# Ramón Alvarado

University of Oregon Department of Philosophy

### ACADEMIC APPOINTMENTS

2019- Present Assistant Professor of Philosophy and Data Ethics, University of Oregon

#### **EDUCATION**

PhD	Philosophy,	University	of Kansas.	2020
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M.A. Philosophy (Epistemology of Science), University of Kansas, 2017

M.A. Philosophy (Ethics), The University of Texas at El Paso, 2014

B.A. Philosophy, The University of Texas at El Paso, 2011

## AREAS OF SPECIALTY

Philosophy of Computation, Data Ethics

## AREAS OF COMPETENCE

Ethics, AI Ethics, Philosophy of Science

### **PUBLICATIONS**

Should we replace radiologists with deep learning? Pigeons, error and trust in medical AI. Bioethics, 36(2), 121-133. (2022)

"Computer Simulations as Scientific Instruments" in *Foundations of Science*.1-23. DOI 10.1007/s10699-021-09812-2 (2021)

"Error, reliability and health-related digital autonomy in AI diagnoses of social media analysis." *The American Journal of Bioethics*, 21(7), 26-28. (2021) (with N. Morar)

"Epistemic Opacity, Big Data, Artificial Intelligence and Machine Learning." in *Big Data and the Democratic Process* ed. Kevin Macnish and Jai Galliot. Edinburgh University Press (2020)

"Epistemic Entitlements and Computer Simulations" *Minds and Machines* (2019): 1-24 (2019). (with J. Symons)

"Can We Trust Big Data? Applying Philosophy of Science to Software" in *Big Data & Society* 3.2 (2016): 2053951716664747. (With J. Symons)

In production "Understanding Epistemic Injustice in Data Science" (Synthese) (With J. Symons) (2022)

> "Explaining Epistemic Opacity" in The Science and Art of Simulation II ed. Kaminski, Andreas, Michael Resch, and Petra Gehring. Springer, Cham. (in press/production)

Translations

Otto Neurath's "An International Encyclopedia of the United Sciences" In Logic, Epistemology, and the Unity of Science. Ed. by S. Rahman, J. Symons, D.M. Gabbay, and J.P. van Bendegem. 2004. Kluwer Academic Publishers. Dordrecht, The Netherlands (With J. Symons)

#### **WORKS IN PROGRESS**

Monographs

"Simulating Science" (under contract, Synthese Library Series, Springer) (2022)

"The Ethics of Internet Technologies" (under contract, Routledge) (2023) (With J. Symons)

**Papers** 

"Why Fairness Fails: Parity and Invariance in algorithms"

"When does Opacity Matter" (for Foundations of Science (With J.

Symons))

"Conceptually Engineering Trust in AI"

#### **PRESENTATIONS**

Refereed

"The Epistemic Implications of Treating Computer Simulations as Instruments" Budapest Workshop on Philosophy of Technology 2021 (BudPT21) Budapest University of Technology and Economics, Hungary

"Trusting Scientific Instruments" Trust in Science! Conference Series: Science and Art of Simulations (SAS21) High-Performance Computing Center Stuttgart, Germany (2021)

"Understanding Epistemic Injustice in Data Science" Bias in Algorithmic Decision-Making Workshop, University of Hannover, Germany, (2021)

"Reversibility as a Design Principle in Artificial Intelligence" 22nd International Biennial Meeting for the Society for Philosophy and Technology. Université Catholique de Lille. (2021)

"Machine Guessing, Pigeon Superstition and Trust in AI" International Methodological School in Social and Human Sciences Conference, at the Research and Innovation Laboratory of Theoretical-Practical Philosophy and Applied Epistemology, Moldova State University (2020)

"Epistemic Injustice in Machine Learning Technology" The Society of Learning Algorithms, Conference series: Science and Art of Simulation (SAS) High-Performance Computing Center Stuttgart, Germany (2019)

"Epistemic Injustice in the Development and Deployment of Data Science"

5th International Conference on the History and Philosophy of Computing Bergamo, Italy (2019)

"Epistemic Injustice in Data Science" Presented at Surveillance Technology and Bias Panel at the Institute for Digital Research in the Humanities 9<sup>th</sup> annual Digital Humanities Forum. University of Kansas (2019)

"Opacity in Computational Methods" (Poster)
National Security Agency's Science of Security Workshop on Securing
the Internet of Things. University of Kansas (2018)

"Opacity in Computational Methods"
Conference series: Science and Art of Simulation IV (SAS), Epistemic
Opacity in Computer Simulation and Machine Learning. HighPerformance Computing Center (HLRS), University of Stuttgart, Germany
(2018)

"Instruments, Enhancement and Opacity: Problems in Simulation" Computer Simulation Methods Summer School org. in University of Stuttgart by Politecnico di Milano, Middlesex University and the High-Performance Computing Center, Stuttgart (HLRS). (2017)

"Epistemic Warrants in Software Intensive Science" Summer School on Simulation and Science. Leuphana Universität Lüneburg. Lunenburg/Lenzen/Hamburg (2016)

"An Alternative Account of Moral Supervenience" Annual Meeting for the New Mexico/Texas Philosophical Society, University of Texas at El Paso, El Paso Texas. (2014)

"The Problem of Ontic Levels in Mechanistic Explanation."

Biannual Meeting for the International Society for the History, Philosophy and Social Studies of Biology, Montpellier, France. (2013)

"Pessimistic Meta-Induction and Proper Functions." New Mexico/ West Texas Philosophy Conference, New Mexico State University, Las Cruces, NM (2012)

"Cómo Contrarrestar la Meta-Inducción Pesimista en la Ciencia" Primer Encuentro Filosófico de la Frontera, Universidad Autónoma de Ciudad Juárez (2012)

Invited

"How Fairness Fails" Invited talk on Data Science Ethics & Justice Series at Scripps College, California (Spring 2022)

Community outreach talk "Pigeons and Medical AI" Center for Practical Bioethics, Kansas City Missouri (2022)

Visiting lecture to DSCI 101 "Introduction to Data Ethics". Professor Lauren Ponisio (Biology) University of Oregon. (2022)

Visiting Lecture to HC 241H "Introduction to Data Ethics". Professor Joe Sventek (CIS) University of Oregon (2022)

"Pigeons, Deep Neural Networks and Error in Medical AI" Université Toulouse, France (2021)

"Understanding Epistemic Injustice in Data Science" Digital Humanities Seminar Hall Center for the Humanities, University of Kansas (2021)

"Computer Simulations as Scientific Instruments" High-Performance Super Computing Center (HLRS) Research Journal Club. University of Stuttgart (2021)

"Conceptual Challenges to Fairness in AI" Computer and Information Science Department Colloquium, University of Oregon (2021)

"Is Fairness Useless" Institute of Neuroscience, Diversity Equity and Inclusion in STEM Advanced Seminar, University of Oregon

"Epistemic Injustice in Data Science" Data Ethics Conversation Series, University of Oregon (2020)

"Qué es la Inteligencia Artificial?" Webinar Centro Universitario de Los Lagos, Universidad de Guadalajara (2020)

Panel Discussant at "Lawrence Talks: Ethics of AI"

The Commons, University of Kansas (2018)

"What Business Ethics Can Tell Us About The Panama Papers" Latin American Graduate Organization Annual Symposium, University of Kansas (2017)

Panel Discussant at "Mapping the (Post)Human: Yuval Harari and the Next Dominant Species"
The Commons, University of Kansas (2017)

"Is Decision-Making Complex?" (Poster) Constraint Programming and Decision-Making Workshop, University of Texas at El Paso (2013)

## **TEACHING**

Instructor Advanced Introduction to Analytic Philosophy, (U of O) Fall, 2021

Data Ethics (200-level), University of Oregon, Spring 2021

AI and Philosophy, Clark Honors College (U of O), Winter 2021

Ethics, University of Oregon, Winter 2021

AI, University of Oregon, Fall 2020

Internet, Society & Philosophy, University of Oregon, Fall 2020

Critical Reasoning, University of Oregon, Spring 2020/Fall 2021

Adv. Intro. to Data Ethics (400/500), University of Oregon, Winter 2020

Internet Society and Philosophy, University of Oregon. Winter 2020

Ethics of Technology, University of Oregon. Fall 2019

Moral Theory, University of Oregon. Fall 2019

Business Ethics, University of Kansas, Summer 2015 - Fall 2018

Introduction to Philosophy, UTEP, Sumers 2012-2014

#### RESEARCH COLLABORATIONS

"Conceptually Engineering Trust in AI" with Simon David Hirsbrunner, senior researcher at the International Center for Ethics in the Sciences at University of Tübingen. Empirical and conceptual work to understand normative trust in novel data instruments.

Research project on transparency and stakeholder communication in medical AI in partnership with the Ethical AI Project Team at The center for Practical Bioethics in Kansas, City, Missouri.

Fairness and Artificial Intelligence. (2020-)
Research collaboration with Sinan Deger (CalTech) building AI and ML systems to test concepts and hypotheses related to the formalization of fairness.

Data ethics research group, University of Oregon. (2019-) Multidisciplinary collaboration exploring data ethics projects and grant opportunities between UO and OHSU.

Science of Security Lablet, the University of Kansas. (2018/2019) Interdisciplinary collaboration exploring ontological and epistemological questions concerning resilience.

PIs: Perry Alexander (KU Electrical Engineering and Computer Science) and John Symons (KU Philosophy)

Funding: National Security Agency.

#### SERVICE TO THE PROFESSION

Chair Session 4.06: AI Design at 22nd International Biennial Meeting for

the Society for Philosophy and Technolog. Université Catholique

de Lille. (2021)

Session 7E. Science and Policy in Epidemiology. Central APA

(2021)

Reviewer Minds and Machines

Medicine, Healthcare and Philosophy

**PLOS** 

Philosophy & Technology Big Data and Society Philosophy of Science

Organizing The Turing Test and Personhood, University of Oregon (2022)

Data Ethics Conversation Series, University of Oregon (2021-22)

Data Ethics Online Seminar Series, University of Oregon (2020) Computational Methods and the Future of Science, University of Kansas (2019)

Public Philosophy

Public Philosophy talk "Ethics of AI" at discussion series at Alluvium in the Whiteaker Neighborhood, Eugene, Oregon (2022)

Webinar: Qué es la Inteligencia Artificial? Centro Universitario de Los Lagos, Universidad de Guadalajara (2020)

Lawrence Talks! Live Discussion Panel (and Podcast Episode 4 p.1) on *AI and AI Ethics*. Lawrence Public Library. (2019)

Lawrence Talks! Podcast (Episode 4 p.2) Interiew on AI and the Meaning of Life. (2019)

River City Chautauqua (KKFI Community Radio broadcast and podcast) interview on *Opacity and Big Data*. (2019)

River City Chautauqua (KKFI Community Radio broadcast) interview on *Surveillance Capitalism*. (2019)

Memberships

Commission for the History and Philosophy of Computing (HaPoC)

American Association of Mexican Philosophers

**APA** 

SPT