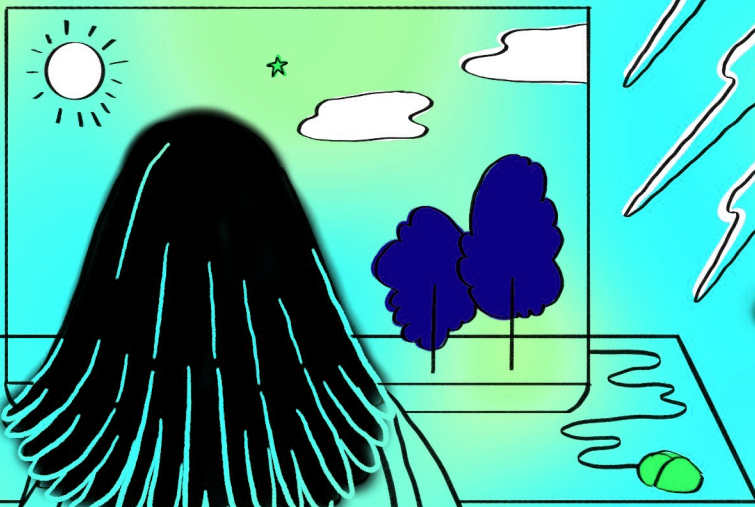
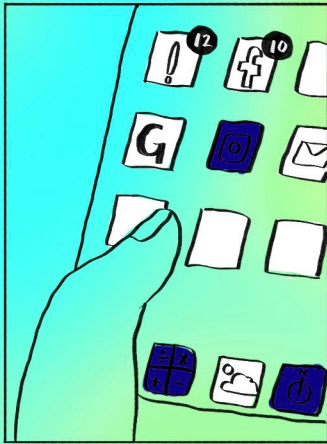


EMERGING TECHNOLOGIES IN PAKISTAN: TOWARDS A PEOPLE-CENTRED POLICY FRAMEWORK



ABOUT

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Digital Rights Foundation (DRF) is a women-led, not-for-profit organization based in Pakistan, working since 2013 to advance digital rights, freedoms, and online safety for all. While our work centers on the lived experiences of women and gender minorities, we actively support and collaborate with religious minorities, human rights defenders, journalists, and civil society organizations across the region.

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GLOSSARY

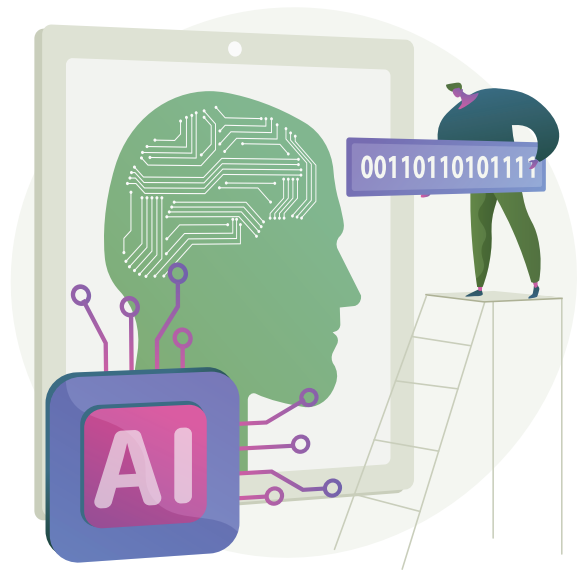
AI	Artificial Intelligence
AR	Augmented Reality
DNPA	Digital Nation Pakistan Act, 2025
DRF	Digital Rights Foundation
FGD	Focus Group Discussion
FRT	Facial Recognition Technology
GenAI	Generative Artificial Intelligence
HRIA	Human Rights Impact Assessment
ICCPR	International Covenant on Civil and Political Rights
LLMs	Large Language Models
MOITT	Ministry of Information Technology & Telecom
NLP	Natural Language Processing
PECA	Prevention of Electronic Crimes Act
PTA	Pakistan Telecommunication Authority
SMRA	Social Media Protection and Regulatory Authority
TFGBV	Technology-Facilitated Gender-based Violence
VR	Virtual Reality

EXECUTIVE SUMMARY

This policy paper by Digital Rights Foundation examines the impact of emerging technologies, particularly Artificial Intelligence (AI), on the right to freedom of expression in Pakistan through a feminist and Global South lens. The paper draws on 11 focus group discussions, 60 survey responses, and 4 expert interviews, to understand the transformations in the digital and media space and their impact on the freedom of expression. The research reveals deep anxieties around privacy (65%), disinformation (63%), and AI-enabled censorship (50%), alongside optimism about accessibility and newsroom efficiency through technology adaption.

Additionally, the paper finds that Pakistan's regulatory landscape remains fragmented and reactive. The National Artificial Intelligence Policy 2025 prioritises innovation and a soft law approach based on an ethics framework, in the absence of hard law or robust safeguards to protect rights such as the right to free speech and privacy. These gaps create a governance vacuum where opaque algorithms dictate speech, amplify bias, and normalise surveillance.

The paper argues for a rights-based, participatory approach to governance of emerging technologies that aims to dismantle structural inequities rather than merely adapting to technological change. The paper identifies 5 guiding principles, solidarity, slowness, participation, intersectionality and human rights, which underpin the recommendations for emerging tech policymaking and governance.



INTRODUCTION: THE INEVITABILITY OF AI



“[A]rtificial intelligence is both embodied and material, made from natural resources, fuel, human labor, infrastructures, logistics, histories, and classifications. AI systems are not autonomous, rational, or able to discern anything without extensive, computationally intensive training with large datasets or predefined rules and rewards. In fact, artificial intelligence as we know it depends entirely on a much wider set of political and social structures. And due to the capital required to build AI at scale and the ways of seeing that it optimizes AI systems are ultimately designed to serve existing dominant interests. In this sense, artificial intelligence is a registry of power” - Kate Crawford.¹

Discussions regarding Artificial Intelligence (AI) and its implications for freedom of expression in Pakistan often oscillate between optimism and alarmism. In a country like Pakistan, where freedom of expression is already a qualified right, discussions on the topic are fraught. During focus group conversations for this paper, a recurring sentiment of fatalism emerged – a resignation to the inevitability of technology. As one participant from Lahore put it simply:

“This discussion is pointless, AI is already here, and we just have to deal with it.”²

A student from Islamabad also spoke to this dilemma:

“As people from a developing country we do not have the luxury to say whether AI is good or bad, we just have to use it otherwise we will fall behind.”³

1 Kate Crawford, *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*, Yale University Press, 2021, p. 8.

2 Male student, online FGD, Punjab, July 7, 2025.

3 Male student, in-person FGD, Islamabad, May 6, 2025.

These participants are not incorrect; AI has well and truly arrived as a fundamental part of people's lives. Many young people Digital Rights Foundation (DRF) spoke to for this paper spoke about chatbots with an air of familiarity often reserved for close friends or confidants. Worrying, however, was the inevitability with which media practitioners, students and researchers saw emerging tech, reflecting a power imbalance between the rapidly expanding tech, whose fate is determined largely by big tech companies located in the Global North, and impacted communities. A common refrain among those who participated in discussions for this paper was that emerging tech, such as AI, and its impact on freedom of expression cannot be reversed, the most we can do is adapt.

This resignation to power imbalance between us and technology is similar to what Elinor Carmi and Panagiota Nakou describe when they conclude that "citizens care about the power asymmetries created by Big-Tech but do not know what to do about it."⁴ Carmi and Nakou argue that the antidote to this imbalance is better digital literacy. This position paper is an exercise in situating prescriptions such as these within a wider understanding of emerging technologies in Pakistan. The paper seeks to approach the existing nascent policy on emerging tech within the context of freedom of expression and technologically induced transformations within media.

This paper recognises that policymaking concerning emerging tech in a country like Pakistan is a contested process. On one hand, there is a tendency towards a copy-paste approach in which policies from other contexts are transplanted onto Pakistan without much thought to the local and legal complexities within the country. Conversely, there is a genuine challenge of attempting to regulate technologies conceptualised, designed and tested elsewhere.⁵ Further, there are thorny questions of how to regulate emerging technologies; whether to adopt a hard law approach versus an ethics-based, soft law one. When faced with these challenges, policymakers in Pakistan tend to default towards facilitating the adoption of emerging tech, rather than regulation. When hard regulation is adopted, it manifests through criminal laws and restrictions on speech, seeking to control rather than regulate. Underneath these decisions lies a techno-solutionist approach within tech policy circles in Pakistan, as well as implicit acceptance of the imbalance of power between the Global South and North – Pakistan's role in the tech policy landscape is thus limited to catching up rather than leading the way.

This approach is a missed opportunity. Pakistan and other countries in the Global South would benefit from leading the way in developing policies and regulatory frameworks grounded in dismantling the power of big tech and digital colonialism. By simply adopting regulatory models from Global North contexts, even when they are attempting to challenge the hegemony of big tech, we take for granted the Western-centered tilt of these technologies. This paper argues for a people-centered approach to emerging tech, one built ground up from the margins. The starting point for policies and regulations needs to be dislodged from the corridors of power in Islamabad, whose priorities are geared towards short-term political wins and macroeconomic growth, to communities and stakeholders at the forefront of exclusions and harms that stem from emerging tech.

4 Elinor Carmi and Panagiota Nakou, "Building data citizenship and learning to resist in the datafied society," *Learning, Media and Technology*, 2025, <https://doi.org/10.1080/17439884.2025.2505553>, p. 1-14.

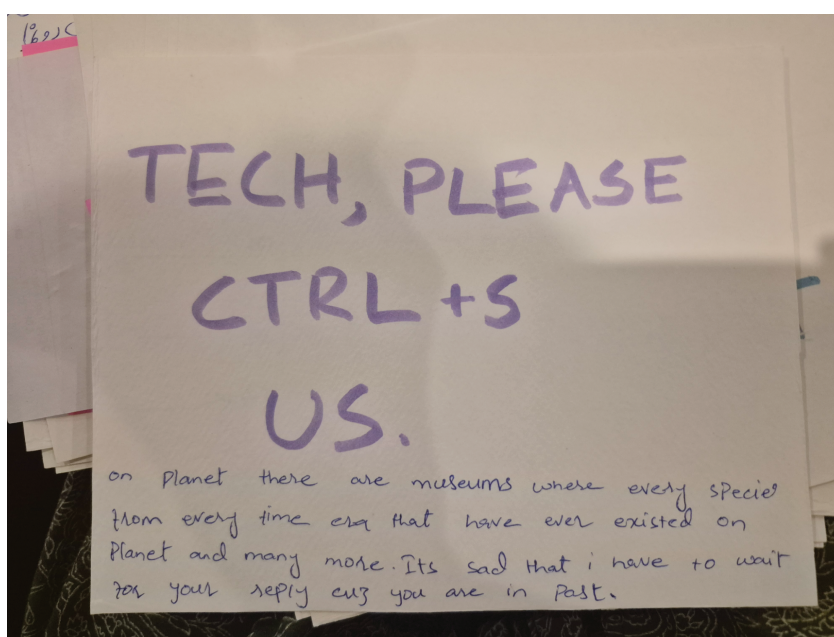
5 Shmyla Khan, "Unpacking AI Governance From the Margins," *Harvard Data Science Review*, *Future Shock: Grappling With the Generative AI Revolution*, May 31, 2024, <https://doi.org/10.1162/99608f92.e6245c19>.

While ethical AI approaches have been mainstreamed in the Pakistani context through the 'National Artificial Intelligence Policy 2025', this paper argues that the current understanding of ethical AI is perfunctory. One glaring omission in the 2025 Policy, for instance, is the complete failure to address the labour that builds AI. Further, serious questions remain regarding the efficacy of policies that lack accountability mechanisms. Additionally, policy after policy in Pakistan has highlighted the need for a data protection framework; however, successive governments have failed to pass a personal data protection law. In the backdrop of an increasingly datafied society, the expansion of the state's surveillance capabilities,⁶ and the emergence of technologies that require vast amounts of training data and sophisticated tech that can be deployed in policing contexts, privacy within Pakistan is more under threat than ever.

Research conducted for this paper echoes these privacy concerns as well as concerns regarding freedom of expression and speech. This paper reveals anxieties around the impact of Generative Artificial Intelligence (GenAI) in transforming both the medium and content of expression, chief among them the acceleration of misinformation and disinformation.⁷ Media practitioners engaged for this research worried about the impact on the information ecosystem, the media industry and journalism.

Ultimately, this position paper grounds these anxieties and the tangible impact of emerging technologies within a human rights and feminist approach to technologies. In doing so, DRF seeks to move beyond individual policy prescriptions to creating technologies and systems that reflect values of equity and justice.

Emerging Futures



This paper also invites policymakers, tech developers, journalists, advocates and users of emerging tech to create different imaginaries of technologies, beyond those handed down to us by big tech. These imaginations serve as the basis for alternative models and systems that reject current ones,

6 Amnesty International, "Pakistan: Shadows of Control: Censorship and mass surveillance in Pakistan", September 9, 2025, <https://www.amnesty.org/en/documents/asa33/0206/2025/en>.

7 Digital Rights Foundation, "Combatting Flood Misinformation in Pakistan: Generative AI and Platform Accountability in the Age of Climate Crisis," 2025, <https://digitalrightsfoundation.pk/wp-content/uploads/2025/09/Combatting-Flood-Misinformation-in-Pakistan.pdf>.

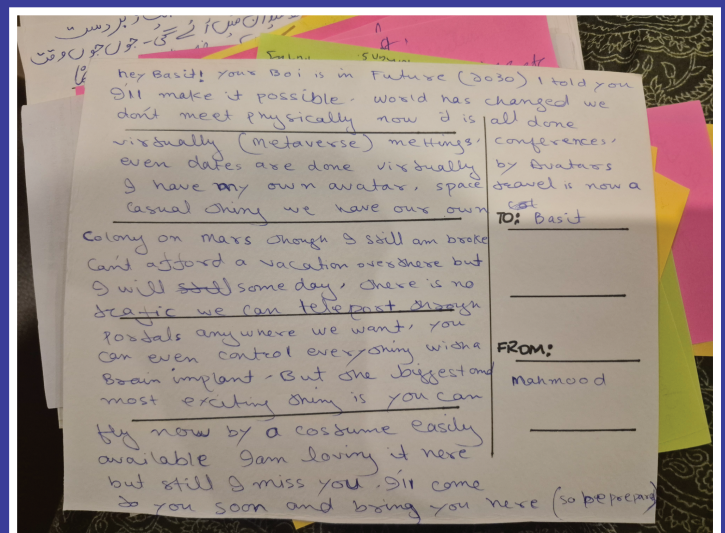
centering profits and priorities of powerful stakeholders. As part of the methodology for this paper, we asked participants to imagine their own technological futures by writing postcards from the future. This was a generative exercise for recommendations and to align them with feminist and Global South approaches that insist that technological futures must be co-created with those most impacted, not dictated by distant corporate or state actors.

It is through this exchange of play and discursive activities that we sought to deploy innovative methodologies to spark discussions that moved beyond the strictures of the status quo. These imaginaries challenge the techno-solutionist assumption that technological futures are linear and predetermined. The exercise was also part of an experiment with methodologies and consultations that the state and companies could adopt for participatory policymaking and to build policies from the bottom-up. Some of these postcards are reproduced below with permission



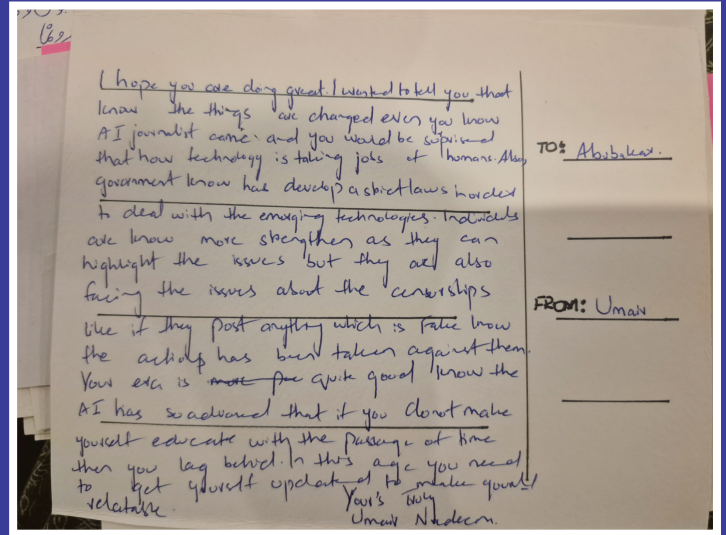
Postcard 1:

Participant in Peshawar imagines a world with space travel and teleporting, but notes that despite these developments, "I still am broke. Can't afford a vacation over here but I will someday."



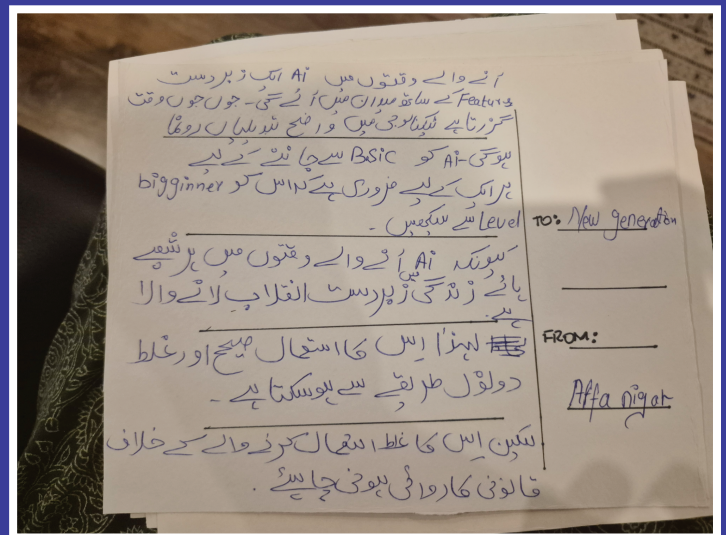
Postcard 2:

Umair writes to his friend in the future, expressing anxieties about job loss for journalists, censorship and strict laws regarding misinformation. He adds, given the breakneck speed of technological change, "if you don't [sic] educate yourself with the passage of time, you lag behind."



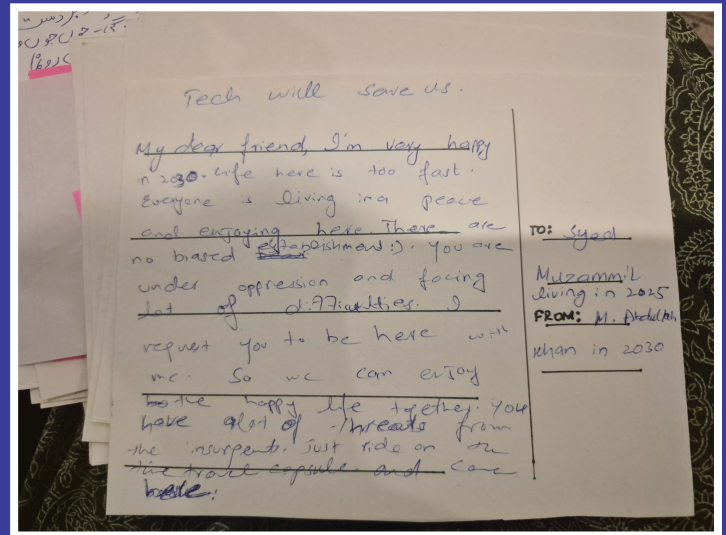
Postcard 3:

Affia advises future generations of the importance of gaining at least basic level knowledge on AI and emerging tech, stating that in the coming times, AI will bring an incredible revolution.



Postcard 4:

Abdullah writes to his friend from the year 2030, a world free from oppression and bias. He urges his friend to come join him through the time travel capsule so he can escape the difficulties he's currently facing.

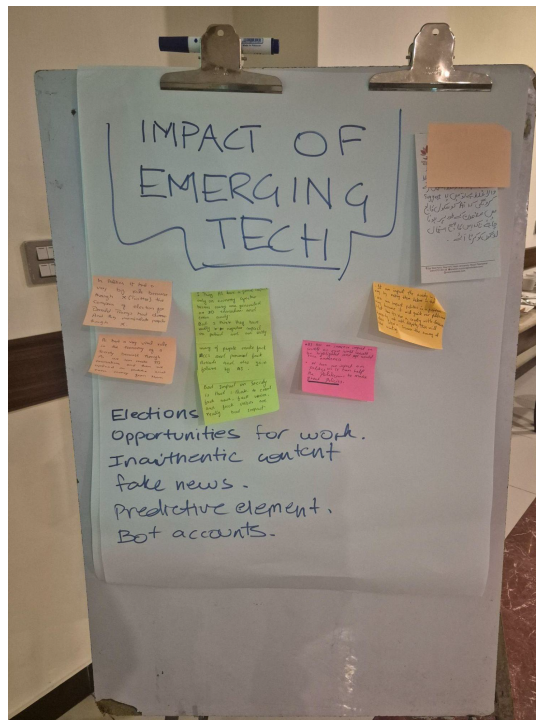


These reflections from participants reveal ambivalence towards emerging tech that encompasses aspirations for a better future and anxieties around job loss and increased censorship. These insights call into question the adaptability approach to policymaking around emerging tech in Pakistan and encourage us to shift to policies and regulations that dismantle structural inequities rather than merely adapt to technologies built on top of these inequalities.

METHODOLOGY



This policy paper takes a qualitative, participatory approach grounded in lived experiences and expert analysis. To move beyond abstract policy prescriptions and center the voices of those most impacted by emerging technologies, DRF conducted 11 Focus Group Discussions (FGDs) across Pakistan between May and August 2025 with 79 participants, alongside 4 in-depth expert interviews to validate findings from the discussions.

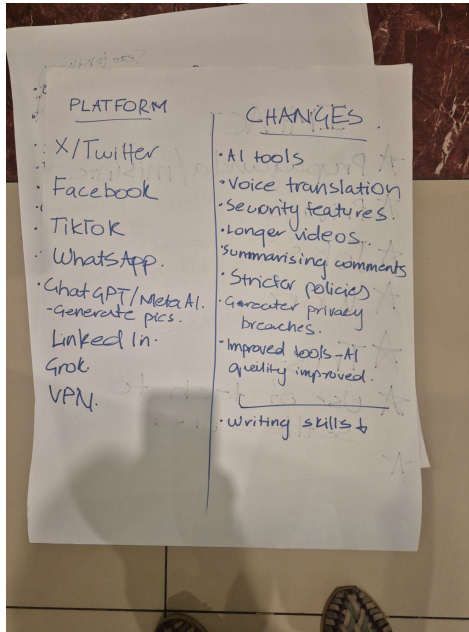


Picture from focus group discussion in Peshawar.

The FGDs allowed participants, consisting of journalists, students, and media practitioners, to articulate concerns and aspirations through collective reflection. The discussion followed a semi-structured guide to collect qualitative data on experiences and perceptions regarding emerging technologies and their impact on online expression. DRF conducted 4 in-person FGDs, 2 each in Peshawar and Islamabad, in the first week of May 2025, however shifted to online discussions for the remaining 7 due to restrictions on air travel and insecurity during that time. To complement these findings, FGD participants were also given the option of participating in voluntary surveys, in which 60 participants provided answers.

Table 1: Breakdown of FGDs

Region	Gender	No. of Participants	Participants	No. of Participants
Islamabad	Female	8	Journalists	7
	Male	8	Students	9
Khyber Pakhtunkhwa	Female	5	Journalists	8
	Male	10	Students	7
Punjab	Female	5	Journalists	6
	Male	5	Students	4
Sindh	Female	2	Journalists	7
	Male	5		
Balochistan	Female	5	Journalists	8
	Male	14	Students	11
Gilgit Baltistan	Female	6	Journalists	7
	Male	6	Students	5
Total				79



Participant-led feedback during focus group discussion in Islamabad.

Table 2: Gender breakdown of FGD participants

Female	26
Male	38

Expert interviews were conducted with educators, policymakers and civil society members to situate the FGD discussions through expert and sector-specific perspectives and provide input on governance gaps in the regulation of technology in Pakistan.

The data collected for this paper was anonymised and collected through explicit and voluntary consent of all participants, who were given the option of withdrawing from the research process as per DRF’s research and data protection guidelines. The data was then analysed using an inductive coding to identify recurring themes and narratives about the relationship between emerging technologies and freedom of expression. All recommendations and observations by participants in the research were analysed against human rights standards and secondary research conducted by DRF.

This methodology is rooted in feminist epistemologies that privilege lived experience and participatory knowledge-making over top-down approaches to generating knowledge. Drawing on standpoint methodologies,⁸ the paper posits that those most impacted by emerging technologies – journalists, students, and marginalized communities – hold critical insights into how freedom of expression is reshaped in digital spaces. By incorporating creative exercises such as postcards to the future, the research aligns with Donna Haraway’s call for situated knowledge, resisting the ‘view from nowhere’ that often characterizes AI discourse.⁹ Further, this participatory approach incorporates decolonial critiques of techno-solutionism, challenging the assumption that technological futures are inevitable and instead centering local communities and context.

8 Sandra Harding, *The science question in feminism*, Cornell University Press, 1986, p. 24.

9 Donna Haraway, “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective,” *Feminist Studies*, Vol. 14, No. 3, 1988), p. 589.

MAPPING EMERGING TECH IN PAKISTAN

Emerging technologies encompass a wide range of tools and systems that are reshaping how freedom of expression is exercised. For this research, discussions overwhelmingly focused on AI, which most participants treated as synonymous with emerging tech. While AI dominated the conversation, other technologies, such as blockchain and decentralized networks, advanced surveillance systems, evolving social media algorithms, and Virtual and Augmented Reality (VR/AR), were also identified as shaping the future information ecosystem.



Table 3: Technologies survey participants were familiar with

Technologies	No. of responses	Percentage (%)
AI	49	81.7%
Chatbots like ChatGPT	45	75%
Algorithms used on social media platforms	26	43.3%
Surveillance technologies	22	36.7%
Facial recognition	21	35%
IoT (Internet of Things)	19	31.7%
Blockchain/cryptocurrency	13	21.7%

Pakistan's approach towards emerging tech remains largely adaptive rather than transformative. The National Artificial Intelligence Policy 2025¹⁰ is focused primarily on capacity building and innovation through pillars such as "AI innovation ecosystem" and "awareness and readiness". The Policy proposes the creation of a litany of institutions, such as the National AI Fund, Centers of Excellence in Artificial Intelligence, National AI Skill development Program, National High-Tech Internship Program and High-Performance Computing centers. In establishing these institutions, the aim is to build an ecosystem that would equip Pakistan to ride the "Fourth Industrial Revolution", embedding a techno-solutionist lens within the country's policy framework casting AI as an unmitigated good while minimising issues of human rights, accountability, and gendered harms. This mapping exercise therefore seeks not only to identify technologies that would impact freedom of expression, but to interrogate the regulatory structure, or lack thereof, governing them.

10 Ministry of Information Technology and Telecommunications, "National Artificial Intelligence Policy," <https://moitt.gov.pk/SiteImage/Misc/-files/National%20AI%20Policy.pdf>.

Technologies in Use

AI in Policing

In October 2025, Sindh police in Karachi reported making their first arrest using Facial Recognition Technology (FRT), reportedly using the vast network of safe city cameras installed in the city. The identification involved “real-time surveillance and automated data analysis”.¹¹ As per information provided by the Sindh police, there are currently 42 facial recognition cameras in the South Zone of Karachi city. Sindh’s Chief Minister, in the same month, gave approval to expand the project by installing over 4,700 additional surveillance cameras in the city.¹² Safe city projects are being implemented across all major cities in Pakistan, supported by a centralised biometric system that has recently incorporated facial recognition and iris scanning technology.¹³ While these technologies have been framed as tools for security, their unregulated deployment raises profound concerns for freedom of expression and privacy.

The national police have established Smart Policing Unit (SPU)¹⁴ which encourages the use of technology-driven policing. In Punjab, Rs1.2 billion have been earmarked for the financial year 2025-26 to support the installation of “high-resolution cameras and AI-based threat detection tools.”¹⁵ Plans to introduce “drone policing” have been approved in Punjab¹⁶ and Islamabad.¹⁷ In 2023, the Punjab Information Technology Board (PITB) stated that it had launched an AI-powered Face Trace System (FTS) to assist the Punjab police. The FTS draws from over 18 million records the driving licenses database, the Crime Record Branch, the Punjab Khidmat Marakaz, and Punjab prisons.¹⁸ Additionally, the Punjab police implemented an AI-driven predictive policing system to “identify potential crime hotspots and forecast patterns of criminal activity before they occur.”¹⁹ PITB initiated an AI-powered Automated Number Plate Recognition (ANPR) System to facilitate “efficient monitoring and identification of vehicles involved in criminal activities.”²⁰ In May 2025, the Islamabad Safe City Authority announced that it will be installing 3200 additional cameras in the capital city, out of which 700 would be “AI-enabled”.²¹ Similarly, in 2023 the Khyber Pakhtunkhwa government revealed that it would install 365 surveillance cameras with facial and vehicle recognition features in Peshawar.²²

11 Naimat Khan, “In a first, police in Pakistan’s Karachi arrest suspect using facial recognition technology”, Arab News, October 21, 2025, <https://www.arabnews.com/node/2619666/pakistan>.

12 “Murad approves expansion of safe city project to Karachi’s DHA, other areas”, Dawn, October 21, 2025, <https://www.dawn.com/news/1950257>.

13 Tehniyat Zafar, “PTA to Enhance Biometric Verification with Facial Recognition and IRIS Technology”, Tech Juice, February 2025, <https://www.techjuice.pk/pta-to-enhance-biometric-verification-with-facial-recognition-and-iris-technology>.

14 National Police Bureau, “Smart Policing Unit (SPU)”, <https://npb.gov.pk/smart-policing-unit-spu>.

15 Muhammad Shahzad, “Rs300 billion set aside for law and order maintenance,” Express Tribune, June 17, 2025, <https://tribune.com.pk/story/2551216/rs300-billion-set-aside-for-law-and-order-maintenance>.

16 “Drone policing in Lahore approved,” Express Tribune, October 25, 2025, <https://tribune.com.pk/story/2574082/drone-policing-in-lahore-approved>.

17 “Islamabad Traffic Police deploys drones to monitor highways, enforce road laws,” Arab News, July 2, 2025, <https://www.arab-news.com/node/2606629/pakistan>.

18 Asif Chaudhry, “Punjab police launch AI-powered system to track criminals”, Dawn, July 26, 2023, <https://www.dawn.com/news/1766810>.

19 Asif Chaudhry, “Lahore Police adopts AI-driven crime prediction system”, Dawn, October 6, 2025, <https://www.dawn.com/news/1946928/la-hore-police-adopts-ai-driven-crime-prediction-system>.

20 PITB, “Punjab Safe City | AI Based Automated Number Plate Recognition (ANPR) System,” March 8, 2024, <https://pitb.gov.pk/node/9902>.

21 Naeem Asghar, “Capital to get AI-powered crime watch,” The Express Tribune, May 23, 2025, <https://tribune.com.pk/story/2547307/capital-to-get-ai-powered-crime-watch>.

22 Umer Farooq, “AI-powered security system installed in Peshawar,” Dawn, June 27, 2023, <https://www.dawn.com/news/1761968>.

All these projects are employing automated systems without a publicly available risk assessment or due diligence regarding their impact on people’s human rights, both in accordance with Pakistan’s Constitution and international standards. These technologies, often introduced under the banner of ‘smart policing,’ lack transparency and independent oversight, creating a governance vacuum where algorithmic decisions can silence dissent and normalise mass surveillance. Research across the world has shown that predictive policing and the use of FRTs in policing functions has resulted in concerns,²³ “including the possibility of erroneous identification of individuals and disproportionate impacts on members of certain groups.”²⁴ Global evidence shows that predictive policing and FRTs have been used to target protesters and suppress dissent in contexts such as Hong Kong,²⁵ creating a chilling effect on civic space and peaceful assembly.²⁶ The deployment of these systems in public spaces, often sites of protests and assemblies, risks deterring participation and resulting in the targeting of individuals.²⁷

There is no public disclosure from state institutions regarding the acquisition of this tech and the safeguards in place, if any, to prevent abuses. This opacity extends to private actors developing security solutions using AI. These solutions have the potential to be used in workplaces, housing societies and marketplaces, to name a few, and is a technology sector that remains completely unregulated.

AI in Judiciary

The potential integration of AI in judicial systems has become a conversation within Pakistan with significant implications for access to justice and the right to fair trial. In 2025, in a judgement, *Ishfaq Ahmed v Mushtaq Ahmed*,²⁸ the Supreme Court acknowledged the potential of AI to alleviate systemic delays and improve efficiency in overburdened courts. The judgment emphasized that AI tools, such as Judge-GPT, developed for Pakistan’s district judiciary, can assist in legal research, drafting, and case management, provided their use remains “grounded in principled constitutional limits” under Articles 10A and 37(d) of the Constitution, which guarantee fair trial and expeditious justice. In the same year, Chief Justice of Pakistan Yahya Afridi announced plans to integrate AI into the judicial system to improve the performance of courts.²⁹

Use of automated decision-making in judicial contexts raises several concerns. This use of AI has been characterized as “high risk” under the European Union’s AI Act:

“(a) AI systems intended to be used by a judicial authority or on their behalf to assist a judicial authority in researching and interpreting facts and the law and in applying the law to a concrete set of facts, or to be used in a similar way in alternative dispute resolution;”³⁰

23 “Automating Injustice: The use of Artificial Intelligence & automated decision-making systems in criminal justice in Europe,” Fair Trials, 2021, https://www.fairtrials.org/app/uploads/2021/11/Automating_Injustice.pdf.

24 “The right to privacy in the digital age,” Report of the United Nations High Commissioner for Human Rights, A/HRC/48/31, September 13, 2021, para. 26.

25 “Biometric data becomes new weapon in Hong Kong protests,” PBS News, July 27, 2019, <https://www.pbs.org/newshour/show/biometric-data-becomes-new-weapon-in-hong-kong-protests>.

26 Giulia Gabrielli, “The Use of Facial Recognition Technologies in the Context of Peaceful Protest: The Risk of Mass Surveillance Practices and the Implications for the Protection of Human Rights,” *European Journal of Risk Regulation*, May 15, 2025, <https://www.cambridge.org/core/journals/european-journal-of-risk-regulation/article/use-of-facial-recognition-technologies-in-the-context-of-peaceful-protest-the-risk-of-mass-surveillance-practices-and-the-implications-for-the-protection-of-human-rights/A4B2FABA8F32DDBC0217C86837CDBAC6>.

27 “The right to privacy in the digital age,” Report of the Office of the United Nations High Commissioner for Human Rights, A/HRC/51/17, August 4, 2022, para. 33.

28 *Ishfaq Ahmed v. Mushtaq Ahmed*, Supreme Court of Pakistan, C.P.L.A. No. 1010-L/2022, March 13, 2025.

29 Hassan Ali Khan, “Pakistan’s top judge pushes for AI integration in courts, stresses need for ethical safeguards,” *Arab News*, July 25, 2025, <https://www.arabnews.com/node/2609417/pakistan>.

30 European Union Artificial Intelligence Act, Annex III: High-Risk AI Systems Referred to in Article 6(2), Point 8(a).

Recital 61 of the Act further elaborates:

“The use of AI tools can support the decision-making power of judges or judicial independence, but should not replace it: the final decision-making must remain a human-driven activity. The classification of AI systems as high-risk should not, however, extend to AI systems intended for purely ancillary administrative activities that do not affect the actual administration of justice in individual cases, such as anonymisation or pseudonymisation of judicial decisions, documents or data, communication between personnel, administrative tasks.”³¹

The ‘UNESCO Guidelines for the Use of AI Systems in Courts and Tribunals’³² outlines 15 principles³³ for the development, acquisition, adoption, deployment and use of AI systems by the judiciary. In a context like Pakistan, the deployment of AI requires careful consideration regarding the unique ways marginalised communities in the country will be impacted by it and the particular biases displayed by AI systems. AI systems trained on historical judicial data risk replicating gender and class biases, reinforcing systemic discrimination. Given the high stakes involved with judicial decisions, with implications for the right to life, liberty and other fundamental freedoms such as the right to freedom of speech, deployment of AI without proper risk assessment and research would be extremely risky. The judgment itself warns against “automation bias” and affirms that AI must never replace human adjudication, which requires empathy, contextual reasoning, and moral judgment.

The use of GenAI tools in judicial workflows, as noted in the judgment, also introduces risks of “hallucinations”, fabricated citations or inaccurate legal reasoning, which can compromise due process. Without robust oversight, explainability mechanisms and avenues for contesting AI-generated inputs, litigants may face opaque decisions that undermine trust in the justice system. These risks are amplified for marginalised groups who already encounter barriers to accessing justice and may lack the resources to challenge algorithmic errors. The Supreme Court has cautioned that “the courtroom is not a site for algorithmic governance but a space for reasoned, principled deliberation.”³⁴ Any AI deployment in judicial contexts must comply with international standards guaranteeing equality before courts and the right to a fair trial, particularly considering Pakistan’s international human rights obligations under Article 14 of the International Covenant on Civil and Political Rights (ICCPR).

31 European Union Artificial Intelligence Act, Recital 61.

32 UNESCO, “Draft Guidelines for the Use of AI Systems in Courts and Tribunals,” May 2025, CI/DIT/2025/GL/01, https://unesdoc.unesco.org/in/documentViewer.xhtml-?v=2.1.196&id=p::usmarcdef_0000393682&file=/in/rest/annotationSVC/DownloadWatermarkedAttachment/attach_import_01589178-af0b-4dc5-8cf2-e228f5b75b18%3F_%3D393682eng.pdf&locale=en&multi=true&ark=/ark:/48223/pf0000393682/PDF/393682eng.pdf#%5B%7B%22num%22%3A100%2C%22gen%22%3A0%7D%2C%7B%22name%22%3A%22XYZ%22%7D%2C82%2C648%2C0%5D.

33 1. Protection of human rights; 2. Proportionality; 3. Feasibility of benefits; 4. Safety; 5. Information security; 6. Accuracy and reliability; 7. Explainability; 8. Auditability; 9. Transparent and open justice; 10. Awareness and informed use; 11. Responsibility; 12. Accountability and contestability; 13. Human oversight and decision-making; 14. Human-centric and participatory design; 15. Multi-stakeholder governance and collaboration.

34 *Ishfaq Ahmed v. Mushtaq Ahmed*, para. 13.

Newsrooms

AI is increasingly being used within newsrooms and by journalists worldwide, reshaping how news is gathered, produced and distributed. Globally, newsrooms are employing AI for tasks such as automated news writing, data analysis, content personalisation, fact-checking and news distribution and moderation.³⁵ Focus groups done by DRF also revealed that journalists were using GenAI tools like ChatGPT, DALL-E, and Midjourney as part of workflows for headline generation, translation and multimedia content creation. A study by IRADA of Pakistani newsrooms found that over 84% of the 39 surveyed outlets reported using some form of AI, however the integration was analysed to be “narrow.”³⁶

Initiatives such as Sahafat.AI by Media Matters for Democracy signal a growing interest in AI-driven newsroom transformation. This program aims to integrate AI into editorial workflows for research, verification, trend monitoring and audience engagement, while emphasizing ethical and context-specific adoption.³⁷ Major media houses have begun experimenting with AI for content evaluation and productivity enhancement.³⁸

AI adoption in newsrooms could have far-reaching repercussions for media as an industry and freedom of expression at large. Blind adoption of AI, without corresponding safeguards and redlines for when AI use is prohibited, could undermine trust in the media and the place it has in society. IRADA in its study found that only 12 of the newsrooms it surveyed had formal editorial policies on AI use.³⁹ Later sections in this paper elaborate on experiences shared by journalists who participated in this research; however, it is worth highlighting that while newsrooms are embracing AI tools, preparedness and strategic plans remain few and far between.⁴⁰



35 Hannes Cools and Nicholas Diakopoulos, “Uses of Generative AI in the Newsroom: Mapping Journalists’ Perceptions of Perils and Possibilities,” *Journalism Practice*, August 26, 2024, 10.1080/17512786.2024.2394558.

36 Institute for Research Advocacy and Development (IRADA), “AI & Public Interest Journalism: Mapping Readiness of Pakistani Independent Digital Newsrooms,” 2025, <https://www.iradapk.org/wp-content/uploads/2025/07/AI-Public-Interest-Journalism.pdf>.

37 “Media Matters for Democracy Launches ‘Sahafat.AI’ — A Groundbreaking Initiative to Integrate Artificial Intelligence in Pakistani Newsrooms,” MMfD, June 30, 2025, <https://mediamatters.pk/media-matters-for-democracy-launches-sahafat-ai-a-groundbreaking-initiative-to-integrate-artificial-intelligence-in-pakistani-newsrooms>.

38 Zameer Ahmed and Maqsood Ahmad Shaheen, “Artificial Intelligence (Ai) In Pakistani Newsrooms: Examining the Adoption and Impact of Artificial Intelligence in Dawn, Jang, and Express Newspapers,” *Journal of Peace, Development and Communication*, 8(2), June 20, 2024, p. 231-242, <https://doi.org/10.36968/JPDC-V08-I02-17>.

39 IRADA, “AI & Public Interest Journalism.”

40 IRADA, “AI & Public Interest Journalism,” p. 3.

Legal and Policy Overview

Pakistan's regulatory approach to emerging technologies is scant and fragmented. While the National Artificial Intelligence Policy 2025 emphasizes innovation and capacity building, critical omissions include enforceable safeguards for privacy, transparency in algorithmic decision-making and gender-sensitive provisions. Existing laws such as the Prevention of Electronic Crimes Act, 2016 (PECA) enable arbitrary content control, while the long-delayed Personal Data Protection Bill remains inadequate to address AI-driven profiling and surveillance. These gaps create a regulatory vacuum where emerging technologies can be deployed without meaningful oversight, amplifying risks to freedom of expression.

Pakistan's National AI Policy received approval from the federal cabinet on July 29, 2025.⁴¹ The policy has been analysed by DRF in a separate document,⁴² raising concerns regarding its lack of consultative process and absence of robust data privacy frameworks. Allusions to human rights safeguards in the Policy are limited, however the second pillar, dealing with awareness and readiness, does make multiple references to AI ethics, including a recommendation for the establishment of an AI ethics board. The focus on an ethics framework, in opposition to a binding accountability framework, bypasses questions of binding safeguards for the use and deployment of AI. The Policy also sidesteps the thorny debate of whether to adopt a binding framework, in fact it makes no mention of the proposed Regulation of Artificial Intelligence Bill, 2024.⁴³ The Bill itself, remains a draft with no roadmap for public consultations, lacks a clear risk-based classification,⁴⁴ requirements for human rights risk assessments and "a mechanism for public accountability and transparency over the development and deployment of AI".⁴⁵ The Bill also fails to adopt an intersectional lens, completely leaving out gender-sensitive provisions despite evidence that women and marginalised communities face disproportionate risks from AI-driven surveillance and online content regulation. DRF has previously noted that the Bill fails to "address the critical use of managing risk posed by synthetic content, one of the most alarming dangers associated with the use of AI."⁴⁶

The exclusive focus on ethics has been described as "myopic and can amount to "ethics-washing" as opposed to changing the structural imbalances that result in AI-driven harms.⁴⁷ Many have argued that self-regulating ethics frameworks can "allow companies to choose how to deploy technologies and, by extension, to decide what ethical AI means for the rest of the world."⁴⁸ This is particularly true for countries like Pakistan who have very little say in shaping the global ethics conversation around AI. More radical approaches to prescribe that we "focus less on ethics and more on power",⁴⁹ a theme that will be explored more in the recommendations section of this paper.

41 "Federal cabinet approves National AI Policy 2025," Dawn, July 30, 2025, <https://www.dawn.com/news/1927634>.

42 Digital Rights Foundation, "National Artificial Intelligence Policy 2025: Analysis by Digital Rights Foundation," August 2025, <https://digitalrightsfoundation.pk/wp-content/uploads/2025/08/DRF-Analyses-Pakistans-National-AI-Policy-2025-1.pdf>.

43 Regulation of Artificial Intelligence Bill, 2024, introduced September 9, 2024, https://senate.gov.pk/uploads/documents/1725968951_269.pdf.

44 Digital Rights Foundation, "Legal analysis of the "Regulation of Artificial Intelligence Act, 2024 (Bill) in light of international standards," September 2024, <https://digitalrightsfoundation.pk/wp-content/uploads/2024/09/Legal-Analysis-of-the-Regulation-of-Artificial-Intelligence-Act-2024-Bill.pdf>.

45 Amnesty International, "Pakistan: Amnesty International recommendations for rights-respecting Artificial Intelligence and Digital Nation Acts," February 9, 2025, <https://www.amnesty.org/en/documents/asa33/9244/2025/en>.

46 Digital Rights Foundation, "Legal analysis of the "Regulation of Artificial Intelligence Act, 2024 (Bill)," p.4.

47 Warmhold Jan Thomas Mollema, "Decolonial AI as Disenclosure," Open Journal of Social Sciences, Vol.12 No.2, February 2024, <https://www.scirp.org/journal/paperinformation?paperid=131479>.

48 Kate Crawford, Atlas of AI, p. 224.

49 Kate Crawford, Atlas of AI, p. 224.

The AI Policy is also silent on issues related to the quality of data. Many issues with Large Language Models (LLMs) and their lack of accuracy and cultural salience in non-Western contexts often boils down to a lack of training data relating to different contexts in the Global South. As AI is deployed in the media and increasingly determines how we access information, the question of local training data is inevitable. This creates a tension between the imperative to have diverse datasets against competing concerns around data privacy, intellectual property and consent. The AI Policy calls for updating of the intellectual property law framework in light of automated frameworks; however, these require a larger consultative intervention given the possibility of existing centralised datasets being fed into AI systems. At the end of the day, the Policy is a guiding document and has limited impact on how AI is used and regulated in Pakistan until more binding legislation is enacted.

The Digital Nation Pakistan Act, 2025⁵⁰ (DNPA) was also recently passed to provide a legal framework for digitisation in Pakistan. The Pakistan Digital Authority established under the Act has been tasked with carrying out “oversight, set standards, enforce compliance, and establish any necessary framework and processes” for different aspects of digitisation, including AI.⁵¹ Since the passage of the Act, the Authority has not been established, nor have any standards or framework related to it. The plans set out in the DNPA, however, have substantial implications for human rights and access to resources in the country. It seeks to entrench technology and digital transformations for “key sectors”, which include “health, social protection, education, agriculture, finance, industries, trade, commerce and governance.”⁵² The AI Policy also mentions readiness for AI adoption in priority areas which include education, healthcare, “governance through policing, equal access to justice and information, disaster management, quick decision making in ministries and among civil servants, guidelines for legislation and policymaking, ensuring rule of law.”⁵³ These plans raise issues with regards to the higher risk associated with the deployment of AI in these areas. Without enforceable safeguards, these frameworks enable unchecked use of AI in policing and content moderation, amplifying risks of censorship and silencing dissent.

DRF has previously noted in its analysis of the DNPA that “the proposal of a centralised digital infrastructure amid multiple incidents of massive data breaches and the absence of a data protection framework raises serious concerns around the government's capability to effectively manage data security of a centralised infrastructure.”⁵⁴ This points to a larger theme in law and policy making regarding technologies in Pakistan, in which rights-based laws and safeguards are deprioritised and chronically delayed, while laws for the expansion of digital control and surveillance infrastructure are bulldozed through with regularity. Ever since the first draft of the data protection law was made public, over 5 years ago, it has been repeatedly delayed, but in the meanwhile prolific legislating has taken place when it comes to technologies. Policies, on the other hand, will make superficial references to ethics and data privacy standards in the absence of any substantial steps to ensure enforceable safeguards or oversight mechanisms.

50 Digital Nation Pakistan Act, 2025, ACT NO.1 OF 2025, January 29, 2025, <https://pakistancode.gov.pk/english/UY2Fqa-Jw1-apaUY2Fqa-apaUY2Npa5praQ%3D%3D-sg-jjjjjjjjjjjj>.

51 Digital Nation Pakistan Act, Section 8(g).

52 Digital Nation Pakistan Act, Section 11(3)(b).

53 National Artificial Intelligence Policy, p. 12.

54 Digital Rights Foundation, “Digital Nation Pakistan Bill 2024: DRF Analysis and Recommendations,” January 23, 2025, <https://digitalrights-foundation.pk/digital-nation-pakistan-bill-2024-drf-analysis-and-recommendations>.

As Pakistan uses increasingly sophisticated systems and mechanisms for takedown and blocking of content on the internet, the deployment of these technologies is enabled by laws such as PECA which provide vague and broad criteria regarding removal of unlawful content. The recently passed Prevention of Electronic Crimes (Amendment) Act, 2025 further expanded these powers with Section 2R which introduces new categories of 'unlawful' and 'offensive' online content.⁵⁵ It also authorizes the Social Media Protection and Regulatory Authority (SMRA) to block and remove content. At present, the Pakistan Telecommunication Authority (PTA) continues to perform these functions without much clarity on how these filtering systems are operating, and whether automated filtering and AI are being used in these. PECA completely fails to consider accountability and oversight for automated technologies deployed in content removal.

Any AI governance framework must align with established international human rights standards and best practices, particularly those safeguarding freedom of expression. The UNESCO Recommendation on the Ethics of Artificial Intelligence, 2021,⁵⁶ adopted by all 193 Member States, provides the first global normative instrument on AI ethics. It emphasizes human rights, transparency, fairness and human oversight as foundational principles to be implemented throughout the AI lifecycle. Similarly, the UN Special Rapporteur on Freedom of Opinion and Expression has stated that AI systems, whether used by states or private actors, must comply with international human rights law.⁵⁷

These are incredibly complex questions and require considered and thoughtful policymaking. Oversight and compliance with ethics or human rights frameworks is often seen as a box to be checked, rather than the center of policymaking. The parochial approach adopted to these issues means that human rights are just a throwaway line in a policy document that otherwise lacks effective mechanisms to empower users and the population at large. Oversight is outsourced to bodies that are ill-equipped to perform those functions, given a lack of expertise or resources, or lack the independence to do so. Governance is thus rendered as a technical and bureaucratic exercise, rather than a transformational one.

Another aspect of policymaking around emerging tech has been the lack of meaningful consultation. When consultations do take place, input from human rights organisations are largely ignored. Consultative processes too need to embody principles of participation, accountability and transparency. Bodies tasked with consultation must be accountable to civil society and provide reasons for why some recommendations are included and others are discarded.

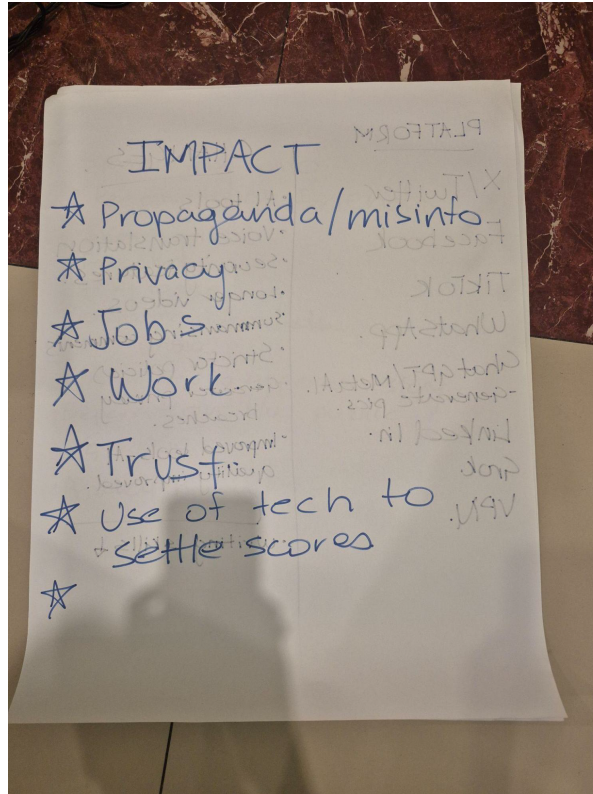
Lastly, policymaking around AI has largely failed to deal with the question of foreign companies supplying AI tools. Previous approaches to foreign tech companies, particularly social media companies, have been based on flawed strategies of asserting legal control over companies by requiring them to register inside Pakistan. The strategy has largely failed and has not been driven by a genuine desire to ensure human rights-driven accountability. It is important not to adopt the same strategy towards AI companies, rather for Pakistan to work with local civil society and international human rights organisations to ensure accountability and transparency from these opaque systems.

55 Human Rights Commission of Pakistan, "Prevention of Electronic Crimes (Amendment) Act 2025," Legislation Watch Cell, 2025, <https://hrcp-web.org/hrpweb/wp-content/uploads/2020/09/2025-LWC10-PECA-Amendment-Act-2025.pdf>.

56 UNESCO, "Recommendation on the Ethics of Artificial Intelligence," May 16, 2023, <https://www.unesco.org/en/articles/recommendation-ethics-artificial-intelligence>.

57 Special Rapporteur on freedom of opinion and expression, "Report on Artificial Intelligence technologies and implications for freedom of expression and the information environment," A/73/348, August 29, 2018, <https://www.ohchr.org/en/calls-for-input/report-artificial-intelligence-technologies-and-implications-freedom-expression-and>.

ASSESSING IMPACT FROM BELOW



Picture from mapping exercise with focus group participants in Peshawar.

As the previous section outlines, the potential of emerging technologies to impact the right to freedom of expression and other related rights is immense. This section draws on the research DRF conducted for this paper, speaking largely to journalists and students across Pakistan. A survey of 60 participants highlighted topline concerns related to emerging tech which included the loss of privacy (65%), disinformation (63%) and AI-enabled censorship (50%).

Table 4: Concerns regarding emerging tech from survey participants

Concerns/Issues	No. of responses	Percentage (%)
Loss of privacy	39	65%
Disinformation/Misinformation	38	63.3%
AI-enabled censorship	30	50%
Job losses	25	41.7%
Algorithmic bias/discrimination	24	40%
Silencing dissenting voices	22	36.7%
State or corporate surveillance	16	26.7%

During focus group discussions, students from Peshawar and Balochistan highlighted concerns regarding the data voluntarily being shared with AI chatbots:

“One of my biggest concerns these days is that a lot of people are using ChatGPT for therapy. What if the personal details we share are then used later to show we are mentally unstable? I worry about that information being weaponised against me.”⁵⁸

“I use tools for transcribing audio, and I am not sure what the privacy implications for using that tool is. Where does all the voice data go? AI is making our data and privacy even more vulnerable than before.”⁵⁹

Despite the right to privacy being guaranteed in the Constitution of Pakistan, under Article 14, the right has been repeatedly undermined through government practices normalising monitoring and surveillance⁶⁰ as well as a lack of efforts by the state to operationalise this right. The failure to pass a human rights compliant data protection law is the most glaring example, and this will remain a concern with the rise of intrusive technologies which not only allow for increased data collected, both at an individual level and at scale, but also enhance the ability of the state and private actors to process that data to make decisions which have implications for the average Pakistani. Pakistan has also taken direct measures to undermine the right to privacy such as orders to register all usage of VPNs.⁶¹

The lack of privacy safeguards is even more worrying in the context of tech companies increasingly amenable to sharing data with governments. As pointed out by the student from Balochistan quoted earlier, private companies operating chatbots such as ChatGPT have publicly stated that they will comply with government requests for private information shared with these tools.⁶² The absence of legal protections for privacy creates a legal void where unfettered data sharing is a very real possibility without any recourse for the rights of individual users. Given the human-like interface of AI tools, an argument could be made that users are much more vulnerable to sharing private information they wouldn't otherwise. Privacy rights have a knock-on effect on other rights such as freedom of expression and right to peaceful assembly, and have implications for the right to non-discrimination as violations to privacy often impact at-risk groups, such as human rights defenders and journalists, and marginalised communities the most.

58 Woman, in-person FGD, Peshawar, May 5, 2025.

59 Male student, online FGD, Balochistan, August 2, 2025.

60 Zaki Abbas, “The surveillance system keeping tabs on millions,” Dawn, July 2, 2024, <https://www.dawn.com/news/1843299>.

61 Zaheer Ali Khan, “After VPN registration, PTA to have access to user data, browsing history,” Samaa, December 25, 2024, <https://www.samaa.tv/2087326178-after-vpn-registration-pta-to-have-access-to-user-data-browsing-history>.

62 Sarah Perez, “Sam Altman warns there's no legal confidentiality when using ChatGPT as a therapist,” TechCrunch, July 25, 2025, <https://techcrunch.com/2025/07/25/sam-altman-warns-theres-no-legal-confidentiality-when-using-chatgpt-as-a-therapist>.

Inaccuracies and lack of diversity

Misinformation, disinformation and malinformation remain a big concern throughout the research for this paper, cited as a challenge by 63% of survey respondents. A participant from Peshawar noted that AI-generated videos were a big driver behind the violence and tensions in Kurram, a conflict that has resulted in hundreds of deaths: ⁶³ “AI-generated videos are being used in the Shia-Sunni conflict in Kurram. People use it to settle scores.”⁶⁴



The rise of GenAI has enabled the creation of increasingly realistic synthetic media, blurring the line between truth and fabrication. In addition to this, closed-source algorithms are now at the helm of news and information distribution, controlling flows of information – determining what content is amplified or suppressed in digital spaces. This has resulted in an environment where AI is dictating the content, how it is generated and the ways in which it is disseminated and consumed. Opaque systems dictate what speech is amplified, no longer mediated by human editorial judgment but by the logics of algorithms. For Pakistan, where regulatory frameworks already enable expansive state control, the convergence of AI-driven content generation and algorithmic curation risks further weakening of the right to freedom of expression.⁶⁵

While AI has greatly enhanced the ability of bad actors to produce disinformation at scale, it is worth pointing out that during FGDs some participants stated that inaccuracies in GenAI stemmed not from intentional manipulation but from the lack of diversity in training data. A journalist from Gilgit-Baltistan pointed out:

“I find the utility of AI as a research tool to be exaggerated. In my experience, datasets that AI draws from are often incomplete when it comes to local issues. As a journalist covering issues in marginalised areas, we have to dig up data on our own because it is simply not there for AI to draw on.”⁶⁶

Historically marginalised subjects and communities are more likely to be undocumented and less likely to be represented in digital datasets, resulting in under-representation and automated biases. Given the increasing use of AI in research and generating speech, this under-representation has real implications for erasing local realities and traditionally marginalised voices. This aspect of AI bias and its effect on minorities was highlighted in a recent report by the UN Special Rapporteur in the field of cultural rights:

63 Javid Hussain, “100 days of solitude: Hunger, strife and despair in Parachinar,” Dawn, January 15, 2025, <https://www.dawn.com/news/1884905>.

64 Male journalist, in-person FGD, Peshawar, May 5, 2025.

65 Special Rapporteur on the rights to freedom of peaceful assembly and of association, “Rights to freedom of peaceful assembly and of association,” May 17, 2019, A/HRC/41/41, para. 60.

66 Male journalist, online FGD, Gilgit-Baltistan, July 13, 2025.

“The underrepresentation of data from these groups in the training of models results in biased outputs that fail to accurately reflect the identities of these groups. Their cultures, values, knowledge, narratives, aesthetics and diverse artistic expressions are either absent or misrepresented in AI-assisted or AI-generated creations... In sectors or platforms concentrating large volumes of AI-produced works, this leads to the invisibility of works representing these cultures, perpetuating pre-existing inequalities. Underrepresentation can also lead to stereotypical representations, offering folklorized or stigmatizing views of these groups, reinforcing prejudices, disrespecting their cultural identities and harming their dignity”⁶⁷

Some participants called for more diverse and quality data for training datasets; however, these demands also stand in contrast with concerns regarding data privacy also raised during discussions.

Use case of AI in media

While there is scepticism about AI’s impact on the information ecosystem, particularly its role in spreading disinformation, many participants in the study also believed that AI was a useful tool for media, as referenced by the overly positive response to the question in Table 5.

Table 5: Responses to the prompt “AI is a great tool for journalists to learn and employ in their work”

Response	Count	Percentage (%)
Strongly agree	27	45%
Agree	24	40%
Indifferent	8	13.3%
Strongly disagree	1	1.67%

Deployment of AI and emerging tools by media professionals, both inside and outside newsrooms, can have a positive impact. Many pointed out that for independent media creators who often do not have access to a team or institutional support, AI tools can be very useful. One woman journalist from Balochistan noted:

“AI has made it quite easy to run one-person digital media operations because as an independent journalist I cannot afford to hire someone on a fair wage. But I can use AI tools to run my channel. Sometimes I need voice-over artists or video editors, but I’ve discovered AI tools that do that work. It also saves a lot of time as well as money.”⁶⁸

67 UN Special Rapporteur in the field of cultural rights, “The field of cultural rights,” July 30, 2025, A/80/278, para. 35.

68 Woman journalist, online FGD, Balochistan, August 2, 2025.

Another journalist from Punjab shared:

“AI really helps with data journalism. I don’t have a quantitative background, but it has helped me immensely in identifying patterns and present data visually.”⁶⁹

Another journalist from Sindh said that AI has made it easier to bridge language barriers:

“While I can write in English, my expression is not the best. AI has helped me refine my written work and get feedback before I send it to my editor. In some organisations, journalists are encouraged by media houses to use AI to improve the quality of the work.”⁷⁰

The utility of emerging tech in media is undeniable, especially with the rise of GenAI which has allowed many functions along the news cycle to be assisted by these tools. It is important, however, to caveat that the benefits of AI are not felt evenly, as a woman journalist from Gilgit points out:

“Journalists in Gilgit-Baltistan are working with limited resources and are less likely to access AI tools such as ChatGPT because of limited and slow internet access.”⁷¹

One journalist in a focus group discussion in Sindh also pointed out that while the quality of written work generated with assistance from AI has improved in some ways, these practices have the effect of standardizing writing into a uniform “AI style”:

“We cannot be dependent on AI, we need to keep our original writing style. Sure, AI is the future, but we must not let it replace our original work. Nowadays, everything reads the same.”⁷²

69 Woman journalist, online FGD, Punjab, July 7, 2025.

70 Male journalist, online FGD, Sindh, July 12, 2025.

71 Woman student, online FGD, Gilgit-Baltistan, July 13, 2025.

72 Male journalist, online FGD, Sindh, July 12, 2025.

Optimistic dispatches on emerging tech

Survey respondents describe what excites them about emerging tech:

“Bridge gaps in communication, education, and access to information across the world.”

“Can also help journalists in fact-checking, research, and faster content creation, ultimately improving the quality and reach of journalism.”

“My most favourite thing is generative AI. I just need to give prompt to AI, and it will generate whole image or video for me. Further, I can also generate stories, songs, design products and generate thousands of lines of codes.”

“What excites me most about emerging technologies in the context of Gilgit-Baltistan is the potential for improved connectivity and access to information. Imagine high-speed internet reaching remote villages, opening up educational opportunities, and connecting local artisans with global markets. Telemedicine could bring healthcare to those in need, and digital platforms could promote tourism and showcase the region's stunning beauty and unique culture to the world. It's about bridging the gap and empowering the people of Gilgit-Baltistan.”

“Possibilities of AI being able to do things people were unable to do in short time before.”

Other journalists spoke of reluctance within media circles to adapt AI in their work, speaking of a stigma around AI usage. A journalist in Islamabad shared that “there is a lot of shaming regarding the use of AI. Even if you use AI just as an assistant, you are considered to be ‘cheating’.”⁷³

Lack of trust

Furthermore, when asked about the impact on the media and freedom of expression, a majority of respondents (71%) remained ambivalent, choosing the “A bit of both” option. A quarter of the respondents (25%) believed the impact would be positive, whereas a smaller portion (3%) said it would be negative. Overall, participants oscillated between optimism and anxiety, pointing towards an ambivalence in which promises of accessibility coexist with fears of surveillance and harm.

Table 6: Responses to the question “In your opinion, what kind of impact will AI have on media and freedom of expression?”

Response	Count	Percentage (%)
A bit of both	43	71.67%
Positive	15	25%
Negative	2	3.33%

As explored in earlier sections, framing AI as an unmitigated good and harbinger of progress is misplaced. Concerns regarding AI cannot be glossed over with the promise of a supposed economic boon. Policymaking must be responsive to these complex concerns. Most journalists engaged for this research showed an openness to the benefits stemming from AI, while others were legitimately concerned by the impact it would have on their field:

“Most of the audience can't tell if someone has used AI or not. Some people, on the other hand, have started to over-correct. I've seen instances where people have refused to believe something saying that it is AI-generated even when it is not. It's making our job a lot harder.”⁷⁴

A student from Gilgit-Baltistan noted that the usage of AI tools is making some people too credulous of what they see given the lack of digital literacy particularly regarding GenAI:

“People don't know enough about AI to know how much to trust it. I've seen my fellow students and people around me blindly trust AI. They just don't have the tools to think critically regarding the information AI generates.”⁷⁵

74 Male journalist, in-person FGD, Peshawar, May 5, 2025.

75 Male student, online FGD, Gilgit-Baltistan, July 13, 2025.

What worries us about emerging tech

Survey respondents also shared what alarmed them about emerging tech:

“In my opinion, the biggest concern for us is that emerging technologies could deprive us of our ability to think critically, which could negatively impact our research, hard work, and critical thinking.”

“Lack of evidence and fake news.”

“What worries me most is that without proper safeguards and ethical guidelines, emerging technologies can amplify biases, erode privacy, displace jobs, and even be weaponized.”

“I am concerned about the potential for increased digital divides in places like Gilgit-Baltistan. If access to these technologies isn't equitable, it could worsen existing socioeconomic disparities.”

Changing nature of journalism jobs

During focus group discussions, journalists were very realistic about the impact emerging tech would have on journalism. While some believed that “there will always be value for original content that AI cannot replace,”⁷⁶ others believed that some aspects of their jobs would eventually be outsourced to AI. One journalist in Islamabad felt that the role of copy editors was shrinking drastically, especially as LLMs are expected to improve across different languages.



During the discussions, the journalists were given prompts containing video clips of AI anchors delivering the news and all participants overwhelmingly stated that they did not have the same confidence in the AI-generated presenter as they did in human anchors. Given the inaccuracies and frequency of hallucinations regarding facts, journalists felt that at least for now a human has to be in the loop when researching and developing stories. A journalist from Gilgit-Baltistan felt that AI was not equipped to take decisions on journalistic ethics when putting together a story:

“There are a lot of things that journalists and individuals do, like take ethical calls on safety and privacy, which I don't trust AI to do. Like for instance how to report on issues impacting a marginalized community, these are decisions that require contextual and other information that AI might not have, or even if it does it will still go ahead with something if given the prompt, whereas humans can step outside of those parameters and look at news beyond just a series of tasks.”⁷⁷

AI comes at a time when investigative journalism is more important than ever, particularly in the face of online misinformation and disinformation, however, some journalists lamented how GenAI is changing what it means to be a “productive journalist”:

“Even though productivity and output in journalism are increasing [due to AI], [it comes at the cost of] replacing AI-generated content with actual reporting and experiences. You cannot compare someone who has gone into the field and seen things with AI that is generating an article based on pre-existing data.”⁷⁸

These views were echoed by a journalist from Gilgit, who felt that AI had created unrealistic expectations regarding the speed at which journalists were now expected to work:

“Less and less importance is now given to investigative journalism because newsrooms think AI can give you quick results.”⁷⁹

AI-assisted work was also raising uncomfortable questions regarding authorship of news and who to hold accountable in case of errors:

“I have problems with people presenting AI's work as their own. This can be a huge issue especially if there are errors in that work and we go back to that person, who do we hold accountable? The person who used the AI or the people who made the AI?”⁸⁰

While jobs in journalism are changing due to AI, most people felt that both journalists and the public at large were not adequately equipped to deal with those transformations. Further, journalists opined that apart from a handful of media organisations, many were neither developing systems to deal with AI nor providing their workers with resources to adapt to these changes:

77 Male journalist, online FGD, Gilgit-Baltistan, July 13, 2025.

78 Male journalist, online FGD, Sindh, July 12, 2025.

79 Woman journalist and student, online FGD, Gilgit-Baltistan, July 13, 2025.

80 Male student, online FGD, Balochistan, August 2, 2025.

“Media houses are not having conversations about AI, and if someone is independently using AI, there are no checks and balances – neither is it encouraged nor discouraged.”⁸¹

Journalists, by and large, have been left to their own devices, with some feeling completely “unprepared”⁸² when it comes to tackling AI as a tool for work and in dealing with an information ecosystem flooded by AI-generated content. Tasks such as fact-checking have become more challenging because of the proliferation of GenAI content and very few journalists said they were given trainings or resources to deal with these changes:

“We should think about how we develop skills and resources to teach journalists to use AI to tackle mis/mal/disinformation. For example, there are AI tools that can tell you how many people are in a crowd which can be used by journalists covering protests.”⁸³

81 Female journalist, online FGD, Punjab, July 7, 2025.

82 Woman journalist, in-person FGD, Islamabad, May 6, 2025.

83 Woman journalist, in-person FGD, Islamabad, May 6, 2025.

Suggestions from journalists

Many of the journalists DRF spoke to for this paper had very clear ideas about what institutions, particularly media organisations and educational spaces, could be doing to ensure that journalists in Pakistan are better prepared for changes related to emerging tech. Below are a few suggestions coming from journalists themselves:

“It is important that media organisations start using paid versions of AI to ensure security and safety of data.”

“Media organisations are not prepared, and awareness sessions are limited with the same people coming to the same workshops, we need to ensure all journalists, especially field and string reporters are trained as well.”

“Editors should be trained to spot AI. We cannot burden the general public as much, given that public education is very big task, it is our responsibility.”

“Editors and heads of media organisations need to keep an open mind.”

“We need greater cooperation between NGOs and academia so that journalists are up to date on trends emerging in the field.”

“AI and emerging tech must be added to the journalism and media studies curriculum through the HEC [Higher Education Commission].”

“Train not just desk journalists but also reporters. They must be engaged through press clubs.”

“Civil society is working on [capacity building] but given the scale of the problem and how rapidly it is spreading the volume of these trainings is not enough and needs to be scaled up through the state or public-private partnerships.”

“AI and robotics need to be integrated into school curriculum not just at the university-level, but for younger groups as well because these students are using these tools well before they come to university.”

Intersectional impact

Repeated research and experiences have shown that the impact of emerging technologies is felt along intersectional lines – risks and benefits are not evenly distributed. Marginalised communities face heightened vulnerability to technology-facilitated violence and algorithmic bias. Technology Facilitated Gender-based Violence (TFGBV) has been an endemic issue in digital spaces, however, the proliferation of tools that can create deepfakes and other synthetic content has meant that women, transgender and gender-diverse individuals are being targeted in new ways now. AI-generated TFGBV has been used to target women in media and people in public positions but also women who have no online presence. A student from Swat shared that women in her hometown had experienced TFGBV through deepfakes:

“In under-served communities like the area I come from, Swat, there is no awareness on how to use and how to not. Sometimes fake of women are circulated, some of these women aren’t even online but are targeted. Deepfakes are a big issue where you can use someone’s face against them.”⁸⁴

A male journalist from Gilgit-Baltistan shared about a case where an AI-generated image of a female politician was widely circulated and weaponised by the political opposition to defame her. According to him, eventually, the case was reported to law enforcement and the person who made the image was arrested but reputational damage to the politician had already been caused, “Many people who saw the original image did not come across the news that it was fake, and it continues to harm her reputation.”⁸⁵ A woman journalist in the same focus group wondered out loud what can be done about AI-fuelled TFGBV:

“There must be a balance in terms of women’s privacy, which must be protected, and misuse of regulation. Right now, law enforcement is very reluctant to move in cases relating to AI-generated content of women unless the person is important. On the other hand, I understand these laws are misused as fake news laws to clamp down on speech.”⁸⁶

In addition to gender, AI-related harms can also fall along lines of class, caste, race and ethnicity. In a report by the UN Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance it was noted that:

“The spread of disinformation is another way in which artificial intelligence can be used for explicitly racist purposes. Political actors can use artificial intelligence to generate texts, images and videos to manipulate public opinion and political processes in their favour and undermine trust in institutions, including along racial lines. Governments are also reported to have used artificial intelligence to sow discord and facilitate online censorship.”⁸⁷

84 Female student, in-person FGD, Islamabad, May 6, 2025.

85 Male journalist, online FGD, Gilgit-Baltistan, July 13, 2025.

86 Female journalist, online FGD, Gilgit-Baltistan, July 13, 2025.

87 UN Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, “Contemporary forms of racism, racial discrimination, xenophobia and related intolerance,” June 3, 2024, A/HRC/56/68.

DRF noted in its research regarding the 2025 floods that while GenAI misinformation was pervasive on platforms such as TikTok, some of the content was particularly gendered, relying on highly sexualised depictions of women and using gender stereotypes to elicit sympathy for flood victims. The research found that AI village ‘fetish’ content that objectifies women’s bodies was common on social media platforms.⁸⁸ In a separate piece of research, DRF found that GenAI content can particularly impact older segments of the population, particularly through the deployment of AI-generated content on YouTube to target vulnerable populations, particularly older users with clickbait content related to pensions.⁸⁹

Attitudes towards regulation

Several participants expressed scepticism towards comprehensive laws regarding emerging tech, such as AI, at this stage, arguing that regulation would be “premature”⁹⁰ given the technology’s evolving nature. Instead, suggestions leaned toward soft governance tools such as codes of conduct and ethical guidelines. While this approach is understandable given the history of regulation regarding technology that has resulted in censorship and the criminalisation of speech, the lack of enforceable safeguards leaves AI governance to be a voluntary exercise. Furthermore, these valid concerns often fail to take into account that AI itself has implications for freedom of expression which need to be regulated through human rights safeguards. One participant shared their concerns:

“Ideally it is the state’s responsibility to regulate [emerging tech], but I feel that given the level of censorship and misuse of laws to control narratives by those in power, regulation would not be the best route in the Pakistani context.”⁹¹

Another participant from Sindh echoed these reservations saying that “in our country, while policies are needed, most of the time these policies are used to control what we can say and what cannot do.”⁹²

Many feared a punitive approach towards AI regulation which could stymie innovation and curb fundamental freedoms. Many suggested awareness-based interventions that could empower the public to tackle issues such as misinformation and foster responsible AI usage. These insights speak to the need for regulation to be decoupled from control and censorship; to develop alternative forms of regulation that center human rights standards and marginalised communities as opposed to priorities of the state, as reflected in legislation such as PECA.

88 Seerat Khan, Hassan Khan, Sara Imran and Maria Nazar, “Combatting Flood Misinformation in Pakistan: Generative AI and Platform Accountability in the Age of Climate Crisis,” Digital Rights Foundation, <https://digitalrightsfoundation.pk/wp-content/uploads/2025/09/Combating-Flood-Misinformation-in-Pakistan.pdf>, p. 8.

89 Seerat Khan, Hassan Khan and Maria Nazar, “EOBI Disinformation on YouTube: The Role of Generative AI in Monetizing Misinformation in Pakistan,” Digital Rights Foundation, https://digitalrightsfoundation.pk/wp-content/uploads/2025/07/EOBI-Disinformation_compressed.pdf.

90 Male journalist, in-person FGD, Peshawar, May 5, 2025.

91 Male student, online FGD, Gilgit-Baltistan, July 13, 2025.

92 Male journalist, online FGD, Sindh, July 12, 2025.

Participants also highlighted a democratic deficit in the regulatory processes, noting that voices from the media and civil society were completely absent from the legislation and decision-making process. This is exasperated by the lack of understanding among lawmakers of technology in general as well as their human rights implications. A student from Islamabad pointed out that “most politicians are tech illiterate, they don’t understand technology at all, let alone emerging technologies.”⁹³ These exclusions from policymaking circles perpetuate narrow policies that do little to challenge the structural power imbalances embedded in technology governance. One participant advocated for a transformative approach to policymaking, “there has to be a change in the entire system and our approach to tech.”⁹⁴

Concerns about foreign-made AI systems and their embedded Western biases surfaced repeatedly. One participant cited ChatGPT’s responses on Palestine as an example of bias, suggesting that locally developed technologies might reflect more Global South priorities.⁹⁵ On the other hand, others worried about indigenously developed technology being state-controlled and could be used to entrench censorship and control narratives. A student in Islamabad summed it up: “If there is a Pakistani-made tech, it will say what our government wants it to say.”⁹⁶

Other rights and concerns

While this paper focuses primarily on the impact of emerging tech on freedom of expression and media, these issues intersect with climate justice and labour rights. Conversations regarding emerging tech are often restricted to the ways in which new technologies stand to replace certain kinds of labour or make some workers redundant. While this is a legitimate fear, which was echoed throughout the data collection process for this research, new forms of labour exploitation are emerging. Jobs for training and moderating data⁹⁷ are often marked by unlawful labour practices,⁹⁸ including denial of basic rights such as a fair wage⁹⁹ or exposure to distressing content. Those hired for these positions are mostly from the Global South through contracts and subcontracts.¹⁰⁰ In Pakistan, there have been reports of underage workers being employed in data labelling roles without any overarching regulation or application of labour laws.¹⁰¹

Furthermore, environmental concerns related to AI are pervasive. Training of large-scale models requires immense computational resources, and they consume vast amounts of electricity and water for cooling, which has put a strain on local ecosystems.¹⁰² In May 2025, Pakistan announced that it has set aside 2000 megawatts of electricity for power bitcoin mining and AI data centres.¹⁰³ Further, AI infrastructure depends on rare earth minerals and metals, whose extraction often involves deforestation and water contamination as well as implications for local populations who have little say in the extraction and are deprived from the economic benefits of such mining.

93 Female student, in-person FGD, Islamabad, May 6, 2025.

94 Male journalist, in-person FGD, Islamabad, May 6, 2025.

95 Female student, in-person FGD, Islamabad, May 6, 2025.

96 Male student, in-person FGD, Islamabad, May 6, 2025.

97 Varsha Bansal, “How thousands of ‘overworked, underpaid’ humans train Google’s AI to seem smart”, *The Guardian*, September 11, 2025, <https://www.theguardian.com/technology/2025/sep/11/google-gemini-ai-training-humans>.

98 Charles Rollet, “Scale AI agreed to settle multiple lawsuits from its California contractors,” *Business Insider*, October 18, 2025, <https://www.businessinsider.com/scale-ai-settle-worker-lawsuits-in-california-2025-10>.

99 Billy Perrigo, “Exclusive: OpenAI Used Kenyan Workers on Less Than \$2 Per Hour to Make ChatGPT Less Toxic,” *TIME*, January 18, 2023, <https://time.com/6247678/openai-chatgpt-kenya-workers>.

100 Billy Perrigo, “Exclusive: OpenAI Used Kenyan Workers on Less Than \$2 Per Hour to Make ChatGPT Less Toxic,” *TIME*, January 18, 2023, [Exclusive: OpenAI Used Kenyan Workers on Less Than \\$2 Per Hour to Make ChatGPT Less Toxic](https://time.com/6247678/openai-chatgpt-kenya-workers).

101 Niamh Rowe, “Underage Workers Are Training AI,” November 15, 2023, *WIRED*, <https://www.wired.com/story/artificial-intelligence-data-labeling-children>.

102 Jorge C. Carrasco, “Brazil wants to be a sustainable data center hub. Environmentalists are skeptical,” *Rest of World*, July 3, 2025, <https://restofworld.org/2025/brazil-data-center-environmental-risk/>.

103 “Pakistan allocates 2,000 megawatts of electricity to bitcoin mining, AI data centres,” *Reuters*, May 25, 2025, <https://www.reuters.com/sustainability/boards-policy-regulation/pakistan-allocates-2000-megawatts-electricity-bitcoin-mining-ai-data-centres-2025-05-25>.

Pakistan is an extremely water scarce country¹⁰⁴ and the fact that studies¹⁰⁵ have estimated that AI-related infrastructure may soon consume 6 times more water annually than the country of Denmark is a cause for concern. The United Nations Environment Programme has called on member states to “develop mechanisms and frameworks for mandatory reporting and disclosure of AI’s direct environmental impacts by companies offering AI products and services.”¹⁰⁶ It is glaring that Pakistan’s AI Policy makes only a passing reference to climate and environmental impact, with no mention of cross coordination with the Ministry of Climate Change and Environmental Coordination, in the context that Pakistan is the fifth most vulnerable country to climate change in the world.¹⁰⁷

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- 104 Sahar Arshad Mahmood and Muhammad Salman Khalid, “Water scarcity in Pakistan — a geopolitical ticking time bomb,” Dawn, July 28, 2025, <https://www.dawn.com/news/1913435>.
- 105 Pengfei Li, Jianyi Yang, Mohammad A. Islam and Shaolei Ren, “Making AI Less “Thirsty”: Uncovering and Addressing the Secret Water Footprint of AI Models,” April 2023, <https://arxiv.org/pdf/2304.03271>.
- 106 United Nations Environment Programme, “Artificial Intelligence (AI) end-to-end: The Environmental Impact of the Full AI Lifecycle Needs to be Comprehensively Assessed - Issue Note,” 2024, <https://wedocs.unep.org/20.500.11822/46288>.
- 107 Germanwatch, “Global Climate Risk Index 2021,” <https://www.germanwatch.org/en/19777>, p.13.
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CONCLUSION: BREAKING BINARIES



We are faced with a fundamental question in terms of emerging technologies beyond uncritically embracing them, whether to work towards regulating and making them more responsive to local needs, particularly the needs of marginalised communities, i.e. working within the system, or to fundamentally challenge or dismantle that system. The latter approach would frame the former as a mere “band-aid”:

“[T]he problems are social rather than technical problems that could be solved by technological band-aids like “correcting for biases” or “explaining black boxes”. Such technofixes distract from the gravitas of the cognitive and affective sides of the problem”.¹⁰⁸

Forging a way forward requires, however, to break the false binaries imposed on us by technologies that force us to choose between embracing emerging technologies as inevitable or rejecting them outright. This paper invites media practitioners, civil society and policymakers to think beyond the either-or binary of accepting technologies as an offshoot of techno-solutionism or paralysing rejection

108 Warmhold Jan Thomas Mollemaorcid, “Decolonial AI as Disenclosure”, Open Journal of Social Sciences, Vol.12, No.2, February 2024, <https://doi.org/10.4236/jss.2024.122032>.

of technologies. A feminist, Global South-driven approach to freedom of expression in Pakistan demands a multi-layered strategy: immediate harm-reduction to curb opaque, AI-enabled controls on speech as well as structural transformation to confront the extractive political economy that reproduces those harms. While at times these approaches will conflict, a feminist approach would require consultative and thoughtful policymaking that foregrounds the needs of marginalised communities.

The recommendations below invite stakeholders to work to dismantle underlying systems of oppression based on exploitative and colonial economic and political models. This requires working as part of a broad coalition of actors, both at the local and global level, to transform these systems. These recommendations reject techno-solutionist paradigms and aim to redistribute power by embedding feminist¹⁰⁹ and decolonial principles¹¹⁰ in tech governance.

This means building policies from the ground-up, through participatory co-creation, and putting decision-making power into the hands of those most affected: women and gender-diverse people, religious and ethnic minorities, journalists and human rights defenders. It will mean shifting agenda-setting power away from state-corporate compacts and toward communities. The values that animate this work are solidarity (coalitions and collective action), slowness (saying no to high-risk deployments until rights safeguards exist), intersectionality (centering the impact on the most marginalised) and participation (co-design with binding influence, not performative hearings). The recommendations below translate these principles into actionable measures that protect the right to freedom of expression within a regulatory system grounded in human rights.

109 Anita Gurumurthy and Nandini Chami, "Charter of Feminist Demands from the Global South: A Global Digital Compact for Gender Equality", https://www.fes.de/public/FES/Newsletter-Bilder_IEZ/GePol/MailingsDoc/charter-of-feminist-demands-from-the-global-south.pdf.

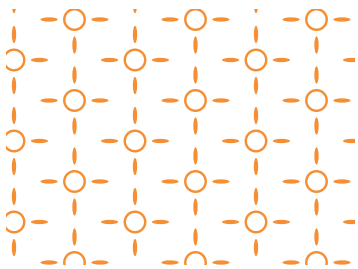
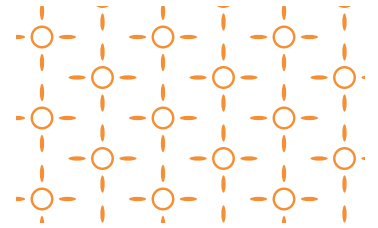
110 "AI decolonial Manifesto," <https://manifesto.ai>.

RECOMMENDATIONS



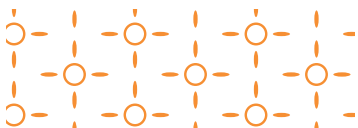
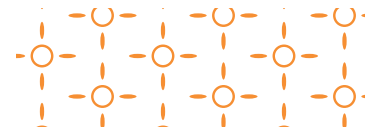
1. Solidarity:

- Create AI People’s Councils¹¹¹ at the federal and provincial level to supplement AI Councils proposed under the 2025 AI policy and to shift agenda-setting power from state and corporations to communities. The Councils must have binding review powers over high-risk AI deployments affecting freedom of expression and other human rights.



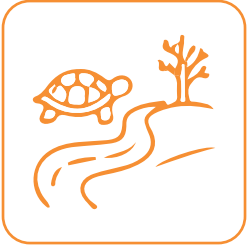
- Develop linkages and cross-sector coalitions between media organisations, press clubs, unions, digital rights organisations, gender justice groups and larger civil society to jointly advocate for human rights guardrails for AI development, application and usage. Programs must include feminist and intersectional perspectives and equip communities to demand transparency and accountability from tech developers and regulators.

- Design and popularise education programs on the impact of emerging tech on civic freedoms, labour rights and the environment for larger civil society and the public at large.



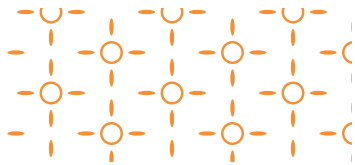
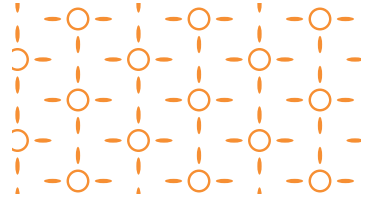
- Foster South-to-South solidarity and regional networks to push back against exploitative and extractive technology models that disproportionately impact marginalised communities.

111 AI People’s Councils, which author Dan McQuillan describes as “self-constituting”, aim to give a genuine voice to people and marginalised communities within AI discourse. Dan McQuillan, “Resisting AI: An Anti- fascist Approach to Artificial Intelligence”, Bristol University Press, 2022, p. 127.



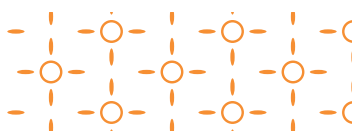
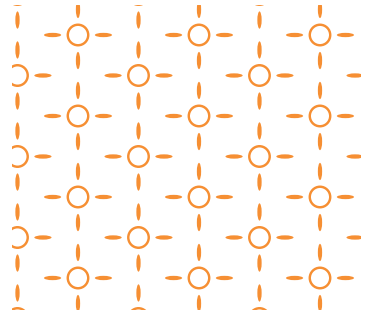
2. Slowness:

- Ensure that adequate measures are taken to both test the efficacy of technologies that work for the local context, for instance capacities of LLMs to adapt to local and regional languages, and that do not perpetuate harmful speech and content, such as gender and racial stereotypes.



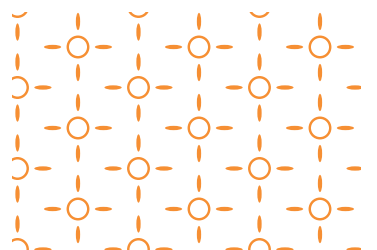
- Impose a moratorium on high-risk technologies (real-time FRT, predictive policing, mass surveillance tech and content filtering systems) until robust human rights safeguards are in place and all such deployments are subject to independent judicial oversight.

- Mandatory Human Rights Impact Assessment (HRIA) for all AI deployment in governance, policing and other uses that have significant impact on human rights. All HRIA assessments must include an assessment of the impact on the right to freedom of expression. Assessments must also include gendered and intersectional impacts on freedom of expression. These HRIAs must be independent and conducted in a transparent manner. All findings of HRIAs must be available to the public.



- Integrate ethics and human rights at every stage of the AI lifecycle, from raw material extraction to data annotation to deployment. Require AI developers, be it state or companies, to publish lifecycle audits.

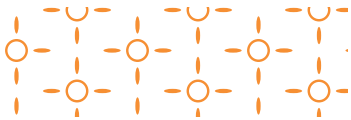
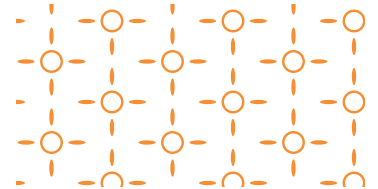
- All emerging tech, particularly AI, must integrate disclosure regarding environmental impact in all countries they are operating in, particularly regarding the use of energy, water and sourcing of rare earth minerals. In cases of large-scale deployment, mandatory environmental impact assessment must be conducted transparently and independently.





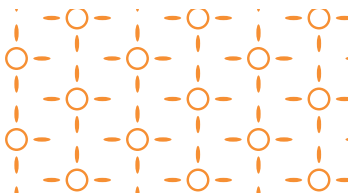
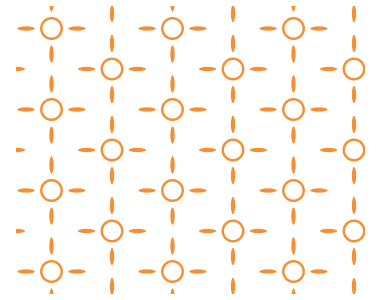
3. Participation:

- Ensure participatory policymaking on emerging tech that includes journalists, activists, women's rights groups and marginalised communities. Inclusiveness must be adopted at every level of the policymaking process, from consultations to membership in governance bodies.

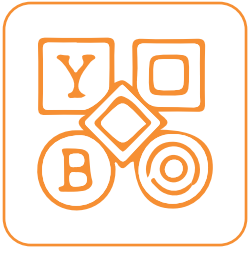


- Capacity building of all regulatory and law/policymaking bodies dealing with technologies to ensure that they are well-versed with the technical aspects of the technologies and their human rights implications.

- Build capacity of media houses, newsrooms and journalists to understand emerging technologies holistically and protocols around deployment in their work. These capacity building programs must be implemented by a range of stakeholders, including media organisations, universities and civil society, and should move beyond tool training to include detection of biases, human rights impact of technologies and identification and fact-checking of manipulated content.

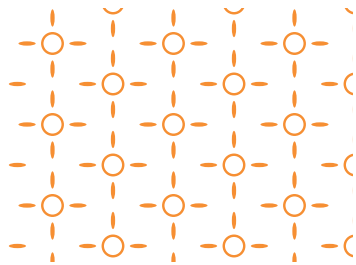
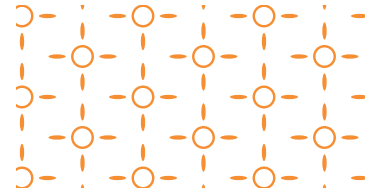


- Greater awareness among the general public to build critical media literacy, recognise synthetic content and understand the impact of algorithmic discrimination. These awareness programs must be accessible and embedded within the general curriculum but must also target all ages, genders and dis/abilities.



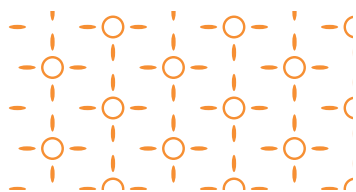
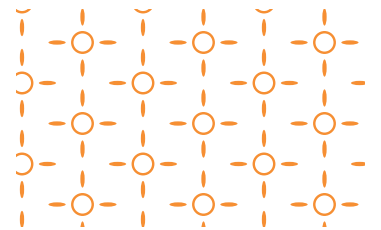
4. Intersectionality:

- Legal and welfare systems must be adapted to recognise and address TFGBV and integrate protections against AI-driven harassment and TFGBV into existing legislation such as PECA, either through developing protocols for law enforcement or integrating into Rules.



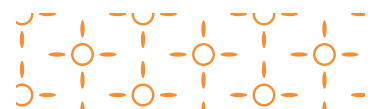
- Develop strategies to address the gender digital divide for emerging technology, not simply by building skills or putting tech in the hands of women and gender-diverse individuals, but by ensuring that all gendered barriers (including social, political, economic and legal) to access and use of emerging technologies are addressed. Further, all policies addressing gender tech divides must be inclusive of transgender and other gender-diverse identities.

- Meaningfully addressing economic precarity produced by technologies through safeguards for people working in media and fields that are substantially impacted by emerging tech. These safeguards must incorporate the extension and implementation of labour laws and regulations, including facilitating unions and collective organising, for all those impacted.



- Ensure protections for labour engaged with AI at every stage of the lifecycle, including outsourced labour, under labour laws. These should include but are not limited to workplace safety, minimum and liveable wage and job security. These protections must be extended to labour at every level of the supply chain.

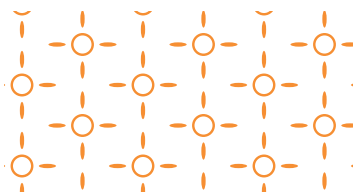
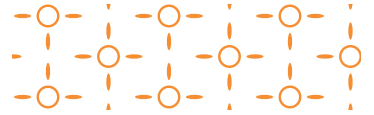
- Companies deploying emerging tech in Pakistan must contribute to environmental mitigation funds to offset ecological damage linked to data centers and supply chains.





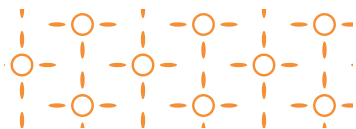
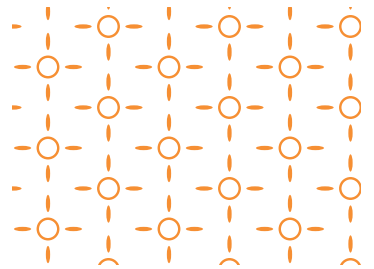
5. Human rights safeguards:

- Amend PECA to remove all provisions that criminalise legitimate speech and bring it in line with international human rights law standards.¹¹²



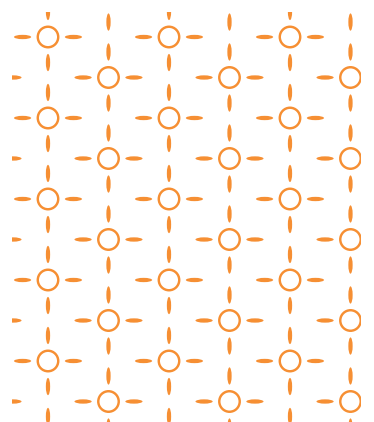
- Pass a robust, rights-based personal data protection legislation that protects the right to privacy, with independent oversight, and all exceptions must be in line with international human rights law. The law must include explicit safeguards against AI-enabled profiling and surveillance that chill speech.

- Transparency from the PTA and the Ministry of Information Technology and Telecommunications (MOITT) on the deployment of the Web Monitoring System and the ways in which automated processes are being used to block and remove content online. Measures must be taken to ensure that all such automated processes are subject to international standards such as the GNI principles and be subject to judicial oversight.



- Ensure participatory oversight of the deployment of automated decision-making by civil society, including groups working on gender and economic justice.

- Require that platforms and state agencies using AI to regulate speech, including censorship and takedowns disclose the role of automated decision-making and the rationale followed by the AI. Social media and tech platforms must publish regular transparency reports as well as government agencies such as the PTA, SMPRA and any other authority tasked with regulating speech. These authorities must issue reasoned notices for all instances of blocking of content and removals through automated systems. All removals through automated systems must be subject to judicial oversight that provides an adequate remedy through an independent and competent forum.



112 DRF has provided recommendations to protect the right to freedom of expression and media freedoms in previous outputs: Bytes Behind Bars: Decoding Pakistan's digital expression legislation.



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