CA
- 2018 Supported design, developed, and deployed interactive web application for helping students become more effective peer tutors.
- 2012- **Lead Software Developer** at cK-12 Foundation, Palo Alto, CA
- 2013 As leader of cK-12's Interactive Learning Group, wrote interactive learning design framework and led a team of 8 developing interactive algebra and geometry curricula. Designed architecture to serve over 500k interactive simulations; analyzed student interactions to assess learning.

GRANTS & FELLOWSHIPS

- 2017 Honorable Mention, National Science Foundation Graduate Research Fellowship
- 2017 \$4,250 Lopatin Fellowship, The linguistic production of learning opportunities
- 2016 \$17,000 MediaX Grant, The contextual future of situated schools
- 2016 \$7,500 TELOS Grant, Interactive fiction: Weaving together literacies of text and code

PRESENTATIONS

- 2018 *Interactive Storytelling: Weaving Together Literacies of Text and Code*. Philly Celebration of Writing & Literacy, Philadelphia, PA. Philadelphia Writing Project
- 2018 Invited speaker, Stanford Teacher Education Program Computer Science Curriculum & Instruction pilot course
- 2017 *Worldbuilding for Safe, Secure, and Private Futures: Producing Internet-Related Roleplaying Games and Interactive Fiction*. Workshop at MozFest 2017, London, UK, with Antero Garcia
- 2017 Invited speaker, Stanford Center for Supporting Excellence in Teaching & TELOS Professional development course for EdTEch integration specialists.
- 2016 *Weaving english/language arts into computational literacy*. Abstract presented at Learning Sciences Graduate Student Conference (LSGSC), Chicago, IL.
- 2016 Invited speaker, Norcal Media Day, Palo Alto, CA. Journalism Education Association of Northern California

ACADEMIC COMMUNITY

- 2018 **Reviewer** International Conference of the Learning Sciences (ICLS), FabLearn 2019
- 2017 **Conference volunteer** Interaction Design & Children (IDC) 2017, Stanford, CA; FabLearn 2017, Stanford, CA
- 2016, **Professional development leader** Darunsikkhalai School, Bangkok, Thailand
- 2017 Planned and led two four-day workshops for 35 teachers on constructionist pedagogy, with a focus on powerful ideas, assessment, and shaping learning environments.
- 2016 **Conference volunteer** FabLearn 2016, Stanford, CA
- 2015 **Professional development leader** Merced County Office of Education, California
Planned and led a two-day workshop for 20 teachers on using Arduino in STEM high school courses.

Revised January 2019