

Summer 2018

**MICHAEL L. LACHNEY**

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**EDUCATION**

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Ph.D. Science and Technology Studies, 2017  
Rensselaer Polytechnic Institute, Troy, NY

M.S. Science and Technology Studies, 2014  
Rensselaer Polytechnic Institute, Troy, NY

M.A. Media and Cinema Studies, 2011  
DePaul University, Chicago, IL

B.A. Film and Video, Minor/Poetry, 2009  
Columbia College Chicago, Chicago, IL

**PROFESSIONAL EXPERIENCE**

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2018-present  
Assistant Professor,  
Department of Counseling, Educational Psychology & Special Education  
Educational Psychology and Education Technology Program, Michigan State University

2017-2018  
Postdoctoral Research Associate  
Department of Science and Technology Studies, Rensselaer Polytechnic Institute

**UNIVERSITY RESEARCH EXPERIENCE**

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Department of Science and Technology Studies, Rensselaer Polytechnic Institute  
Postdoctoral Research Fellow  
Grant: NSF STEM+C: Integration of Computational Thinking and Science Using  
Culturally-Based Topics (#1640014), 2017 – 2018

Department of Science and Technology Studies, Rensselaer Polytechnic Institute  
Graduate Research Fellow  
Grant: NSF Grad Teaching Fellows in K-12: Graduate Teaching Fellow in Community  
Situated Research: The Triple Helix of University, K-12, and Community Knowledge  
Production (#0947980), 2012 – 2014

## **PUBLICATIONS**

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### **Refereed Journal Articles**

- Lachney, Michael, and Taylor Dotson. 2018. "Epistemological Luddism: Reinvigorating a Concept for Action in 21<sup>st</sup> Century Socio-technical Struggles." *Social Epistemology: A Journal of Knowledge, Culture and Policy* 32 (4), 228-240.
- Lachney, Michael. 2017. "Computational Communities: African American Cultural Capital in Computer Science Education." *Computer Science Education* 27 (3-4), 175-196.
- Banks, David, and **Michael Lachney**. 2017. "Engineered Violence: Confronting the Problems of Neutrality and Violence in Engineering." *International Journal of Engineering, Social Justice, and Peace* 5 (1-2), 1-12.
- Lachney, Michael. 2017. "Culturally Responsive Computing as Brokerage: Toward Asset Building with Education-Based Social Movements." *Learning, Media and Technology* 42 (4), 420-439.
- Eglash, Ron, Audrey Bennett, John Drazan, **Michael Lachney**, and William Babbitt. 2017. "A Mathematical Tool Kit for Generative Justice." *ETD - Digital Thematic Education* 19 (3), 761-785.
- Lyles, Dan, **Michael Lachney**, Ellen Foster, and Zoe Zatz. 2016. "Generative Contexts: Generating Value Between Community and Educational Settings." *Teknokultura: Journal of Digital Culture and Social Movements* 13 (2): 613-637.
- Lachney, Michael, Audrey Bennett, George Appiah, and Ron Eglash. 2016. "Modeling in Ethnocomputing: Replacing Bi-Directional Flows with Recursive Emergence." *International Journal of Research in Mathematics Education* 6 (1): 219-243.
- Lachney, Michael, William Babbitt, and Ron Eglash. 2016. "Software Design in the 'Construction Genre' of Learning Technology: Content Aware versus Content Agnostic." *Computational Culture: A Journal of Software Studies* 5.
- Babbitt, William, **Michael Lachney**, Enoch Bulley, and Ron Eglash. 2015. "Adinkra Mathematics: A Study of Ethnocomputing in Ghana." *Multidisciplinary Journal of Educational Research* 5 (2): 110-135.
- Lachney, Michael. 2015. "'What Would Sagan Do?' The Fandom and Anti-Fandom of Carl Sagan." *The Journal of Fandom Studies* 3 (2): 135-150.

### **Books Chapters**

- Eglash, Ron, William Babbitt, Audrey Bennett, Kathryn Bennett, Brian Callahan, James Davis, John Drazan, Charles Hathaway, David Hughes, Mukkai Krishnamoorthy,

**Michael Lachney**, Michael Mascarenhas, Shayla Sawyer, Kathleen Tully. 2017. “Culturally Situated Design Tools: Generative Justice as a Foundation for STEM Diversity.” *Moving Students of Color from Consumers to Producers of Technology*, edited by Yolanda A. Rankin and Jakita O. Thomas, 132-151. London: IGI Global.

Bennett, Audrey, Ron Eglash, **Michael Lachney**, and William Babbitt. 2016. “Design Agency: Diversifying Computer Science at the Intersection of Creativity and Culture.” *Revolutionizing Education through Web-Based Instruction*, edited by Mahesh Raisinghani, 35-56. London: IGI Global.

Lachney, Michael. 2014. “Building the LEGO Classroom.” *LEGO Studies: Examining the Building Blocks of a Transmedial Phenomenon*, edited by Mark J. P. Wolf, 166-186. New York: Routledge.

Lachney, Michael. 2012. “Students as Fans: Student Fandom as a Means to Facilitate New Media Literacy in Public Middle Schools.” *Fan Culture: Theory and Practice*, edited by Katherine Larsen and Lynn Zubernis, 188-207. Newcastle upon Tyne: Cambridge Scholars Publishing.

### **Refereed Conference Proceedings**

Lachney, Michael and David Banks. 2017. “Teaching the Non-Neutral Engineer: Pathways Toward Addressing the Violence of Engineering in the Classroom.” In *Proceedings of the 2017 American Society for Engineering Education Annual Conference & Exposition*.

Lachney, Michael and Dean Nieusma. 2015. “Engineering Bait and-Switch: K-12 Recruitment Strategies Meet University Curricula and Culture.” In *Proceedings of the 2015 American Society for Engineering Education Annual Conference & Exposition*.

### **Encyclopedia Entries**

Woodhouse, Edward and **Michael Lachney**. 2014. “Consumerism.” *Ethics, Science, Technology, and Engineering: A Global Resource, 2nd Edition*, edited by J. Britt Holbrook and Carl Mitcham. Farmington Hills: Gale Cengage Learning.

### **AWARDS AND HONORS**

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Rensselaer Polytechnic Institute, Founder’s Award of Excellence, 2016  
Albany Fund for Education, Recognition of Math Night, 2015  
Albany Fund for Education, Recognition of 3Helix: 7A Science Club, 2014  
Albany Fund for Education, Recognition of 3Helix: 7A Science Club, 2013  
DePaul University, Certificate of Academic Excellence, 2011

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DePaul University, Academic Achievement Scholarship, 2011

DePaul University, Academic Achievement Scholarship, 2010

Muskegon City Teachers Education Association and Community Foundation, Muskegon County Scholarship, 2009

## **FELLOWSHIPS**

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Rensselaer Polytechnic Institute, Alger Engineering Ethics Summer Research Fellowship, 2017

Rensselaer Polytechnic Institute, Alger Engineering Ethics Summer Research Fellowship, 2015

## **INVITED TALKS**

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“Revitalization of Indigenous Knowledge” Panel. McGill University – McGill African Students’ Society Annual Development Convention, Sponsored by African Development Committee of the McGill African Student Society, 2017, Montréal, QC

“Culturally Responsive Computer Programming as a 21<sup>st</sup> Century Skill in Ghanaian ICT Classrooms.” New Mexico Institute of Mining and Technology - Technology, Education, and Communication Seminars, Sponsored by Friends of CLASS and the Department and Office of Student Learning, 2015, Socorro, NM

“The Value in Mathematics” Public Discussion W/ Falke Pisano and Mariana K. Leal Ferreira. Gallery at REDCAT – Exhibition by Falke Pisano, 2015, Los Angeles, CA

## **CONFERENCE ACTIVITY/PARTICIPATION**

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### **Panels and Workshops Organized**

“Culturally Responsive STEM Education with Neoindividual Communities.” American Anthropological Association, 2017, Washington D.C.

“Ethnocomputing and Collaboration: Pedagogy and Research.” American Anthropological Association, 2015, Denver, CO

“Will Collaborate for Change: Creating a Hybrid Culture between STS and Science/Engineering Graduate Education.” Society for Social Studies of Science, 2013, San Diego, CA

“Youth Film Festival Competition.” Society for Cinema and Media Studies, 2013, Chicago, IL

### **Conferences Organized**

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The Northeast STS Graduate Student Conference, 2016, Troy, NY

### **Papers Presented**

“Before Social Justice: What Does Answerability Mean for Liberal Engineering Education.” Engineering and Liberal Education Symposium at Union College, 2018, Schenectady, NY

“‘That’s Not How Cornrows Work’: Culturally Responsive Computer Science Education in Neoindigenous Contexts.” American Anthropological Association, 2017, Washington D.C.

“Trading Zones and Cultural Differences: An Anti-Racist Approach to Computer Science Education.” Society for Social Studies of Science, 2017, Boston, MA

“Teaching the Non-Neutral Engineer: Pathways Toward Addressing the Violence of Engineering in the Classroom.” American Society for Engineering Education, 2017, Columbus, OH

“Doing for the Test: New York State Middle Schools as Analogous to Two Types of Laboratories.” American Anthropological Association, 2016, Minneapolis, MN

“Technologies for Circulating Community Knowledge in Educational Social Movements.” The Northeast STS Graduate Student Conference, 2016, Troy, NY

“Ethnocomputing in Practice: Academic Computer Science Research meets High School ICT Classrooms in Ghana.” American Anthropological Association, 2015, Denver, CO

“Teaching Standards: LEGO Robotics meet Common Core State Standards.” Society for Social Studies of Science, 2015, Denver, CO

“Open Education and Personal Technologies: Neoliberal Ideologies and Educational Technology Research at MIT in the 1970s and 1980s.” Society for the History of Technology, 2015, Albuquerque, NM

“Engineering Bait and-Switch: K-12 Recruitment Strategies Meet University Curricula and Culture” (Co-Presenter w/ Dean Nieusma). American Society for Engineering Education, 2015, Seattle, WA

“Knowing Who Knows: Teaching Assistants as Learning Brokers in Engineering Education” (Co-Presenter w/ David Banks). Engineering and Liberal Education Symposium at Union College, 2015, Schenectady, NY

“Lights, Camera, but Where are the Actors?: A Critique of Actor-Network Theory in

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Production Studies.” Society for Cinema and Media Studies, 2015, Montréal, QC

“Popular Science, Superheroes, and Race in a Middle School Classroom.” Popular Culture/American Culture Association, 2014, Chicago, IL

“The Mangle of Pedagogy: Tuning and Agencies in Teaching and Learning STEM Practices.” The Northeast STS Graduate Student Conference, 2014, Ithaca, NY

“Collaborations for Social Justice: K-12 Teachers and STEM Graduate Students.” Society for Social Studies of Science, 2013, San Diego, CA

“Online Learning and Fan Activism.” Technoscience as Activism, 2012 Troy, NY

“What Would Sagan Do? The Fandom and Anti-Fandom of Carl Sagan.” Society for Cinema and Media Studies, 2012, Boston, MA

“The Democratization of the Narrative: Rethinking Kathleen Tyner’s ‘Tyranny of the Narrative’ Argument.” Midwest Popular Culture/American Culture Association, 2011, Milwaukee, WI

“Rapping with the Turtles: A Cognitive-Emotive Approach to Fan Studies.” Midwest Popular Culture/American Culture Association, 2011, Milwaukee, WI

“Turtle Times: The Cross-Generational Cult Text of *Turtles Forever* and Gendered Readings.” Popular Culture/American Culture Association, 2011, San Antonio, TX

“What Would Sagan Do? The Fandom and Celebrity of Carl Sagan in 21st-Century Secular Communities.” Midwest Popular Culture Association, 2010, Minneapolis, MN

“The Voyager Gaze: Constructing Western Hegemony in Outer Space.” Midwest Popular Culture Association, 2010, Minneapolis, MN

“Affects of Media: Cognition and Behavior” (Co-Presenter w/ Elizabeth Schewe). Psychology in the City: City Colleges of Chicago, 2010, Chicago, IL

“Fandom and Media Education.” Popular Culture/American Culture Association, 2010, St. Louis, MO

### **Co-Presented Panels and Workshops**

“Generative STEM: Circulating Unalienated Value in Education, Labor and Environment.” Society for Social Studies of Science, 2017, Boston, MA

“Where Do They See STS Headed.” 40<sup>th</sup> Anniversary of the Inaugural Meeting of the Society for the Social Studies of Science, 2016, Ithaca, NY

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“Rensselaer’s Interdisciplinary Programs in Design and Innovation.” Society for Social Studies of Science, 2015, Denver, CO

“Blind Spots in Maker Communities: Examining and Addressing Diversity and Equity in What’s Available for Making, Who is Making, and What is Being Made in Youth DIY Media.” Digital Media and Learning, 2015, Los Angeles, CA

“Writing with Video: Beyond the Illustrated Text.” Society for Cinema and Media Studies, 2013, Chicago, IL

### **Posters Presented**

“The Iceberg Metaphor in Psychoanalysis and Media Literacy Education” (Co-Presenter w/ Elizabeth Schewe). American Psychological Association, 2014, Washington, DC

## **UNIVERSITY TEACHING EXPERIENCE**

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### **RENSELAEER POLYTECHNIC INSTITUTE – Troy, NY 2014-2017**

#### **Instructor of Record, Department of Science and Technology Studies**

Generative STEM, Fall 2017

#### **Graduate Teaching Assistant, Department of Science and Technology Studies**

Programs in Design and Innovation Studio VI, Spring 2017

Science, Technology and Society, Fall 2016

Vasudha: Living and Learning Community, Summer 2016

Science, Technology and Society, Spring 2016

Science, Technology and Society, Fall 2015

Programs in Design and Innovation Studio II, Spring 2015

Science, Technology and Society, Fall 2014

### **DEPAUL UNIVERSITY – Chicago, IL 2011**

#### **Graduate Teaching Assistant, Media and Cinema Studies Department**

Introduction to Mass Communication, Spring 2011

### **COLUMBIA COLLEGE CHICAGO – Chicago, IL 2007-2009**

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### **Undergraduate Teaching Assistant, Department of Film and Video**

Authorship Studies, Spring 2009  
Film and Video Production I, Fall 2008  
Short Forms, Fall 2008  
History of Cinema, Fall 2007-Spring 2008  
Aesthetics of Cinema, Fall 2007-Spring 2008

### **K-12 EDUCATION OUTREACH AND PROGRAMMING**

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3Helix: Using STEM to Support the Financial Stability of Cultural Traditions in Low-Income Communities. Harlem Academy and Rensselaer Polytechnic Institute, Troy, NY June 2016

STAR (STEM Teachers and Research) Action Research Workshop. California Polytechnic State University, San Luis Obispo, CA June 2015

Center for Initiatives in Pre-College Education's Summer Engineering Academics. Rensselaer Polytechnic Institute, Troy, NY June – July 2015

3Helix: E-Waste to Makerspace Workshop. Harlem Academy and Rensselaer Polytechnic Institute, Troy, NY June 2015

3Helix GK-12 In-School and After-School STEM Education Programming. Rensselaer Polytechnic Institute, Troy, NY August 2012 – July 2014

Digital Youth Network In-School and After-School Media Literacy Programming. DePaul University, Chicago, IL August 2010 – July 2012

Media Education for Chicago Truth in Recruitment Program. American Friends Service Committee, Chicago, IL April 2010 – June 2010

### **SERVICE TO PROFESSION**

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#### **Divisions Chaired**

Science in Popular Culture Division. Midwest Popular Culture/American Culture Association, 2012, Columbus, OH

#### **Conference Panels Moderated**

“Ethics of Connections.” Theorizing the Web, 2017, New York, NY

“Teaching Popular Culture.” Midwest Popular Culture/American Culture Association, 2011, Milwaukee, WI



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“Fan Studies: New Approaches to Fan Studies.” Midwest Popular Culture/American Culture Association, 2011, Milwaukee, WI

“Twentieth Century Studies: Representing America.” Midwest Popular Culture Association, 2010, Minneapolis, MN

“Fan Studies: Fandom in a Variety of Arenas.” Midwest Popular Culture Association, 2010, Minneapolis, MN

### **Manuscript Reviewer**

*Engineering Studies: Journal of the International Network for Engineering Studies*

American Society for Engineering Education

*International Journal of Web-Based Learning and Teaching Technologies*

AMC, Special Interest Group on Computer-Human Interactions (“Excellent Reviewer” recognition in 2017)

ACM, Special Interest Group on Computer Science Education

### **Syllabus Consulting**

“Digital Citizenship and Online Safety.” Designed by Nathan Fisk, University of South Florida

“Educational Software - Implementation and Evaluation.” Designed by Josh Sheldon, Massachusetts Institute of Technology

### **Graduate Student Representative**

Media Literacy and Pedagogy Outreach Special Interest Group. Society for Cinema and Media Studies, 2011-2012

### **DEPARTMENTAL/UNIVERSITY SERVICE**

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Graduate Student Representative. Graduate Student Committee, Science and Technology Studies, Rensselaer Polytechnic Institute, 2012-2013

Student Organization Council Representative. Viva Doc, Student Organizations, Columbia College Chicago, 2008-2009

### **PROFESSIONAL AFFILIATIONS**

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American Society for Engineering Education  
American Anthropological Association  
- Council on Anthropology and Education  
Society for the Social Studies of Science

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