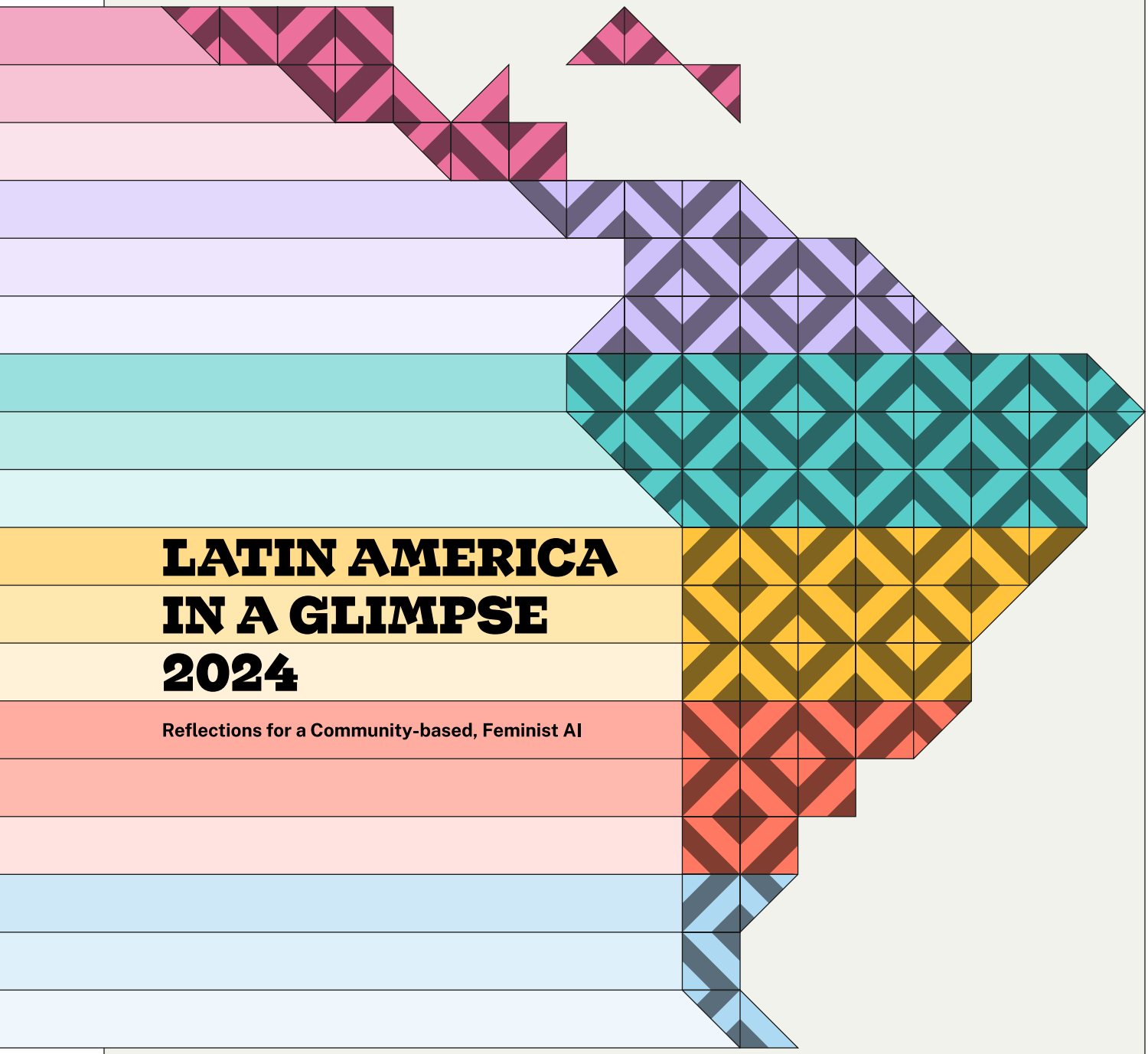
DERECHOS DIGITALES
América Latina



LATIN AMERICA IN A GLIMPSE 2024

Reflections for a Community-based, Feminist AI

Latin America in a Glimpse

This publication was created by Derechos Digitales, an independent, nonprofit organization, founded in 2005, whose mission is the defense, promotion and development of fundamental rights in digital environments in Latin America.

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América Latina

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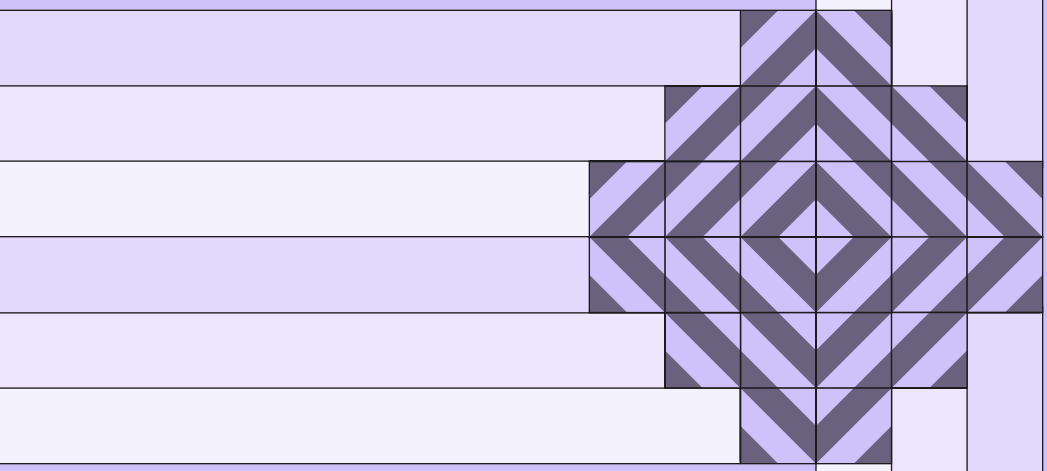
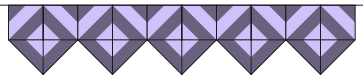


THE MULTIPLE PATHS TO CRAFTING A SITUATED AI



What ideas do we have about Artificial Intelligence (AI)? Is it possible to create an AI based in our territories? How can we get people involved and interested in participating in this conversation? These questions are at the heart of this year's *Latin America in a Glimpse*, a report that invites us to rethink AI in the context of the cultural wealth our countries have to offer, to imagine new technologies that respond to our particular needs and knowledge.

In 2022, Derechos Digitales published *Towards a feminist framework for AI development: from principles to practice*,[1] a text by Juliana Guerra that included a six-step guide to developing and imagining a community-based AI. These elements were expanded on in the *Feminist reflections for the development of Artificial Intelligence*[2] report, where different dialogue forums were the starting point for work on a group of principles and challenges that could inspire future initiatives in small- and medium-scale AI development.

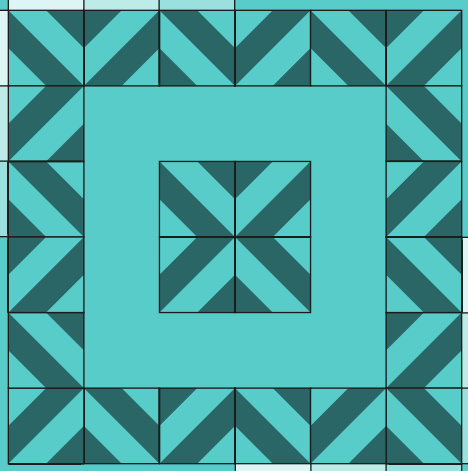
Some of the key points in these reports include the need to incorporate participatory processes in AI development, ensuring that technologies are not only inclusive but also deeply rooted in the territories that shaped them. These principles sketch out a roadmap for progressing towards technologies that generate horizontal, situated knowledge alongside the communities we work with.

This report attempts to continue along that path. We spoke with researchers, technologists and activists from Ecuador, Uruguay, Argentina, Chile, Mexico and Brazil who, with their projects, have allowed us to dream of alternative paths for AI, based on a specific focus on education, territory and feminisms. This year's *Latin America in a Glimpse*, in addition to providing an overview of Latin American initiatives working with AI, focuses on something more ambitious: imagining and proposing critical methodologies that enable us to integrate our knowledge and experience in the creation of tools that directly meet the demands of our environments. It is not just a matter of observing what is being done, but also of creating new ways of thinking and making technology.

(1) Guerra, Juliana. 2024. "Hacia un marco feminista para el desarrollo de IA: de los principios a la práctica." *Derechos Digitales*. https://www.derechosdigitales.org/wp-content/uploads/Fair_Doc_Esp.pdf. (Reviewed in November 2024). Version in English available at: https://www.derechosdigitales.org/publicaciones/towards-a-feminist-framework-for-ai-development-from-principles-to-practice/

(2) *Derechos Digitales*. 2023. "Reflexiones feministas para el desarrollo de Inteligencia Artificial." *Derechos Digitales*. https://www.derechosdigitales.org/fair-2023/. (Reviewed in November 2024). Version in English available at: https://www.derechosdigitales.org/fair-2023-en/

Chapter 1



LESSONS LEARNED IN DIVERSE COMMUNITIES FOR AI EDUCATION

The theoretical debate must go hand-in-hand with practical experimentation. Thus, we remember that popular saying: "Easier said than done!" No reform work has ever been achieved solely in meetings. We have to go to the testing grounds. We must turn ideas into action.[3] **GABRIELA MISTRAL, 1928.**

Experiment, observe, develop. Gabriela Mistral, rural Chilean teacher and the first woman to receive the Nobel Prize in Literature, more than 100 years ago considered the importance of going beyond purely theoretical reflection to start materializing new creations that enable us to move forward.

Bringing technology closer to people, specifically in terms of AI, has become challenging in a context where big companies control the narrative and hijack the conversation to describe their advances to us. In addition, the media swamps us every day with sensationalist headlines proclaiming that AI is thinking for us and could mean the end of humanity, just like Skynet, the intelligent system that becomes self-aware in the 1984 movie Terminator.

The first divergences start with the term 'AI' as a concept. As mentioned by Patricio Velasco and Jamila Venturini in the comparative report *Automated decision-making in public administration in Latin America*, "[use of] the term 'intelligence' invokes connotations of a human-like autonomy and intentionality that should not be ascribed to machine-based procedures."[4]The Instituto Tecnológico de Monterrey scholar, co-author of the Decolonial AI manifesto[5] and co-founder of Tierra Común,[6] Paola Ricaurte, complements this reflection in a recent interview:

> Today AI is on the public agenda but not in the way I would like it to be. To start off, it's a terrible name because it's neither intelligent nor artificial [....] As a technical definition, I like the one used by the OECD, "a machine-based system that can, for a human-defined goal, make predictions, recommendations or decisions that have influence in real or virtual environments." But the problem associated with the understanding of technology is that we think it's just a mathematical or mechanical procedure, when in reality these are socio-technical systems, meaning that they arise from society and so come with the baggage of all the social conditions of their production.[7]

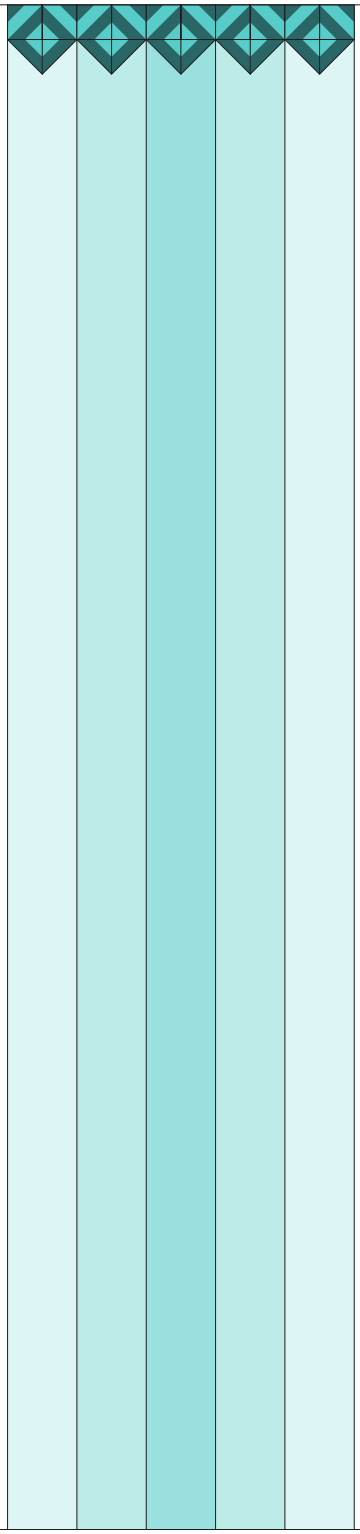
(3) Mistral, Gabriela. 2017. *Pasión de Enseñar*. Universidad Nacional de Valparaíso. p. 129. Original text: "La discusión teórica debe marchar paralela a la experimentación práctica. Entonces nos acordaremos de aquel refrán popular: 'otra cosa es con guitarra'. No hay trabajo de reforma hecho en pura asamblea. Hay que ir al campo de la experimentación. Hay que convertir la idea en acción."

(4) Velasco Fuentes, Patricio, & Jamila Venturini. 2023. *Decisiones automatizadas en la función pública en América Latina: Una aproximación comparada a su aplicación en Brasil, Chile, Colombia y Uruguay.* https://www.derechosdigitales.org/wp-content/uploads/CPC_informeComparado.pdf (Reviewed in November 2024). Version in English available at: https://www.derechosdigitales.org/wp-content/uploads/09_Informe-Comparado-EN_180222_compressed.pdf

(5) *Inteligencia Artificial: un manifiesto descolonial.* 2024. https://manyfesto.ai/index1.html (Reviewed in November 2024).

(6) *Tierra Común.* 2024. https://www.tierracomun.net/ (Reviewed in November 27, 2024).

(7) Catalina Oquendo. 2024. "Paola Ricaurte: 'Las grandes compañías tecnológicas son aliadas de gobiernos autoritarios.'" *El País*, Octubre 16, 2024. https://elpais.com/america/lideresas-de-latinoamerica/2024-10-16/paola-ricaurte-las-grandes-companias-tecnologicas-son-aliadas-de-gobiernos-autoritarios.html.



So, how can we change the way we are being educated about technology? The researchers and activists consulted in this section, Luciana Benotti and Maria Encalada, have built out of experimentation. Whether through the training of machine learning models to break down cultural and gender-based stereotypes and biases, or through the importance of education around free, open-source software to encourage the participation of more women in technology, both strategies show us that there is a path to the creation of more inclusive technologies in Latin America.

Moreover, these topics can be addressed from different perspectives, which makes it possible for everyone to be involved and understand their importance—and so take a more informed stand on them.

How does this way of producing knowledge affect us? What does the lack of data on our regions and cultures lead to? These are some of the questions that Luciana Benotti and Maria Encalada attempt to answer based on their respective approaches.

EDUCATING ABOUT STEREOTYPES IN AI

Luciana Benotti
Fundación Vía Libre

Luciana Benotti is a researcher, professor of Computing Sciences at the Universidad Nacional de Córdoba,[8] and head of the Ethics in AI area at Fundación Vía Libre,[9] an Argentinian organization that started in 2000 for the promotion and defense of fundamental rights in digital environments. For more than 20 years, Luciana has been studying natural language processing, a research area highly sought after recent years, since it is the foundation for tools like ChatGPT and other AI-driven chatbots. Currently, she and other members of Vía Libre are developing a training program for 500 secondary school teachers on generative AI. The course, titled *Tools for exploring Artificial Intelligence biases and stereotypes in the classroom*, focuses on analyzing polarized opinions in AI from a regional perspective.

INCORPORATING LATIN AMERICAN PERSPECTIVES IN AI

For Luciana, addressing technological advances from the Global South, and specifically from Latin America, is an important challenge. In a recent dialogue published in *El País*, along with Jocelyn Dunstant, the two women stated that ChatGPT has the values of a White, university-educated man from the U.S. East Coast.[10] Luciana uses her own learning process after getting her degree in France to illustrate this statement, commenting:

> “It took me time to start working in Spanish, as during my doctorate most of the available resources and data I was working with were in English. Later, when interacting with researchers who worked in Spanish, I understood the importance of working in our region's language. Throughout my career, I studied different linguistic issues, specifically in natural language processing, which is also known as computational linguistics, and I began to work with linguists to explore grammatical and lexical differences between our regions.”

This exploration enabled Benotti to begin seeing how data from our region are overshadowed by the volume of data coming from other, more hegemonic cultures.

(8) Her academic profile is available at https://benotti.github.io/

(9) Fundación Vía Libre. 2024. *Derechos fundamentales en el entorno digital*. https://www.vialibre.org.ar/ (Reviewed in November 2024).

(10) *El País*. 2024. “¿Por qué el español necesita IAs propias?” (Reviewed on October 15, 2024). https://elpais.com/tecnologia/2024-08-28/por-que-el-espanol-necesita-ias-propias-chatgpt-tiene-los-valores-de-un-hombre-blanco-universitario-y-de-la-costa-oeste-de-ee-uu.html.

> These differences are reflected in the language models since, although they lack both intentions and awareness, they do reproduce and communicate values. These values trickle down into the different tasks for which people use these models. I'm not against their use; the key is to know what is being used, and what it is and isn't good for."

DO MACHINES HALLUCINATE?

What these models are not well prepared for is specifically narrating cultural aspects of the countries of the Global South. This was seen in the experiment *Así nos ve la Inteligencia Artificial*[11] [This is how Artificial Intelligence sees us], conducted by journalism students at the Universidad Diego Portales in Chile, in which over a three-month period they generated more than 2,000 images using DALL-E[12] to study AI's perception of Chile and Latin America.

The results were discouraging, since the AI reproduced biases, inequalities and cultural prejudices: young Caucasian-appearing women, dressed in colorful costumes and holding baskets of fruit; fusions of the Mapuche Wuñelfe star (eight-pointed) and the star found on the Chilean flag (five-pointed); and other errors. Regarding the men represented, most were wearing multi-color ponchos (more characteristic of Central America) and tended to sport a beard and mustache as they played the guitar.

When asked about this experiment, Luciana commented that big companies try to incorporate data from our region. However, the lack of contextualized information on our cultures keeps generative AI from really understanding the instructions they are processing. To solve this problem, these models would need to include gender, ethnic, and class diversity, among other aspects, throughout the production chain, with multi-disciplinary teams that understand the contexts in which they are working. This lack of perspective and diversity in the data processing is what leads to erroneous information.

> I call that "hallucinating." These hallucinations reflect the fact that language models are disconnected from reality, since they can generate information and combine words without verifying the veracity of their data. Although it is sometimes suggested that machines hallucinate because they have been exposed to fake data, the reality is that these systems are designed to do it. For them, names like José and Pedro can be interchangeable, the same way '*colorado*' [red] and '*morado*' [purple] could be swapped, without recognizing that they are not synonyms".

(11) Javiera Larrondo, Darío Riffo, José López & Javier Guerra. 2024. "Así nos ve la Inteligencia Artificial." *Vergara 240*: https://vergara240.udp.cl/asi-nos-ve-la-inteligencia-artificial/ (Reviewed on September 25, 2024).

(12) DALL-E is an Artificial Intelligence model created by OpenAI that turns descriptions of a person, situation or event into images. Using a detailed written description of something that we want to see (e.g., "recreate a typical Chilean recipe"), DALL-E creates an image that interprets and represents that idea.

E.D.I.A.: STEREOTYPES AND DISCRIMINATION IN AI

This need to study the cultural biases and stereotypes in AI was the impetus for the F<A+i>r[13] (Feminist AI research network) core group to select Fundación Vía Libre's Ethics in AI area—made up of Laura Alonso Alemany, Beatriz Busaniche and Luciana Benotti—with the E.D.I.A.[14] (Stereotypes and Discrimination in Artificial Intelligence) project. This is a tool designed so that anyone, with no need for programming knowledge, can compare sentences and words that contain stereotypes (e.g., "birth control is a women's issue") with statements that challenge those stereotypes (such as "birth control is a men's issue") and see how they are presented proportionally.

Its main objective is to offer a first critical literacy on the use of generative AI, along with collaboratively creating a set of data to evaluate these technologies, contributing to the development of citizens who are aware of these topics. While it has been used in educational communities, it can also be used by anyone, and it allows auditing and inspecting the tool based on four different approaches:[15]

Based on biases:

1. In statements: Sentences containing a stereotype and its anti-stereotype counterpart can be analyzed to define the preferences of a pre-trained language model. **If the model is impartial, both statements should have the same preference; if there are biases, one will be preferred over the other.**

2. In words: The distribution of words is displayed in a 2D space, observing the distance between them. **Words with similar meanings are closer together**, while those with different meanings are more distant.

Based on explorations:

1. Of words: It facilitates exploring and understanding semantic relationships between words in a vector space. Each word in a language is like an arrow on a giant map; when two words have a similar meaning, **their arrows point in nearby directions.**

2. According to context: Starting with a word, information can be obtained about the context in which that term is found within an available database. **Where is my word of interest used and in what context?** The visual representation takes these arrows and **displays them in such a way that one can see which words are close together in that space.**

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(13) A+alliance. *About f<A+I>r*. https://aplusalliance.org/about-fair/ (Reviewed in November 2024).

(14) E.D.I.A. has different tools that are used to detect and inspect biases in natural language processing systems based on language models or word embeddings.

(15) Fundación Vía Libre. "EDIA. ¿Puede la inteligencia artificial tener sesgos y estereotipos?" https://ia.vialibre.org.ar/ (Reviewed in November 2024).

Benotti explains:

> We want local communities to register their experiences of discrimination in E.D.I.A., since that could be the first step for auditing machine language technologies, detecting and characterizing the discriminatory behaviors and hate speech present, enabling users to define the type of bias they want to explore".

HEALTH AND SEX EDUCATION AND AI: HOW CAN WE FIND THE WAY?

One of the notable experiments in which E.D.I.A. was applied focuses on the gender biases and stereotypes applied in Internet queries on health and sexuality. Using searches about menstrual health on different platforms, Vía Libre researchers joined with students and teaching staff to analyze and reconstruct mental images around female health and the LGBTQI+ community, fostering a more inclusive and critical dialogue on these topics.

The trend generated by E.D.I.A. suggests certain shared patterns that are reproduced via interactions with tools like ChatGPT and Google searches, which use machine learning algorithms to auto-complete and facilitate interactions with users. Thus, the results suggested when someone looks for more information on the menstruation process, some suggested searches—which can vary depending on different contexts—are as follows:

Sickness, religious punishment and dirtiness are some of the terms with greater visibility, which end up hiding and displacing educational content that is critical for girls, teens and dissident communities to be able to resolve their doubts and learn more about their body and sexuality. This experiment becomes even more relevant if we also consider that during 2023, most queries in E.D.I.A. were related to gender and health topics from adolescent students aged 12 to 14 years old, confirming its efficiency and importance for exploring technologies and discovering how these can end up producing biases, misinformation on gender, and what we can do to fight it.

BUILDING COMMUNITIES TO TACKLE AI USING FREE SOFTWARE

María Encalada
Derechos Digitales

Maria Encalada is a technology analyst at Derechos Digitales, a member of OpenLab[16] in Ecuador, and National coordinator for FLISOL,[17] the Latin American Festival for Installation of Free Software, a space attempting to bring free software to more people in a simple, collaborative and accompanied manner. She is also part of Django Girls, where she leads programming workshops for women. This year she has been able to take this knowledge to four cities spread around the country.

> “It is very important for girls to be able to access this training in their local areas, because it gives them security, since they are facing a lot of economic inequality. That’s why we wanted to hold the gatherings in different cities, so that more people could have the opportunity to participate.”

A METHODOLOGY FOR AI EDUCATION

Maria notes that FLISOL activities include two kind of attendees who are very different from one another. There are those who are focused on technical aspects, who understand how the algorithms work and recognize the importance of balancing data. "When the algorithms are trained on unequal data or without suitable processing, they end up reproducing biases, not because they are in and of themselves discriminatory, but rather because the data feeding them have not been cleansed," adds Maria. This technical group recognizes the relevance of these processes, even though it is also limited to executing instructions from higher ups, leaving responsibility for decisions in their hands.

The other group of attendees sees AI from a practical standpoint, more than in terms of its technical construction. In this group, fear of AI taking over jobs or making autonomous decisions is common, ideas fed mainly by stereotypes and clickbait news stories that do not reflect the reality of these technologies' current capabilities. This group also includes journalists who, in the words of Luciana Benotti, make widespread use of machine learning tools like ChatGPT in newsrooms, without fully understanding how the information they seek is generated, nor how trustworthy it is.

(16) Fundación Openlab. https://openlab.ec (Reviewed in November 2024).

(17) FLISOL 2024 - *Ecuador. Festival Latinoamericano de Instalación de Software Libre*. https://flisol.info/FLISOL2024/Ecuador (Reviewed in November 2024).

To work with these groups, Maria says that it is important to incorporate educational methodologies that stem from situated knowledge[18] so that we can reclaim narratives about AI in our region. This is critical, especially in light of the data extractivism and cultural appropriation driven by the Global North, which tend to distort Latin American experiences.

> In general, we are used to others coming and telling us "this is how it works." Why? we ask, and they tell us "because we've done a case study, and we have a systematic literature review on this topic, so we have enough knowledge about the context to speak on your behalf...".
>
> But those data will never really recreate our experiences and realities, because only we here know the variations and context we work with. So, it's important that new representations of who we are, with all our specificities, come from the Global South."

For Maria, the goal is to create spaces where how AI works can be clearly explained, emphasizing how it can reproduce pre-existing biases and inequalities in society. In the training spaces she facilitates, the technical and social characteristics of these technologies are explored, analyzing how certain rhetoric and practices are perpetuated through these machine language models. Furthermore, ethical reflections on the actions people should take to mitigate these negative effects of AI are addressed, along with which technologies should be chosen and applied responsibly, ensuring that they contribute to greater social justice and equality.

KNOWING WHAT WE ARE USING

"The solution is not to stop using AI, because that would be like walking when cars exist. On the contrary, we have to move on to knowledge, to becoming aware of these technological advances, and how to develop more skills for participating in this debate." Instead of limiting herself to criticism of AI development and external content control, Maria issues a call to arm people with more technical knowledge that lets them play an active role on these issues: "it's a bit like the spirit of working on free software, where I'm not just using a tool, I'm also able to contribute to it."

In this regard, the knowledge and use of free software become essential, because the community is involved in its design from the start. "AI and its models can be a good idea, as long as we are allowed to audit them and know transparently what it is they are doing and how they are using the knowledge obtained, with the promise of not outsourcing the data." If the data are open source, that makes it possible to democratize access to these technologies, and make improvements to their execution, something that the big companies that have hijacked the debate with their machine language models have not incorporated."

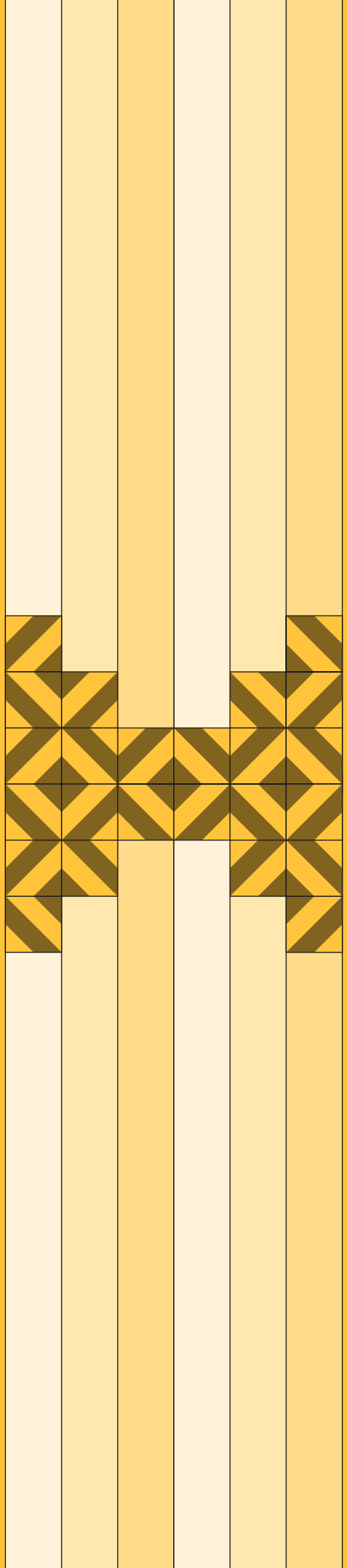
(18) Concept introduced by the scholar Donna Haraway, referring to the knowledges arising in cultural contexts that challenge the White, privileged, sterile, hegemonic model of thought (prevailing in the first world). Situated knowledge means investigating and creating knowledge based on our own subjectivities and differences.

TECHNOLOGY IS FOR EVERYONE

Understanding how the technology we use operates is an important step forward, since often we think that we have to have studied computer science to hold a specific opinion on these issues. Maria highlights the importance of people from diverse subject areas offering their critical viewpoint and exploring the systems they are interested in to analyze whether they reproduce biases, and to evaluate potential conflicts or offensive elements, as in the case of E.D.I.A. She adds:

> “There are also people who take on the responsibility of documenting the step-by-step operation of a technology, so that those who are not familiar with it can have access to and make use of it as much as possible. Everyone, within their different disciplines, is needed to generate situated learning about technology."

Chapter 2



BODY, TERRITORY AND HUMAN RIGHTS IN AI

To think about another way of life on Earth, respectful of planetary limitations, we must simultaneously address ecological and social challenges. Otherwise, we will continue destroying valuable ecosystems and ancient cultures. Will our highland cultures and High Andean wetlands be the next forced into new sacrificial zones to continue feeding a linear system of consumption that recognizes no limits and that surely when a new, alternative technology appears, will go on to the next ecosystems and communities?[19]

Talking about land and human rights in the context of a report on technology can seem contradictory. However, the strategies used to resist cultural and territorial extractivism in Latin America and around the world are profoundly connected to the need to drive and bring to light new ways of building knowledge. This means reclaiming technology, using it in a way that meets our needs and is adapted to our own codes.

From providing legal and administrative guidance to the families of disappeared persons in Mexico, to developing tools that integrate the digital and the analogical in our daily lives, these initiatives seek to create effective, relevant solutions. A clear example of this is the work of Técnicas Rudas[20] and Diversa Studio,[21] two organizations that have crafted a community-based framework in Mexico and Ecuador. Their approach combines technological development with the opening of listening spaces, facilitating incorporation of the knowledge held by the communities with which they work.

This is how the climate change, technology and social justice researcher and consultant, Paz Peña, puts it in her book *Tecnologías para un planeta en llamas* (2023): a just digital transition must find in inclusive, deliberative processes—and not only in global innovation—the quickest and most effective way to address the climate and ecological crisis, because it is based on local knowledge and identifies the needs of the multiple species most affected. This means situated digital technologies that, among other things, are inspired by feminist and indigenous epistemology, i.e., there is a collaborative approach in their design and implementation thanks to knowledge informed and produced within a specific context, and not the all-encompassing financial dream of some millionaire "entrepreneur" from Silicon Valley or Shanghai.[22]

So, can we create a de-colonial, situated, feminist AI from Latin America? The collaborative work between Técnicas Rudas and Diversa Estudio could give us some clues. In addition, ancestral knowledge poses this question: Is it possible to create new technologies based on rights? Researcher Joana Varon refers to the publication of *Compost engineers and sus saberes lentos*,[23] a text in which she shares how to challenge warmongering mental images about new technologies, promoting the return to slow learning, reclaiming narratives on science fiction.

(19) Pía Marchegiani, in Morales, R., Blair, J. J., Jerez, B., & Lopez, M. 2021. *Salares Andinos: Ecología de saberes por la protección de nuestros salares y humedales*. Fundación Tanti.

(20) Técnicas Rudas. Investigación y estrategias tecnopolíticas. https://www.tecnicasrudas.org (Reviewed in November 2024).

(21) Diversa Studio. Diversa: Human-Centered AI & Data Services. Diversa Studio. https://diversa.studio (Reviewed in November 2024).

(22) Peña, Paz. 2023. *Tecnologías para un planeta en llamas*. Paidós, p. 77.

(23) https://codingrights.org/docs/compost_engineers.pdf

TECHNOLOGIES EMERGING FROM LAND AND MEMORY

Mayeli Sánchez
Técnicas Rudas

Mayeli Sanchez is a founder and researcher at Técnicas Rudas, a Mexican organization focused on strengthening social movements and supporting the defense of human rights. Through projects, consulting and strategic research, her work combines inclusive technology with a gender-based approach, prioritizing grassroots initiatives, which contributes to an environment where marginalized voices are heard and play an active role in building a more just future.

HUMAN RIGHTS AND TERRITORY

In 2022, they launched the *SocorroBot*[24] joint project in collaboration with Quinto Elemento Lab, Codeando México and the Canadian Embassy, with the goal of offering support and guidance to the families of disappeared people in Mexico. This platform was designed to guide families in the search process, offering verified information on protocols, legislation and specific procedures that facilitate progress through the complex administrative and legal barriers they may face.

A key lesson learned by the team behind *SocorroBot* is that disappearances in Mexico are a national phenomenon, but each region has unique characteristics and specificities, which highlights the importance of developing strategies and tools adapted to the local context, rather than of applying universal solutions. Mayeli Sanchez explains:

> “I feel like we are immersed in learning processes with a distinctly occidental perspective, where Artificial Intelligence is still synonymous with logical processes, which really distances us from other perspectives that are informed by more creative, artistic and/or cultural processes. The *'sentipensares'* [thinking-feeling] spoken of by indigenous peoples, for example.”

For this reason, in early 2023 they published the *Guía no oficial de definiciones sobre seguridad digital*[25] [Unofficial Guide to Digital Security Definitions] (in Spanish, Nahuatl and Yaqui), which seeks to accompany communities with the recognition and identification of best digital practices for preserving organizations' sensitive information, and for resisting and recognizing digital violence. Mayeli expands on this idea:

> “On our side, we try to approach technological needs based on open science, open source code and activism. It’s important to us to continue working on how these machine learning models and AI could be useful to communities, and in the defense of and care for their territories. On this point, collaboration is essential because the resources available for work

(24) *Socorrobot*. https://socorrobot.org/ (Reviewed in November 2024).

(25) Páez, Luisa. "Necesitamos aprender a cuidarnos cuando usamos la tecnología: Técnicas Rudas." Zona Docs, February 8, 2023. https://www.zonadocs.mx/2023/02/08/necesitamos-aprender-a-cuidarnos-cuando-usamos-la-tecnologia-tecnicas-rudas/ (Reviewed on October 1, 2024).

are limited. Originally we wanted to add a person to Técnicas Rudas to address the area of Artificial Intelligence full-time, but it's super hard to sustain, so we chose to be open to collaboration with other organizations with whom we feel compatible and of like mind."

A COMMUNITY THROUGH WATER

In this search and resonating thanks to common causes, they met Diana Mosquera of Diversa Studio, with whom they are working in the *f<A+i>r* network on the *Governance of Indigenous Natural Resources: Indigenous Rights, water conservation and AI project. Exploring the active participation of the Yaqui community in water resource management*,[26] where through a methodology based on the construction of a decolonial, feminist AI they created a preliminary model that combines qualitative and quantitative data on the importance of water in the area, discovering critical environmental challenges for water management in Mexico. "So, why Sonora? Well, because it's an area under attack by mining, extractive industries, and also because we had previously worked on technologies with that community," adds Mayeli.

Using a decolonial approach, they gathered resources such as satellite images, audio recordings and territorial analyses that will be critical for developing sustainable water management strategies, while at the same time preserving the traditions and values of the indigenous communities. This project incorporates the restitution of scientific and social findings to the community itself, using educational workshops to perfect the prototype, fostering dialogue on the ethical use of AI. Thanks to the processing of these satellite images, desertification of the land, how bodies of water are changing, and more can be seen. What the two organizations thought of as just a model limited to the water component has managed to grow and become a powerful tool that enables communities to know more about their territories. Mayeli Sanchez of Técnicas Rudas says:

> "Communities do not need someone to confirm what they already know, but these data are useful to them: the quantity of liters of water that have disappeared, or soil changes, to be able to go to authorities with concrete information."

Diana Mosquera of Diverse Studio adds:

> "As the volume of images and information increases, with enough data we can even talk about predictability in the future; in other words, being able to anticipate certain events is an important challenge further down the road."

Challenging gaps in access to knowledge and aiming for restitution to the communities that contribute to these developments become the focal point of work by Técnicas Rudas, showing us that it is possible to build knowledge and technologies that challenge the extractivist nature of the system.

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(26) A+ Alliance. 2024. "Técnicas Rudas & Diversa Studio are developing a prototype for water governance in collaboration with a Yaqui Tribe community that uses a decolonial & feminist AI approach." *A+ Alliance*. https://aplusalliance.org/tecnicas-rudas-is-developing-a-prototype-for-water-governance-in-collaboration-with-a-yaqui-tribe-community-using-a-decolonial-feminist-ai-approach/04/11/2024 (Reviewed in November 15, 2024).

LATIN AMERICA-BASED METHODOLOGIES FOR HACKING AI

Diana Mosquera
Diversa Studio

Diana Mosquera describes herself as a human-focused AI developer, researcher and professor. She is the co-founder of Diversa Studio, a workspace based in Quito, Ecuador, who has spent four years addressing AI and data science with a feminist approach to construct digital tools with and for people. "We are about responsibly, ethically and fairly obtaining the AI and data we use in all phases of development of our work," says Diana. To do so, they propose a collaborative model in which people who will be affected by the use of these tools actively participate in their co-design, incorporating an intersectional perspective and acknowledging the power dynamics involved. Diana explains it as follows:

> "At Diversa Studio, the most important question we ask ourselves is: Who will be impacted by our work? Who are we doing it for and why? The idea is to be transparent with all these development processes to avoid biases and injustices. Recently I was listening to a fintech podcast that said that artificial intelligence was free of biases and injustices, and I was left wondering, how could we have a bias-free AI if we don't know what data and information is feeding it? To me, from a feminist perspective, we are responsible for controlling that."

They are currently conducting workshops on how to incorporate these perspectives in platform development, emphasizing that education is key when we think about a decentralized, ethical AI. As Diana explains further:

> "To me, there is a lot of ignorance of what AI involves, not just here in Ecuador, but throughout Latin America. In fact, I would dare say that people in the Global North aren't fully picturing it either. And it's that, to have the algorithms and tools that we currently use, there is a hidden supply chain in the background that is supported by countries in the Global South, which hand over their natural resources and cheap manual labor, especially to classify and identify prompts.[27] Here in Latin America we are facing a ton of questions, for example, whether we need to build a language model with our own data and Latin American context, and what for."

USE AND ABUSE OF NATURAL RESOURCES IN THE GLOBAL SOUTH

Diana is constantly reflecting on the link between land, extractivism and technology, elements that continue to be invisible to most people. These issues, however, are well understood by activists, indigenous communities and people who are aware of the risks of climate change.

(27) 'Prompting' is a term that refers to the process of providing instructions or examples to an AI model, knowing that the quality of the results will largely depend on the quality of the prompt entered by the user of the service.

> “Lithium and cobalt are essential to manufacturing cell phones, and these minerals, where are they mined? In the Global South. And those who receive the benefits of that extraction are just a few people; the inequality is continually reproduced. In addition, the marketing involved in adding to any product that it is "developed with Artificial Intelligence" is very powerful and makes it possible to attract investors and raise funds that don't exist in Latin America. That's where we can ask ourselves: What are the real interests of those who are developing these projects?”

> “Most people are already ChatGPT users, and in light of that, it is important to reflect on the quantity of natural resources that are extracted from Latin America to keep these models functioning, given their need for enormous computational capacity. The overwhelming amount of resources needed to get products like this up and running is also the reason we cannot train this kind of model in Latin America. All the computing capacity and data are monopolized in the North; here we are left with precarious jobs and data labeling that pays a few cents per hour, versus the huge salaries offered in Silicon Valley.”

This is why at Diversa they are asking: how can AI be hacked? Is it possible to use these models and algorithms with a different perspective? These questions open us up to new possibilities and allow us to ditch the pessimistic view of it, thinking about responsible ways to use these models, with feminist and non-extractivist perspectives.

AI FOR DOCUMENTING TERRITORIES

Thanks to these concerns, they joined Técnicas Rudas in the development of the Governance of Indigenous Natural Resources: Indigenous Rights, water conservation and AI: Exploring the active participation of the Yaqui community in water management project. While Técnicas Rudas worked on the project design using surveys and data collection, at Diversa they were using AI to conduct geospatial analyses of the territory, in order to segment the land and understand the evolution of natural resources.

Their analyses revealed that in the last decade there have been significant changes in water use that show an important downward trend, considering other factors like nearby construction and vegetation, all available at an access panel open to the Yaqui community.

Yaqui territory is located facing the Sea of Cortez, in an arid and semi-arid area. The eight traditional towns are, from South to North: Loma de Guamúchil, Loma de Bácum, Tórim, Vícam, Pótam, Ráhum, Huirivis and Belem. The Yaqui have been described as a resolute people committed to defending their territory and their right to self-governance, which has been their defining feature through the different stages of the country’s conformation. [28] Diana comments:

(28) INPI. 2024. "Etnografía del pueblo Yaqui de Sonora." https://www.gob.mx/inpi/articulos/etnografia-del-pueblo-yaqui-de-sonora?idiom=es (Reviewed on August 23, 2024).

> All the work we did with Mayeli was incredible. We conducted a lot of analyses, not only hydrological, but also sociodemographic and geospatial. We didn't just study the river, we also analyzed evaporation and other complex aspects. For example, we discovered that next year an increase is expected in water supply due to the rains, despite the fact that we have been facing droughts.

> We took responsibility for most of these analyses, and our panel is open access. We are more than willing to keep working on these areas, since there is a vast world to explore, and our intention is that these results be of use to all the communities.

Based on the joint work between two organizations from Mexico and Ecuador, tools were created to reflect on alternative ways of using AI. This approach promotes a situated knowledge proposal where both those participating in the execution and those affected share and acquire lessons learned horizontally, building relationships based on collaboration and mutual exchange.

INVENTING NEW NARRATIVES ABOUT SCIENCE FICTION AND AI

Joana Varon
Coding Rights

The future is not mere space. This is where I part company with a whole variety of science fiction, the imperialistic kind, as seen in all the Space Wars and Star Wars novels and films and the whole branch of sf that reduces technology to hi-tech. In such fictions, space and the future are synonymous: they are a place we are going to get to, invade, colonize, exploit, and suburbanize. **URSULA K. LE GUIN**[29]

Joana Varon is the founder of Coding Rights[30] in Brazil and is affiliated with the Berkman Klein Center for Internet & Society at Harvard Law School.[31] With support from the f<A+i>r network, together with Chilean artist Lucia Egaña, they wrote Compost engineers and sus saberes lentos, a key document for rethinking applications of technology in the last century and the worldviews it instills in science fiction.

The two authors wondered: **What lessons, skills and knowledge come under the umbrella of AI? And what ecosystems are left out?** Based on the concept of *lentitud* [slowness] (and the impossibility of correctly translating it to English), they offer us a pathway to understanding that technologies—as we know them today—are weighed down by a mental image plagued with cultural biases inserted via film, literature, and the media.

Based on a detailed analysis of mainstream Western culture, Joana and Lucia explain how the propaganda of what AI should be is transformed into techno-solution-oriented marketing, in the face of which we can rebel using ancestral knowledge. The two develop a diagram that explores the traditional values (and those of the Global North) represented in AI: speed, efficiency and universalization. In contrast, what is left out of this model are those values that the feminisms of the South defend: decolonial and anti-racist perspectives, which include both diversity and dissidence.

WORKING THE LAND AND SLOW KNOWLEDGE

Starting from an analysis based on the concept of constitutive outside[32]—which refers to the idea that what we consider "inside" or fundamental to an identity or structure can only be defined through its relationship to the "outside" or "other"—an analogy based on the "compost

(29) Le Guin, U. K. (2017). *Dancing at the edge of the world: Thoughts on words, women, places*. Open Road+ Grove/Atlantic.

(30) Codingrights, hackeando el patriarcado. https://codingrights.org (Reviewed in November 2024).

(31) *The Berkman Klein Center for Internet & Society at Harvard University.* https://cyber.harvard.edu (Reviewed in November 2024).

(32) Orozco Gómez, W. (2024). *El concepto de exterior constitutivo en Derrida, Staten, Laclau, Mouffe, Butler y Hall.* Notas para el análisis de las identidades. Praxis Filosófica, (59), e20513184. https://doi.org/10.25100/pfilosofica.v0i59.13184.

engineers" is proposed. Compost, in its slowness, requires a certain amount of time for the bodies composing it to be transformed, a regenerative cycle where waste becomes nutrients and life again. This metaphor enables the authors to question the ideal of speed in technology, preferring instead a "slow knowledge" that prioritizes natural rhythms and regeneration. Joana Varon explains:

> It was based on a search to reconnect with the land again. In fact, at the end of the text we propose a garden prototype that is connected with the earth, but also with the community for planting, returning to observing the horizon and leaving the individual mindset behind.
>
> This text is just a provocative scheme, and the good thing is that we can construct as many as we want, since it is followed by a series of Abya Yala-centered feminist science fiction writing workshops. We feel that we are at a crisis point, a moment of despair between climate change and war, and we need new narratives. We spend our time listening to gloomy content, where AI is presented as the solution to all our problems—even the most human and social ones!—without taking care of the problems they themselves created."

The author also shares a reflection on what these technologies impart: a sense of immediacy, where everything must be more efficient and faster, which affects people and their work:

> The idea has developed that we must be multi-taskers, and we cannot function in this automated way for very long. That speed ends up displacing our knowledge and cultures. But as diverse communities, we can think of abandoning this speed. We want to take the time to dream, to imagine new tools; and to make something happen, you first have to think about it. So, we are taking this experiment to the next level: a science fiction connected to the land, to magic, to energies and to our traditional technologies that are less extractivist and more regenerative."

OTHER NARRATIVES ABOUT SCIENCE FICTION

Joana also maps out in the text how the vision of the future and the image of AI that has been built nowadays, is permeated by a mental image of colonial science fiction, mass produced by the capitalist culture, based on invasion, either of other bodies or of other planets. She proposes:

> There is a narrative around attacking the other, what is unknown to me, as exemplified in the alien that must be killed. There is a supremacy of the concept of technology as something metallic and warlike, and this is completely different from what we receive from ancestral technologies, for example. Concepts that were important for us to address in this text, so that together we may find other ways of exploring these pathways."

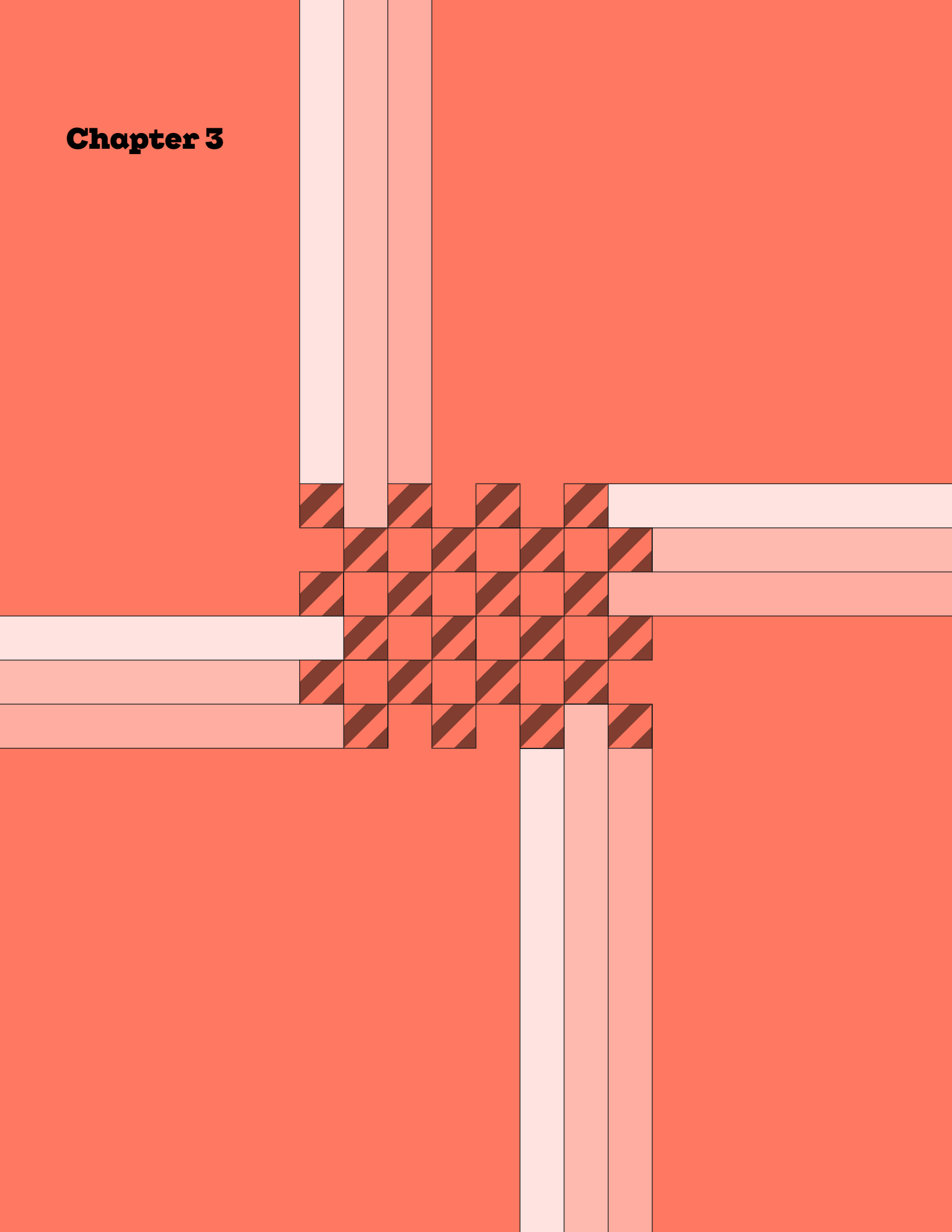
This project goes hand in hand with an open call published by the authors in September, to participate in the feminist science fiction writing workshop *Una bolsa de semillas*[33] [A Bag of Seeds]. "We want to feed Latin American narratives on science fiction with technologies that emerge from the imaginations of our territories," states Varon. The initiative has been a total

(33) More information at: https://www.instagram.com/p/DAGnNrVvjDh/?igsh=dGhxbTNrMWVpdDd4

success, since they reached full capacity in just a few days, reinforcing the idea that there is interest in writing from other viewpoints.

Joana, inspired by Ursula K. Le Guin, the famous speculative fiction writer, sees in feminist science fiction workshops and in the work of the *Compost engineers and sus saberes lentos*, an opportunity for women and dissidences to dare to think and write about other worlds and ways of relating to the unknown. In a global context of voracious immediacy, Varon and Egaña choose to go more slowly, letting their ideas simmer; like compost, they take their ideas, they let them ferment and then they return them to the earth, spending time and attention on each step of the process.

Chapter 3



RESISTING THROUGH AI TO PROPOSE ANSWERS TO GENDER-BASED VIOLENCE

"Situations of on-line gender-based violence feed back into the inequalities in access to and permanence in the on-line environment. For this reason, raising standards for protecting women, children and dissidences also contributes to reducing the digital gap. In addition, recognition of the digital dimension of gender-based violence in a comprehensive law can serve to coordinate institutional efforts and public policies, which up to now appear scattered and isolated."[34]

Some of the main conclusions of the researchers and scholars consulted point to a worrying trend in AI and its language processing models, towards reproducing and amplifying gender, class and ethnic biases, due to the nature of the data on which these models are trained. Given that these systems are being applied massively in areas like personnel selection, access to financial services, social welfare and public safety, there is a significant risk that decisions based on stereotypes reinforce, or even amplify, the structural discrimination that already exists in these areas.

Despite this panorama, we have seen renewed efforts towards resistance and creativity among the experts consulted, who are incorporating critical debates in their communities on the impact of AI on human life and on natural resources specifically from the Global South. The women consulted are fostering spaces for debate that make it possible to bring the issue to light in surroundings where, up to now, only a few had a voice in the development and regulation of these technologies.

Along these lines, two projects stand out that, based on feminism, seek to fight for the digital space, taking on the patriarchal and gender-based violence that permeates these environments: on the one hand, using tools to respond in a timely manner to gender-based violence and disinformation, and on the other using methodologies that help to gather information on feminicides, supporting activists and organizations in their own data collection practices. These feminist approaches contribute a critical perspective on the **struggle for a just digital future, where AI and other emerging technologies no longer perpetuate inequalities, but rather are tools for inclusion and equality in our societies.**

(34) Milanés, Valeria. 2022. *Violencia de género digital. Consideraciones para el debate público y parlamentario.* Asociación por los Derechos Civiles (ADC).

NOTES FOR A FEMINIST LISTENING SYSTEM

Patricia Peña
Datos Protegidos

Patricia Peña is a scholar at the Universidad de Chile, as well as director of the Datos Protegidos Foundation[35] and the Chilean Chapter of the Internet Society.[36] Together with Daniela Moyano, instructor at the Universidad Católica School of Design and co-founder of the Gender and Intersectionality Statistics Observatory (ODEGI),[37] they developed Sof-IA (Feminist Listening System), a chatbot created with AI to address digital gender-based violence. Patricia Peña explains:

> Sof+IA was born from a topic we had been working on at the Datos Protegidos Foundation, since the start of the pandemic. After the constitution-making processes that Chile underwent, we began to notice diverse situations of digital gender-based violence with much greater force, many related to what we now know as gender-based disinformation.
>
> While some organizations started to address this topic, such as the NGO Amaranta, other, older collectives such as the Red Chilena Contra la Violencia [Chilean Anti-Violence Network], were not necessarily aware of the strategies for confronting digital violence. Faced with the huge number of requests for help that began to flood our organizations, we came to the conclusion that in Chile we really do not have the capacity for an immediate response to an organization, collective or individual who needs help to face these situations."

In late 2020, the idea began to take root in Chile of drafting a bill to address digital violence. Thus, on December 1st of that year, a bill was submitted that "Prohibits, typifies and sanctions digital violence in its different forms and grants protection to victims of it" (Boletín 13928-07), which remains stalled in Congress, despite the fact that the current administration submitted it as highly urgent.

"This shows a tremendous lack of political will," reflects Patricia, emphasizing that the problem is also due to a lack of data:

> Just like at the beginning of the debate over feminicide and gender-based violence, without data it is difficult to visualize these issues. In that context, we made contact with ODEGI, with whom we began to work after an invitation from the Feminist AI Research Network (f<A+i>r). This collaboration has been very meaningful, since we are debating how to incorporate feminist viewpoints on emerging technologies like generative AI, just like what happened with the Internet when it began."

(35) Datos Protegidos. An organization specializing in defending the right to privacy and data protection in the digital environment. https://datosprotegidos.org/ (Reviewed in November 2024).

(36) ISOC Capítulo Chile. (Reviewed in November 2024).

(37) Observatorio de Datos y Estadísticas de Género e Interseccionalidades (ODEGI). https://odegi.cl/ (Reviewed in November 2024).

The Datos Protegidos Foundation already had the idea of creating a web platform that could offer information in an easily accessed and ongoing way. They had been inspired by Paz Peña's prior work with Acoso.Online, both on the web and as a Telegram chatbot,[36] which addressed several of these issues with a transgressive and inclusive approach. However, in this case, the idea was to develop a tool that was specifically helpful for the Chilean context and that would not need to deal with a messaging or social media platform.

> “At f<A+i>r we are on the move all the time. It's been nearly three years of developing, together with other people and individuals who are beneficiaries of the network, a set of principles, theoretical input and experiences that are serving all of those who, like us, think that in effect we can aim for technological development that continues to delve deeper into what changing production models entails.”

Patricia Peña initially proposed a study focused on exploring how generative AI or other technologies could offer solutions to confront gender-based violence and based on that exploration, propose the design of a system able to provide rapid guidance in situations of digital harassment and violence, as well as generating statistical data, identifying trends and observing common patterns related to attacks on specific platforms in Chile. The objective was to analyze how the attacks evolve, and the degree of accuracy in current classifications of digital gender-based violence, incorporating a perspective from the design for the user or user experience (UX).

SOF-IA'S OPERATIONS

From the beginning of the project, self-imposed high standards were established for guaranteeing that the system would be fully autonomous, avoiding the capture of personal data. For this reason, its development was not thought of as an app. The system currently allows users to report cases using an interaction that meets various objectives. These include that users be able to download their report later, which makes it possible to document what they experienced, whether it was an attack on Instagram or another platform. Peña comments:

> “The interaction changes depending on the user, which means that each user’s experience will be unique. Initially, the voice of the system was displayed using a traditional form that required selecting options. However, in this new phase, the interaction is adapted to how the person communicates with the system. For example, if more information is requested, the answer adapts to that need. At the end of the process, the system offers the option to download the conversation report, which is important because it promotes recording the experiences, something which is not always done.”

Sof-IA is in prototype stage, which means that they are testing it with different groups of people to assess how the system responds. For the researcher, it is essential to understand extent to which the system can learn and recognize situations such as, for example, acts of

(38) Acoso.Online. 2024. https://acoso.online/chatbot/ (Reviewed in November 2024).

vandalism. "One of the fundamental questions in this development has been how to protect the system so that it is not misused. For this reason, it remains in prototype stage, since there are still adjustments to make before definitively going public with it."

LACK OF PROFESSIONALS IN CHILE

Finding women programmers and dissidences in Chile has been a challenge. Unlike Argentina, where collectives and cooperatives promoting inclusion exist, here in Chile the situation is less clear. It is essential that those who are preparing for technology-related careers recognize the importance of getting involved in social and non-profit projects as a valid professional opportunity. In this context, the project development team has been very small, composed of a maximum of five people, including two UX design specialists, a developer and a programmer in charge of the front-end. However, we've had trouble seeing greater interest from students—it's as if these topics had dropped out of the conversation again. There is no longer a free software community, and no dissident technology activism, which leads to reproducing the biases we are calling out, adds Patricia.

Academia plays an important role in this process, although not all institutions, especially in the area of technology, are willing to get involved. Peña explains:

> "A big challenge is how to break into these spaces that continue to be very masculine and patriarchal, like engineering schools in Chile. But this doesn't mean that we can't find allies. It's key for the project to be inclusive and to value the collaboration of programmers who share our goals. It's also important to educate around gender-based violence since many people still don't recognize certain acts as such. So, this is a constant challenge that we have to face."

ACCOMPANYING MEDIA COVERAGE OF FEMINICIDE IN URUGUAY

Helena Suárez
Datos Contra Feminicidio

Helena Suárez is a scholar, activist, web developer and creator of Feminicidio Uruguay.[39] In 2019, after five years of experience, her ideas inspired Silvana Fumega of ILDA[40] and Catherine D'Ignazio of MIT's Data + Feminism Lab,[41] and they created the *Datos Contra el Feminicidio* [Data Against Feminicide][42] project, a tool for understanding, supporting, and promoting a large community around this issue. "We define this space as a place where all the people and organizations working on feminicide data come together to create social change," adds Helena, who is constantly traveling between Uruguay and the United Kingdom.

SOME HISTORY

In 2014, feminist groups started to take to the streets after each case of feminicide in Montevideo, an initiative that rapidly spread around the country. At that time, they began to incorporate the term "feminicidio" [feminicide] instead of "femicidio" [femicide] as a political decision, to emphasize the role of the State in these acts of violence. In sync with the numerous protests and in light of the growing number of cases, they noted that they were running the risk of losing important records, and they understood that they should document this information systematically. Thus arose the Feminicidio Uruguay community, which is fed by data and records from different collectives around the country.

Later on, in 2019, Helena met Silvana and Katherine, and together they realized the impact that AI could have for taking this initiative to the next level. That is how Datos contra Feminicidio emerged as a machine learning platform being developed to detect cases of feminicide in press reports, in ongoing collaboration with other activists.

This year, the team is making progress towards the use of large-scale language models to expand analysis of press coverage around feminicide, given that most independent projects on these subjects are based on press monitoring and require tools that are more situated to the local context. Helena Suarez comments:

(39) Feminicidio Uruguay. https://sites.google.com/view/feminicidiouruguay/acerca-de?authuser=0 (Reviewed in November 2024).

(40) Iniciativa Latinoamericana por los Datos Abiertos (ILDA). IDatos Abiertos. https://idatosabiertos.org/ (Reviewed in November 2024).

(41) Data + Feminism Lab. Department of Urban Studies and Planning, Massachusetts Institute of Technology. https://dataplusfeminism.mit.edu/ (Reviewed in November 2024).

(42) Datos Contra el Femicidio. "Acht." https://datoscontrafeminicidio.net/ (Reviewed in November 2024).

> We recognize the essential role of the media, not only as a source of information, but also as drivers of cultural change. Along these lines, our goal is to identify biases in press coverage and to offer tools that help improve this situation."

That is why, using guides and manuals for best practices in the coverage of feminicide and gender-based violence, they are designing a tool that not only points out areas where the media could be reproducing biases or stereotypes, but also suggests recommendations for producing a report that is committed to human rights and a gender perspective.

THE IMPACT OF WORKING ON INVESTIGATING VIOLENCE

Helena comments that getting involved in research on feminicide poses a huge cognitive and emotional load for the activists committed to it, especially due to the way that these issues are covered, which can re-victimize those who have already experienced gender-based violence or have significant emotional impact on those who are constantly monitoring these cases..

> Personally, I use Google Alerts to collect news stories and cases on it, although several activists have stopped using it because the volume of cases it detects can be overwhelming. They always advise me not to underestimate the emotional impact on us generated by being alert to all this violence.
>
> What happens with Google Alerts is that it doesn't just filter cases referring to our country, but also news reports from the whole continent, especially highly sensitive content that media driven by morbid interest and clickbait pick up and amplify. This is why our tool filters information to focus on the most relevant cases."

PROJECT EXPANSION

After creating Datos Contra Feminicidio, Helena, Silvana and Catherine expanded their work to other areas. Together they created the Datos Contra Feminicidio: Teoría y Práctica [Data Against Feminicide: Theory and Practice] course, a proposal for people interested in analysis of data on feminicide to add a feminist and intersectional approach to their work. Over eight weeks, people can explore both the theoretical bases and the practical tools for registering and monitoring data on feminicide. Anyone interested in the topic can participate in this initiative, with no need for prior technical experience.

Helena adds that that Uruguayan media coverage of feminicide suffers from a double standard, since when covering national cases of gender-based violence, they tend to be a bit more reserved in providing salacious details, which is not the case when the events come from other parts of the world, where geographic distance is used as an excuse to present intimate and often lurid information on the events. The issues covered in the course seek precisely to provide orientation, a critical approach and new tools so that civil society organizations, activists and even journalists can situate themselves differently with regard to feminicide and gender-based violence as a phenomenon, creating partnerships to promote cultural change in Uruguayan society.

AYMURAI, OR HOW TO INCLUDE AI FOR GENDER DATA AT THE JUDICIAL LEVEL

Ivana Feldfeber
DataGénero

Ivana Feldfeber is a Data Science and AI specialist and executive director of the Observatorio de Datos con Perspectiva de Género, DataGénero.[43] "When we set up DataGénero, our intention was to promote an agenda in public opinion that would address the need to incorporate gender data," comments Ivana.

From its beginning, the organization has promoted measurement of gender inequality, supporting the dream of implementing a sovereign and ethical AI, created for the contexts and needs of Latin America. Feldfeber puts it this way:

> "In 2020, we began to highlight the importance of an AI that was responsible, secure, ethical, feminist and adapted to our contexts. At that time, our rhetoric was perhaps more critical than constructive, but in 2021 we received support from the Fondo Feminista to dream up an AI aligned with these principles. That led to the birth of AymurAI[44] or "harvest", an open source code project targeted to strengthening the legal databases on gender-based violence issues, with tools for anonymizing rulings, thus facilitating access to data that inform policies and actions in favor of gender equality."

OPERATIONS

AymurAI uses rules and named entity recognition[45] (NER/NERC) to extract key information from legal documents. In cases of gender-based violence, the labels can represent the type of violence, place, gender, connection to the perpetrator, and what the judge in that particular case ruled, among other relevant data. The data collected have the potential to identify patterns of violence that could lead to feminicide, in addition to contributing to the development of effective policies and measures for preventing violence and the violent deaths of women and LGBTQI+ people.

(43) DataGénero. Observatorio de Datos con Perspectiva de Género. https://datagenero.org/ (Reviewed in November 2024).

(44) AymurAI: Inteligencia Artificial responsable, para una justicia abierta y con perspectiva de género. *DataGénero -Observatorio*. May 24, 2023. https://datagenero.medium.com/aymurai-inteligencia-artificial-responsable-para-una-justicia-abierta-y-con-perspectiva-de-g%C3%A9nero-7d473e438951 (Reviewed in November 2024).

(45) Named Entity Recognition and Classification (NER/NERC) is a main task in the areas of Natural Language Processing (NLP) and Information Extraction. Given its relevance in semantic analysis, the NERC task has become a cornerstone for smart apps like Question-Answer (QA) systems, generation of automatic summaries, improvement of information recovery systems, automatic translation, text anonymization, generation of knowledge graphs, etc. See more at: http://journal.sepln.org/sepln/ojs/ojs/index.php/pln/article/download/6381/3801.

All this is done in four steps: First, it selects the judicial rulings. Then it applies AI processing, which detects the required fields in a ruling, and it extracts them to proceed to the stage of human validation, which makes it possible to return secure and orderly results. Finally, it adds a row to the open dataset containing the detected information.

DATA, BUT WHAT FOR?

Ivana Feldfeber explains:

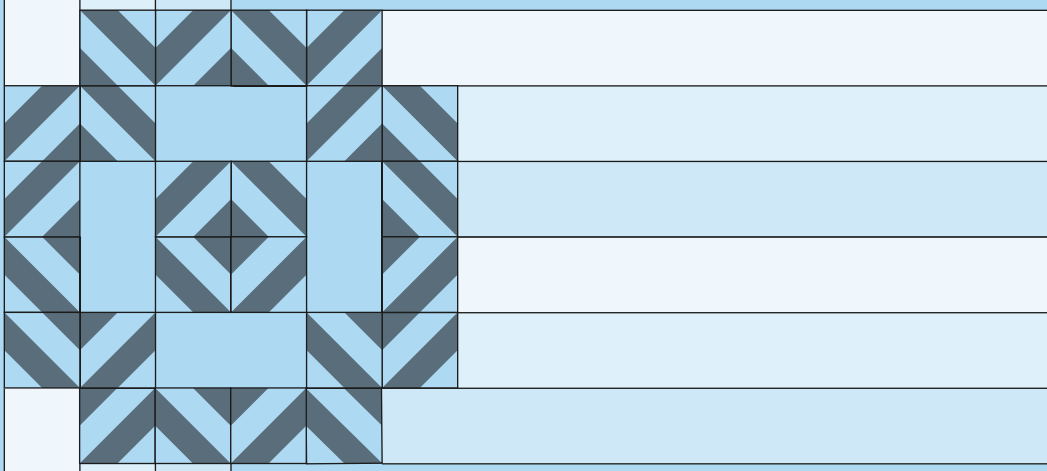
> “It is supremely important that we think about AI processes that are sovereign, produced based on our ways of thinking, and which do not create a dependency that we cannot respond to. We must know where our data are, what is being done with them and that the people who were involved in their creation are fairly paid and compensated for their work, including the labeling, moderation and final development of each project.”

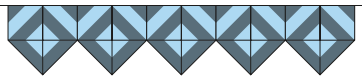
AymurAI makes it possible to accelerate the data collection process to detect patterns and trends related to gender-based violence, providing a solid foundation for creating public policies that contribute to preventing these acts. With this evidence, Ivana hopes that interventions will be more effective, and that progress can be made towards solutions that strengthen government responses:

> “We want Artificial Intelligence tools that arise from real, specific needs of communities, and that don't try to sell us things we don’t need. This is why we believe it’s important that there are experiences showing that things can be done differently in Latin America. The ideal is for this to be reflected in data that can serve as evidence to generate better policies and better activist interventions. In other words, to create a better world, basically.”.

Addressing gender-based violence faces difficulties throughout the continent. Women rarely file charges, because there is a shared sense between lack of trust in the legal system, difficulty in seeing themselves as victims and limited access to education on these issues. The work of DataGénero helps us imagine new scenarios for advocacy and action and, above all, for having statistics that in the future will allow us to identify life-threatening situations for victims, before the violence occurs.

Wrapping up





With this provocative challenge, we began this year's Latin America in a Glimpse. We addressed the cultural and gender-based stereotypes and biases in machine language models, exploring how to build, based on open source and free software, a community that is more involved in local decisions and lessons learned around AI.

Working from the specificities of the places we inhabit has been essential for the researchers, technologists and activists consulted in this report. Thanks to that, they have been able to develop responses to needs arising from critical aspects of their cultures. This includes addressing feminicide in the media in Uruguay, the creation of a system for responding to the disappearance of people in Mexico, and the urgency of providing immediate responses to gender-based violence and disinformation in Chile.

Each of them has carved out a pathway that, one way or another, connects them in these techno-resistances. All share a common viewpoint: to make progress, we have to start these conversations everywhere! Only then can we have access to an aware, critical civil society to face the advance of these technologies, which will enable us to consolidate better working alliances for the future.

To be able to predict certain human and environmental phenomena, being able to extract anonymized data from judicial documents to understand gender-based violence and the prior steps taken by perpetrators of violence, or reclaiming science fiction narratives as a genre, each perspective becomes an opportunity and a hope for how to apply AI in ethical contexts.

This journey has helped us imagine a more inclusive AI that is more sensitive to our realities, where collaboration and mutual learning are erected as fundamental pillars. This year's Latin America in a Glimpse invites us not only to be spectators to technological advances, but also to become architects of our own space in the digital world.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