

ZIGGY O'REILLY

PhD Candidate

(she/her)

Social Cognition in Human-Robot Interaction
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Key words: Human-robot interaction, autism, social cognition, robot ethics, moral cognition, art & science

EDUCATION

Master of Biological Arts, The University of Western Australia **Aug 2016 - Nov 2019**

Dissertation Title: “*Social Robot Videos: A New Task to Measure Theory of Mind Towards Humanoid Robots in Children with Autism Spectrum Disorder*”

Supervisors: Dr. Ionat Zurr (UWA), Dr. David Silvera-Tawil (CSIRO) and Dr. Diana Tan (UWA)

Graduated with Distinction

Bachelor of Science, The University of Western Australia **Feb 2012 - Jun 2016**

Double major in Psychological Science and Psychology in Society

COLLABORATIONS AND STUDY ABROAD

Postgraduate Studentship, CSIRO **Nov 2017 - Nov 2019**

Co-Supervisor: Dr. David Silvera-Tawil, The Australian e-Health Research Centre

Joint Yale-Hastings Visiting Scholar **Jun 2018 - Jul 2018**

Research: The ethics of using socially-assistive robots for individuals on the autism spectrum

Visiting Student, Yale Interdisciplinary Centre for Bioethics, Yale University **Jun 2017 - Jul 2017**

Program: The Sherwin B. Nuland Summer Program in Bioethics

GRANTS AND AWARDS

Travel Grant **2019**

Robotics, Science and Systems: Meet the Women in Robotics, \$3100

Postgraduate Student Association Fieldwork and Data Collection Award **2018**

The University of Western Australia, \$1350

Emily Murray Student Scholarship **2018**

The Hastings Centre Accommodation Subsidy, \$200

Study Abroad Postgraduate Scholarship **2017**

The University of Western Australia, \$1500

PUBLICATIONS

O'Reilly, Z., Roselli, C., & Wykowska, A., (2023). Does Exposure to Technological Knowledge Modulate the Adoption of the Intentional Stance Towards Humanoid Robots in Children? doi:[10.31234/osf.io/cfg4k](https://doi.org/10.31234/osf.io/cfg4k)

O'Reilly, Z., Thompson, N., Ben-Ary, G., & Chau, C., (2023). Bio-engineered Living Entities in Art: Aliveness, Duration, and Movement in Bricolage. *Leonardo* 1-15, doi: [10.1162/leon_a_02402](https://doi.org/10.1162/leon_a_02402)

Shvo, M., Hari, R., **O'Reilly, Z.,** Abolore, S., Wang, S.Y.N., McIlraith, S., (2022). Proactive Robotic Assistance via Theory of Mind. In *International Conference on Intelligent Robots and Systems (IROS)*, doi: [10.1109/IROS47612.2022.9981627](https://doi.org/10.1109/IROS47612.2022.9981627)

O'Reilly, Z., Silvera-Tawil, D., Zurr, I., Weiting Tan, D., (2022). Animation, Theory of Mind and Humanoid Robots: Creating a Social Robot Video Task. *Leonardo*, 1-13, doi: [10.1162/leon_a_02099](https://doi.org/10.1162/leon_a_02099)

O'Reilly, Z., Navare, U., Marchesi, S., & Wykowska, A., (2022). Does Embodiment and Interaction Affect the Adoption of the Intentional Stance Towards a Humanoid Robot? In *International Conference on Social Robotics (ICSR)*, doi:[10.100/978-3-031-24667-8_32](https://doi.org/10.100/978-3-031-24667-8_32)

O'Reilly, Z., Ghiglini, D., Spatola, N., & Wykowska, A., (2021). Modulating the Intentional Stance: Humanoid Robots, Narrative and Autistic Traits. In *International Conference on Social Robotics (ICSR)*, doi: [10.1007/978-3-030-90525-5_61](https://doi.org/10.1007/978-3-030-90525-5_61)

O'Reilly, Z., Silvera-Tawil, D., Weiting Tan, D., Zurr, I., (2021). Validation of a Novel Theory of Mind Measurement Tool: The Social Robot Video Task. In *International Conference on Human-Robot Interaction (HRI)*, doi: [10.1145/3434074.3447135](https://doi.org/10.1145/3434074.3447135)

O'Reilly, Z., (2020). Social Robot Videos: A New Task to Measure Theory of Mind Towards Humanoid Robots in Children with Autism Spectrum Disorder. (Publication No. 00836) [Masters dissertation, University of Western Australia]. Leonardo Abstracts Service.

Ecker, U. K., **O'Reilly, Z.,** Reid, J. S., & Chang, E. P., (2020). The effectiveness of short-format refutational fact-checks. *British Journal of Psychology*, doi: [10.1111/bjop.12383](https://doi.org/10.1111/bjop.12383)

PRESENTATIONS

O'Reilly, Z. (2019). Theory of Mind and Socially-Assistive Robots. Public seminar at SymbioticA, The University of Western Australia, Crawley, WA.

O'Reilly, Z. (2019). Theory of Mind and Social Robots: Attributing Mental States to Moving Robots. Poster presented at the RSS conference, Faculty of Engineering, University of Freiburg, Freiburg, Germany.

Henriques, I. **O'Reilly, Z.** Pell, S.J. & Thompson, N. (2018). Robotrosities. Panel at the Quite Frankly Conference, The University of Western Australia, Crawley, WA.

O'Reilly, Z. (2018). Socially-Assistive Robots, Robot Ethics and Autism Spectrum Disorders. Presentation at The Hastings Centre, Garrison, NY.

O'Reilly, Z. (2018). The Ethics of Using Robots as Social Aids for Children on the Autism Spectrum. Poster presented at the Yale Medical Library, New Haven, CT.

Lebedev, P. Myburgh, J. & **O'Reilly, Z.** (2018). Y Generation Talks. Public Forum, Youth Week KickstART Festival, Perth, WA.

O'Reilly, Z. (2017). Robots in Residential Aged Care Facilities: A Need for Implementation of Ethical Codes in Procedural Protocols. Poster presented at the Yale Medical Library, New Haven, CT.

TEACHING EXPERIENCE

Workshop Facilitator **Oct 2022**

The International School of Genova, Quarto, Italy

Taught children to program an Arduino board to control LEDs and a servo motor.

Tutor: Neuroscience and Society (NEUR1001) **Semester 2 2019 - 2022**

The University of Western Australia, Crawley, WA

Assisted students to create artworks to explore a neuroscientific phenomenon.

Course Instructor **May 2020 - Sep 2020**

Fire Tech Australia, Perth, WA

Introduced youth to robotics, coding, 3D printing, drones and digital media.

Workshop Facilitator and Mentor **Mar 2020, Jul 2020, Oct 2020**

She Codes Flash, Online Program

Introduction to programming development boards using Micropython and the Micro:Bit.

Children's Activity Program **July 2019**

The Neurocognitive Development Unit, The University of Western Australia, Crawley, WA

Guided children through a range of activities to collect psychological data.

Guest Tutor: Aesthetic Crossovers of Art and Science (VISA2214) **Jul 2019 - Nov 2018**

The University of Western Australia, Crawley, WA

Developed and implemented a lesson plan to facilitate a discussion about the impact of social robots.

Guest Lecturer: Aesthetic Crossovers of Art and Science (VISA2214) **Jul 2019 - Nov 2018**

The University of Western Australia, Crawley, WA

Introduced students to social robots from artistic, scientific and ethical perspectives.

Discussion Facilitator: The Sherwin B. Nuland Summer Program in Bioethics **Jul 2018**

Yale University, New Haven, CT

Coordinated a film screening to encourage discussion about the ethical implications of social robots.

Workshop Facilitator: Automating Care with Arduino **Apr 2018**

Youth Week KickstART Festival, Propel Youth Arts, Perth, WA

SymbioticA, The University of Western Australia, Crawley, WA

Liaised between Propel Youth Arts and the University of Western Australia to develop a workshop for youths aged between 12 and 25 years. Instructed participants to build an embedded system.

MEDIA AND ART

Co-Director, Production Designer

2021

“While(Alive){},” - Stop Motion Animation Short Film

Twelve Heart Films, Fringe Festival, Perth, Australia

Revelation Film Festival, Perth, Australia

CyBorg Film Festival, Perugia, Italy

Nominated for Animation Award, Western Australian Screen Awards

The Mag: Socially-Assistive Robotics and Autism. (2019). RTRFM. Community radio interview.

Midnight Special: Exploring the New Frontiers of Technology. (2017). RTRFM. Community radio interview.

ENTREPRENEURIAL AND RESEARCH EXPERIENCE

Program Development Consultant

2020

Internet of Things, She Codes

Research Assistant

Aug 2017 - Aug 2018

Memory and Cognition Laboratory, The University of Western Australia, Crawley, WA

Designed research materials, recruited participants and collected behavioural data.

Project Manager

Nov 2016 - Feb 2017

Lunaware Artificial Intelligence Technologies, International Start-Up

Prepared presentations for prospective clients and investors in Japan, coordinated project timelines and managed equipment for the RoboDex Tradeshow in Tokyo, 2017.

Co-Founder

Nov 2014 - Jul 2015

The Pop-Up Gallery and Event Space, Mt Hawthorn, WA

Negotiated sponsorship and collaborations with external stakeholders, coordinated and managed events to showcase local talent and promoted events.

PROFESSIONAL DEVELOPMENT

She Codes Flash

Feb 2020

Makers & Co, Bunbury, WA

Short course on Python, HTML, CSS and microcontrollers.

Perth Web Girls Course

May 2017, Nov 2018

Spacecubed, Perth, WA

Short course which taught Python for web design.

Biohack Academy Course

Jan 2017 - Mar 2017

The University of Western Australia, Crawley, WA

Intensive course about embedded systems, programming, 3D printing and micro-biology.

VOLUNTEER EXPERIENCE

Bushfire Donations Coordinator

Sponsored by University of Western Australia and Linear Clinical Research, Nedlands, WA

Jan 2020 – Feb 2020

Festival Planning Committee Member

Youth Week KickstART Festival, Propel Youth Arts, Perth, WA

Sep 2015 - Mar 2016

Gallery and Artist Management

Artlabs Media, Perth, WA

Jan 2014 - Nov 2014

REFERENCES

Prof. Agnieszka Wykowska

Principal Investigator

Social Cognition in Human-Robot Interaction

Italian Institute of Technology (IIT)

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Dr. David Silvera-Tawil

Senior Research Scientist

The Australian e-Health Research Centre

The Commonwealth Scientific Industrial Research Organisation (CSIRO)

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Dr. Ionat Zurr

Artist, Curator and Researcher

The School of Design

The University of Western Australian (UWA)

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Dr. Diana Tan

University Research Fellow

School of Education

Macquarie University

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