

Parity and Peace Intelligence

Operationalizing Women's Parity and Digital Justice through Data and Al for Active Peace

1. Normative Foundations: From Parity Obligation to Active Peace

Parity and Peace Intelligence (PPI) is built on the principle that peace cannot exist without parity — and that parity must now extend into digital and data governance, the infrastructures of power in the twenty-first century.

CEDAW General Recommendation No. 40 (GR 40) defines parity as a binding human rights obligation, requiring women's equal and inclusive representation in all spheres of decision-making — political, economic, and digital. The **Women, Peace and Security (WPS) Agenda (UNSCR 1325 and successors)** further recognizes that sustainable peace depends on women's participation, protection, prevention, and recovery.

Across regions these norms converge: the AU Decade for African Women (DECAW) and Agenda 2063 embed parity in continental governance; OSCE and EU frameworks do so in Europe; and the UNESCO AI Ethics Recommendation, OECD.AI Principles, and the 2024 UN Global Digital Compact (adopted by the UN General Assembly) extend this same obligation to the governance of technology.

Together these instruments define **Active Peace** as the continuous presence of justice, equality, and participation across political, economic, social, and digital systems.

Yet while this normative architecture is robust, it remains fragmented in practice. The data exists across multiple systems — what is missing is the **connective intelligence** to integrate them into one living picture of parity and peace.

PPI operationalizes this architecture: transforming global commitments into measurable, data-driven, and rights-based accountability.

2. Why This Is Necessary: Closing the Structural Blind Spot

Despite two decades of progress, peace and parity continue to be monitored through static reports rather than dynamic evidence. Existing systems describe representation but rarely reveal the redistribution of power — even though **UNSCR 1325** (paras. 1–4, 8, 11) and **CEDAW GR 40** explicitly call for institutional restructuring to guarantee women's equal authority in governance and peace processes.

Key unanswered questions persist:

- Where are the structural stress points before conflict erupts?
- How do digital exclusion and algorithmic bias translate into insecurity?
- Are women gaining ownership not merely access in the data economies driving reconstruction and governance?

Current monitoring frameworks omit the emerging drivers of inequality: digital infrastructure, data governance, AI systems, and online discourse. As conflicts evolve — in Ukraine, Gaza, Sudan, Myanmar, and beyond — the digital domain itself has become an active front of peace and conflict. Yet parity and protection mechanisms have not kept pace.

The result is reactive policy: governments and multilateral institutions respond to symptoms, not systemic causes; digital strategies advance separately from equality frameworks.

This fragmentation is not due to lack of data — over 70 percent of relevant indicators already exist in open repositories. What is missing is the **system intelligence** to link them: to see how **parity, peace, and digital power interact as one dynamic ecosystem.**

Machine learning now provides that **connective tissue**, revealing correlations, feedback loops, and latent risks invisible to traditional reporting.

PPI addresses this blind spot by creating a **real-time**, **rights-based peace and parity intelligence system**, enabling states and institutions to anticipate exclusion, instability, and opportunity before crises unfold.

3. Conceptual Framework: Active Peace as a System

An **Active Peace System** is the web of political, economic, social, and digital subsystems that collectively sustain or erode peace.

Parity and Peace Intelligence applies AI to map and interpret these interdependencies through three integrated data domains:

- **Parity Data** women's participation, leadership, and resource control (as mandated under GR 40).
- Peace Data conflict, cohesion, and WPS pillar indicators.
- **Digital Power Data** ownership, algorithmic governance, and data rights.

The domains form a feedback loop: parity strengthens peace; peace enables inclusion; digital inclusion reinforces accountability.

Machine learning, network analysis, and natural-language processing reveal these interconnections and make them predictive — serving as **connective tissue** between peace, parity, and digital power, without displacing human judgment or sovereignty.

4. Methodology: Feminist Data Infrastructure and Digital Parity Architecture

4.1 Data Infrastructure

PPI builds a **feminist**, **federated data ecosystem**: each country or region maintains control of its data; only aggregated insights circulate.

This is not about inventing new data but **integrating what already exists** — connecting previously siloed peace, parity, and digital indicators into one interoperable framework.

PPI draws from existing global repositories — From UN Women, ACLED (Armed Conflict Location & Event Data Project (ACLED) for real-time, ground-level early warning data; Uppsala Conflict Data Program (UCDP) for long-term, structural analysis; UN Peacekeeping Mission data tracking gender participation and leadership, ITU, OECD, UNESCO, IPU, and the World Bank — while filling the digital power gap through new collaborative datasets on:

- Ownership of digital and AI infrastructure;
- Gender representation in cybersecurity and data-governance institutions;
- Community-driven data sovereignty initiatives;
- Representation of women in online peace and policy discourse.

These sources combine administrative data, civic inputs, and digital trace data under open, rights-based standards.

All collection and analysis follow **Human Rights Impact Assessment (HRIA)** protocols: consent, transparency, explainability, and community oversight.

4.2 Al and Analytics

Artificial intelligence in PPI is **assistive**, **not autonomous**. It:

- Detects structural correlations between parity deficits and peace instability;
- Forecasts emerging risks through anomaly detection;
- Maps discourse and sentiment trends via NLP across languages and media;
- Links economic, digital, and social variables through network analysis;
- Generates adaptive dashboards for local decision-makers.

Models are open-source, interpretable, and auditable by local women's data experts, aligning with **UNESCO's AI Ethics Recommendation.**

4.3 Digital Parity Dimensions

To embed GR 40 into digital governance, PPI tracks seven clusters:

Cluster What It Measures Illustrative Indicators

Digital Infrastructure Control	Ownership and governance of the digital commons	Women's stake in ISPs, data centers; parity in regulatory bodies
2. Digital Resource Distribution	Flow of digital investment and contracts	% of national budgets or VC funding to women-led enterprises
3. Algorithmic Power & Accountability	Who codes and who's coded	Gender composition of Al developers; % of public algorithms bias-audited
4. Digital Labour & Care	Equity in platform and moderation work	Gendered job share, wage parity, DGBV protections
5. Epistemic Sovereignty	Who defines and owns data	Women-led data trusts; feminist metadata standards
6. Digital Narrative & Cognitive Space	Whose stories shape peace	Visibility of women peacebuilders in digital media
7. Digital Security & Resilience	Bodily and digital integrity	Women's roles in cybersecurity; prevalence of online harassment

Each cluster feeds metrics into the **Parity and Peace Index (PPI-Core)** and **Peace Pulse Dashboards**, designed for transparency and comparability while respecting local context.

4.4 Governance Model

To avoid both state capture and data extractivism, governance is co-led by women's rights and digital-governance organizations with regional partners (**AU**, **EU**, **OAS**, **ASEAN**).

National nodes are managed through inter-ministerial taskforces linking gender, digital, and planning portfolios.

Civil society and academic partners act as **co-stewards**, not data subjects.

This **federated model** protects sovereignty while ensuring participatory oversight.

5. Outputs and Implementation Pathway

Core Deliverables

- Parity and Peace Intelligence Platform: an integrated, Al-enabled system that
 connects existing peace, parity, and digital-justice datasets; uses machine learning to
 identify hidden structural patterns; and transforms static reporting into active peace
 intelligence.
- Peace Pulse Dashboards: real-time visual tools for governments, multilateral agencies, and communities to monitor and adapt policy.
- Open Data & Methods Toolkit: standardized schema and open-source code for replication worldwide.

Data Readiness

Around 70 percent of core indicators draw on existing open data (UCDP, ACLED, ITU, IPU, UN Women, OECD, ILO, World Bank).

The remaining 30 percent — digital ownership, algorithmic governance, epistemic sovereignty — will be co-generated through pilot projects with national and regional partners.

PPI is designed for collaborative piloting and regional adaptation. Its modular structure allows countries, regional organizations, and multilateral partners to test and refine the framework according to their data readiness and governance priorities, before linking national observatories into a federated global system.

6. How It Is Useful

Parity and Peace Intelligence is a governance capability, not a dataset.

It strengthens peace systems for everyone by making patterns of inclusion, exclusion, and instability visible.

It translates human-rights duties into actionable evidence — enabling states, multilateral institutions, and civil society to act *before* exclusion turns into crisis.

Governments	Early warning on parity and peace deficits; alignment of WPS and digital-transformation agendas with fiscal planning.
Multilateral Organizations	Unified monitoring language across CEDAW, WPS, SDG 16+, and Al Ethics frameworks; empirical grounding for funding priorities.
Civil Society & Academia	Open access to parity data; participatory definition of local indicators; strengthened advocacy with evidence.
Private Sector	Framework for ethical AI and ESG compliance; incentives for inclusive investment linking equity to stability.

Enables

The platform provides decision-support, not surveillance: data stays sovereign, while comparative learning builds global solidarity.

7. Expected Impact and Theory of Change

If parity — political, economic, and digital — is continuously measured and acted upon through transparent, participatory AI systems,

then institutions can correct exclusion before it destabilizes peace.

Short term: creation of integrated data ecosystems and prototype dashboards.

Medium term: adaptive policymaking and coordinated funding based on real-time parity and peace evidence.

Long term: transformation of global peace governance into a **living accountability system** — one that uses machine learning to connect data across silos, see power rather than presence, and sustain peace through continuous inclusion.

Conclusion

Stakeholder

Parity and Peace Intelligence transforms not only how we measure peace, but how we manage it.

By connecting the existing data of equality and conflict through responsible AI, it provides the **connective tissue** long missing between human rights, peacebuilding, and digital governance. It ensures that parity and power are not parallel goals but **interdependent conditions of sustainable**, **active peace**.

From Ukraine to Kenya, Colombia to the Philippines, the system offers a practical, rights-anchored tool to make peace measurable, dynamic, and just — ensuring that equality, accountability, and digital sovereignty form the structural foundations of sustainable peace.