

## TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE \_\_\_\_\_6466\_\_\_\_\_

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di \_ Biotecnologie Mediche e Medicina Traslazionale \_** Scientist- in - charge: \_\_\_\_\_ **Dr. Luca Marelli**\_\_\_\_\_

## JOSEPH DONIA

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Donia
Name	Joseph

#### PRESENT OCCUPATION

Appointment	Structure
PhD Candidate	University of Toronto, Canada

#### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	Psychology	Ryerson University (now Toronto Metropolitan University)	2010
Specialization	NA		
PhD	Health Informatics	University of Toronto	2024 (expected)
Master	Health Policy	University of Toronto	2020
Degree of medical specialization	NA		
Degree of European specialization	NA		
Other	NA		

## REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
2021	Society for the Social Studies of Science (4S)	Worldwide
2019	Canadian Bioethics Society	Ottawa

Università degli Studi di Milano – Direzione Trattamenti Economici e Lavoro Autonomo Ufficio Contratti di formazione e Ricerca Via Sant'Antonio 12 - 20122 Milano, Italia <u>assegni.ricerca@unimi.it</u> DTELA\_M\_CVAssegniENG\_rev. 00 del 02/09/2021



2019

University of Toronto Bioethics Society

Toronto

## FOREIGN LANGUAGES

Languages	level of knowledge
English	Native
Italian	CEFR A2
Spanish	CEFR A2

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2024	Working Group Research Stipend, Schwartz Reisman Institute for Technology and Society (SRI), University of Toronto, Canada. <i>This award supported participation in the SRI working group in 'Trust in Human-ML Interactions'</i> . \$1,000 CAD
2021 - 24	<b>SSHRC Doctoral Fellowship,</b> Social Sciences & Humanities Research Council (SSHRC). Ottawa, Canada. SHRC Doctoral Fellowships support high-calibre students engaged in doctoral programs in the social sciences and humanities. \$80,000 CAD.
2020 - 24	<b>University of Toronto Fellowship (Doctoral Bursary).</b> University of Toronto, Canada. University of Toronto Fellowships provide financial support for graduate students in excellent academic standing. \$44,000 CAD.
2022-23	<b>Data Science for Population Health and Health Systems Graduate Award</b> , Dalla Lana School of Public Health, University of Toronto, Canada. <i>This award supports graduate trainees conducting novel research in data science and artificial intelligence for population health and health systems.</i> \$10,000 CAD.
2022 - 23	Al for Public Health Doctoral Scholarship, AI for Public Health Research Training Platform, Canadian Institutes of Health Research (CIHR). This program supported select scholars across Canada working at the intersection of artificial intelligence, equity, and health. \$9,000 CAD.
2022	<b>FAccT Conference 2022 Travel Scholarship</b> , ACM Conference on Fairness, Accountability & Transparency. <i>This scholarship supported travel to and from the FAccT conference</i> . \$2450 USD.
2021 - 22	<b>Benita M. Warmbold Fellow in Health System Innovation,</b> Women's College Research Institute, Toronto, Canada. This award supports emerging health system leaders who advance the research and implementation science of health system innovation. \$4,500 CAD.
2021 - 22	<b>Ethics of Al Graduate Research Fellowship,</b> Centre for Ethics, University of Toronto, Canada. This award supports graduate students pursuing interdisciplinary research addressing ethics and artificial intelligence. 2,500 CAD.
2020, 2021	<b>Best Student Abstract Award,</b> Canadian Bioethics Society Annual Conference. This award is given each year to select students whose research abstracts were accepted to the Canadian Bioethics Society conference. \$500 CAD.
2019	Scholars Program in Al Ethics and Health, Joint Centre for Bioethics, University of Toronto, Canada. This scholarship supports graduate students in the Greater Toronto Area pursuing additional specialized training in Al ethics for health. \$10,000 CAD.



2018	Graduate Student Award, VHA Home Healthcare, Toronto, Canada. Financial, mentorship,
	and networking support awarded to graduate students identified as potential future health
	service leaders. \$12,500 CAD.

## TRAINING OR RESEARCH ACTIVITY

2024	Invited Member Working Group on Trust in Human-Machine Learning Interactions, Schwartz Reisman Institute for Technology and Society, Toronto, Canada
	This working group will produce a comprehensive survey of how trust is conceptualized and operationalized across different academic disciplines.
2020 - 24	<b>Research Assistant</b> Institute for Health System Solutions & Virtual Care (WIHV) Women's College Research Institute, Women's College Hospital, Toronto, Canada
	Three-year 'embedded' ethics and policy analysis, occurring alongside the development and commercialization of an AI-enabled health technology.
2022 - 23	<b>Research Assistant</b> Temerity Faculty of Medicine, University of Toronto, Canada
	Multi-site ethnography of health-related AI development in 3 settings: an academic hospital, a start-up, and a large corporation.
2022 - 23	<b>Graduate Award</b> Data Science for Population Health and Health Systems Graduate Award, Dalla Lana School of Public Health, University of Toronto, Canada
	This program supports graduate trainees conducting novel research in data science and artificial intelligence for population health and health systems.
2022 - 23	AI for Public Health Doctoral Scholarship AI for Public Health Research Training Platform, Canadian Institutes of Health Research (CIHR) and Dalla Lana School of Public Health, University of Toronto
	This program supported select scholars across Canada working at the intersection of artificial intelligence, equity, and health.
2022	Panel Co-Chair Conflict, contradiction, and crisis in data-intensive health innovation. European Association for the Study of Science and Technology Conference (EASST), Madrid, Spain.
2022	<b>Panel Chair</b> <i>Critiquing FAccT and AI ethics</i> . ACM Conference on Fairness, Accountability, & Transparency (FAccT). Seoul, South Korea.
2022	Invited Contributor The Social Life of Algorithmic Harms, Data & Society Institute, New York, NY This academic workshop invited authors working on manuscripts focused on taxonomization of algorithmic harms.



2021 - 22	Ethics of Al Graduate Research Fellowship Centre for Ethics, University of Toronto, Canada
	This program supports graduate students at the University of Toronto pursuing interdisciplinary research addressing ethics and artificial intelligence.
2021 - 22	Benita M. Warmbold Fellow in Health System Innovation Women's College Research Institute, Toronto, Canada
	This program supports emerging health system leaders who advance the research and implementation science of health system innovation.
2021	Invited Contributor Design for Values in Artificial Intelligence for Health, World Health Organization (WHO) and Delft University, Online.
	This interdisciplinary workshop explored the potential and possible challenges of 'design for values' in AI for health.
2021	Invited Contributor Summer Institute on AI for Public Health, Canadian Institutes of Health Research (CIHR), Online.
	Invitation-only summer institute exploring the application of AI in public health research and practice.
2021	<b>Co-Presenter</b> Service Design for Community-based Health Innovation, MAP Centre for Urban Health Solutions, St. Michaels Hospital, Unity Health Network. Toronto, Canada.
	Workshop focused on community-based approaches to health innovation, where I presented on the topic of 'Design Justice'.
2021	<b>Panel Co-Chair</b> Practices of Justice, Ethics, and Participatory Research. Society for the Social Studies of Science Conference (4S), Online.
2019	Scholars Program in Al Ethics and Health Joint Centre for Bioethics, University of Toronto, Canada
	This program supported graduate students in the Greater Toronto Area pursuing specialized training in AI ethics for health.
2011 - 12	<b>Research Lab Manager</b> Department of Psychology, Toronto Metropolitan University, Toronto, Canada
	Developed and coordinated study protocols, and managed REB applications, amendments & renewals for three CIHR-funded projects.
2010 - 11	<b>Research Coordinator</b> Lunenfeld-Tanenbaum Research Institute, Sinai Health System, Toronto, Canada
	Implemented six CIHR-funded studies through various phases from recruitment to data analysis.



## PROJECT ACTIVITY

Year	Project
2024	Working Group on Trust in Human-Machine Learning Interactions. Schwartz Reisman Institute for Technology and Society, Toronto, Canada. Working Group Member.
	Research Lead: Dr. B. Coleman
2023 - 24	Generating a Portable Policy Framework for Digital Health Equity in Canada. Canadian Institutes for Health Research (CIHR) Research and Innovation Grant. Co-Investigator. \$147,629 CAD.
	Investigators: Shaw, J., Tait, C. Co-Investigators: Donia, J. Denis, J.L., Hardcastle, L., Mendez., I., Ogbogu, U., Ross, H., Sayani, A., Spithoff, S.
2020 - 24	Designing Worlds, Worlding Design: Ontology, Ethics and Agency in a Digital Health Start-Up. Doctoral Dissertation.
	Committee: Dr. Jay Shaw, Dr. Jennifer Gibson, Dr. Fiona Webster
2022-23	Values Ecosystems in the Design of Artificial Intelligence for Health Care: An Exploratory Focused Ethnography. Research Assistant. Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant. Research Assistant. \$73,642 CAD. Investigators: Shaw, J., Gibson, J. Paprica, A. Rudzicz, F., Shilton, K., Webster, F.
2020-24	Exploring Ethics and Policy-level Challenges in the Implementation of a Smart Physiotherapy Activity Recognition System (SPARS). Canadian Institutes for Health Research (CIHR) and Natural Sciences and Engineering Research Council (NSERC) Collaborative Health Research Project. Research Assistant. \$256,311 CAD. Investigators: Shaw, J., Whyne, C., Richards, R., Burns, D., Razmjou, H.
2021-22	<b>Ethics of AI Graduate Research Fellowship.</b> Centre for Ethics, University of Toronto, Canada. Research Fellow & Contributor to Annotated Bibliography of Oxford Handbook of Ethics of AI. Director: Dr. Markus Dubber
2018 - 20	Patient and Public Co-Design of Smart Technologies for Health Care: A Meta-Narrative Review. Master's Thesis (passed with no corrections).
	Committee: Dr. Jay Shaw, Dr. Alex Jadad, Dr. Paula Rowland

## PATENTS

Patent	
NA	

## CONGRESSES AND SEMINARS

Date	Title	Place
2023	Institutional ethnography and data justice: concepts, tensions, and practical applications. <i>Data Justice Conference</i> . First Author.	Cardiff, United Kingdom



2022	Normative logics of algorithmic accountability. ACM Conference on Fairness, Accountability, and Transparency (FAccT). Sole Author.	Seoul, South Korea
2021	Ethics and values in design: a structured review and theoretical critique. Annual meeting of the Society for the Social Studies of Science (45). First Author.	Virtual
2021	Co-design and ethical artificial intelligence for health: myths and misconceptions. Annual meeting of AAAI / ACM Conference on Artificial Intelligence, Ethics, and Society (AIES). First Author.	Virtual
2021	Co-design and ethical artificial intelligence for health: myths and misconceptions. Annual meeting of the Canadian Bioethics Society. First Author.	Virtual
2021	Using institutional ethnography to study embedded values in AI systems. Annual meeting of the Society for the Social Studies of Science (4S). Co-Author.	Virtual
2021	The ethics of digital health: a critique and extension of current approaches. <i>Annual</i> <i>Meeting of the Canadian Bioethics Society</i> . Co-Author.	Virtual
2021	Design ethics for artificial intelligence in health care: a review and proposed framework. <i>International Conference on</i> <i>Clinical Ethics and Consultation</i> . Co- Author.	Virtual
2020	Ethical design and artificial intelligence: a review and proposed framework for health. <i>Annual meeting of the Canadian</i> <i>Bioethics Society</i> . First Author.	Toronto, Canada
2020	Patient and public co-design of smart technologies for health care: five myths and misconceptions. <i>IHPME Annual</i> <i>Research Day Conference</i> . Sole Author.	Toronto, Canada
2019	Design ethics and AI for health: a typology of approaches. Annual International Congress on Technology, Science and Society.	Madrid, Spain
2019	Co-design as a method of patient and public involvement in health care improvement and innovation: protocol for meta-narrative review. <i>IHPME Annual</i> <i>Research Day Conference</i> . Sole Author.	Toronto, Canada



### PUBLICATIONS

#### Books

*Algorithmic accountability* in 'Understanding Accountability: Power, Politics and Particularities' (Eds. M. Flinders, G. Dimova, C. Monaghan, M. Dubnick). Routledge, London. Forthcoming - 2024.

*Norms of co-design for digital health innovation* in 'De Gruyter Handbook of Digital Health & Society' (Ed. B. Marent). Walter De Gruyter Press, Berlin. Forthcoming - 2024.

### Articles in reviews

Boyer, P., **Donia**, J., Whyne, C., Burns, D., & Shaw, J. (2022). Regulatory Regimes and Procedural Values for Health-Related Motion Data in the United States and Canada. *Health Policy and Technology*, 11(3). <u>https://doi.org/10.1016/j.hlpt.2022.100648</u>

**Donia**, J., & Shaw, J. (2021). Ethics and values in design: a structured review and theoretical critique. *Science and Engineering Ethics*, 27(5), 57. <u>https://doi.org/10.1007/s11948-021-00329-2</u>

**Donia, J.**, Shaw, J. (2021). Co-design and ethical artificial intelligence for health: an agenda for critical research and practice. *Big Data & Society*, *8*(2). <u>https://doi.org/10.1177/20539517211065248</u>

Shaw, J., **Donia**, J. (2021). The sociotechnical ethics of digital health: a critique and extension of current approaches in bioethics. *Frontiers in Digital Health*, 3, 127. <u>https://doi.org/10.3389/fdgth.2021.725088</u>

### Congress proceedings

**Donia, J.** (2022). Normative logics of algorithmic accountability. *Proceedings of the 2022 Conference on Fairness, Accountability, and Transparency (FAccT). Seoul, South Korea.* ACM, New York, NY, USA. <u>https://doi.org/10.1145/3531146.3533123</u>.

**Donia, J.**, Shaw, J. (2021). Co-design and ethical artificial intelligence for health: myths and misconceptions. *Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society (AIES)*, 77. https://doi.org/10.1145/3461702.3462537

### OTHER INFORMATION

### PEER-REVIEWED RESEARCH GRANTS

### 2023 - 2024 Co-Investigator

#### \$147,629 CAD

Generating a Portable Policy Framework for Digital Health Equity in Canada. Canadian Institutes for Health Research (CIHR) Research and Innovation Grant. PIs: J. Shaw & C. Tait

This project is focused on building a portable policy framework for digital health equity that can be used across Canada. The team will explore this topic through qualitative interviews with policymakers and leaders of community organizations in four Canadian provinces.



## OTHER PROFESSIONAL EXPERIENCE

2022 - Present	Policy Analyst / Al Policy & Strategy Lead Digital & Analytics Strategy Division, Ontario Ministry of Health, Canada
	I lead the AI policy and strategy portfolio, with the objective of aligning health- related AI development and use with Ontario Health Data Council ethics principles and priorities.
Apr - Sep 2022	Project Advisor
	Institutional Research & Data Governance Office University of Toronto, Canada
	Interviews, focus groups, content development for university website promoting student awareness and understanding of data collection, protection, and use.
2017 - 2020	Founder Huddle, Toronto, Canada
	Design research studio with a focus on collaborative approaches to service innovation, from problem definition and evidence synthesis to implementation.
2012 - 2017	Founder CONNECT, Toronto, Canada
	Communications studio with a focus on new media for civic engagement, public education, and advocacy.

## MANUSCRIPTS UNDER REVIEW

**Donia, J.** Accounting for algorithms in public health and health care: common goods, collective responsibilities? Under review at *Big Data & Society*.

**Donia, J,** Oyefeso, L., Embuldeniya, G., Whyne, C., Burns, D., Boyer, P., Razmjou, H., Shaw, J. Lifecycle approaches in responsible artificial intelligence for health: critical moments and key questions. Under review at *Ethics and Information Technology*.

J. Shaw, J. Donia, Boyer, P., Embuldeniya, G.. From orders of worth to moments of worth: Ethics and critique in digital health. Under review at *Science*, *Technology & Human Values*.

## MANUSCRIPTS IN PREPARATION

**Donia, J,** Gibson, J., Shaw, J. Making data markets: the value of assetization and the assetization of values in a digital health start-up.



## RESEARCH & PROFESSIONAL SKILLS

Qualitative Research Methods • Institutional Ethnography • Case Study Research • Focus Groups • Co-Design • Literature Review & Evidence Synthesis • Grant Writing • REB Management • Workshop Facilitation • Service Design • Design Research • Project Management • Policy Analysis • Cross-Disciplinary & Cross-Sector Collaboration and Partnerships • AI Impact Assessment

## **TECHNICAL PROFICIENCIES**

NVivo • SPSS • NoviSurvey • Adobe Illustrator • Adobe InDesign • Adobe Photoshop • Zotero • Endnote • Keynote • Microsoft Office • Google Workspace • Miro

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

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Place and date: \_\_\_\_Toronto, Canada\_\_, \_\_\_March 4, 2024\_\_\_\_