

# A Gender Perspective on Artificial Intelligence (AI) and the Tech-Sector

CHALLENGES AND OPPORTUNITIES FOR AN INCLUSIVE TECHNOLOGY SECTOR IN ECUADOR

Learnings from a multi-stakeholder dialogue in Mexico City, Mexico

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# 1. Introduction and Background

In the rapidly evolving landscape of technology, Artificial Intelligence (AI) is increasingly seen as promising a multitude of opportunities for progress and development. However, this development has not been without its challenges, particularly in the realm of gender equality, equity and inclusivity. The intersection of AI and the tech sector in Mexico and Latin America, brings to light critical concerns surrounding the limited access and participation of women<sup>1</sup> in technological advancements, educational opportunities, and entrepreneurial ventures. It is essential to recognise and address these challenges to ensure that the potential benefits of AI and technology are realised by all members of society, regardless of their gender, and to foster a more inclusive and equitable future in Mexico's and Latin America's tech industry.

To address a gender perspective and the inclusion of women in the tech sector in Mexico, the Alexander von Humboldt Institute for Internet and Society (HIIG), the Digital Transformation Center implemented by Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) organised a multi-stakeholder dialogue (MSD) during the Regional Digital Transformation Forum in Mexico City, Mexico. The dialogue focused on the gender perspective within the AI and tech sector, particularly for women and marginalised groups in rural areas who face limited access to digital infrastructure, digital education and devices, and the necessary skills to use them. The aim of the dialogue was to achieve a shared understanding of the perspectives, opportunities and challenges that women face in this field. Furthermore, strategies and measures were developed to address these challenges and promote equality and equity in Mexico's technology sector.

The event was organised as part of the Women\* in Tech project implemented by the HIIG and funded by the Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development.

<sup>&</sup>lt;sup>1</sup> By the term women we mean all people who identify with the term woman.

# 2. Findings

The multi-stakeholder dialogue in Mexico brought together 24 representatives from academia, business, civil society, government, and NGOs on 24 May 2023, in Mexico City. The event started with welcoming remarks from the co-organisers and an introduction of the HIIG, GIZ, and the DTC Mexico. Following the introductions, the dialogue featured insightful presentations from prominent figures in the field, including Dr. Theresa Züger, Head of the AI & Society Lab at Humboldt Institute for Internet and Society as well as Research Lead of the Women in Tech Project, Mónica A. Ramos Li, Co-Founder of Musa, a microlearning solution (LMS) via WhatsApp and Daniela Espinoza, Angel Investor and Co-Founder at Kushki.

During the discussion groups the participants focussed on the promises, perils, and challenges associated with a gender perspective on the tech sector. As the dialogue and the discussions concluded, the groups summarised their insights, resulting in the emergence of the following key themes:

### 2.1 Empowering Women through Technology Access

Women in Mexico and Latin America face a significant challenge in accessing technology, which hinders their equal participation in the tech sector. The lack of infrastructure, including limited access to electricity and Wi-Fi, creates significant barriers for women to engage with technology. Mobile phones, a vital tool for accessing digital resources, are often owned by men, further exacerbating the gender gap. Without access to essential technological resources, women are unable to fully participate in educational and entrepreneurial opportunities in the tech field. Addressing this issue requires concerted efforts to bridge the digital divide, improve infrastructure, and promote equal access to technology for women, enabling them to overcome the barriers that currently restrict their participation in the tech sector.

### 2.2 Safeguarding Women's Privacy

Data protection is a critical concern within the tech sector in Mexico and Latin America, particularly when handling sensitive information such as period trackers and the predicament of pregnancies. Disturbing examples from Latin America have revealed the use of automation systems powered by Microsoft technologies to predict teenage pregnancies, resulting in the surveillance of women's bodies. The involvement of governments in Argentina and Brazil in such projects raises serious privacy and autonomy implications for women. Initiatives like "NOT My AI" play a crucial role in exposing these surveillance efforts and highlighting the need to safeguard women's privacy. It is imperative for the tech sector to adopt robust data protection measures to ensure the safety and confidentiality of sensitive information, empowering women and preserving their autonomy in the digital landscape.

### 2.3 Addressing Structural Inequalities

The participants shed light on the alarming reality that technologies exacerbate existing structural inequalities, resulting in severe consequences for women. The discussion brought attention to how technologies contribute to and deepen structural violence against women and marginalised communities, both in online spaces and labour-related environments. These findings highlight the urgent need to address the deepening gender disparities caused by technology. It is crucial to initiate a change in discourse, challenging the prevailing narratives and biases that perpetuate these inequalities.

The dialogue emphasised the importance of investing efforts and fostering collaboration among stakeholders to effectively tackle these issues and promote inclusivity within the AI and tech sector in Mexico. By collectively working towards this goal, it is possible to create a more equitable and just environment where technology serves as a catalyst for positive change rather than a source of further division and harm.

### 2.4 Overcoming Gender Bias

During the multi-stakeholder dialogue in Mexico, participants brought attention to the pervasive issue of technologies being perceived as designed exclusively by and for men. This gender bias in the design process has led to significant consequences for women in the tech field, including limited access to technology, education, and capital. Women face barriers in obtaining the necessary resources and opportunities to thrive in the tech industry, resulting in a systemic disadvantage. The finding underscores the need to address this error by design, promoting inclusive practices that consider the diverse needs and perspectives of all genders in the development of technology. By rectifying this gender bias, we can strive for a more equitable and inclusive tech sector that empowers women and allows their voices and contributions to flourish.

### 2.5 Fostering Equality through Education

During the multi-stakeholder dialogue in Mexico, one significant finding emerged: education plays a pivotal role in addressing the gender disparities in technology. Participants emphasised the need to tailor education to the realities of rural areas, where low data traffic poses a challenge. They highlighted the effectiveness of utilising existing platforms like WhatsApp to provide education and training opportunities. In line with this objective, Musa, an innovative Edtech solution, adopts a microlearning methodology enriched with behavioural science and a conversational experience delivered through a WhatsApp chatbot. Musa's approach revolves around placing the student's profile at the centre, reframing content into easily digestible microlearning modules. This learning experience guides and empowers students to learn at their own pace, regardless of their formal education, with just a smartphone. With such tailored

education initiatives, we can work towards fostering equality and providing opportunities for women to upskill and reskill, promoting a more inclusive tech landscape.

Recognizing the importance of interventions and increased attention, participants called for a shift in the discourse surrounding women in technology. They stressed the necessity of acknowledging women's rights and promoting gender equality as fundamental principles in shaping educational initiatives. Participants called for politicians to make women's equal rights and opportunities a top priority. By prioritising inclusive and accessible education, it is possible to empower women and bridge the gender gap in the tech sector in Mexico.

### 2.6 Advancing Equity with Feminist Al in the Tech Sector

The multi-stakeholder dialogue in Mexico shed light on the importance of feminist AI and its implications for the tech sector. The participants emphasised the need to incubate feminist AI, which involves integrating an intersectional gender perspective and promoting inclusivity in AI development. This includes establishing global networks to foster collaboration among researchers, activists, and developers. Additionally, building critical data and algorithmic digital literacy was highlighted as a crucial step towards ensuring a more equitable and inclusive AI landscape. The dialogue emphasised the significance of guaranteeing access to sexual and reproductive health services, recognizing the intersectionality of gender and healthcare. Collaboration through co-creation processes, involving universities and female-led organisations, was deemed essential to ensure diverse perspectives and promote inclusive decision-making. Government intervention and involvement were identified as key drivers for fostering gender diversity and equality in the tech sector, particularly through initiatives in education and companies. The report stressed the urgency of recognising that technology is never gender neutral and urged efforts to transform company culture to foster inclusivity and equality.

## 3. Conclusion

In conclusion, the findings from the multi-stakeholder dialogue in Mexico highlight the pressing issues regarding an intersectional gender perspective in the tech and AI sector. Access to technology, or the lack thereof, emerged as a significant barrier for women in Mexico and Latin America, hindering their equal participation in the tech sector. Bridging the digital divide is crucial to enable women and girls to overcome these barriers and participate equally in educational and entrepreneurial opportunities.

Another critical finding is the pervasive gender bias in the design process of technologies. The perception that technologies are exclusively designed by and for men has led to limited access to technology, education and capital for women in the tech industry, perpetuating systemic disadvantages. To address this issue, inclusive practices that consider the diverse needs and perspectives of all genders must be promoted. Rectifying this error by design is essential to foster a more equitable and inclusive tech sector that empowers women and embraces their contributions.

The dialogue also shed light on how technologies exacerbate existing structural inequalities, resulting in various forms of violence against women in online spaces and labour-related environments. Addressing these deepening gender disparities requires a change in discourse, challenging prevailing narratives and biases that perpetuate inequalities. By working collectively, we can create an environment where technology serves as a catalyst for positive change, fostering equity and justice.

Education emerged as a pivotal factor in addressing gender disparities in technology. Tailoring education to the realities of rural areas and utilising existing platforms like the start-up Musa does with WhatsApp, can provide accessible education and training opportunities for women. Recognizing women's rights and promoting gender equality should be the fundamental principles in shaping educational initiatives. By prioritising inclusive and accessible education, women can be empowered, and the gender gap in the tech sector can be bridged.

The dialogue also highlighted the importance of feminist AI and its implications for the tech sector. Integrating gender perspectives and promoting inclusivity in AI development through the incubation of feminist AI is crucial. Establishing global networks, building critical data and algorithmic digital literacy, and guaranteeing access to sexual and reproductive health services are essential steps towards creating a more equitable and inclusive AI landscape. Collaboration through co-creation processes involving universities and female-led groups promotes diverse perspectives and inclusive decision-making. Government intervention and involvement, particularly through initiatives in education and companies, are key drivers for fostering gender diversity and equality in the tech sector.

In conclusion, it is of utmost importance to acknowledge that technology is never gender neutral. Efforts must be made to transform the male-dominated company culture and foster inclusivity and equality. By implementing these recommendations and working together, we can create a tech and AI sector in Mexico that is more equitable, inclusive, and beneficial for all members of society, regardless of gender.

# 4. Key Action Points

Key calls for action from the Multi-Stakeholder Dialogue:

- **Enhance Access to Technology:** Advocate for equal access to technology and digital literacy programs, particularly in rural areas, ensuring that women and marginalised groups can benefit from the opportunities it brings.
- **Invest in Research and Data:** Allocate resources for research and data collection on the experiences of women and marginalised groups in the tech sector, providing a foundation for evidence-based interventions that promote equity and inclusion.
- **Gender-Focused Policies:** Lobby for government policies that prioritise gender equality within the tech sector, addressing both education and industry standards to create an enabling environment for women's advancement.
- **Financial Empowerment:** Support financial education initiatives that empower women in understanding and managing economic resources, enabling them to make informed decisions and invest in their own technological ventures.
- **Collaborative Solutions:** Foster collaboration between universities, research institutions to co-create technology solutions that cater to the unique needs of marginalised communities.
- **Diverse Representation:** Advocate for increased representation of women and diverse individuals in technology decision-making processes, both in companies and governments, to ensure a broader range of perspectives.
- **Create Inclusive Work Cultures:** Challenge traditional workplace norms and cultures by promoting diversity and inclusion initiatives within tech companies, focusing on fostering a welcoming and respectful atmosphere.
- **Promote Inclusivity in Education:** Address the gendered stigma around technology by fostering educational environments that encourage women's active participation and confidence in tech-related fields.
- **Support Women-Led Innovations:** Provide funding and resources for women-led start-ups and technological innovations, focusing on bridging the capital gap that currently limits their participation in the tech sector.
- Raise Awareness: Launch awareness campaigns to highlight the gender biases present in technology and emphasise the necessity of gender-neutral design, encouraging a shift in discourse and cultural mindset.

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Dr. Theresa Züger (theresa.zueger@hiiq.de).

**About the Project** 

Funded by the Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) on behalf of the

German Federal Ministry for Economic Cooperation and Development (BMZ), the Women in Tech

knowledge transfer project aims to strengthen the equal rights of women worldwide through

networking and expertise, as well as to create new spaces of opportunity and co-design. During the entire transfer process, there will be a continuous exchange with respective local and

international stakeholders. The results are prepared in such a way that they can be used by a

broad target group and are available in the long term.

**About the Institute** 

The Humboldt Institute for Internet and Society (HIIG) is the first institute in Germany that

studies the development of the Internet from a social perspective. Aiming at better

understanding the digitalisation of all spheres of life, the HIIG has established an understanding that emphasises the integration of digital innovations into social processes.

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