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Curriculum Vitae

TABLE OF CONTENTS

A.	IDENTIFICATION	3
	Research Interests	3
	Areas of Teaching Competence	3
	Skills	3
B.	EDUCATION.....	3
	Degrees	3
C.	APPOINTMENTS	3
	Research Appointments.....	3
	Other Appointments	4
D.	GRANTS, AWARDS, HONORS.....	4
E.	TEACHING/ADVISING EXPERIENCE	5
	Stanford University	5
	University of Cambridge.....	5
F.	ADMINISTRATION/SERVICE	5
	Journals	5
	Administrative Responsibilities	6
	Memberships in Professional and/or Learned Societies	6
	Professional Development	6
G.	RESEARCH	6
	Research Activities.....	6
	Publications.....	7
	Select Invited Speaker Events.....	8
	Media Coverage.....	9
H.	ADDITIONAL ORGANIZATION & LEADERSHIP	9

COMMON ACRONYMS

ELSI: Ethical, Legal, Social Implications
GWAS: Genome-wide Association Study
RCR: Responsible Conduct of Research
SCBE: Stanford Center for Biomedical Ethics
STS: Science, Technology, Society

A. IDENTIFICATION

Name: Daphne Oluwaseun Martschenko (she, her, hers)
Address: Postdoctoral Fellow
Stanford Center for Biomedical Ethics
Stanford University
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Stanford, CA 94305-5417
USA

Telephone: US: (571)263-6650
Place of Birth: London, United Kingdom
Citizenship: USA
Languages: English, Russian (Advanced), Arabic (Elementary)

Research Interests

Adversarial Collaboration; Postgenomic Era; (Bio)ethics; Ethical Legal and Social Implications (ELSI); Genetics and Society; Racial and Socioeconomic Inequality; Responsible Conduct of Research (RCR); Science, Technology, and Society (STS); Mixed-methods

Areas of Teaching Competence

Adversarial Collaboration; ELSI; RCR; STS; Genetics and Society; Sociology; Classical/Modern/Critical Social Theory; Mixed-methods; (Bio)ethics

Skills

Mixed-methods Research; Thematic Analysis; Semi-structured Interviews; Focus Groups; Nvivo Qualitative Software; Secondary Data Analysis; Descriptive Statistical Analyses and Regression; R Statistical Programming; Public Speaking; BBC Media Trained

B. EDUCATION

Degrees

Cambridge University, Magdalene College

October 2015-July 2019

- **PhD:** Education

Dissertation: [The New Borderland: A Mixed-methods Examination of Teacher Perceptions of Intelligence, Race, and Socioeconomic Status in Relation to Behavior Genetics](#)

Advisors: Anna Vignoles (University of Cambridge), Jo-Anne Dillabough (University of Cambridge)

Examiners: Prudence Carter (University of California Berkeley), Ben Alcott (University of Cambridge)

- Culture, Politics, and Global Justice Research Group (CPGJ); Race, Empire, and Education (REE) Research Collective and Reading Group

Cambridge University, Homerton College

October 2014-October 2015

- **MPhil** (with distinction): Politics, Development, and Democratic Education

Thesis: Survival of the 'Gifted and Talented' The Narrative of Minority Underrepresentation, a Mixed-methods Approach

Advisors: Anna Vignoles (University of Cambridge)

Stanford University

September 2010-June 2014

- **B.A.** (with distinction): Anthropology (medical); Slavic Studies
Phi Beta Kappa; GPA 3.88/4.0

C. APPOINTMENTS

Research Appointments

Stanford University, Postdoctoral Research Fellow

August 2020-Present

- Identify ethical, legal, and social considerations arising from genetics research and clinical practice and related policy recommendations to address these issues
- Advocate for and facilitate cross-disciplinary research efforts that promote socially and ethically responsible production and communication of social and behavioral genomics
- Lecture on core topics in research and clinical ethics, specializing in genetics/genomics, equity, and justice

Stanford University, Bio Futures Fellow

November 2020-Present

- Supported by the Bio Policy & Leadership at Stanford Initiative and the Department of Bioengineering through support from the [Stanford Ethics, Society, and Technology \(EST\) Hub](#).
- Work closely with [Dr. Megan J. Palmer](#), Executive Director of Bio Policy & Leadership Initiatives as well as faculty and staff in Bioengineering, the Program in Science, Technology and Society (STS), the d.school, and other units
- Co-design teaching, research, and engagement initiatives at the interface of biotechnology, ethics, and public policy

Stanford University, Research Ethics Consultation Service

August 2020-Present

- Organize and facilitate research ethics consultations with a small team of researchers from the Stanford Center of Biomedical Ethics
- Work with Stanford affiliates, national organizations and funding bodies, IRB institutions, and private companies to discuss key ethical challenges and concerns pertaining to scientific research or technologies
- Draft and/or consult on consultation reports to disseminate to consultees

Steering Committee, The Hastings Center & Geisinger

March 2020-Present

- Steering committee member for interdisciplinary and collaborative three-year grant project entitled “Wrestling with Social/Behavioral Genomics: Risks, Potential Benefits, and Ethical Responsibility”
- Consider the risks and potential benefits of social/behavioral genomics, the history of eugenics and scientific racism, and health equity
- Chair of Sounding Board Committee, responsible for community engagement on the risks, potential benefits, and ethical responsibilities of social and behavioral genomics

Visiting Scholar, Hastings Center & Yale Interdisciplinary Center for Bioethics

December 2018

Research Assistant, Cambridge University, Cambridge, UK

May 2018-September 2018

- Collated data in preparation for analysis on LEGACY project, a multi-focus research study that explores learning gain in higher education through different longitudinal and cross-sectional mixed methodologies

Other Appointments

Team Lead, University of Chicago

August 2019-September 2020

- Oversaw team conducting research and data analysis at the Center for RISC - an innovation lab committed to addressing some of society’s most intractable issues; Under the mentorship of Professor Steven Levitt, coauthor of *Freakonomics*
- Coordinated day-to-day logistics to enhance office communication and workflow

Research Analyst, University of Chicago

January 2019-August 2019

- Conducted research and analysis at the [Center for RISC](#)
- Employed radical innovation to bring new perspectives to addressing pressing social issues in education, health care, and criminal justice reform; Worked with non-profits and government stakeholders to translate ideas into reality. Key projects included:
 - Advocating for teaching data science in school-based education; conducting secondary data analysis of efficacy of current US mathematics education for workforce productivity and a survey of American adults experiences using high school math after graduation
 - Balancing advancements in technology with key ethical considerations to improve individual well-being and mental health

D. GRANTS, AWARDS, HONORS

YEAR	ITEM	FUNDING
2020-21	Pilot Grant Program (RM1HG007257), <i>Columbia University Center for Research on ELSI of Psychiatric, Neurologic & Behavioral Genetics</i>	17,760USD
2015-18	Schultz Bursary Award, <i>Cambridge University</i>	40,000GBP
2015-18	Cambridge Trust Scholarship, <i>Cambridge University</i>	42,000GBP
2017	Bye-Fellowship Finalist, <i>Magdalene College, Cambridge University</i>	
2015	Santander Award for MPhil Distinction, <i>Cambridge University</i>	250GBP

2014-15	Horobin Award, <i>Homerton College, Cambridge University</i>	20,000GBP
2014-15	NCAA Postgraduate Scholarship	7,000USD
2014	Phi Beta Kappa, Donald M. Kennedy Award for Academic and Athletic Excellence, Pac12 Champion <i>Stanford University</i>	
2012-14	Pacific Coast Conference (Pac-12) All-Academic Rowing Team, Collegiate Rowing Coaches Association Scholar Athlete Award	
2011-14	Dean's Award for Academic Excellence, <i>Stanford University</i>	

E. TEACHING/ADVISING EXPERIENCE

Stanford University

Teaching Assistant and Guest Lecturer, HumBio 174, Stanford California *January 2021-March 2021*

Elective course for undergraduate majors in human biology on the ethics of medicine and research on human subjects, social and behavioral genetics, stem cell research, and end of life. Required course for students in the Stanford Genetic Counseling program

- Facilitated lecture recordings alongside Professor David Magnus
- Developed students' understandings of Social and Behavioral Genomics in lectures

Teaching Assistant and Facilitator, MED255, Stanford, California *August 2020-Present*

Mandatory training course for all new graduate students, principal investigators, and federal research grantees on the foundations of responsible conduct of research

- Oversee small-group instruction for Responsible Conduct of Research (MED 255) course at the Stanford School of Medicine

Advisor, Partners in Academic Excellence, Stanford, USA *September 2012-June 2014*

- Oversaw incoming freshmen undergraduate students at Stanford University in their transition to collegiate-level academics and athletics

Advisor, Black Recruitment and Orientation Committee, Stanford, USA *September 2012-June 2014*

- Mentored incoming racially-defined minority freshmen undergraduate students at Stanford University in their transition to the academic, social, and cultural environment of Stanford

University of Cambridge

Teaching Assistant, Introduction to Sociology, Cambridge, UK *October 2017-June 2018*

- Guest lectured "Introduction to Sociology Part I" and "Introduction to Sociology Part II" courses
- Worked as a Teaching Assistant to develop students' understandings of classical sociological theorists in Part I and intersectional, feminist, and decolonial sociological frameworks in Part II as a teaching assistant.

Instructor, Ringle English Tutoring, Seoul, Korea *November 2016-January 2019*

- Instructed English to business professionals and university students from South East Asia through 1:1 online classes; Offered essay and CV editing services

F. ADMINISTRATION/SERVICE

Journals

Associate Editor, Research in Education *November 2020-Present*

Special Issue Editor, Research in Education *June 2018-August 2020*

- Guest edited Special Issue [Education, Biosocial Sciences, and the Popular Imagination](#). The issue examines the threats and possibilities to equitable public education posed by contemporary research in the biosocial sciences

Ad Hoc Reviews

2020-2021:

- npj science of learning
- Research in Education
- Behavior Genetics
- Social Science and Medicine
- Perspectives on Psychological Science

Administrative Responsibilities

Co-organizer, *Race, Empire, and Education Research Collective*

January 2017-Present

- Organize reading list, term calendar, and session facilitators for [research collective](#) interested in the role of race, racialization, and empire within education

Co-founder, *International Black Radicalism Research Group*, Cambridge, UK

May 2018-June 2019

- Co-founded graduate [research group](#) funded by the Cambridge University Centre for Research in the Arts, Social Sciences, and Humanities
- Organize bi-weekly reading groups and speaker events focused on the historical and present outlook of international black radicalism

Workshop Coordinator, *Cambridge University*, Cambridge, UK 2014

November

- Organized and led an open methodologies workshop on racial disparities in education for Politics, Development, and Democratic Education MPhil; applied critical social and race theory

Memberships in Professional and/or Learned Societies

Current

1. American Society for Human Genetics (ASHG)
Affinity Groups: Ethical, Legal & Social Implications
2. American Society for Bioethics and the Humanities (ASBH)
Affinity Groups: Ethical, Legal & Social Implications; Race & Culture/Ethnicity

Past

1. Behavior Genetics Association (BGA)
2. British Educational Research Association (BERA)
3. American Educational Research Association (AERA)
Affinity Groups: Social Context of Education; Critical Examination of Race, Ethnicity, Class, and Gender in Education; Mixed Methods Research; Research on Giftedness, Creativity, and Talent

Professional Development

1. 2020-Present Student–Stanford University Office of Postdoctoral Affairs Teaching Certification Program
2. 2020-Present Attendee–Postdoctoral Pedagogy Journal Club, Stanford Center for Postdoctoral Affairs, Stanford University (CA)
3. 2021 Student–Qualitative and Mixed Methods Research (student), University of California San Francisco (CA)
4. 2020 Attendee–Design Your Postdoc, Stanford Center for Postdoctoral Affairs, Stanford University (CA)
5. 2020 Auditor–Human Molecular Genetics, Stanford School of Medicine, Stanford University (CA)
6. 2016 Student–Introduction to R Statistical Programming, University of Cambridge (UK)

G. RESEARCH

Ongoing Research Activities

Current

Adversarial Collaboration

- To develop an applied ethics research framework that addresses the limitations of embedded ethics, research ethics consultations, and responsible innovation (RI) approaches
- To generate productive dialogue on the risks, benefits, and ethical responsibilities of genetics/genomics
- To develop best practices and ethical guidelines in partnership with individuals of different, even opposing disciplines and research paradigms
- To facilitate socially and ethically responsible research and research communication

Methodological Limitations of Genomic Prediction

- To stymie overly optimistic interpretations of genome-wide association studies (GWAS)
- To evaluate the impacts of communication on the methodological limitations of genomic prediction technologies on individuals' understandings of genomics

Genetics, Race, and Ancestry

- To ensure race is not posited as a biological category responsible for social inequality
- To prevent the conflation of race and ancestry
- To encourage researchers to acknowledge and confront the eugenic history underpinning genomics and instill proactive measure to prevent the misuse and misapplication of genetics

Genetics and Education

- To assess the social and ethical implications of the advent of genomics in education
- To develop and evaluate resources and materials that facilitate the responsible interpretation and application of genomic prediction technologies. For example, I am building a repository of FAQs associated with GWAS in social/behavioral genomics
- To foster educational stakeholders' and public communities' genomic literacy to prevent genetic essentialism and biological determinism

Field Experience

Doctoral Fieldwork,

September 2016-May 2017

The New Borderland: A Mixed-methods Examination of Teacher Perceptions of Intelligence, Race, and Socioeconomic Status in Relation to Behavior Genetics

Mixed-methods fieldwork: Focus groups in a PreK-8 public charter school on the West Side of Chicago, IL and a PreK-8 private gifted education school in north-west suburbs of Chicago, IL; National survey of PreK-12 teachers in the U.S.; Interviews with behavior genetics researchers and bioethicists in the US, UK, New Zealand, Australia, and Europe

MPhil Fieldwork,

January 2015-June 2015

Survival of the 'Gifted and Talented' The Narrative of Minority Underrepresentation, a Mixed-methods Approach

Mixed-methods fieldwork: Interviews with teachers and administrators in Virginia about racial-minority underrepresentation in gifted education; Semiotic Methods; Secondary Data Analysis and Program Evaluation

Publications

Peer Reviewed Publications

Accepted

1. **Martschenko, D.** (2020). Embodying Biopolitically Discriminate Borders: Teachers' Spatializations of Race and Power. *Discourse: Studies in the Cultural Politics of Education*
<https://doi.org/10.1080/01596306.2020.1813089>
2. **Martschenko, D.** (2020). 'The Train Has Left the Station': The Arrival of the Biosocial Sciences in Education. *Research in Education*
<https://journals.sagepub.com/doi/10.1177/0034523720914636>
3. **Martschenko, D.** (2019). 'DNA Dreams' Teachers' Perceptions on the Role and Relevance of Genetics for Education. *Research in Education*
<https://journals.sagepub.com/doi/full/10.1177/0034523719869956>
4. **Martschenko, D.** (2019). *The New Borderland: A Mixed-methods Examination of Teacher Perceptions of Intelligence, Race, and Socioeconomic Status in Relation to Behavior Genetics* (Doctoral Thesis). University of Cambridge
<https://doi.org/10.17863/CAM.40448>
5. **Martschenko, D.**, Domingue, B., Trejo, S. (2019). Genetics and Education: Recent developments in the context of an ugly history and an uncertain future. *AERA Open*
<https://journals.sagepub.com/doi/full/10.1177/2332858418810516>

Under Review

1. **Martschenko, D. O.**, Domingue, B.W., Trejo S., Matthews L. J. FoGS Provides an Open-Access Repository of FAQs on Human Genomics Studies. *Nature Genetics*
2. **Martschenko, D. O.** 'Through the Looking Glass': Reflexivity and Embodied Complicity in Sociogenomics Adversarial Collaborations. *Sociology of Health and Illness*
3. **Martschenko, D.** The Elephant in the Room: Social Responsibility in the Production of Sociogenomics Research. *Biosocieties*
4. Kweon, H., Burik, C. A. P., Linner, R. K., Vlaming, R. de, Okbary, A., **Martschenko, D.**, Harden, K. P., DiPrete, T. A., & Koellinger, P. D. Genetic Fortune: Winning or Losing Education, Income, and Health. *Review of Economics and Statistics*
<https://ideas.repec.org/p/tin/wpaper/20200053.html>
5. **Martschenko, D.** (2021). Normalizing Race in Gifted Education: Public Education, Genomics, and Spaces of White Exceptionalism. *Critical Studies in Education*
6. Williamson, B., **Martschenko, D.**, Jasinska, K. (2021). Individual Differences. UNESCO Mahatma Gandhi Institute for Education for Peace and Sustainable Development (MGIEP)

Open Peer Commentary

1. **Martschenko, D.**, Martinez-Martin, N. (forthcoming). What About Ethics in Design Bioethics? American Journal of Bioethics

Reports

1. **Martschenko, D. O.**, Matthews, L. J. (2020). Genomics, Behavior, and Social Outcomes. Hastings Center. <https://www.thehastingscenter.org/briefingbook/genomics-behavior-and-social-outcomes/>

Academic Perspectives

2. **Martschenko, Daphne Oluwaseun**, and Markia Smith. 2021. "Genes Do Not Operate in a Vacuum, and Neither Should Our Research." Nature Genetics. <https://doi.org/10.1038/s41588-021-00802-5>

Select Media Publications

Hastings Center Bioethics Forum

1. January 2020: [Transcending Borders in the Ethical Oversight of Human Genome Editing](#)

BOLD-Blog

2. May 2019: [What does genetics mean for educational equity?](#)

Faculty of Education Research Students' Association

3. January 2019: [The Challenges of Research Access and Accessible Research](#)
4. November 2017: [Race, Education, and Empire: A Research Collective](#)
Reposted by The Sociological Review
5. February 2017: [Historically Burdened Concepts in Education](#)

Culture, Politics, and Global Justice (2019)

6. January 2019: [Breaking Down Academic Silos: An Example From a Historically-burdened Field](#)

The Independent, London, United Kingdom

7. January 2018: [The IQ Test Wars: Why Screening for Intelligence is Still So Controversial](#)
8. Republished from The Conversation UK October 2017

The Conversation UK, London, United Kingdom

9. October 2017: [The IQ Test Wars: Why Screening for Intelligence is Still So Controversial](#)
10. January 2017: [Biosocial Science: The murky history of the nature and nurture debate](#)
11. July 2016: [Can genes really predict how well you'll do academically?](#)
12. April 2016: [Genetics: What it is that makes you clever and why it's shrouded in controversy](#)

Center for Genetics and Society, Berkeley, California

13. October 2016: [Collaborative Science on Historically Burdened Concepts: Intelligence, Genetics, Race & Socio-economic Status](#)

Select Abstracts & Conference Presentations

American Society for Human Genetics

October 2021

1. **Invited Session** (organizer/moderator): Gatekeeping Genetics: Towards a More Diverse, Just, and Inclusive Research Enterprise

American Society for Bioethics & the Humanities

October 2020

1. **Panel** (organizer): Polygenic Scores and Equitable Education - Threats and Possibilities including Katherine Paige Harden, Lucas Matthew, Peter Fortheringham
Presentation: "Teacher Perspectives on the Role & Relevance of Genetics for Education"

American Educational Research Association

April 2018

2. **Symposium** (organizer): "Dystopian DNA? Public Education, Genetics and the Popular Imagination" including Prudence Carter, Oliver Rollins, Claire Crawford.
3. **Paper:** "DNA Dreams: Behavior Genetics and the Re-inscription of Bio-determinism in Education."

Comparative and International Education Society

March 2018

4. **Symposium** (co-organizer): "Risk, Nation And The 'Stranger': Mapping The Cartographies And Policies Of Exclusion And Segregation In Public Educational Spaces"

Race, Empire, and Education,

February 2018

5. **Panel** (organizer): "What does it mean to be human? The crisis of humanism in education."
6. **Paper:** "Genetics and Popular Imagination."

British Sociological Association,

September 2017

7. **Paper:** "Normalizing Race in Gifted Education Through Biopower: Public Education, Segregation, and Spaces of White Exceptionalism."

Select Invited Speaker Events

National Institutes of Mental Health Scientific Retreat

1. **Presentation:** Beyond Race? Genomics in the Context of an Ugly History and Uncertain Future

Bioethics Interest Group , NIH Department of Bioethics	<i>April 2021</i>
1. Presentation: Disrupting Silos: Adversarial Collaboration in Genetics and Genomics	
Current Issues in Genetics , Stanford Department of Genetics	<i>February 2021</i>
Behavioral Genetics, Genomics, and Ancestry , Early Intervention Foundation	<i>February 2021</i>
ELSI Friday Forum , CERAS ELSI Hub	<i>December 2020</i>
• Panel: “Addressing Racism in Research and Clinical Practice” alongside Rhea Boyd, MD and Robert D. Steiner, MD	
Race in Science, Technology, and Medicine , Stanford University	<i>October 2020</i>
• Presentation: Genetics at the Schoolhouse Door: The Dreams and Necessities of Equitable Education	
• Moderated Talk: Bones, Genomics, and the Ethics of (In)visibility	
Summer DEMSEM: Population Science in Critical Perspective , University of Wisconsin	<i>May 2019</i>
• Presentation: The New Borderland: Genetics at the Schoolhouse Door	
• Panel: The Use and Production of Demographic Research	
Polygenic Prediction and Its Application , Social Science Genetic Association Consortium	<i>November 2018</i>
• Presentation: "Adversarial Collaboration in the Context of an Ugly History and an Uncertain Future"	
 Select Media Coverage	
The Genetics Podcast	<i>October 2020</i>
• Genomics in Education and the Social Sciences	
Washington Post	<i>December, 2020</i>
• Algebra II just doesn't add up when you figure how little it means to most students	
Freakonomics Radio	<i>October 2019</i>
• America's Math Curriculum Doesn't Add Up (Ep. 391) discusses the need for data science education in K12 math curriculum and strategies for bringing about change	
Nature	<i>October, 2019</i>
• The promise and peril of the new science of social genomics	
Science Daily	<i>February, 2019</i>
• As genetic data expand, researchers urge caution in how predictors of education outcomes are used	
This Cambridge Life	<i>May 2018</i>
• The star rower whose research examines teachers' perceptions of intelligence	
Drive Time Podcast	<i>April 2018</i>
• IQ Tests- How Intelligent Are You? discusses the ugly history behind the study of intelligence and IQ testing and historical and current uses of IQ tests	
Anthill Podcast	<i>September 2018</i>
• Inheritance discusses the ugly history behind the study of intelligence and the necessity of adversarial collaboration	
BBC Sport	<i>March 2016</i>
• Boat Races 2016: Daphne Martschenko has travelled a long way to reach Cambridge	

H. ADDITIONAL ORGANIZATION & LEADERSHIP

Board of Directors , Stanford Rowing Association, Stanford, CA	<i>January 2021-Present</i>
• Co-direct 5013(c) to support current student-athletes and alumni of Stanford Rowing	
Committee Member , HOCR/Gold Cup Grant Committee, Boston, MA	<i>September 2020-Present</i>
• Facilitate funding and mentorship support to youth rowing programs committed to racial and socioeconomic diversity in rowing	
Director and Committee Member , <i>Camp Phoenix</i> , Oakland, CA	<i>June 2013- June 2018</i>
• Served on Marketing and Analysis and Program Evaluation committees of Camp Phoenix , a non-profit academic sleep-away summer camp for low-income youth in the Bay Area; Analyzed funding and donor data and evaluated the impact of Phoenix's academic programming on student achievement	
• Worked as Summer Director in 2018, overseeing a staff of 50 and a cohort of 80+ children; Oversaw program finances, scheduling, staff training, and communications	
• Employed as a counselor (2013), senior counselor and teaching assistant (2014-15), Operations Director (2016)	
President , <i>Cambridge University Women's Boat Club</i> , Cambridge, UK	<i>May 2017-June 2018</i>
• Led the Cambridge University Women's Boat Club in preparation for 2018 Boat Race against Oxford	

- Oversaw rowing program, club administration, fundraising and media communications
- Captain, Stanford University Women's Rowing, Stanford, California** *May 2013-June 2014*
- Led Stanford Women's Rowing to its first Pac-12 Championship
 - Oversaw program culture and ethos