FABIAN OFFERT

Assistant Professor, History and Theory of the Digital Humanities University of California, Santa Barbara

offert@ucsb.edu zentralwerkstatt.org

My work is situated at the intersection of critical artificial intelligence studies, the digital humanities, media studies, and the history of technology. I study how machine learning models represent culture and what is at stake – aesthetically and politically – when they do. My current book project focuses on "Machine Visual Culture" in the age of foundation models.

APPOINTMENTS

2020- Tenure Track Assistant Professor, History and Theory of the Digital Humanities

University of California, Santa Barbara

Affiliations: Department of Germanic and Slavic Studies, Media Arts and Technology Program, Comparative Literature Program, Center for Responsible Machine Learning,

Mellichamp Initiative in Mind & Machine Intelligence

2021 Assistant Professor, Digital Visual Studies (declined)

University of Zurich

2019-20 Postdoctoral Researcher

Friedrich Alexander University Erlangen-Nürnberg

DFG Priority Program "The Digital Image"

2014-20 Graduate Student Researcher

University of California, Santa Barbara (Experimental Visualization Lab)

Hochschule für Gestaltung, Karlsruhe (Critical Artificial Intelligence Research Group)

University of Chicago (STAGE Lab)

2012-14 Assistant Curator

ZKM Center for Art and Media, Karlsruhe

2010 Assistant Project Manager

Goethe-Institut New York

EDUCATION

2014-20 PhD, Media Arts and Technology

University of California, Santa Barbara

Thesis: Critical Machine Vision. Epistemology and Aesthetics of Deep CNNs

Committee: Profs. George Legrady, Alan Liu, Marko Peljhan

2006-12 Diploma, Applied Theater Studies

Justus-Liebig University Gießen

University of California, Berkeley

Thesis: Information, Konzept, Berechenbarkeit. Zum Computer als Medium der Kunst

Committee: Profs. Gerald Siegmund, Heiner Goebbels

SELECTED GRANTS

Total funding to date: ~\$2 Million

2021- PI, Critical Machine Learning Studies, \$17,500

UCHRI, UC Santa Barbara Academic Senate, UC Santa Barbara CITS

2022- PI, AI Forensics, €1.4 Million (UCSB: ~\$270,000)

Volkswagen Foundation

2021 PI, AI for DH, €7,000

Bavaria-California Technology Center

2018 PI, Anthroposcene, €80,000

French Ministry of Culture, Kunststiftung NRW, and others

2014 First co-author, Vilém Flusser und die Künste (ZKM), €142,000

Kulturstiftung des Bundes

2013 PI, P-Server, €15,000

IRCAM/Centre Pompidou

2013 First co-author, Sasha Waltz. Installationen, Objekte, Performances (ZKM), €325,000

Kulturstiftung des Bundes, Baden-Württemberg-Stiftung

SELECTED FELLOWSHIPS

2022 Research Residency

Cambridge Center for Digital Humanities

2014-18 Fellow of the Regents of the University of California

University of California, Santa Barbara

2011 Santander European Universities Group Fellow

University of California, Berkeley

2010 German Academic Exchange Service Fellow

Goethe-Institut New York

2006-12 German National Academic Foundation Fellow

Justus Liebig University, Gießen

SELECTED TECHNICAL WORK

2020- imgs.ai

Visual search engine for digital art history based on multimodal neural network embeddings. Collaboration with Peter Bell, Deutsches Dokumentationszentrum für Kunstgeschichte – Bildarchiv Foto Marburg [Python, JavaScript, Computer Vision, Machine Learning, Web Server]

2018 Anthroposcene

Stage design for experimental music theater project employing a custom pix2pix model on live video. Collaboration with Laurent Durupt, Museum Kunstpalast, Düsseldorf, ECLAT Festival, Stuttgart, Festival Scène d'Europe, Reims, and others [Python, GLSL (Shaders), Computer Vision, Machine Learning]

2013 P-Server

Live computer graphics and embedded electronics for experimental music theater project. Collaboration with Laurent Durupt, IRCAM/Centre Pompidou, Paris, and others [Max/MSP, Arduino, Processing]

PUBLICATIONS

Google Scholar Profile

Monographs

Offert, F. and Impett, L. *Machine Visual Culture*. Meson Press/University of Minnesota Press (forthcoming) [OA]

2020 Offert, F. Critical Machine Vision. Epistemology and Aesthetics of Deep CNNs.

Dissertation. University of California, Santa Barbara

Peer Reviewed

- Offert, F. & Bell, P. "imgs.ai. A Multimodal Search Engine for Digital Art History." International Journal for Digital Art History (forthcoming) [OA]
 Offert, F. & Phan, T. "A Sign That Spells: Machinic Concepts and the Racial Politics of Generative Al." Journal of Digital Social Research (forthcoming) [preprint]
 Offert, F., Kim, P. & Cai, Q. "Synthesizing Proteins on the Graphics Card. Protein Folding and the Limits of Critical Al Studies." Al & Society (forthcoming) [preprint]
 Offert, F. & Impett, L. "There Is a Digital Art History." Visual Resources 38(2) [OA]
 Ries, T., van Dalen-Oskam, K., & Offert, F., "Reproducibility and Explainability in Digital Humanities." International Journal for Digital Humanities 6 [OA]
- Offert, F. "On the Concept of History in Foundation Models." IMAGE: Zeitschrift für interdisziplinäre Bildwissenschaft 37 [OA]
 Offert, F. "Can We Read Neural Networks? Epistemic Implications of two Historical Computer Science Papers". American Literature 95(2)
- Offert, F. "Latent Deep Space. GANs in the Sciences." *Media + Environment* 3(2) [OA]
 Offert, F. & Bell, P. "Reflections on Connoisseurship and Computer Vision." *Journal of Art Historiography* 24 [OA]
 - Offert, F., & Bell, P. "Perceptual Bias and Technical Metapictures: Critical Machine Vision as a Humanities Challenge." Al & Society 36 [OA]
- 2018 Offert, F. "Images of Image Machines. Visual Interpretability in Digital Art History."

 Proceedings of the European Conference on Computer Vision: VISART Workshop [OA]
- 2017 Offert, F. "I know it when I see it'. Visualization and Intuitive Interpretability. Proceedings of the NeurIPS Symposium on Interpretable Machine Learning [OA]
- 2015 Offert, F. "Conceptual Superposition. The Aesthetics of Quantum Simulation." SIGGRAPH Asia 2015 Art Papers

Book Chapters

- Offert, F. "Are Nearest Neighbors Good Neighbors?" In: Somaini, A. (ed.). The World through IA. Jeu de Paume (forthcoming)
 Offert, F. "Postdigital Artificial Intelligence." In: Gerlach, N. & Vagts, S. (ed.). Postdigital Painting. Reimer (forthcoming)
- 2024 Offert, F. "Five Theses on the End of Al Art." In: Scherffig, L. (ed). (Un-)learn Al Approaching Al in Aesthetic Practices (forthcoming) [preprint]
 - **Offert, F**. "On the Concept of History in Foundation Models." In: Bajohr, H. (ed). *Thinking With AI*. Open Humanities Press (forthcoming) [preprint]
 - Offert, F. & Bell, P. "Manufacturing Visual Continuity. Generative Methods in the Digital Humanities." In: Johnson, J.M., Mimno, D. & Tilton, L. (eds). *Debates in the Digital Humanities: Computational Humanities*. University of Minnesota Press
 - Offert, F. "Maschineninterpretation mit Interpretationsmaschinen. Explainable Artificial Intelligence als bildgebendes Verfahren und bildwissenschaftliches Problem." Bildwelten des Wissens 19 [OA]

- **Offert, F.** "KI-basierte Verfahren in der bildenden Kunst." In: Catani S. & Pfeiffer J. (eds). *De Gruyter Handbuch KI und die Künste*
- Offert, F. "The Meaning Trap." In: Tuschling, A., Sudmann, A. & Dotzler, B.J. (eds). ChatGPT und andere "Quatschmaschinen". Gespräche mit Künstlicher Intelligenz. transcript [OA]
 Offert, F. "KI-Kunst als Skulptur." In: Groß R. & Jordan R. (eds). KI-Realitäten. Modelle, Praktiken und Topologien des Maschinellen Lernens. transcript [OA]
- Offert, F. "Hands on Circuits. Preserving the Semantic Surplus of Circuit-Level Functionality with Programmable Logic Devices." In: Ellis, J. & Hall, N. (eds). Hands On Media History. A New Methodology in the Humanities and Social Sciences. Routledge [OA] Offert, F. "Exhibiting Al Art." In: Offert, F. & Hirsch, M. (eds.) M.A.D.E. University of California, Santa Barbara
- Offert, F. "The Poetic Algorithm or What Happened to Software Art?" In Offert F. & Escalante, J.M. (eds). *Open Sources*. University of California, Santa Barbara [OA]

 Offert, F. "Beyond the Scenes. Sasha Waltz's Objects and Installations Between Theater and the Visual Arts." In: Weibel, P., Waltz, Y. & Riedel, C. (eds). *Sasha Waltz. Installations, Objects, Performances*. Hatje-Cantz
- **2014 Offert, F.** "Jonas Mekas on Video." In: Offert, F. (ed.) *Jonas Mekas: 365 Day Project.* Karlsruhe: ZKM Center for Art and Media [OA]

Public Humanities

- **2024 Offert, F.** & Raley, R. "Critical Machine Learning Studies: An Interview with Fabian Offert and Rita Raley." Interview for *UCHRI Foundry*
- Tasoff, H. "The Mind of the Machine." Interview for *UCSB Current*Klusik-Eckert, J. "Al Art und die Kunstgeschichte." Interview for *#arthistoCast*Breitling, D. "Latent Deep Space." Interview for *Diffractions Collective*Tasoff, H. "Peering Inside the Black Box." Interview for *UCSB Current*
- 2022 Offert, F. "Ten Years of Image Synthesis." zentralwerkstatt.org featured on Hacker News front page
 Offert, F. "On the Emergence of General Computation from Artificial Intelligence."
 zentralwerkstatt.org
- 2021 Offert, F. "There Is No (Real Life) Use Case for Face Super Resolution." zentralwerkstatt.org
- 2019 Offert, F. "The Past, Present, and Future of Al Art." The Gradient Offert, F. "What Could an Artificial Intelligence Theater Be?" zentralwerkstatt.org. – translated into Cantonese for Artism
- 2018 Offert, F., Roland, T. & Cornell, D. "Word Embeddings for Restricted Access Corpora." WE1S Research Blog
 - **Offert, F.** "Embrace the Latent Space. Notes on the Curatorial Challenges of an Emerging Media Art Form." *zentralwerkstatt.org*
- 2017 Offert, F. "Intuition and Epistemology of High-Dimensional Vector Space." zentralwerkstatt.org
 Offert, F. "A Syllogism in Turing's 1950 Paper." zentralwerkstatt.org

Editorial Activity

Ries, T., van Dalen-Oskam, K., & Offert, F. (eds.) Reproducibility and Explainability in the Digital Humanities. International Journal of Digital Humanities Special Issue [OA]

- **2021 Offert, F.**, Klammt, A., Dieckmann, L., Röwenstrunk, D. & Effinger, M. (eds.) *Construction Kit: Review Journal for Research Tools and Data Services* [OA]
- 2019 Offert, F. & Hirsch, M. (eds.) *M.A.D.E.* University of California, Santa Barbara [OA]
- **2015** Offert F. & Escalante, J.M. (eds). *Open Sources*. University of California, Santa Barbara [OA]
- **2014 Offert, F.** (ed.) *Jonas Mekas: 365 Day Project.* Karlsruhe: ZKM Center for Art and Media [OA]

WORKSHOPS, PANELS, AND EVENTS

- **2024 Offert, F.** & Ries, T. "Integrating Digital Humanities and German Studies Methods, Theory, Practice." Seminar at GSA 2024, Atlanta
- **2023 Offert, F.** "Computation and the Humanities." Speaker Series at the UCSB Graduate Center for Literary Research
 - **Offert, F.** & Phan, T. "The Politics and Aesthetics of Synthetic Media." Panel Series at 4S 2023, Honolulu
 - Offert, F. "Visual Artificial Intelligence." Workshop at HSLU Lucerne
- **2022 Offert, F.** & Dhaliwal, R.S. "Towards New(er) Criticism: Artificial Intelligence and Literary Dispositions" and "GPGPU: Imaging as General Purpose Computing." Panel Series at SLSA 2022, Purdue University
 - Offert, F. & Impett, L. "CLIP and Beyond: Multimodal & Explainable Machine Learning in the Digital Humanities." Panel at DH 2022, Tokyo
 - Offert, F. "Visual Artificial Intelligence." Workshop at HSLU Lucerne
 - **Offert, F.** "Visual Artificial Intelligence for the Digital Humanities." Workshop at the European Summer University in Digital Humanities, Leipzig
- **2021 Offert, F.** "Adversarial Examples." Workshop at the Bundesministerium für Bildung und Forschung/Gesellschaft für Informatik KI-Camp, Berlin
- **2020 Offert, F.** "Face Recognition." Workshop at HfG Karlsruhe
 - **Offert, F.** "Images as Data. Visual Culture and Machine Learning." Workshop at Hebrew University of Jerusalem
 - Offert, F. "Adversarial Hacking." Workshop at transmediale Berlin
- 2019 Offert, F. "Images of Image Machines. Theory and Practice of Interpretable Machine Learning for the Digital Humanities." Workshop at the European Summer University in Digital Humanities, Leipzig

INVITED TALKS

- 2025 Artificial Intelligence, Artificial History (keynote), Bielefeld University (upcoming)
- Are some things (still) unrepresentable?, Dartmouth College (upcoming)

Are some things (still) unrepresentable? (keynote), University of Southern Denmark (upcoming)

Postdigital Artificial Intelligence, Kunsthalle Bielefeld

"This Is Your Brain on ImageNet": Embedding and Visual Epistemology, HfG Offenbach Machine Visual Culture, Stockholm City Museum

Machine Visual Culture, Institut national de l'histoire d'art, Paris

"This Is Your Brain on ImageNet": Embedding and Visual Epistemology, Seven Pines Symposium XXVI, Stillwater, Minnesota

2023 The Production of (Embedding) Space, CCCB Barcelona

	Computational Iconographies, Schloss Dagstuhl – Leibniz-Zentrum für Informatik
	The End of Al Art (keynote), Goethe-Institut Nigeria, Lagos
	What Are Large Visual Models Models Of? (keynote), University of Zurich
2022	On the Concept of History (in Foundation Models), Ludwig Forum Aaachen
	On the Concept of History (in Foundation Models), UC Berkeley
	The End of AI Art (keynote), Technical University Cologne
	Close Reading Distant Viewing, Cologne University
2021	On Machine Learning and Concreteness, Humboldt University Berlin
	Art and Performance in the Age of AI, Goethe-Institut Budapest
	Exploring Cultural Heritage with Computer Vision, German National Library, Leipzig
	Latent Deep Space: GANs between Art and Science (keynote), UNSW Sydney
	Maschinensehen, Peter Behrens School of the Arts, Düsseldorf"
	Close Reading Distant Viewing, HSLU Lucerne
	Close Reading Distant Viewing, UC Berkeley
	Standardizing (CNN) Feature Vectors?, University of Geneva
	Le corps halluciné (keynote), Gaîté Lyrique, Paris
	The Epistemology of Machine Learning in Digital Art History, EHESS Paris
2020	Visual Culture and Artificial Intelligence, Trier University
	Critical Machine Vision as a (Digital) Humanities Challenge, UT Austin
	The Best Sense Organs That Money Can Buy. Deep Neural Networks as Image-Making Machines, Hebrew University of Jerusalem
	Hallucinating Science with Neural Networks, transmediale Berlin
2019	Invention as Discovery. Synthetic Images in Science and Art, HfG Karlsruhe
	Learning Physics with Computers, UC Santa Barbara
2018	Notes on the Aesthetics and Epistemology of Interpretable Machine Learning, UC Santa Barbara
2017	Notes on the Aesthetics of Artificial Intelligence, EPFL Lausanne
CONFERENCE TALKS	
2024	The Latent Space of the Digital Humanities: Embedded Knowledge and Disciplinary
2024	Convergence in the Age of Generative Artificial Intelligence, DH 2024, Washington D.C. (accepted but not given)
2023	The Production of (Embedding) Space, SLSA 2023, Phoenix
	A Sign That Spells: DALL-E 2, Invisual Images and The Racial Politics of Feature Space,
	4S 2023, Honolulu
	On the Concept of History (in Foundation Models), GSA 2023, Montréal
	imgs.ai. A Deep Visual Search Engine for Digital Art History, DH 2023, Graz
	Art History and Artificial Intelligence: Opportunities and Challenges of Large-Scale Visual
	Models in the Digital Humanities, DH 2023, Graz
	On the Concept of History (in Foundation Models), Tübingen University
2022	'CLIP Studies': Analyzing Large-scale Deep Learning Models in the Digital Humanities, DH 2022, Tokyo
2021	KI-Kunst als Skulptur, TU Dresden
	Latent Deep Space. GANs in the Sciences, 4S Toronto
	Towards a Critical Technical Practice in Digital Art History, AAH Birmingham

Kunstgeschichte und Computer Vision, Digitale Erfahrungen und Strategien in der Kunstgeschichte, Verband Deutscher Kunsthistoriker

'A Painting of a Murder in the Style of Monet'. Applications and Limitations of Large-Scale Contrastive Pre-Training in Digital Visual Studies, Oxford University

imgs.ai. A Fast, Dataset-Agnostic, Deep Visual Search for Digital Art History, Arbeitskreis Digitale Kunstgeschichte Open Space

Generative Digital Humanities, CHR 2020, Amsterdam

Understanding Perceptual Bias in Machine Vision Systems, InfDH 2020, Karlsruhe

Towards Open Computer Vision Methods. Visual Analytics of Machine Learning Models in the Digital Humanities, DH 2020, Ottawa (conference canceled)

Critical Machine Vision. Eine Perspektive für die Digital Humanities, DHd 2020, Paderborn

- 2019 Distant Viewing Iconographies, Zagreb University
- 2018 Images of Image Machines. Visual Interpretability in Computer Vision for Art, ECCV 2018, Munich

Preservation as Translation. The Case for Programmable Logic Devices as a Strategy for Circuit-level Authenticity, Deutsches Museum Munich

- 2017 Exhibiting Computing Machines. Ontology as a Speculative Principle for Exhibition Design, SPT 2017, Darmstadt
 - 'I know it when I see it'. Visualization and Intuitive Interpretability, NIPS 2017, Long Beach
- [machine here]. Non-Representation as a Rhetorical and Mathematical Strategy in the Construction of Alan Turing's Imaginary Machine, Harvard University

The Conservator's Task. The Case for Programmable Logic Devices as a New Tool for the Preservation of Digital Art, Royal Holloway University of London

2015 Conceptual Superposition. The Aesthetics of Quantum Simulation, SIGGRAPH Asia 2015, Kobe

"Re-enactment as Pre-enactment. The State of Emergency and the Theatrical Contract in Artistic Practices of Reenactment," UC Santa Barbara

INVITED RESPONSES

- 2024 Respondent at: Computer Vision & Art History Today, Barnes Foundation, Philadelphia
- 2022 Response to Todd Presner: "Digitizing, Remediating, Remixing, and Reinterpreting Holocaust Memory," UC Santa Barbara

Response to Leonardo Impett: "Neural Vision Models as Models of Visual Culture," Cambridge University

Response to Alexandre Gefen: "Generative AI," UC Santa Barbara

REVIEW ACTIVITY

2024 Monatshefte

Configurations

DH 2024, Washington D.C.

DHd 2024, Passau

2023 Deutsche Forschungsgemeinschaft (DFG)

Swiss National Science Foundation (SNSF)

National Endowment for the Humanities (NEH)

Wittgenstein Award

DH 2023, Graz

DHd 2023, Trier

2022 Al & Society

Trace: A Journal of Writing, Media, and Ecology International Journal of Digital Humanities

Programming Historian

European Summer School in Digital Humanities 2022, Leipzig

New Media and Society

Data in Brief

DH 2022, Tokyo

DHd 2022, Potsdam

2021 *AN-ICON*

Digital Scholarship in the Humanities

European Summer School in Digital Humanities 2021, Leipzig

2020 Informatik 2020 InfDH Workshop, Karlsruhe

ECCV 2020 Visart Workshop, Glasgow

ACM Multimedia 2020 SUMAC Workshop, Seattle

DH 2020, Ottawa

2019 European Summer School in Digital Humanities 2019, Leipzig

PROFESSIONAL ORGANIZATIONS

German Studies Association (GSA), Member

German Studies Association DH Network, Coordinator

UC Santa Barbara Graduate Center for Literary Studies, Board Member

DHd (Digital Humanities in German-speaking Countries)/ADHO, Member

Society for the Social Studies of Science (4S), Member

Society for Literature, Science & the Arts (SLSA), Member

Arbeitskreis Digitale Kunstgeschichte, Member

ACADEMIC SERVICE

2023-24 Campus Al and Human Creativity Summit Planning Committee, Member

Department Faculty Legislature Representative

College Search Committee for English Department DH Professorship, Member

Campus Search Committee for Library DH specialist, Faculty Representative

Department Committee on Diversity, Equity, and Inclusion, Member

2021-23 Department PLO Assessment Committee, Member

Campus Creative Computing Minor Advisory Group, Member

Department Committee on Diversity, Equity, and Inclusion, Member

COURSES DEVELOPED

2020- GER / C LIT 155, UC Santa Barbara: Critical Artificial Intelligence

GER / C LIT 152, UC Santa Barbara: Digital Humanities Practice

GER / C LIT / ART HIST 163, UC Santa Barbara: Digital Visual Studies

GER108, UC Santa Barbara: Media and Politics: Alternative Histories

C LIT 200 / MAT594X, UC Santa Barbara: Artificial Intelligence Images (graduate)

C LIT 200 / MAT 5940, UC Santa Barbara: Critical Machine Learning Studies (graduate)
GER 179C, UC Santa Barbara: Media Technology: Computing Cultures

2019-20 FAU Erlangen-Nürnberg: Critical Machine Vision (graduate)
FAU Erlangen-Nürnberg: Computer als Medium der Kunst (graduate)

2018-19 ART 185AI, UC Santa Barbara: Machine Learning and The Arts
MAT 595SP, UC Santa Barbara: Aesthetics and Politics of Artificial Intelligence (graduate)

STUDENT SUPERVISION

2023-24 Jinx Martinez, UC Santa Barbara, Honors Thesis
 Toby Fuchs, UC Santa Barbara, Faculty Research Assistance Program
 Paul Kim, UC Santa Barbara, Graduate Student Researcher
 Qiaoyu Cai, UC Santa Barbara, Graduate Student Researcher

 2021-22 Naja le Fevre Grundtmann, Copenhagen University, PhD Defense Committee