

# Missing half the equation How the Gender Gap in Al Shapes Outcomes for Women

This report explores how the lack of gender diversity in Al development — with a focus on Australia — can lead to systemic bias and outlines the urgent need for inclusive policy settings, measurable responsible Al development and innovation measures to ensure equitable outcomes.

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#### About the author

Deborah Young is a global community builder, founder, advisor, tech and diversity advocate. Most importantly she's mother to two sons and a daughter in law. She has 30 years experience working in financial services, tech advocacy and was an Advisory Committee member and founding CEO of The RegTech Association. Deborah has an Executive MBA (Global) from UTS Business School, is a member of Chief Executive Women and Australian Institute of Company Directors. Deborah sits on industry advisory committees and is a regulatory innovation tech ambassador. She regularly publishes reports and posts on women's economic empowerment. She is principal of her own advisory practice Deborah Young Advisory. Deborah lives in Sydney, Australia

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### Your sons may fare better than your daughters

Exploring the systemic barriers in career development and economic outcomes for Australian women as they are

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## Almissing half the equation

Artificial Intelligence (AI) is reshaping business, industries, jobs, governance, our social interactions and our daily routines. The pace at which AI is evolving is difficult to stay abreast of and is setting to disrupt our ways of working and living.

Yet, Al development and participation rates in leading tools remains overwhelmingly male-dominated, raising concerns about bias, exclusion and ethical risk. The lack of women's involvement in Al development in Australia is not just a representation issue—it has tangible consequences for women's safety, visibility and economic security.

## Evolution of Al: Promise or Peril?

Al is now embedded in decision-making systems across many industries including financial services, healthcare, telco and many more besides. As UNESCO warns, these systems are not neutral — they reflect the values and biases of their creators

#### **In Australia:**

- Al adoption is accelerating, but ethical oversight and gender inclusion lag behind
- The AI workforce is growing rapidly, yet women remain underrepresented in leadership and technical roles
- Women hold only 15% of STEM-qualified jobs, despite making up 37% of STEM enrolments
- The number of girls and young women studying STEM subjects is on the increase
- Women make up only 30% of the overall tech workforce
- Only 22% of Australian founders are women and in 2023 they attracted only 4% of startup funding

# Biased systems & Harmful outcomes

- Al systems trained on biased data amplify gender inequality, especially in hiring, healthcare, and financial services
- Historical bias in data leads to discriminatory outcomes, such as rejecting women for loans or jobs based on outdated income data
- Al-based romance scams are on the rise with women being targeted – particularly in the 65+ years age group. In 2024 this has led to reported losses of \$20million, but much is not reported due to the shame and embarrassment.

Economic Vulnerability: Women are disproportionately affected by economic downturns and automation. All is transforming workplaces, and women are overrepresented in roles most at risk of disruption (e.g., administrative and support roles) and underrepresented in roles being augmented by Al

## Biased systems & Harmful outcomes

University of Melbourne's Pursuit Paper "Why does aritificial intelligence discriminate?" 'Chief among the concerns about discriminatory AI is the quality and scope of the data used to inform the automated process. AI 'learns' by referring to the data that humans 'feed' it. If certain groups of people are left out of the data set, the automated process won't capture their characteristics.'

Associate Professor Jeannie Marie Paterson Dr. Yvette Maker, University of Melbourne

Researchers surveyed workers in Denmark about their use of ChatGPT and found that half of workers in 11 occupations exposed to Al disruption had used the service, with a third of that group still actively using it. However, some groups and demographics are more likely to have made use of ChatGPT than others, creating a potential source of professional disparity. Humlum said, "In particular, we uncovered a staggering gender gap in the use of ChatGPT. In particular, women are 16 percentage points less likely to use ChatGPT relative to comparable men in the same occupations."

Chicago Booth's Anders Humlum and University of Copenhagen PhD student Emilie Vestergaard

The combination of these two insights might lead one to deduce that leaving women out of the development of Al policy, infrastructure and the resulting data sets may lead to outcomes that are biased and have no perspectives from half of the world's population.

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Biased systems & Harmful outcomes

Virtual assistants default to female voices, reinforcing service-role stereotypes and robots in caregiving and hospitality roles often designed with feminine features, while security bots are male. In a recent study by

Charles Sturt University, 64% of pharmacists in Australia are women, yet only 29.7% of Al-generated images depicted women.

According to the **Department of Industry Science and Resources** in a
2025 survey of SMEs there is an increase
in the uptake of Al tools in particular

- data entry and document processing (27%)
- generative Al assistants (27%)
- fraud detection (26%)
- predictive analytics (21%)
- marketing automation (20%)

Furthermore across the spectrum of responsible AI markers being used across these businesses none included gender considerations.

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# Who is talking about it?

Constanza Gomez Mont, Ana Prică-Cruceanu, Arisa Ema, Emma Ruttkamp-Bloem, Elena Estavillo, Emma Wright, Sara Ratner and Jana Javorn discussed a certain number of approaches and concrete actions that can help enhance gender diversity and empowerment in Al. The panel highlighted a series of strategies to help bridge disparities, boost women's roles in technology, and to put in place policies and resources to assure that training data reflect women's needs, perspectives, and preferences.

**UNESCO's Women 4EAI Conference** 2024

Ahead of International Women's Day in 2024 a UNESCO study revealed worrying tendencies in Large Language models (LLM) to produce gender bias, as well as homophobia and racial stereotyping. Women were described as working in domestic roles far more often than men ¬ four times as often by one model – and were frequently associated with words like "home", "family" and "children", while male names were linked to "business", "executive", "salary", and "career".

**UNESCO 2024** 



This is a call to action, that if we include women by investing into female-led startups, hiring women across the spectrum including designing federal technology infrastructure and software development at the outset, we may see a marked difference in the overall outcomes, inclusion and safety for our daughers, sisters, mothers and grandmothers.

"Al is not just a technological frontier — it's a social one. If we continue to build systems without women at the table, we risk entrenching inequality at scale. Australia has the opportunity to lead globally by embedding gender equity into its Al ecosystem — from policy to infrastructure to innovation. The future of ethical Al depends on diverse voices shaping its design, deployment, and governance."

**Deborah Young** 



## Call to action

- Integrate gender equity into national AI policy including infrastructure and development
- Fund women-led Al initiatives and startups
- Enforce ethical standards in Al deployment
- Mandate gender audits in Al development
- Diversify development teams and avoid stereotyping
- Support STEM pathways for women and girls especially in underserved communities
- Encourage education in AI to the broader community on the benefits and risks

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# Resource Australia

#### **Equality Rights Alliance (ERA)**

- ERA is Australia's largest network advocating for women's equality and leadership.
- It includes over 65 member organisations and is one of six National Women's Alliances funded by the Commonwealth Office for Women.
- ERA actively engages with policymakers to promote gender-inclusive policies, including in tech and Al.

#### Women in AI (WAI) Australia

- WAI hosts the WAI Awards APAC, celebrating women leading AI innovation across sectors like health, finance, cybersecurity, and education.
- The awards spotlight women using Al for social good, ethics, and First Nations leadership.

#### Good Things Foundation - Digital Sisters: Al for Good

- This program empowers women, especially from migrant and refugee backgrounds, with digital and Alliteracy.
- Partners include Microsoft and Telstra, aiming to close the digital divide and promote inclusive Al education

#### Department of Employment and Workplace Relations – Building Women's Careers Program

- Includes initiatives like Cyber5050, FemTech, and STEMpower CyberThrive.
- These programs address systemic barriers to women's participation in cybersecurity, digital tech, and advanced manufacturing.
- They offer training, mentorship, and workplace transformation strategies

#### National Strategy to Achieve Gender Equality

- Launched in 2024, this 10-year strategy focuses on leadership, representation, economic security, and health.
- It calls for inclusive participation across all sectors, including tech and Al

#### IP Australia – Gender Equity Action Plan 2025–2027

- Aligns with the APS Gender Equality Strategy.
- Focuses on inclusive recruitment, flexible work, and leadership development.
- Includes specific actions to embed gender equity in workplace culture and policy

#### **Al Ethics Principles in Government**

- The Australian Government has adopted Al Ethics Principles that emphasize human rights, fairness, and inclusion.
- These principles guide public sector Al use, ensuring diverse perspectives and anti-discrimination compliance

## Resources global

#### **UN Women**

UN Women is leading global efforts to ensure Al development aligns with gender equality goals. Their initiatives include:

- Developing gender-sensitive AI tools for data analysis and communications.
- Training civil society organizations through the UN Women Al School.
- Supporting women entrepreneurs and innovators in Al.
- Advocating for inclusive governance at platforms like the HeForShe Summit.
- Collaborating with stakeholders to integrate gender dimensions into Al policies and regulations

#### **NetHope – Gender Equitable AI Toolkit**

NetHope created the Gender Equitable Al Toolkit to guide nonprofits in developing ethical and inclusive Al solutions. Key features include:

- Participatory design principles that reflect feminist values.
- Guidance on data governance to ensure representation of gender and socioeconomic identities.
- Resources for technical and non-technical staff to implement gender equity in Al projects.
- Training and e-learning modules to build capacity in gender-aware AI development

#### Global Partnership on AI (GPAI)

GPAI's Responsible AI Working Group promotes gender equality through:

- Policy guides and reports emphasizing inclusive design and governance.
- Support for marginalized communities like Indigenous Pathfinders and Feminist Al Research Network.
- Recommendations for transparency and accountability, including human rights impact assessments and algorithmic audits

#### WomenTech Network

This platform highlights the role of women advocates in Al, emphasizing:

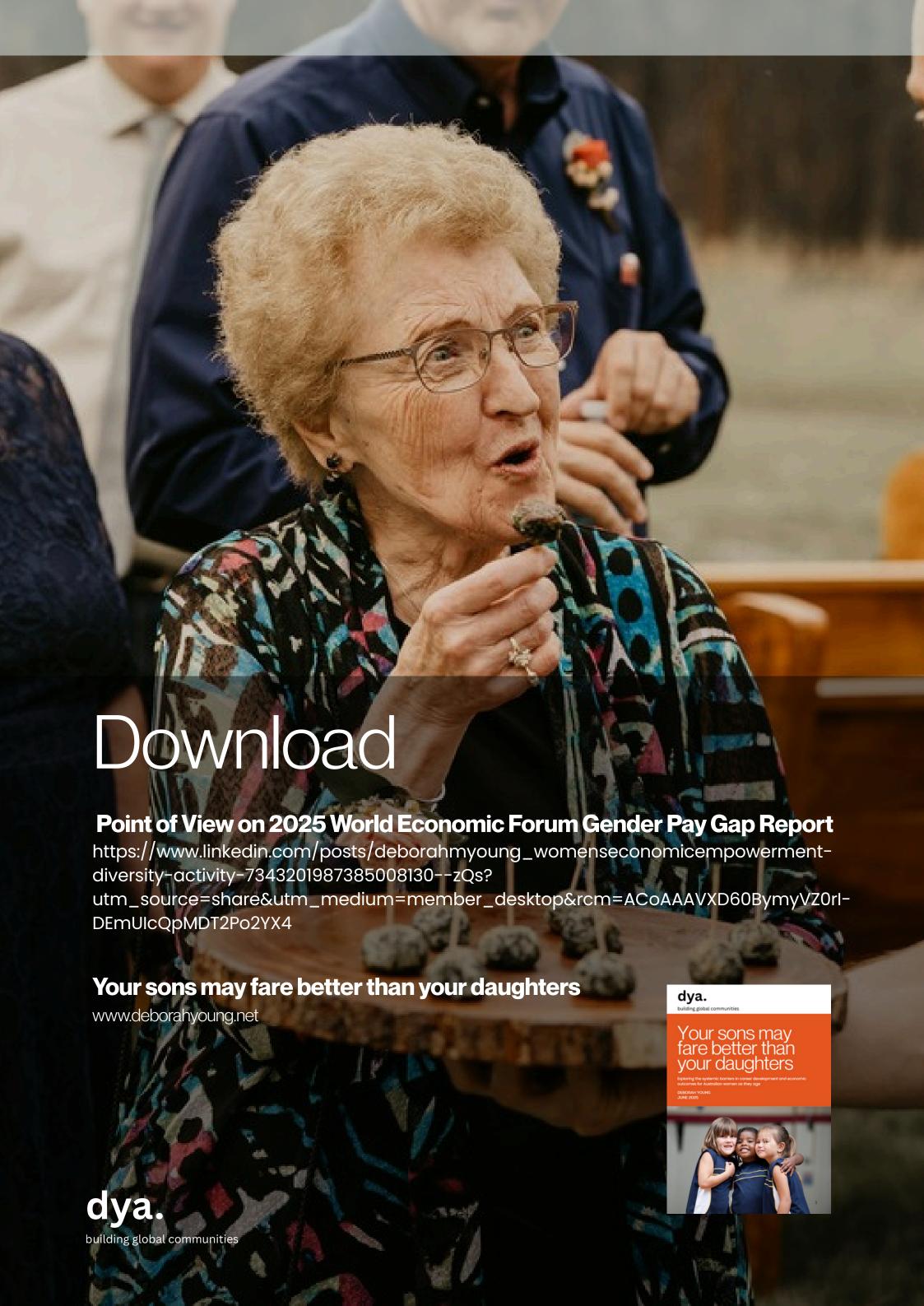
- Policy influence to eliminate gender bias in Al systems.
- Ethical Al development that serves all genders fairly.
- · Community building to support women in tech leadership roles

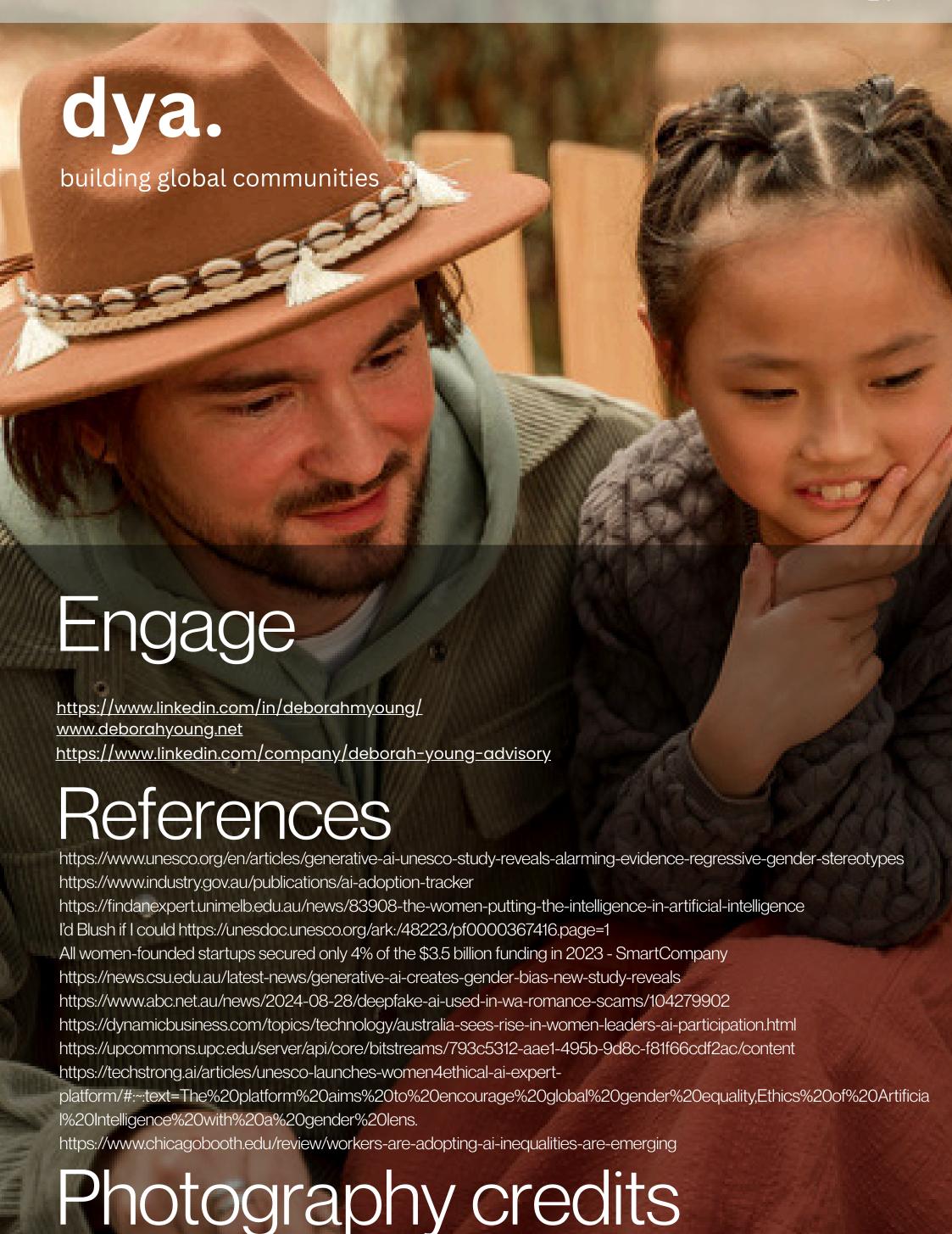
#### Women at the Table (W@TT)

W@TT is a Geneva-based organization integrating gender equality into global Al governance. Their work includes:

- Developing tools like the Al & Equality Human Rights Toolbox and the Gender-Gap App.
- Strategic engagement in multilateral frameworks, including the UN and World Benchmarking Alliance.
- Building global communities to bridge technical and social aspects of Al.
- Amplifying voices from the Global South to shape inclusive Al policies

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