## Laura M. Herman

lauramariahherman@gmail.com | + 1 954.849.8525 | + 44 7827553090 http://lauramherman.work

### **EDUCATION**

# **Oxford Internet Institute, Oxford University,** Oxford, UK DPhil Information, Communication, and the Social Sciences

OCT 2021 – JUNE 2024 (EXPECTED)

**Funded by:** UK Arts & Humanities Research Council, Open-Oxford-Cambridge Doctoral Training Programme Studentship

Dieter Schwarz-OII AI & Work Fellow Erasmus University Rotterdam FemLab Fellow Zonta International Women in Technology Scholarship Recipient

# **Oxford Internet Institute, Oxford University,** Oxford, UK MSc Social Science of the Internet

OCT 2020 - JUNE 2024 | Distinction

<u>Thesis</u>: Conceptualizing Creativity on Curated Content Platforms: a Longitudinal Study <u>Relevant Coursework</u>: Cultural Analytics; Digital Ethnography; Qualitative Data Analysis; Statistical Research Methods; Social Dynamics of the Internet; Internet Technologies & Regulation; Digital Social Research Methods; Science & Technology Studies; Experimental Approaches; Foundations of Data Visualization

### **Princeton University, Princeton, NJ**

# A.B. Psychology; Certificates in Neuroscience, Cognitive Science, and Cultural Studies

SEPT 2014 - JUNE 2018 | GPA: 3.8, Cum Laude

<u>Departmental Thesis Award</u>: George A. Miller Prize in Cognitive Science <u>Relevant Coursework</u>: (COS 436) Human-Computer Interface Technology; (ENE 475) Human Factors—Psychology for Engineering; (ENT 201) Creativity, Innovation, and Design; (PSY 251) Quantitative Research Methods; (COS 126) General Computer Science; (ART 252) Art as Science/Science as Art

# **University of California, Berkeley** — Fundamentals of Human Factors & Ergonomics

FALL 2019 | **GPA: 4.0** 

Certificate program for human factors and human-centered ergonomics.

# **Harvard University,** Cambridge — Neuroscience & Psychology Coursework

SUMMER 2012, SUMMER 2013 | **GPA: 4.0** 

### **EXPERIENCE**

### **Adobe**, San Francisco — Head of AI Research

**JULY 2018 - PRESENT** 

#### Head of AI Research

- Managing a mixed-methods research team responsible for Generative AI technologies across Creative Cloud
- Driving research strategy and roadmaps for all of Adobe's "Firefly" technology across creative applications
- Working closely with Product, Design, and Engineering Directors and VPs to drive user-centered strategy input in rapidly-changing technological landscape

### Senior Research Lead, Market Expansion

- Overseeing a cross-functional team building products for future creative audiences by leveraging emerging technologies, addressing the untapped TAM
- Driving strategic alignment across the Digital Media product organization (Creative Cloud & Document Cloud) to deliver seamless user experiences that increase new user acquisition, engagement, and retention
- Securing buy-in from Adobe's CEO, CPO, and CTO for product roadmaps, target user audiences, cross-product workflows, prioritization frameworks, and future-forward visions

### Experience Research Lead, Creative Cloud & Emerging Products

- Managing a team of researchers and strategists across Adobe's Creative Cloud, including emerging products under development for new audiences
- Creating cross-product experience plans that drive strategy for all Creative Cloud desktop applications, mobile applications, and services
- Building partnerships with key product, design, and engineering decision-makers to ensure the prioritization of user needs & expectations
- Developing and executing replicable research protocol for all new products, including longitudinal research, beta programs, concept testing, and risk mitigation
- Implementing an inherently international, inclusive, and accessible approach

### Experience Researcher, Illustrator Ecosystem

- Led user research for all graphic design products, including Adobe Illustrator and Illustrator on the iPad.
- Launched a novel research framework for a private Beta program, including quantitative surveys, weekly UX insights, benchmark testing, qualitative user interviews, international feedback, and a longitudinal study.
- Conducted in-depth ethnographic workflow study in six cities in Japan & America, with impact for teams across the organization.
- Assessing product readiness and performing risk mitigation, including concept testing, usability testing, and diary studies, producing product strategy and design recommendations.
- Performing research on the software's ergonomics, accessibility, interoperability, learnability, and culturalization.

#### Experience Researcher, Photoshop on the iPad

• Led, planned, and conducted dozens of concept tests, usability tests, and ethnographic research with over 215 participants.

- Organized and executed a month-long longitudinal study with two groups of target users, including ethnographic interviews, contextual inquiries, usage analytics, diary coding, and quantitative survey design.
- Presented a set of design recommendations for each research study; collaborated with designers to implement design changes.
- Integrated research findings into engineering tracking pipeline and company-wide product feature prioritization roadmap.
- Presented research findings to Adobe's CTO, CPO, and CEO.

### **Experience Researcher**

- Led user-centered research for company-wide VR creativity tool efforts.
- Executed benchmark tests, ethnographic research, concept tests, and usability tests for Project Aero, a design-oriented AR authoring tool.
- Developed a human-centered design pattern, informed by several research studies, that forms a framework for multisensory spatial computing.
- HCI research collaborations with academic affiliates at Harvard, MIT, Boston University, Stanford, and University of British Columbia, resulting in several publications and presentations at top-tier venues.

### **Intel**, Portland — User Experience Research Intern

JUNE 2017 - SEPT 2017

- Completed rigorous quantitative and qualitative analyses of user biases in diversity-centric VR environments; project exhibited at SXSW and the Sundance Film Festival.
- Ideated, planned, and fully executed a VR study; evaluated using controlled biometric, qual, and quant analyses.
- Performed multiple heuristic and usability tests for smart home technologies, reporting directly to principal project engineers.
- Provided landscaping and segmentation for current and emerging social VR capabilities.
- Created a multi-pronged heuristic evaluation template for use in all internal VR studies.
- Produced latency and accuracy KPIs to inform technical decompositions for over a dozen AI and machine learning use cases.

# **Princeton University Psychology and Neuroscience Departments,** Princeton — *Researcher*

SEPT 2015 - JUNE 2018

Developed experimental design, directed trials (psychophysics, fMRI, EEG, etc.) of human subjects, and analyzed data, resulting in advances for neuropsychological cognitive research and computer vision techniques.

### Université Paris Descartes Laboratoire Psychologie de Perception, Paris — Streicker Fellow

JUNE 2016 - SEPT 2016

- Formulated hypotheses, assisted in data collection, and performed analyses for three ongoing sub-projects within an international collaboration on visual attention research.
- Collaborated with Paris-based artists to create head-mounted displays that alter motion perception by creating equiluminance, which were subsequently exhibited at the Tate Gallery.

# **Harvard University Vision Sciences Laboratory**, Cambridge — Research Assistant & Data Analyst

MAY 2012 - SEPT 2014

- Assisted in data collection and experimental procedure for ongoing psycho-physical projects.
- Independently developed a novel multisensory experiment with significant results; published and presented at numerous conferences on behalf of the laboratory.

## AWARDS & FELLOWSHIPS

United States Fulbright Research Award

UK Arts & Humanities Research Council Doctoral Studentship

Zonta International Women in Technology Scholarship Award

Erasmus University Rotterdam FemLab.Co Affiliate & Fellow

Dieter Schwarz-OII AI & Work Fellow

Webby Award – Creative Production App People's Voice Winner

George A. Miller Thesis Prize in Cognitive Science

Princeton Department of Psychology Cum Laude

Streicker International Fellowship

Innovation Magazine's 25 Under 25

American Academy of Neurology Neuroscience Research Prize

Princeton's Office of the Dean of the College Undergraduate Research Award

Art & Design of Science Award

American Synesthesia Association Student Award

# PEER-REVIEWED PUBLICATIONS

Eccles, K., **Herman, L.M.**, Moruzzi, C., & Mustaklem, M. 2024. Introducing the Method of Exhibit–Based Research. *Communication Design Quarterly*. DOI: 10.1145/3627691.3627696.

Chen, N., Sin, F.J., **Herman, L.M.**, Nguyen, C., Song, I., Yoon, D. 2023. Using Online Videos as the Basis for Developing Design Guidelines: A Case Study of AR-Based Assembly Instructions. Proc. ACM Hum.-Comput. Interact. 7, ISS, Article 428 (December 2023), 23 pages. https://doi.org/10.1145/3626464

**Herman, L. M.** & Arora, P. 2023. Decolonizing Creativity in the Digital Era, Proceedings of the International Association of Design Research Societies Conference, doi.org/10.21606/iasdr.2023.307.

- **Herman, L. M.** 2023. For Who Page? TikTok creators' algorithmic dependencies, *Proceedings of the International Association of Design Research Societies Conference*, doi.org/10.21606/iasdr.2023.576.
- Epstein, Z., Hertzmann, A., Akten, M., Farid, H., Fjeld, J., Frank, M.R., Groh, M., **Herman, L. M.**, Leach, N. and Mahari, R., Pentland, A., Russakovsky, O., Schroeder, H., Smith, A. 2023. Art and the science of generative AI. *Science*, 380(6650), pp.1110-1111.
- Epstein, Z., Hertzmann, A., Akten, M., Farid, H., Fjeld, J., Frank, M.R., Groh, M., **Herman, L. M.**, Leach, N. and Mahari, R., Pentland, A., Russakovsky, O., Schroeder, H., Smith, A. 2023. Art and the science of generative AI: A deeper dive. *arXiv*: 2306.04141.
- **Herman, L. M.** 2023. Globalized Creative Economies: Rethinking Local Craft, Provenance, and Platform Design. In *Feminist Futures of Work*, pp. 53-60.
- Bylinskii, Z., **Herman, L**., Hertzmann, A., Hutka, S., & Zhang, Y. (2023). Towards Better User Studies in Computer Graphics and Vision. Foundations and Trends® in Computer Graphics and Vision, 15(3), 201-252.
- **Herman, L. M.** & Moruzzi, C. 2022. Exploring Embodiment's Role in Creativity with Live Artistic Performances. In Proceedings of the Workshop on the Role of Embodiment in the Perception of Human & Human & Artificial Creativity (TREPHAC 2022) co-located with the 13th International Conference on Computational Creativity (ICCC 2022).
- **Herman, L. M.** 2022. Algorithms' Impact on Human Artistic Creativity: Doctoral Symposium. In *Proceedings of the 10th Conference on Computation, Communication, Aesthetics, and X*, p. 397.
- **Herman, L. M.** & Hwang, A. H. C. 2022. In the Eye of the Beholder: a Viewer-Defined Conception of Online Visual Creativity. *New Media and Society.*
- Malpica, S., Masia, B., **Herman, L.M.**, Wetzstein, G., Eagleman, D., Gutierrez, D., Bylinskii, Z., Sun, Q. (2022). Altering interval time perception: the inverted effect of asemantic visual features. *PLOS One*.
- **Herman, L. M.** 2021. Remixing, Seeing, and Curating: Algorithms' Influence on Human Creativity. In ACM Creativity & Cognition '21, June, 2021, Virtual.
- Zhao, N., Bylinskii, Z., Kim, N. W., Pfister, H., Lau, R., **Herman, L. M.**, & Echevarria, J. (2020). ICONATE: An Automated Approach for Compound Icon Generation and Ideation. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM.
- Malpica, S., **Herman, L.M.**, Wetzstein, G., Bylinskii, Z., Masia, B., Eagleman, D. Sun, Q. (2020). Has half the time passed? Investigating time perception at long time scales in Virtual Reality. *Journal of Vision*.
- **Herman, L. M.**, & Sherman, J. (2019). Virtual Nature: a Psychologically Beneficial Experience. In *Proceedings of the 2019 Human–Computer Interaction International Conference.*

**Herman, L. M.**, & Hutka, S. (2019). Virtual Artistry: Virtual Reality Translations of Two-Dimensional Creativity. In *Proceedings of the 2019 on Creativity and Cognition* (pp. 612–618). ACM.

Epstein, M., & **Herman, L. M.** (2019) Location-Based Augmented Reality Journalism and Civic Participation, In *Proceedings of the 10th Media in Transition Conference*.

Connolly, S., Connolly, D., Cleary, A., **Herman, L. M.**, & Cavanagh, P. (2017). Build Your Own Equiluminance Helmet. *i-Perception*, 8(4), 2041669517716467.

**Herman, L. M.**, Suchow, J., & Alvarez, G. (2013). Frequency-based synesthetic associations between letters and colors. *Journal of Vision*, 13(9), 880.

# OTHER PUBLICATIONS

Serpentine Galleries' Future Art Ecosystems 3, November, 2022. (Contributor)

"Globalized Creative Economies: Rethinking Local Craft, Provenance, and Platform Design." *FemLab*, November, 2021. (Author)

"What Can Tech Learn from Crip Futurity?" Hot Spots, *Journal of Cultural Anthropology*, July, 2021. (Co-Author)

"A Practical Guide to Inclusive Research," Inclusive Research Guide, 2021. (Author & Editor)

"Centering Perspectives from People with Disabilities in Inclusive Research," Inclusive Research Guide, 2021. (Author & Editor)

"Reaching out to Disability Communities for Inclusive Research," Inclusive Research Guide, 2021. (Author & Editor)

"Preparing for Inclusive Research with People with Disabilities," Inclusive Research Guide, 2021. (Author & Editor)

"Running Inclusive Research with People with Disabilities," Inclusive Research Guide, 2021. (Author & Editor)

"Inclusive Research Synthesis & Share-Out," Inclusive Research Guide, 2021. (Author & Editor)

"10 Key Steps to a Successful Product Beta Program," XD Ideas, 2021. (Author)

"From mind to canvas: Creating art with Synesthesia," Adobe Blog, 2020. (Author)

"My Path to Human-Centered Design," Princeton University Human-Computer Interaction Lab. (Author)

"Synesthesia" Definition, *Encyclopedia Britannica*, 2013. (Contributor)

# INVITED TALKS & WORKSHOPS

### YouTube EMEA & Google Deepmind, Invited Speaker

MARCH 2024

Roundtable Discussion on AI in the Creative Arts at University of Edinburgh Law Faculty, Invited Speaker

MARCH 2024

British Council Arts & Digital Innovation Programme, Invited Speaker

Lecture for AI & Co-Creativity course at University of California Davis, Guest Lecturer

FEBRUARY 2024

"AI, Creativity, and Culture" lecture for Cultural Analytics course at University of Oxford, Guest Lecturer

FEBRUARY 2024

REMIX London 2024, Invited Speaker

**IANUARY 2024** 

"Protecting Creativity in the Age of AI" at Kings College London, Invited Panelist

DECEMBER 2023

BRAID Generative AI Policy Summit for DCMS, Invited Contributor

Oxford Generative AI Summit, Invited Panelist

OCTOBER 2023

Emerce Eday, Invited Keynote Speaker

OCTOBER 2023

The Conference (Media Evolution), Invited Speaker

AUGUST 2023

Centre for the Aesthetics of AI Images, Invited Speaker

JUNE 2023

Aarhus University Datafication of Society Course, Guest Lecturer

**MARCH 2023** 

Amsterdam University Press Book Launch, Invited Panelist

MARCH 2023

Studio Olafur Eliasson Research & Advocacy Talk, Invited Speaker

MARCH 2023

Inclusive Research Best Practices at AnswerLab's Humans of Research Hive, Invited Speaker

JULY 2022

"The Role of Embodiment in the Perception of Human and Artificial Creativity" Workshop at the International Conference of Computational Creativity, Co-Host

JUNE 2022

**Inclusive Work & the Platform Economy Conference,** Concluding Keynote Speaker

APRIL 2022

Erasmus University Rotterdam School of History, Culture, and Communication: Artificial Intelligence & Social Design Course, Guest Lecturer

FEBRUARY 2022

University of California, Berkeley's <u>School of Information</u>: User <u>Interface Design & Development Course</u>, Guest Lecturer
NOVEMBER 2021

XXVI Conference of the International Association of Empirical Aesthetics at the City University of London, Speaker

SEPTEMBER 2021

**London User Experience Meetup (Hosted by Adobe XD),** Speaker & Workshop Lead

APRIL 2021

Princeton University VIS326: Notes on Color taught by <u>James Welling</u>, Guest Lecturer

**NOVEMBER 2020** 

Adobe MAX Illustrator Team, Speaker

OCTOBER 2020

<u>San Francisco Mayor's Office of Civic Innovation</u> Learning Lab, Speaker

OCTOBER 2020

Augmented World Expo Invited Talk, "Multisensory Perception in XR: Insights from Neuroscience and User Research," Speaker

MAY 2020

University of California, Berkeley's <u>School of Information</u>: Introduction to Human-Computer Interaction Course, Guest Lecturer

NOVEMBER 2019

OpenIDEO Design Research Workshop, Speaker & Workshop Lead

AUGUST 2019

99U Conference iPad Design Workshop, Workshop Lead

MAY 2019

## Princeton Design Research Day, Panel Moderator

MAY 2019

# <u>Adobe Photoshop</u> Design Research Workshop, Speaker & Workshop Lead

JANUARY 2019

## Design Thinking Workshop with Pop! Design, Facilitator

JUNE 2017

## White House Women in STEM Roundtable, Speaker

MAY 2014

# CONFERENCE PRESENTATIONS

REMIX 2024 London, UK	FEB 2024
Emerce Eday Amsterdam, the Netherlands	OCT 2023
International Association of Design Research Societies Conference Milan, Italy	OCT 2023
Marconi Institute of Creativity Conference Trieste, Italy	SEPT 2023
Possibility Studies Conference Dublin, Ireland	AUG 2023
The Conference (Media Evolution) Malmo, Sweden	AUG 2023
Global Perspectives on Platforms, Labor & Social Reproduction Conference Amsterdam, The Netherlands	JUNE 2022
Conference on Computation, Communication, Aesthetics, & X Coimbra, Portugal	JULY 2022
ACM Creativity & Cognition Conference Venice, Italy	JUNE 2022
International Conference on Computational Creativity Bozen-Bolzano, Italy	JUNE 2022
ACM Creativity & Cognition Conference Virtual	JUNE 2021
ACM Creativity & Cognition Conference San Diego, CA	JUNE 2019

Meeting Toronto, ON  NSF Awareness to Action: Science, Art, and Sustainability Princeton, NJ	
Sustainability Princeton, NJ	CH 2019
Now Social Entanglements: Mixed Poolity	2018
Portland, OR	2017
<b>Vision Sciences Society Annual Meeting</b> St. Pete Beach, FL	2017
Synesthesia and Cross-Modal Perception: an International Conference Dublin, IE	_ 2016
Sorbonne Neurohumanities Conference Paris, FR	2015
American Academy of Neurology Conference Columbus, OH	2014
International Conference on Cognitive and Neural Systems Boston, MA	2013
American Synesthesia Association Annual Meeting Toronto, ON	2013
Vision Sciences Society Annual Meeting Naples, FL	2013

# SERVICE & LEADERSHIP

**Trustee, Board of Trustees** – *Eastside Educational Trust* 

**Trustee, Board of Trustees** – Arts at the Old Fire Station

**Chair, Creativity & Technology Group** – *University of Oxford* 

Chair, Creativity & reciniology Group - Oniversity of Oxford

**Invited Reviewer –** 2023 & 2024 ACM SIGCHI Conferences on Human Factors in Computing Systems

**Pro Bono Research Lead –** City of San Francisco Department of Homelessness & Supportive Housing

**Research Mentor –** *Adobe Creative Residency* 

**Technical Paper Reviewer** – IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)

**Collection Editor** – Technology and Anthropological Ways of Knowing for the Journal of Cultural Anthropology

**Committee Member** – Princeton Executive Committee on Recent Alumni

Engagement

**Young Alumni Committee Chair** – Princeton Club of Northern California

**Council Member** – Adobe Design Community Council

**Committee Member** – ODC Dance Company

**Pro Bono Research Lead** – Walking Cinema (funded by the National Endowment for the Humanities)

**Interviewer** – Princeton Alumni Schools Committee

**Mentor** – Princeton Women in STEM

**President** – Pi Beta Phi

**Board Member** – Princeton Art Museum Student Advisory Board

**Leadership Committee Member** – *Ivy Club* 

**Mentor** – Princeton Women's Mentorship Program

**Research Committee Member** – Princeton Neuroscience Network

### **PRESS**

### "Generative AI is a Minefield for Copyright Law"

The Conversation | JUNE 2023

"Curate"

BBC Radio 4 | MARCH 2023

"Is AI Eroding Our Ability to Think?"

Forbes | FEBRUARY 2023

"Can AI Curate Art Better Than a Human?"

New Scientist | FEBRUARY 2023

"The Algorithms That Are Giving Art Curators a Run for Their Money"

Apollo Magazine | JANUARY 2023

"Who's the Better Curator: Man or Machine?"

**SURFACE** | JANUARY 2023

"Can Instagram's Algorithm Curate an Exhibition Better Than a Human? A London Show Aims to Find Out"

ArtNet | JANUARY 2023

### "Could Instagram's Algorithm Curate an Art Exhibition? A New London Show Finds Out"

Wallpaper\* | JANUARY 2023

### "How Laura Herman is Addressing the Affordable Housing Crisis"

Adobe | JUNE 2019

### "My Path to Human-Centered Design"

Princeton HCI Lab Blog | APRIL 2018

### "Scientific Splendor: the Art of Science"

Wall Street Journal | MARCH 2018

### "25 Under 25"

Innovation Magazine | SEPTEMBER 2014

### "Girls Rule at White House Science Fair"

Obama White House Archives | MAY 2014

## "Better than Tinted Shades: Why Some People See Time and Taste Music"

National Public Radio | SEPTEMBER 2013

### "Tasting Words; DNA Art; Neuroscience on the Small Screen"

New York Times | MAY 2013

### "Young Scientist has a Colorful 'Superpower' - and She Wants to Know Why"

<u>Sun-Sentinel</u> | MARCH 2013

### **EXHIBITIONS**

### The Algorithmic Pedestal

London, UK | JANUARY 2023

### Ars Electronica

Virtual .ART Domains | SEPTEMBER 2020

### The Tate

London, UK | MARCH 2018

### The Art of Science

Princeton, NJ | MARCH 2018

#### **GRANTS**

### Fulbright Research Study Award

United States Fulbright Commission | DKK 125,000

### **Open-Oxford-Cambridge Doctoral Training Programme**

UK Arts & Humanities Research Council | ~£100,000

### **AI Futures & the Curated Visitor Experience**

Minderoo-Oxford AI Challenge Fund | £25,000

### The Role of Embodiment in the Perception of Human and Artificial Creativity

*University of Konstanz Intersectoral Cooperation Fund* | €10,000

# **Algorithmic Influence on Creative Labour in the Global South** Oxford Internet Institute – Dieter Schwartz Foundation | £20,500