Julieta Arancio, PhD

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About Me

I am a postdoctoral researcher in science and technology studies, a mentor, curriculum designer and open science advocate.

I enjoy working in open, collaborative and interdisciplinary teams with a clear vision of change. You will usually find me in projects at the crossroads of technology, science, education and sustainability.



About my work

Research

I conduct qualitative, multiple and single case study research, which I often complement with quantitative data analysis. This includes experience in grant writing, research design, data collection (participant observation, interviews, workshops and policy sessions), data analysis using CAQDAS, writing and editing peer-reviewed articles, policy briefs and pieces for the general public.

Education

I contribute to programmes in the intersection of innovation, technology and society. I am one of the curriculum designers of the community-based programme Open Hardware Makers; I co-created educational games, delivered training sessions on open science tools, and worked as a mentor for Masters' projects towards the Sustainable Development Goals.

Advocacy

I co-founded reGOSH, a network in Latin America for promoting open science hardware; I run a global mentorship programme for open hardware practitioners; and I created and facilitate monthly meetings of an online research community. I've been an invited speaker at academic conferences and community gatherings, I presented at policy events, and was consulted for the regional UNESCO recommendation on open science. I wrote policy briefs based on community discussions and have collaborated with think tanks like the Woodrow Wilson Center as a lead author.

Education

PhD in Science and Technology Studies

Universidad Nacional de Quilmes CONICET

2016-2021

My thesis (Outstanding 10, recommended for publication) is titled *Technologies from dialogues: Open science hardware and science democratisation in the "periphery"*. It is available in Spanish at the UNQ online repository or in an easier to read version on my PhD website; you can also watch a short presentation about it during my defence, on YouTube.

Lic. in Environmental Sciences Universidad de Buenos Aires

2006-2011

Five-year Env. Sci. degree at the Agronomy College of University of Buenos Aires. My thesis was titled *Quality* assessment of sediments of the Reconquista River (Buenos Aires), with emphasis in heavy metals and is available in Spanish at the FAUBA online repository.

Research experience

Drexel University Postdoctoral researcher

2021 - 2023

https://drexel.edu/coas/faculty-research/faculty-directory/postdocs/arancio-julieta/

Postdoctoral researcher funded by the Alfred P. Sloan Foundation to conduct a case study of the Open Flexure Microscope at University of Bath (UK) and the Ifakara Health Institute (Tanzania).

CENIT-UNSAM Associate researcher

2015 - Present

fund-cenit.org.ar

I'm currently part of CENIT-UNSAM as an associate researcher, after working as a doctoral researcher (2016-2021) funded by the National Scientific and Technical Research Council (CONICET). Previously, I was a collaborator in 'Open, Collaborative and Alternative Science: overcoming health, inclusion and environmental challenges in Argentina' (2015-2016) funded by the International Development Research Centre, Canada (IDRC-OCSDnet).

Other work experience

Woodrow Wilson International Center for Scholars

Lead author

March 2021 - Present wilsoncenter.org

Lead researcher and writer of a white paper on low cost and open source hardware for scientific research.

Global Open Science Hardware, Inc. Writer

Feb 2021 - Present

openhardware.science/policy-briefs

Writer of two policy briefs and four policy memos on open science hardware, targeted at various audiences.

Appropedia Foundation Consultant

2020 - Present appropedia.org

Design and implementation of an open ontology for supporting remote and effective knowledge transfer of surgical skills at a low cost. Part of the "Global Surgical Training Challenge" organised by Appropedia Foundation in partnership with Intuitive Foundation, MIT Solve, and Nesta Challenges.

Wikimedia Switzerland Wikidata instructor

2019 wikimedia.ch Designer and instructor of Wikidata workshops for undergrad students at the École polytechnique fédérale de Lausanne (EPFL), Switzerland.

Geneva-Tsinghua Initiative, University of Geneva

Mentor for Sustainable Development Goals' projects

July - September 2018 gt-initiative.org

Mentor of Master students' projects addressing the Sustainable Development Goals, with a focus on challenge-based learning, community building and management of open source projects.

Community organising

Open Hardware Makers

openhardware.space

Co-founder (2019) of a global mentorship programme for open hardware projects. General strategy, project management, curriculum design and communications. I led a community consultation process for improving our curriculum with the global open hardware community.

Open Hardware research community

oh-research-group.github.io

Founder (2022) and organiser of an open, collaborative community of researchers studying the socioeconomic aspects of open hardware practice.

reGOSH

regosh.libres.cc

Co-founder (2017) of the network, ex-coordinator of Buenos Aires node, in charge of the strategy working group. I co-organised a regional residency in 2019, having previously co-organised a Global Open Science Hardware (GOSH) event in Shenzhen, China, in 2018.

Writing and public speaking

Academic writing

- Arancio, J. C. (2021). Opening Up The Tools For Doing Science: The Case Of The Global Open Science Hardware Movement. International Journal of Engineering, Social Justice, and Peace, 8(2), 1–27. https://doi.org/10.24908/ijesjp.v8i2.13997
- Arancio, J. 'Open science hardware: towards more democratic science and technology in Latin America?' Proceedings of 15th International Symposium on Open Collaboration, University of Skövde, 2019.
- Arancio, J.; Sebastian, S.; Schwertz-Weirich, A.; Actis, G.; Cremaschi, A.; Arancibia, F.; Van Zwanenberg, P.; Fressoli, M. 'Relato de experiencia, Workshop internacional de desarrollo abierto y colaborativo' in Liinc Em Revista, 2018 https://doi.org/10.18617/liinc.v14i1.4132

Policy briefs

- Arancio, Julieta. (2021). Open Hardware: A key for accelerating science and technology towards the U.N. Sustainable Development Goals (SDGs). Zenodo. https://doi.org/10.5281/zenodo.5415527
- Arancio, Julieta, & Molloy, Jenny. (2021). Open Hardware is ready to help Technology Transfer Offices (TTOs) maximise the impact of academic research. Zenodo. https://doi.org/10.5281/zenodo.5094999
- Arancio, Julieta & collaborators. (2021) Open Science Hardware, Research Funding Salons. https://openhardware.science/2021-research-funding-salons/

General public

- Arancio, Julieta and Dosemagen, Shannon. (2022) 'Bringing Open Source to the Global Lab Bench.'
 Issues in Science and Technology 38, no. 2: 18-20. Available at: https://issues.org/open-source-science-hardware-gosh-arancio-dosemagen/
 - Arancio, Julieta. (2022). 'Diversifying technology transfer tools to increase the impact of academic research'.
 IPR Blog, University of Bath. Available at: https://blogs.bath.ac.uk/iprblog/2021/12/10/diversifying-technology-transfer-tools-to-increase-the-impact-of-academic-research/.
 - Arancio, Julieta. (2020) 'Open Science Hardware contributes to aligning the research agenda with societal needs', in Journal of Open Hardware Blog. Available at https://journalopenhw.medium.com/open-science-hardware-contributes-to-aligning-the-researchagenda-with-societal-needs-dba991239f5e

Public speaking & presentations

- Society for Social Studies of Science Meeting 4S/ESOCITE (2022, Cholula) Panel organiser
- Regional Open Science Hardware Latin America (reGOSH 2022, Argentina) Invited speaker
- EASST Conference (2022, Madrid) Presenting author
- Fundación AVINA (2022, online) Invited speaker
- STS Switzerland 2021 Conference (15-17 February 2021, online) Presenting author
- 4S/EASST Conference (18-20 August 2020, online) Presenting author
- Doctoral Consortium OpenSym (2019, Sweden) Presenting author
- Global Open Science Hardware gathering (2018, China) Co-organiser & facilitator
- Mozilla Festival (2018, London) Presenting author
- OpenCon Swiss (2018, Bern) Invited speaker
- UNESCO Tech4Dev (2018, Lausanne) Presenting author

Funding received

Alfred P. Sloan Foundation Postdoctoral research funding

2021-2023

Postdoctoral funding (USD 220,000) for two years at Drexel University, under supervision of Asoc. Prof. Gwen Ottinger (Drexel University).

Mozilla Foundation

Science grant

2020

Personal grant (USD 12,000) supporting academic writing and community building

Shuttleworth Foundation

Flash grant

2020

Personal grant (USD 5,000) to advance project LogAir

National Science and Research Council of Argentina (CONICET)

PhD scholarship

2016-2021

Full support for pursuing my PhD at CENIT-UNSAM

Professional associations

British Sociological Association Member

britsoc.co.uk

Member of the UK Sociology Association since 2022, involved in the Early Career Researchers Network in the South-West of England.

Association for Studies in Innovation Science and Technology (AsSIST-UK)

Member

assistuk.org

Member of AsSIST-UK since 2022, an association supporting transdisciplinary collaboration across the social sciences, humanities and sciences in the field of science, innovation and technology.

European Association for the Study of Science and Technology

Member

easst.net

Member of EASST since 2020, an organisation representing academics and researchers in science, technology and innovation studies.

Journal of Open Hardware Member of the editorial board

openhardware.metajnl.com

Member of the Editorial Board of the Journal of Open Hardware (JOH) since 2020, a peer reviewed open access publication for open hardware research and development.

Other skills

Soft skills

Project management (PMI-certified expected June 2022), community organising, open and collaborative leadership, events organising, fundraising.

Technical skills

I often work with version control software and platforms (git/GitHub/GitLab), basic web development (HTML, CSS, some JS and frameworks like Jekyll), Python and R scripts for data analysis in Jupyter notebooks/RStudio, ontology design in Protegé, and more broadly, all-things-Wikidata. I'm familiar with digital fabrication tools (laser cutting, 3D-printing) and educational boards/platforms like Arduino, ESP32 or microBIT. I can also do basic audio and video editing.

Languages

I speak Spanish (native), English (bilingual), French (A2) and I understand Portuguese.