

Beyond Replication: Recentring Community and African Leadership in PeaceTech

Nathan COYLE¹ & Mamadou BODIAN Ph.D²

To Cite this Article

Coyle, N., & Bodian, M. (2026). Beyond Replication: Recentring Community and African Leadership in PeaceTech. *African Solutions (AfSol) Journal* 7(1), pp.31.

<https://doi.org/10.63990/afsol.v7i1.13892>

Manuscript History

Received: 15 March 2026

Accepted: 18 July 2026

Published: 29 July 2026

Copyright © 2026 The Author. *African Solutions Journal (AfSol Journal)* published by the Institute for Peace and Security Studies (IPSS)

This is an Open Access article which permits anyone to share, use, reproduce and redistribute in any medium, provided the original author and publisher are credited.

DOI : <https://doi.org/10.63990/afsol.v7i1.13892>

Editor-In-Chief: Dr. Andrew E. Yaw Tchie

Managing Editor: Cynthia Happi

ISSN: 2518-8135

¹Nathan Coyle, PeaceTech Alliance Center for Digital Safety & Security AIT Austrian Institute of Technology, Vienna, Austria. Nathan.Coyle@ait.ac.at **ORCID ID:** <https://orcid.org/0009-0007-5250-105X>

²Mamadou Bodian, Laboratoire des Études Sociales (LABES), Institut Fondamental d'Afrique Noire (IFAN), Université Cheikh Anta Diop (UCAD) Dakar, Senegal. mamadou2.bodian@ucad.edu.sn
ORCID ID: <https://orcid.org/0009-0006-9991-7477>

Abstract

For facilitators who work in armed-conflict and post-conflict contexts, PeaceTech is a term that is regularly cropping up in professional and academic discourse. It is increasingly shaping how peacebuilding organisations work, from analysing conflict to aiding the course of mediation, potentially pre-empting conflict, and supporting early warning systems. However, the majority of the data, infrastructure, and governance that underpins these tools are focused outside the regions where these technologies are supposed to support, in fragile areas where many conflicts occur. This paper examines the structural economy of the data that builds PeaceTech, with a lens on African contexts where actors operate in sometimes highly complex conflict environments but often have limited influence over how these technologies are created to interpret those lived realities. This paper argues that current development metrics are reproducing the extrinsic data metrics that reinforced existing global asymmetries in the past and have failed. The research highlights how the imbalances in data that trains artificial intelligence, infrastructure, capacity, and governance authorities have undermined the technical reliability, trust and, most importantly, the legitimacy of these digital tools used in these settings. There is a response to this: a shift towards African-led data governance and community-centred PeaceTech ecosystems, rooted in African needs, skills and lived experience. It also outlines how the African Union could support ecosystem mapping by building coalitions which are anchored in data infrastructures that mobilise and enable local civil society organisations and peacebuilders to retain control over the data and technologies that shape conflict analysis and peace interventions.

Keywords: PeaceTech, Africa, Data sovereignty, Artificial intelligence governance, Community-centred peacebuilding, African leadership, Conflict data, Decolonial digital governance.

Introduction: What is PeaceTech and What Does It Mean for Africa?

The concept of deploying technology in African peacebuilding contexts, along with mediation in armed conflict settings, is not new. From the early 1990s, where community radio acted as a reconciliation effort in Rwanda (Kogen, & Price, 2014) to peace messaging initiatives that supported hyperlocal mediation during the civil war in Sierra Leone (Kimani, 2007), to the use of SMS being used to monitor crisis reporting within elections in Kenya during the 2000s (Okolloh, 2009), these examples are just a few of how digital tools have been utilised to build peace long before the term PeaceTech was coined.

PeaceTech (Peace Technology) is an umbrella term for the use of technology in peacebuilding contexts. It refers to the use of technologies and digital tools that aim to support mediation, conflict prevention, training, dialogue and recovery in fragile, post-conflict and armed conflict settings. Within African contexts, PeaceTech intersects with existing governance frameworks rather than existing solely as a standalone digital tool. The African Union's African Peace and Security Architecture (APSA) is not a technology or digital tool; it is a framework for preventing, managing, and resolving conflicts across the continent. Within this framework, the Continental Early Warning System (CEWS), one of APSA's core pillars, integrates data analysis and monitoring to support conflict prevention and response (Emmanuel-Dio, 2025; Noyes & Yarwood, 2013).

Technology is only as good as the data it is built on and thus what is built must reflect the realities of the people who would use such tools. This is particularly true of data-intensive and AI- or machine-learning-based PeaceTech applications; not all PeaceTech tools depend on data and training corpora to the same degree, and the critique developed in this paper applies most directly to systems whose outputs are generated from patterns learned in training data. With that in mind, this paper argues that without African-led data ownership and governance, rooted in lived experience, PeaceTech risks reproducing biases set outside of Africa and replicating assumptions from other parts of the world. This increasingly intersects with agendas across the continent, such as the African Union's Digital Transformation Strategy for Africa (2020–2030) and the AU Data Policy Framework (2022), which raises important considerations around power, ethics, ownership and whose knowledge is at the centre of the design of tools that can be used for peace.

PeaceTech is a broad and evolving field, which can make it very difficult to define through a fixed or exhaustive set of digital interventions. Within this framework, PeaceTech is understood here as peacebuilding technology, or technology for peacebuilding: the application of digital tools, platforms and infrastructures to support conflict prevention, mediation, dialogue, monitoring and recovery, consistent with how the term is most commonly used in practice and scholarship (Bell, 2024). However, several recurring areas of deployment can be outlined and illustrated. This can include communication technologies, such as social media platforms, messaging applications, and video conferencing tools, which look to support dialogue, coordination, and information-sharing. Another area concerns data sovereignty, including the development of federated data spaces for peace that prioritise community-driven data sharing and trust-building. Cybersecurity plays a central role, particularly through secure, encrypted platforms (SIPRI, 2017).

If lived experience were a design metric, then African peacebuilding organisations and the civil society organisations (CSOs) that operate in these areas, would be the gold standard. They work in these settings, living side by side with the communities they serve, dealing with the same issues they face. Their knowledge is rooted in social legitimacy and that longstanding presence that should be the cornerstone of PeaceTech design, because those are the people who will use it, and look to add value to it.

The continent has accounted for a high proportion of active armed conflicts in recent years. Conflict trend analysis drawing on the Uppsala Conflict Data Program (UCDP) and synthesised by the Peace Research Institute Oslo (PRIO) shows that Sub-Saharan Africa has recorded more state-based conflicts than any other region in the early 2020s, including multiple protracted civil wars and insurgencies (Strand et al., 2023). Rather than a single crisis, this concentration reflects the accumulation of simultaneous, long-running conflicts across the Sahel, the Horn of Africa, Central Africa, and Sudan.

This trend is further reinforced by recent research highlighting the intensification of violence in contemporary armed conflicts, including across African contexts. Analysis of global conflict dynamics shows that the early 2020s have been marked by sustained increases in violence against civilians, the proliferation of armed actors, and the persistence of protracted conflicts, with African theatres featuring prominently in these trends (Carry, Müller, & Schulze, 2025). Conflict in Africa is increasingly characterised by overlapping and long-running forms of organised violence with severe humanitarian consequences. Taken together, this evidence underscores that the African context

continues to bear a substantial share of contemporary armed conflict and its human impact, reinforcing the importance of grounding PeaceTech and conflict-analysis systems in regions where conflict is most prevalent and where data gaps carry the greatest practical and ethical implications.

This paper makes three contributions. First, it reframes PeaceTech's Global North dominance as a structural political economy of data issues rather than merely a participation gap. Second, it connects AI training data imbalance directly to the legitimacy of peacebuilding and the operationalisation of the "Do No Harm" principle. Third, it advances African-led data governance coalitions as a structural corrective, positioning data ownership not only as an ethical concern but as a source of bargaining power and agenda-setting authority.

Methodology, Theoretical Framework and Literature Review

This paper adopts a qualitative, conceptual approach, drawing on interdisciplinary literature across peacebuilding, critical data studies, and artificial intelligence governance. Rather than presenting new empirical data, it analyses existing research to examine how structural inequalities shape the development and deployment of PeaceTech in African contexts.

The analysis is grounded in a political economy of data perspective, which understands data as embedded within systems of power, control, and value extraction. This is complemented by insights from peacebuilding theory, particularly the principles of local ownership and the "Do No Harm" framework, which are used to assess the implications of externally governed data systems for legitimacy and trust in conflict-affected settings.

Existing literature highlights both the potential and the limitations of PeaceTech. While digital tools are increasingly used to support conflict prevention and mediation (Bell, 2024), research on conflict data systems shows that dominant datasets are often designed for external analysis rather than local relevance (ACLED, 2019). At the same time, AI scholarship demonstrates significant imbalances in training data, particularly the underrepresentation of African languages and contexts (Bender et al., 2021; Joshi et al., 2020), which can affect system performance and reliability.

A growing body of scholarship examines PeaceTech and digital peacebuilding through decolonial and postcolonial lenses, arguing that technology-driven approaches to peace risk reproducing rather

than resolving the epistemic and structural inequalities that shape conflict-affected societies. Recent work on pluriversal peacebuilding argues that peace practice, including its increasingly digital forms, should recognise the co-existence of multiple, situated ways of knowing and doing peace, rather than defaulting to a single, externally defined model (Hirblinger & Perera, 2026). Building on this, empirical studies of local digital peacebuilding in African contexts show that digital tools are continuously reinterpreted, repurposed and embedded by local actors in ways that depart from the assumptions built into their original design, underscoring the limits of universalised PeaceTech models (John, 2026). Complementing this pluriversal turn, recent analysis of the structural dilemmas facing PeaceTech highlights recurring tensions between promise and peril, innovation and inertia, and global and local agency, echoing the concerns about data, power and governance raised in this paper (Wählisch & Kufus, 2026). This literature reinforces the need for African-led approaches to PeaceTech that are grounded in local epistemologies and governance structures, rather than treating localisation as a technical add-on to externally designed systems.

PeaceTech, Power and Data: Why Governance Matters

Structural Imbalances in PeaceTech Development

Despite the good intentions and global ambitions of PeaceTech, its development is heavily influenced by institutions and knowledge systems located outside Africa. This is a reflection of the available data, the technology systems, and where global power in this regard resides. The main issue is the data, where it is collected, who owns it and where it is processed; this mostly resides in the Global North, often within research centres, multilateral organisations, and technology firms concentrated in North America and Europe, where major conflict data infrastructures and digital analytics platforms expanded significantly during the 2000s and 2010s (Raleigh & al., 2010) alongside the growth of global security and humanitarian data initiatives (OCHA, 2016).

These systems are typically optimised for cross-national comparability and donor accountability rather than for capturing situated, community-level insecurity. Prominent examples include large-scale event-based conflict datasets and monitoring systems developed from the late 1990s onward, which increasingly became integrated into international policy analysis, donor reporting frameworks, and early warning architectures during the 2000s and 2010s. Standardised indicators tend to prioritise event-based violence and measurable disruptions (ACLED, 2019), while forms of everyday coercion,

informal governance, and social fragmentation remain harder to encode. Peace measurement scholarship has cautioned that this emphasis risks narrowing what counts as “peace” to what is legible within externally defined metrics, marginalising locally grounded understandings of legitimacy, trust, and repair (Mac Ginty & Richmond, 2022). When such datasets underpin PeaceTech tools, their conceptual blind spots do not disappear; they become operational.

Artificial intelligence does not neutralise these limitations. It systematises them. Large-scale models are trained on corpora overwhelmingly derived from high-income, predominantly English-speaking environments, embedding linguistic, cultural, and political assumptions that reflect those contexts rather than conflict-affected African realities (Bender et al., 2021; Joshi et al., 2020). High-stakes AI research further demonstrates how early data constraints and organisational incentives generate “data cascades,” where upstream simplifications and omissions shape downstream outputs in ways that are difficult to detect or reverse (Sambasivan et al., 2021).

This external positioning is structural rather than a matter of geography. This is compounded by focusing on the scope of conceptual work on technology for peace, including its drivers and characteristics (Bell, 2024, p. 239). Over the past decade, specialised research networks, technology-for-peace initiatives, and policy forums centred in cities such as Washington, Brussels, London, and Geneva have played an influential role in shaping global discussions on digital innovation in peacebuilding; this has played a formative role in shaping how PeaceTech is understood, taught, and funded at present.

This critique should not be read as suggesting that all external influence on PeaceTech is Western or anglophone in origin. China's expanding AI diplomacy, including capacity-building initiatives, infrastructure investment through the Digital Silk Road, and the growing use of Chinese-developed AI models by African researchers and institutions, represents an additional and increasingly significant axis of external influence over African AI ecosystems, with its own distinct governance logics and dependencies (Noesselt, 2026). At the same time, transnational and localised PeaceTech initiatives complicate any straightforward North–South framing. Build Up's Automatic Classifiers for Peace initiative, for example, has worked directly with peacebuilding practitioners in Kenya and Sudan to co-design open-source text classifiers for monitoring online polarisation and hate speech, grounding model development in local expertise rather than externally generated training data alone (Cheboi et al., 2026). Such initiatives suggest that PeaceTech actors already work through informal coalitions that combine international technical partners with locally embedded practitioners, which

are directly relevant to the coalition-based governance model advanced later in this paper, and a caution against recommendations that risk restating practices already underway.

Data Extraction and the Political Economy of Knowledge

This is a well-documented pattern, as analysis has shown that mapping of actors who work at the intersection of data, tech, and peace acknowledges barriers related to language, access and institutional localisation that influence practice within knowledge systems (Heeks & Shekhar, 2019). Within technology ecosystems, English-language proficiency and proximity to already well-established networks are far more likely to be recognised.

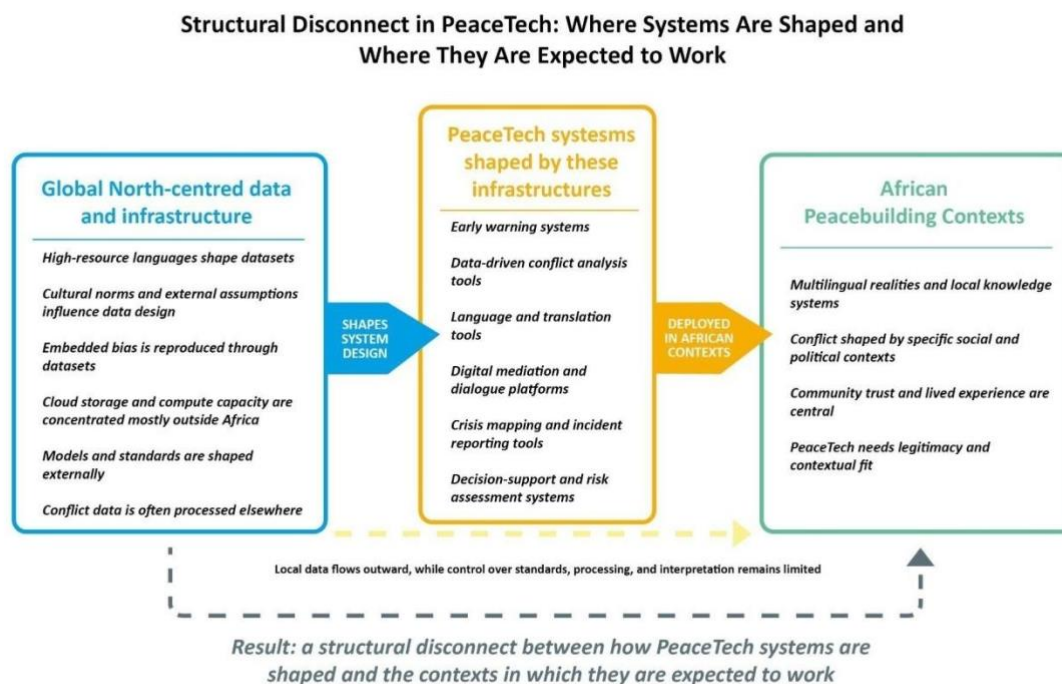


Figure 1: Structural disconnect in PeaceTech development and deployment. PeaceTech systems are often shaped by data, infrastructures, and standards located outside African contexts, yet are expected to operate effectively within them. Source: Author's own illustration based on ACLED (2019), Lokot & Wake (2021), and Sambasivan et al. (2021). The African Peacebuilding Contexts panel additionally draws on practitioner survey findings in Holzinger & Coyle (2026).

In the Global South, the process of collecting conflict-related data has followed extractive logics, usually conducted in fragile areas and then processed elsewhere to inform analysis, reporting, and decision-making, for the most part, far removed from the communities it affects (Lokot & Wake, 2021). These dynamics became particularly visible during the expansion of international conflict-monitoring and humanitarian data systems in the 2010s (Meier, 2015). During this period, large volumes of incident reports, displacement statistics, and crisis-mapping data were collected in regions such as the Sahel, the Lake Chad Basin, and the Horn of Africa (Young, & al., 2023; Martin-Shields, 2013), yet much of this information was analysed through external infrastructures and institutional frameworks based primarily in Europe and North America (United Nations Office of the Special Adviser on Africa, 2018).

In African contexts, especially with NGOs, repeated experiences of externally driven data collection are common with extraction activities linked to security, development, or humanitarian interventions having, for the large part led to scepticism about who data serves and how it is used, having a huge impact on trust with agencies from outside the continent and a reluctance to engage in future undertakings. Many of these data collection cycles intensified during the expansion of stabilisation and counter-insurgency responses in the Sahel after 2013, the regional humanitarian response to the Lake Chad Basin crisis after 2014, and successive displacement crises across the Horn of Africa throughout the late 2010s and early 2020s. Research on AI and data practices in Africa shows that extractive data collection is often perceived as disconnected from local benefit, feedback, and accountability over how data is subsequently used, reinforcing the perception that information flows outward, adding value to other agendas that are not their own (Sambasivan et al., 2021).

History matters for PeaceTech going forward because data is not neutral. Decisions about what data is collected, how it is categorised, and which indicators are prioritised shape how conflict and peace are understood. Research in critical data studies demonstrates that data practices are embedded in social and political power relations, rather than reflecting objective or universal realities (D'Ignazio & Klein, 2020). When data governance structures are externally defined and dominated by institutions far from the contexts from which the data originates, they can obscure local understandings of conflict dynamics, social cohesion, and legitimacy, reproducing asymmetric forms of knowledge extraction. In practice, these dynamics become visible when externally designed indicators prioritise measurable violent events while underrepresenting forms of everyday insecurity, such as coercive taxation, informal governance arrangements, or social fragmentation that shape lived experiences of conflict in many African contexts. These structural biases manifest directly in algorithmic systems trained on

datasets that carry racial and gendered inequalities, leading to systematic distortions in representation and outcomes (Hirota, Nakashima & Garcia, 2022).

Data extraction also creates structural dependencies. When data storage, processing, and analysis are located outside the contexts from which data originates, local actors have limited ability to influence how their realities are represented. This imbalance persists even when data is labelled as “open” or “for public good,” as control over infrastructure and analytical capacity remains uneven, particularly in a global digital infrastructure landscape where most large-scale cloud storage, computational capacity, and machine-learning development environments remain concentrated in a small number of technology hubs outside Africa.

Defining Data Sovereignty in PeaceTech Contexts

In this paper, data sovereignty refers to four interlinked dimensions: (1) decision-making authority over what data is collected and how it is categorised; (2) governance rights over access, storage, and reuse; (3) infrastructural capacity to retain and process data locally or regionally; and (4) the ability to derive strategic, political, or economic value from data generated within a context. These dimensions extend beyond legal ownership and encompass practical control and agenda-setting power. In African policy debates, these questions have gained increased prominence in recent years, particularly following the adoption of the African Union’s Data Policy Framework in 2022 and the broader Digital Transformation Strategy for Africa (2020–2030), both of which emphasise the strategic importance of data governance, digital infrastructure, and local innovation ecosystems. Discussions around data sovereignty have also intensified alongside the expansion of continental digital governance initiatives and national digital economy strategies across African states during the late 2010s and early 2020s, reflecting growing concerns about the externalisation of data storage, cloud infrastructure dependency, and the strategic implications of global platform dominance.

In PeaceTech contexts, these debates intersect directly with peace and security governance architectures, including digital early warning systems and conflict monitoring infrastructures developed through the African Peace and Security Architecture (APSA) since the 2000s, notably the African Union’s Continental Early Warning System (CEWS) established in the mid-2000s and complementary regional mechanisms such as ECOWAS’ ECOWARN and IGAD’s CEWARN, where questions of who collects, stores, and interprets conflict data carry significant implications for both operational response and political legitimacy. These systems rely increasingly on digital data

streams, incident reporting networks, and analytical platforms that aggregate information from civil society organisations, research institutions, and field monitoring structures across multiple countries, raising practical governance questions about data ownership, standardisation, and cross-border information sharing.

Governance Asymmetries and Legitimacy Risks

The implications of these data dynamics for PeaceTech are profound, but they also point toward under-explored opportunities for structural change. PeaceTech tools are often introduced in contexts where trust is already fragile. When analytical systems are perceived as externally driven, opaque, or misaligned with local realities, they risk reinforcing scepticism rather than supporting peacebuilding objectives. This dynamic has been observed in several conflict settings where digital monitoring and crisis-mapping tools have been introduced alongside humanitarian or stabilisation responses, including northeastern Nigeria during the Lake Chad Basin crisis after 2014 and parts of the central Sahel following the escalation of violence after 2015 (Bakari & al., 2026). However, this fragility also highlights the strategic importance of who controls data collection, defines metrics, and governs access.

Distrust does not stem solely from technological failure. It is rooted in longer histories of extractive data practices, unequal benefit-sharing, and limited local agency in knowledge production. However, the underlying challenge is structural: PeaceTech operates within a global data economy that privileges externally governed infrastructures and externally defined indicators. As a result, legitimacy is often undermined not by the absence of data, but by the absence of locally owned data governance. In long-running conflict environments such as eastern Democratic Republic of the Congo or northern Kenya, international monitoring and reporting systems have operated for decades. These experiences have shaped debates on sovereignty, representation, and control over conflict information.

Policy ambition in AI governance often outpaces the institutional and procedural conditions required to make it credible in practice. Work on African AI governance stresses that trustworthiness depends on upstream data governance choices, including participatory decision-making, enforceable safeguards, and clear accountability for data use and reuse. In PeaceTech, this is directly relevant because legitimacy concerns frequently emerge not from the technical existence of tools, but from governance arrangements that leave control over datasets, standards, and reuse outside the contexts

where data is generated and where consequences are felt (Effoduh et al., 2024). These governance concerns have also appeared in policy debates across several African states. Kenya adopted a Data Protection Act in 2019, while Nigeria introduced updated data governance frameworks in the early 2020s. At the continental level, the African Union adopted the Data Policy Framework in 2022, highlighting the strategic importance of data sovereignty and accountable digital governance.

Artificial Intelligence, Data Asymmetries and the Risk of Harm

AI Systems and Training Data Dependence

The growing focus of AI in peacebuilding and mediation settings brings these data issues into sharper focus. AI systems rely on large-scale datasets, statistical regularities, and pattern recognition. As a result, any imbalance in the underlying data is amplified by automation. AI does not introduce new biases so much as it operationalises existing ones at scale. This is not a claim that applies uniformly across all PeaceTech tools: communication, coordination and secure-messaging platforms are not trained on data in the way that predictive, generative or classification systems are, and their governance challenges differ accordingly. The analysis in this section, and the data sovereignty critique more broadly, applies most directly to AI and machine-learning-based PeaceTech applications.

Linguistic and Geographic Underrepresentation

The distribution of data used to train contemporary AI systems reflects global inequalities in digital production and language representation. Much of the digital content used in large-scale machine learning models originates from a relatively small number of high-income regions, where internet access, digitisation, and data infrastructure are more developed. As a result, linguistic and geographic representation within training datasets is highly uneven. Contexts in Africa and other parts of the Global South are frequently underrepresented, meaning that the social, cultural, and political realities of these regions are only weakly reflected in the data used to train AI systems.

Infrastructure and Compute Inequalities

Empirical research shows that African data is severely underrepresented in the datasets used to train contemporary AI systems, reflecting both lower levels of digitised content and structural asymmetries in data production and infrastructure. Analyses of large-scale machine learning corpora demonstrate that training data is overwhelmingly derived from a narrow set of high-income, primarily English-speaking regions, resulting in the systematic exclusion of data from Africa and other parts of the Global South (Bender et al., 2021). Comparative studies of language resources further show that the vast majority of African languages are classified as low-resource, receiving only a negligible share of the data used in modern AI training pipelines, despite the continent's substantial share of the global population (Joshi et al., 2020). Together, these findings indicate a persistent geographic and linguistic imbalance in AI training data that structurally disadvantages African contexts.

Language provides a clear illustration of these structural imbalances. Although Africa is home to more than 2,000 living languages, contemporary natural language processing systems are trained predominantly on a narrow set of high-resource languages originating in Europe and North America. Empirical analyses of multilingual language models show that African languages are overwhelmingly classified as low-resource and receive orders of magnitude less training data, resulting in significantly weaker model performance and higher error rates compared to high-resource languages (Kreutzer et al., 2022; Adelani et al., 2022). These disparities directly affect usability, reliability, and the downstream application of AI systems in African linguistic contexts.

Infrastructure further compounds these disparities. Africa hosts less than 1% of global data centre capacity, limiting the continent's ability to store, process, and retain large volumes of machine-readable data locally (Reuters, 2025; JICA, 2025). As a result, data generated in African contexts is often routed through external cloud infrastructures, where decisions about data curation and reuse are made outside local governance frameworks. Access to computational resources follows a similar pattern. Only around 5% of African AI practitioners have access to the computing power required to train or meaningfully fine-tune AI models (UNDP, 2024). This constrains the ability to develop, test, and adapt models using locally relevant data, reinforcing reliance on externally trained systems.

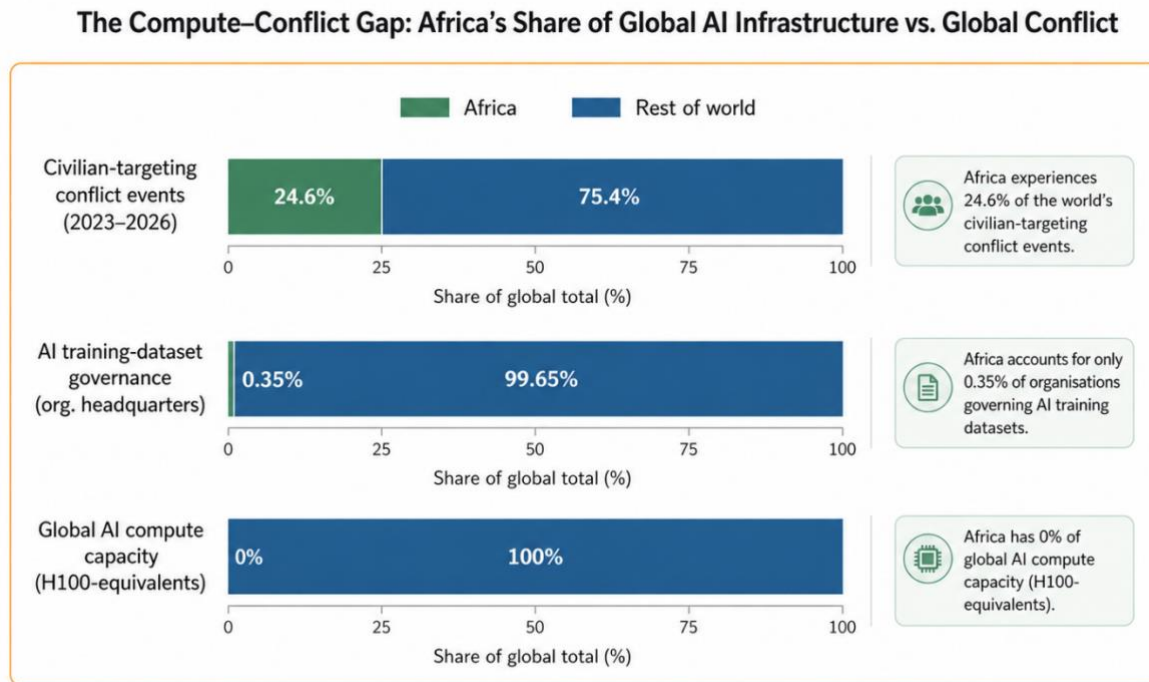


Figure 2: The compute–conflict gap for Africa. Country-level data show Africa holds 0% of global AI compute capacity (H100-equivalents) and 0.35% of AI training-dataset governance (by organisational headquarters), yet accounts for 24.6% of the world's civilian-targeting conflict events, 2023–2026. This is the empirical counterpart to the structural disconnect illustrated in Figure 1, and the basis for the community-based, Africa-led governance model advanced in this paper. Source: *The Geography of AI for Peacebuilding: Compute, Training Data, and Conflict* from Coyle (2026).

Country-level analysis combining AI compute infrastructure, AI training-dataset provenance and armed-conflict event data confirms the scale of this disconnect: 92.9% of global AI compute capacity (H100-equivalents) and 89.1% of documented AI training datasets originate in the Global North, while 89% of ACLED-recorded conflict events specifically targeting civilians between 2023 and 2026 occurred in the Global South (Coyle, 2026). This concentration of infrastructure outside the regions most affected by conflict is precisely why this paper treats African leadership over data governance, tool design, and deployment decisions as a structural necessity for legitimate and effective PeaceTech, not an optional add-on.

Performance Gaps, Misinterpretation and the “Do No Harm” Principle

Crucially, these imbalances have measurable technical consequences. Empirical studies demonstrate that AI models trained predominantly on data from high-income regions perform significantly worse when applied in low- and middle-income contexts, including African settings (Santana et al., 2024). In PeaceTech applications, such performance gaps can translate into inaccurate analysis, misinterpretation of conflict signals, and reduced credibility among local stakeholders. These effects directly conflict with the peacebuilding principle of “Do No Harm,” which emphasises the avoidance of unintended negative consequences arising from external interventions, including those based on flawed or misaligned analytical assumptions (Anderson, 1999; Anderson & Olson, 2003).

Beyond questions of sovereignty and power, there is also a pragmatic dimension to this argument: PeaceTech systems that are not sufficiently adapted to African contexts are also likely to perform poorly on their own technical terms. Recent research on AI-enhanced early warning systems shows that, despite substantial technical progress, such systems often continue to generate outputs primarily at the national level, limiting their usefulness for the sub-national and local-level decision-making on which effective conflict prevention and response frequently depend, because they lack sufficiently fine-grained, locally grounded data (Tiggeloven et al., 2025). This suggests that the case for African-led data governance and localisation is not solely a normative one about ownership and power; it is also an operational one, because systems built on thin or externally generated data are less likely to produce the granular, context-sensitive analysis that peacebuilding practice actually requires.

Recent AI-for-peace scholarship has emphasised that opportunity narratives require the same degree of scrutiny as risk narratives. The practical implication is that claims about positive peace impact should be tied to governance measures that enable accountability, measurement, and sustained legitimacy, rather than being treated as an automatic outcome of technological deployment. This matters for PeaceTech because systems operating in fragile contexts often face low tolerance for opaque decision-making and weak evidentiary claims, particularly when the underlying data is partial or structurally imbalanced (Giovanardi, 2024).

Recentring African Leadership through Data Ownership and Governance

From Participation to Structural Control

This same structural configuration reveals a significant, but largely unrealised, opportunity. PeaceTech systems depend fundamentally on access to high-quality, contextually grounded data. In many African contexts, local civil society organisations, peacebuilding NGOs, and community-based actors are deeply embedded in the social environments where such data could be generated. However, they are most often engaged as participants in externally designed, time-bound data collection processes, rather than as owners or governors of the data itself. When projects end, data collection frequently ends with them, severing relationships and reinforcing cycles of disengagement and distrust.

Data as Bargaining Power and Agenda-Setting Authority

This limits local agency in knowledge production and contributes to scepticism toward peace interventions that are technology-focused, particularly when communities experience repeated data collection without visible local benefit or continuity. At the same time, this positioning highlights a critical strategic opportunity. If local peacebuilding organisations were supported to initiate data collection on their own terms, define their own indicators, and retain ownership over datasets, they could fundamentally alter the dynamics of PeaceTech engagement. Rather than responding to externally imposed data demands, locally governed data infrastructures would allow African actors to set agendas, negotiate conditions of use, and leverage their data strategically in engagements with funders and technology developers. In this configuration, data becomes not a by-product of projects but a source of bargaining power, legitimacy, and continuity. Locally governed datasets enable African organisations to negotiate conditions of technological deployment, influence evaluation criteria, and shape funding priorities, rather than merely complying with externally defined reporting requirements. Shifting toward African-led governance requires that data infrastructures, standards, and decision-rights are anchored within the continent, even when international partnerships remain involved.

AI-enabled engagement in peace processes benefits from frameworks that distinguish between participation as a numeric indicator and participation as a governance condition shaped by access, security, literacy, and social trust. Recent work on “digital dialogues” provides a useful way to discuss AI in peace processes without relying on general claims about innovation, emphasising instead the design constraints that determine whether AI-supported processes expand inclusion or reproduce digital exclusion. This perspective reinforces the importance of local control over data and conditions of use, because governance authority enables local actors to specify inclusion and security requirements rather than inheriting them from external tool designs (Wählich & Kufus, 2025). These arguments are particularly salient for AI-driven and data-intensive PeaceTech applications, such as early warning systems, predictive analytics, and automated language processing. Smaller-scale or community-led digital tools may not face the same level of structural imbalance. The concern is not international collaboration per se, but governance asymmetry in decision-making authority and infrastructural control.

Coalition-Based Data Governance Models

Such a shift would require moving beyond project-based extraction toward locally rooted data governance, potentially through coalitions that pool expertise, establish shared standards, and resist fragmentation. While this represents a significant departure from prevailing practice, it aligns directly with peacebuilding principles that emphasise local ownership, sustained engagement, and the avoidance of unintended harm. Such an approach requires collective action. Individual organisations rarely have sufficient leverage on their own, but coalitions of local actors can establish shared data governance frameworks that resist extractive practices and retain value within local ecosystems. When data is collected, governed, and mobilised at home, by those embedded in the context, PeaceTech interventions are more likely to support locally grounded peace processes rather than impose external interpretations of conflict.

Concretely, coalition-based governance would involve local peacebuilding organisations, technologists and, where relevant, regional bodies jointly agreeing on data standards, access conditions and reuse terms before data collection begins, rather than accepting terms set unilaterally by funders or technology partners. The Austria-based PeaceTech Alliance, discussed further below, illustrates one form this can take: a standing coalition of civil society organisations, practitioners and universities that collectively shapes how PeaceTech is pursued in a given context, rather than

negotiating terms individually. Build Up's coalition with peacebuilding practitioners in Kenya and Sudan through the Automatic Classifiers for Peace initiative offers a further, African-grounded illustration: rather than applying a pre-trained model, the coalition jointly defined labelling categories, validated outputs against local knowledge of conflict dynamics, and retained shared authorship over the resulting tools (Cheboi et al., 2026). These examples indicate that coalition-based governance is not merely an aspirational model but an approach with existing, if unevenly documented, precedent.

Coalition-based governance, data sovereignty and localisation are best understood as mutually reinforcing rather than separate concepts. Data sovereignty establishes the decision rights, over what is collected, how it is categorised, and who may reuse it, that make meaningful local authority possible. Localisation supplies the infrastructural and technical capacity needed to exercise that authority in practice, from local data storage to context-adapted models. Coalitions provide the collective bargaining structure through which fragmented local actors can exercise data sovereignty and sustain localisation efforts beyond the lifespan of any single project or funding cycle. Without coalitions, data sovereignty risks remaining a principle asserted by individual organisations with limited leverage; without data sovereignty and localisation, coalitions would have little substantive authority to negotiate over. It is this interdependence, rather than any one concept in isolation, that underpins the structural corrective advanced in this paper.

Toward Locally Anchored PeaceTech Infrastructures

Data sovereignty has the potential to support peacebuilding practice because it underpins a country's or community's ethos of controlling how data is generated, stored, governed, and used. In this context, the community are peacebuilders. Within this context, this framework can support actors in doing all this and in deploying that data so it aligns with the principle of Do No Harm. This can be achieved by reducing the risk that externally driven analytics distorts understanding and undermines the trust needed in conflict settings. Perhaps more importantly, it could create the conditions for PeaceTech to be shaped by the people, and for the people.

Policy Implications for African Institutions and Partners

The structure of PeaceTech governance determines who benefits and where authority resides once pilot phases conclude.

Implications for African Governments and Regional Bodies

For African governments, the immediate temptation is adoption. AI strategies, digital transformation frameworks, and smart governance agendas are now commonplace across the continent. However, recent scholarship on African AI governance cautions that readiness rhetoric often outpaces infrastructural depth (Gwagwa et al., 2020). PeaceTech, in particular, sits at the intersection of security governance and data policy.

Adoption without procurement reform is rarely durable. Comparative public-sector AI governance analysis shows that procurement processes frequently become the de facto governance mechanism through which standards, auditability requirements, and accountability provisions are either embedded or silently bypassed. Where procurement is driven primarily by efficiency narratives or innovation signalling, regulatory safeguards tend to lag behind implementation, creating enforcement gaps that become visible only after deployment (OECD, 2025). For PeaceTech specifically, this means that early warning and conflict-monitoring systems procured without embedded auditability or accountability requirements can operate for years before their data-handling or classification practices are scrutinised. By this point, they may already have shaped operational and political responses to conflict.

The African Union's *Data Policy* Framework signals a continental commitment to data sovereignty (African Union, 2022). However, sovereignty requires material foundations. Storage capacity, compute infrastructure, interoperable regional systems, and enforceable localisation regimes. Empirical work on algorithmic colonisation highlights how infrastructural dependency shapes power asymmetries in African AI deployment (Birhane, 2020). When data storage and model training remain externalised, governance authority follows. In PeaceTech applications, this externalisation is especially consequential because it is often the storage and processing of sensitive conflict-related data on displacement, violence, or community informants that is most exposed to being governed from outside the contexts it describes.

Legal scholarship on digital sovereignty makes a parallel point: localisation is frequently framed as an assertion of control, yet without infrastructural and contractual leverage, localisation provisions cannot meaningfully alter asymmetrical cloud dependencies. Sovereignty becomes operative only when states can negotiate storage, processing, and model access from a position of material capability rather than structural reliance (Santosh, 2025). For African early warning and conflict-monitoring systems, this distinction matters directly. Without material negotiating capacity, localisation clauses in PeaceTech partnerships risk remaining symbolic commitments rather than enforceable control over how conflict data is stored, processed and reused.

Regional organisations such as ECOWAS and IGAD operate early warning systems. However, federated data governance arrangements remain underdeveloped. Contemporary digital sovereignty research emphasises that cross-border data governance is central to African strategic autonomy (Nabukenya & Van der Velden, 2022). Conflict data does not conform to national borders. Neither should its governance. Continental AI governance analyses further caution that high-level harmonisation efforts often lack binding legal interoperability and enforcement alignment, limiting the practical effectiveness of regional data pooling initiatives (Effoduh et al., 2024). A further step for regional institutions such as the African Union would be to invest in systematic research mapping how civil society organisations and community-based peace actors already use digital tools in conflict and post-conflict environments. Much of this innovation remains informal, locally embedded, and poorly documented within formal policy frameworks. Conducting continent-wide or regional studies of existing digital practices would provide a clearer empirical foundation for PeaceTech development grounded in lived experience rather than external technological agendas.

Research would also make visible the diversity of technological capacities, infrastructure conditions, and skill sets across African countries, allowing regional actors to identify common trends while recognising that different contexts will require different approaches. Such research could inform community-centred narratives about technology for peace, identify gaps in access and capacity, and support the development of coalitions linking civil society, technologists, and regional institutions. Beyond high-level policy processes, this could also take practical forms such as local PeaceTech meetups, community-led digital projects, downloadable workshop toolkits, and steering groups embedded within affected communities rather than solely within policy circles. These mechanisms would help translate data sovereignty principles into participatory practice, allowing communities not only to contribute data but also to learn about and to shape the digital tools and governance structures that influence peacebuilding in their own contexts.

African Union–Supported Pathway for Community-Centred PeaceTech Ecosystem Development



Figure 3: Illustrates a pathway for African Union–supported community-centred PeaceTech ecosystem development. Ecosystem mapping across multiple African countries can identify existing digital practices, skills, infrastructure gaps, and local needs, informing engagement, coalition formation, and governance processes that feed evidence from local ecosystems into African Union policy, funding, and strategic priorities. Note. Author’s own illustration, informed by Coyle (2024), and by practitioner survey evidence on digital practices, skills, and support needs in Holzinger & Coyle (2026).

One example of coalition-building around the subject of PeaceTech can be found in Austria with the PeaceTech Alliance. This community-anchored initiative connects civil society organisations, peacebuilding practitioners, technology institutes, and universities across the country to cultivate a community of practice rooted in peacebuilder-centred design. The alliance creates spaces where agendas can be debated and collectively shaped, often working alongside public institutions to influence how governments and international organisations approach PeaceTech and how the concept is framed and communicated. Governments must also confront embedded classifications. AI systems do not merely process data; they stabilise categories of risk and threat. Recent work on algorithmic auditing demonstrates how institutional deployment of AI systems can entrench particular definitions of harm and instability (Raji et al., 2022). Scrutiny of underlying taxonomies should therefore be treated as core governance work. Upstream investment is equally critical. Digital sovereignty scholarship in African contexts underscores that technological autonomy depends on cultivating endogenous capability rather than relying exclusively on global cloud platforms (Mhlanga, 2023). PeaceTech must be integrated into broader industrial and digital public infrastructure strategies, not isolated within donor-funded innovation silos.

Evidence from institutional governance in other sectors can help clarify what “implementation” looks like when resources and capacity are uneven. A case study of generative AI governance in an African higher education setting illustrates how principles are translated into operational rules and internal accountability practices that shape everyday decision-making, rather than remaining at the level of strategic statements. While not a peacebuilding case, the underlying lesson is transferable: governance becomes effective when it is proceduralised and linked to decision points, not when it remains aspirational (Thaldar et al., 2025). Applied to PeaceTech, this points to embedding governance directly into the operational rules of early warning platforms, data-sharing agreements and coalition charters, rather than leaving it as a matter of high-level policy commitment alone.

Regional governance challenges provide a useful caution for PeaceTech efforts that depend on cross-border data sharing and coordinated early warning. Recent analysis of IGAD’s strategic constraints highlights how fragmented national legal systems and limited enforcement mechanisms can weaken regional coordination, even where frameworks exist and political commitment is expressed. In PeaceTech settings, this matters because federated or regional data governance requires not only technical interoperability but mechanisms that align practice and accountability across jurisdictions (Ahimbisibwe & Nkiko, 2025).

Implications for African Civil Society and Peacebuilding Organisations

Peacebuilding organisations possess relational legitimacy and contextual knowledge that frequently becomes the entry point for data collection in fragile settings. However, participation in data generation does not automatically translate into governance authority. Community-based data governance scholarship increasingly emphasises self-determination as a procedural condition rather than a rhetorical aspiration. Ethical frameworks developed in health research contexts argue that marginalised communities must retain decision-rights over data categorisation, reuse, and downstream benefit-sharing if governance is to move beyond extractive participation. These models foreground collective standard-setting and negotiated access conditions, offering a transferable template for peacebuilding organisations seeking to institutionalise bargaining power through coalition-based data governance (Islam et al., 2024). In PeaceTech terms, this means civil society actors negotiating not only participation in data collection for early warning or crisis-mapping tools, but also rights over how the resulting datasets are categorised, stored, and reused by external partners.

Implications for International Partners and Funders

Digital public infrastructure is increasingly framed as a way to reduce dependency on proprietary systems by investing in interoperable, public-interest digital “rails” that support multiple services while strengthening accountability and resilience. This framing is relevant to PeaceTech because it shifts attention away from stand-alone tools and toward shared infrastructure that can host peace-relevant services without relying on external control over core components such as identity, data exchange, and governance layers (Wilkinson et al., 2025). Innovation funding cycles in African digital sectors have repeatedly produced fragmentation rather than consolidation. Empirical work on digital health implementation across African states demonstrates how donor-driven pilots frequently collapse once grant cycles end, not because the tools fail technically, but because financing, procurement alignment, and institutional embedding were never structurally secured. The result is a landscape of short-lived systems that rarely integrate into national architectures, reinforcing dependency and duplication rather than resilience (Jiwa et al., 2026). The same dynamic is visible in PeaceTech: early-warning dashboards, crisis-mapping platforms and community-reporting tools funded through short-term grants have frequently gone offline once initial funding cycles ended, reproducing the same pattern of fragmentation documented in digital health.

Emerging work on decolonial impact assessment for AI argues that evaluation must interrogate epistemic asymmetries and structural power dynamics embedded within innovation cycles, not merely downstream technical outputs. By proposing structured assessments of colonial legacies, infrastructural dependency, and knowledge hierarchies, this approach reframes “impact” as a governance question rather than a performance metric. In PeaceTech contexts, such frameworks are directly relevant because legitimacy failures often stem from whose knowledge is encoded, whose categories prevail, and whose authority is displaced (Wakunuma et al., 2025).

Conclusion: Beyond Replication

Across the African continent, those working in civil society organisations in peace-related contexts often operate within long-running, and deeply complex conflict environments. As a result, their expertise is grounded in practice, in building lasting trust, and in engaging daily with communities affected by violence. However, it is fair to suggest that this experience rarely shapes the data infrastructures underlying emerging tools that can be considered PeaceTech. While conflict-related data may indeed be gathered locally, the systems and algorithms used to process it are often located elsewhere, reflecting an intrinsically flawed design. The result is paradoxical: those closest to this work are frequently drawn into the processes of data generation (sometimes even extraction) yet in most cases they do not control how that information is ultimately used.

Artificial intelligence makes this problem harder to ignore. AI systems depend on training data, and where that data is thin, uneven, or poorly grounded in local realities, the tools built from it struggle to read those realities well. In fragile settings, that is not a minor technical flaw. It affects credibility and trust. Where digital tools are seen as externally driven, opaque, or poorly matched to lived realities, scepticism grows quickly. In many settings, it reflects long experience of projects that extract knowledge locally while leaving little behind in terms of control, continuity, or benefit. For that reason, data governance should be treated as a peacebuilding concern in its own right. It is not just an administrative question sitting in the background. It shapes who is heard, whose interpretations count, and how conflict itself is rendered legible within digital systems.

Structural Shifts for Legitimate and Effective PeaceTech

A more legitimate PeaceTech agenda requires more than local consultation or short-term inclusion within externally designed projects. It requires a shift in where authority sits. African civil society organisations, peacebuilding NGOs, and regional institutions already hold the contextual knowledge needed to interpret conflict dynamics in serious and grounded ways. What they often lack is structural influence over the data systems that increasingly claim to represent those same dynamics. That has to change.

One possible route lies in coalition-based governance. A single organisation may have limited leverage when dealing with funders, technology developers, or larger institutional actors. A coalition can do more. Shared data standards, shared governance arrangements, and collectively defined access conditions would give local actors greater ability to negotiate how PeaceTech systems are built, evaluated, and used. Partnerships are stronger when local actors are not treated mainly as implementers or sources of data, but as institutions with authority over the terms on which that data is collected, interpreted, and shared. The broader point is straightforward. Data ownership is not only an ethical issue. It is also a political one. It affects bargaining power, agenda-setting capacity, and the ability to insist that technology serves peacebuilding priorities already defined within the context itself.

Future Research and Governance Pathways

The purpose of this paper was to highlight the structural imbalances in design and to map out why this matters for the future of PeaceTech in Africa. Further research is required to examine what governance models might look like within technology, what this might look like in practice, and what institutional conditions could support delivery. It is more than rooting in local needs, and just asking whether African actors are included in the design process. It is shining a light on who decides the terms, who controls the infrastructure and who actually has the authority to decide what really is PeaceTech in the first place.

Declaration of Interest Statement

The authors have reported no potential conflict of interest.

Biographical Note

Nathan Coyle is an Expert Advisor for PeaceTech at the AIT Austrian Institute of Technology and co-founder and lead of the PeaceTech Alliance, a community-led platform working to ensure that emerging technologies support peacebuilding responsibly and remain grounded in the needs of practitioners and affected communities. His work focuses on PeaceTech governance, community-led design, artificial intelligence, data sovereignty, misinformation and the responsible use of technology across the conflict cycle. Through this work, he has contributed to discussions, research and initiatives involving the United Nations, the European Union and the Organization for Security and Co-operation in Europe, including engagements with UN offices in Geneva, Vienna and New York and collaboration with diplomatic and policy communities connected to the OSCE. Nathan is also an Advisory Board Member at the Austrian Centre for Peace, a member of the European Security and Defence College Cyber Board and a TEDx speaker. He is the author of *Open Data for Everybody: Using Open Data for Social Good*, published by Routledge in 2024, and was named Thought Leader of the Year at the 2024 UK Innovation Awards held in the UK.

Dr. Mamadou Bodian is an expert and consultant for the Centre for Advanced Studies in Defence and Security (CHEDS) and contributes to the International Forum on Peace and Security in Africa. He also lectures at the Senegal Defence Institute (IDS), where he supports the training of officers from the Senegalese Armed Forces and other armed forces across the sub-region. He is a founding member of the Sahel Research Group at the University of Florida and has served as an expert for Freedom House on Mali and Senegal, Varieties of Democracy on Mauritania and Afrobarometer on Senegal. His research focuses on religion, foreign policy, democracy and security in the Sahel. He is the author of numerous academic and policy publications and has co-authored two books with Leonardo A. Villalon: *Entre le Savoir et le Culte: Activisme et mouvements religieux dans les universités du Sahel*, published by Amalion in 2020, and, with Villalon and Abdourahmane Idrissa, *École, Religion et République au Sahel: Éducation arabo-islamique et réforme de l'enseignement public au Sahel*, published by L'Harmattan in 2025.

ORCID ID:

Nathan Coyle - <https://orcid.org/0009-0006-9991-7477>

Mamadou Bodian - <https://orcid.org/0009-0007-5250-105X>

References

- ACLED. (2019). Comparing conflict data: GTD, ICEWS, GDELT and UCDP datasets. https://acleddata.com/sites/default/files/wp-content-archive/uploads/2022/02/ACLED_WorkingPaper_ComparisonAnalysis_2019.pdf
- Adelani, D. I., et al. (2022). MasakhaNER 2.0: Africa-centric transfer learning for named entity recognition. *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. <https://doi.org/10.18653/v1/2022.emnlp-main.193>
- African Union Commission. (2020). *The digital transformation strategy for Africa (2020–2030)*. African Union. <https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf>
- African Union Commission. (2022). *African Union data policy framework*. African Union. <https://au.int/en/documents/20220728/au-data-policy-framework>
- Ahimbisibwe, F., & Nkiko, C. M. (2025). Navigating forced migration in the Horn of Africa: A systematic review of IGAD’s strategic challenges and opportunities. *Cogent Social Sciences*, 11(1), 2583311. <https://doi.org/10.1080/23311886.2025.2583311>
- Anderson, M. B. (1999). *Do no harm: How aid can support peace—or war*. Lynne Rienner.
- Anderson, M. B., & Olson, L. (2003). *Confronting war: Critical lessons for peace practitioners*. Collaborative for Development Action.
- Bakari, A. U., Abana, A. K., & Sani, H. I. (2026). Leveraging technology to combat insecurity and Boko Haram activities in northeastern Nigeria. *Journal of Arts and Sociological Research (JASR)*, 11(6). <https://doi.org/10.70382/ajars.v11i6.0107>
- Bell, C. (2024). *PeaceTech: Digital transformation to end wars*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-031-38894-1>
- Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, 610–623. <https://doi.org/10.1145/3442188.3445922>

Birhane, A. (2020). Algorithmic colonization of Africa. *SCRIPTed*, 17(2), 389–409. <https://doi.org/10.2966/scrip.170220.389>

Carry, I., Müller, M., & Schulze, M. (2025). *New wars 2.0: Massive violence against civilians in ongoing armed conflicts demands a political rethink* (SWP Comment 2025/C 40). StiftungWissenschaftundPolitik. <https://doi.org/10.18449/2025C40>

Cheboi, A. K. K., Hawke, J., Abualfatah, H., Sutjahjo, A., Cerigo, D. B., Olpengs, R., & O'Brien, W. (2026). White paper: Human-AI collaboration in conflict analysis: Text classifier development with peacebuilders. arXiv. <https://arxiv.org/abs/2604.21034>

Couldry, N., & Mejias, U. A. (2019). Data colonialism: Rethinking big data's relation to the contemporary subject. *Television & New Media*, 20(4), 336–349. <https://doi.org/10.1177/1527476418796632>

Raleigh, C., Linke, A., Hegre, H., & Karlsen, J. (2010). "Introducing ACLED: An armed conflict location and event dataset". *Journal of Peace Research*, 47(5), 651–660. <https://doi.org/10.1177/0022343310378914>

D'Ignazio, C., & Klein, L. F. (2020). *Data feminism*. MIT Press. <https://doi.org/10.7551/mitpress/11805.001.0001>

Effoduh, J. O., Akpudo, U. E., & Kong, J. D. (2024). Toward a trustworthy and inclusive data governance policy for the use of artificial intelligence in Africa. *Data & Policy*, 6, e34. <https://doi.org/10.1017/dap.2024.26>

Emmanuel-Dio, C. (2025). Twenty-Two years after: The African Peace and Security Architecture (APSA) in the face of shifting geopolitics and regional security dynamics. *Journal of Central and Eastern European African Studies*, 5(1), 5–20. <https://doi.org/10.12700/jceas.2025.5.1.351>

Coyle, N. (2024). *Open data for everybody: Using open data for social good*. Chapman & Hall/CRC. <https://doi.org/10.1201/9781032724645>

Coyle, N. (2026). The Geography of AI for Peacebuilding: Compute, Training Data, and Conflict [Data set]. Harvard Dataverse, V1. <https://doi.org/10.7910/DVN/GU09IB>

Giovanardi, M. (2024). AI for peace: Mitigating the risks and enhancing opportunities. *Data & Policy*, 6, e41. <https://doi.org/10.1017/dap.2024.37>

Gwagwa, A., Kraemer-Mbula, E., Rizk, N., Rutenberg, I., & De Beer, J. (2020). Artificial intelligence (AI) deployments in Africa: Benefits, challenges and policy dimensions. *African Journal of Information and Communication*, 26, 1–28. <https://doi.org/10.23962/10539/30361>

Heeks, R., & Shekhar, S. (2019). Datafication, development and marginalised communities: Problems, impacts, and opportunities. *Information Technology for Development*, 25(4), 679–700. <https://doi.org/10.1080/02681102.2019.1598592>

Hirblinger, A. T., & Perera, S. M. (2026). Peace and the pluriverse: interrogating (post-)digital peacebuilding. *Peacebuilding*, 14(1), 1–13. <https://doi.org/10.1080/21647259.2025.2583900>

Hirota, Y., Nakashima, Y., & Garcia, N. (2022). Gender and racial bias in visual question answering datasets. In *Proceedings of the 2022 ACM Conference on Fairness, Accountability, and*

Transparency (FAccT '22) (pp. 110–121). Association for Computing Machinery.
<https://doi.org/10.1145/3531146.3533184>

Holzinger, A., & Coyle, N. (2026). PeaceTech in Practice: Survey of Peacebuilding Practitioners on Technology Use, Risks, and Design Needs in Fragile and Conflict-Affected Settings (2025) [Data set]. Harvard Dataverse, V2. <https://doi.org/10.7910/DVN/7VAN5E>

Islam, M., Valiani, A. A., & colleagues. (2024). Ethical and equitable digital health research: Ensuring self-determination in data governance for racialized communities. *Cambridge Quarterly of Healthcare Ethics*, 33(4), 1–14. <https://doi.org/10.1017/S096318012400015X>

Japan International Cooperation Agency (JICA). (2025). *AI talent development and digital infrastructure in Africa*. JICA.

Jiwa, A., Ngatia, A., Benali, K., et al. (2026). Africa's digital health revolution: The digital fit-viability model to move from innovation to scaled implementation. *Journal of Medical Internet Research*, 28, e63495. <https://doi.org/10.2196/63495>

John, S. F. (2026). Digital peacebuilding in other worlds: the local-digital nexus in Kenya and Nigeria. *Peacebuilding*, 14(1), 68–79. <https://doi.org/10.1080/21647259.2025.2583899>

Joshi, P., Santy, S., Budhiraja, A., Bali, K., & Choudhury, M. (2020). The state and fate of linguistic diversity and inclusion in the NLP world. *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics*, 6282–6293. <https://doi.org/10.18653/v1/2020.acl-main.560>

Kimani M. (2007). “Broadcasting peace: Radio a tool for recovery”. *Africa Renewal* 21(3): 3.

Kreutzer, J., et al. (2022). Quality matters: Human evaluation of machine translation across low-resource African languages. *Proceedings of the 2022 Conference of the Association for Computational Linguistics (ACL)*. <https://doi.org/10.18653/v1/2022.acl-long.172>

Kogen, L., & Price, M. E. (2014). “Scholar-practitioner collaboration in media-related interventions: A case study of Radio La Benevolencija in Rwanda”. *International Journal of Media & Cultural Politics*, 10(3), 301–312. https://doi.org/10.1386/macp.10.3.301_1

Lokot, M., & Wake, C. (2021). Research as usual in humanitarian settings? Equalising power in academic–NGO research partnerships through co-production. *Conflict and Health*, 15(64). <https://doi.org/10.1186/s13031-021-00399-w>

Mac Ginty, R., & Richmond, O. P. (2022). Measuring peace in the Global South: The limits of quantitative indicators. *Peacebuilding*. <https://doi.org/10.1080/21647259.2022.2104523>

Martin-Shields, C. (2013). Inter-ethnic Cooperation Revisited: Why mobile phones can help prevent discrete events of violence, using the Kenyan case study. *Stability: International Journal of Security and Development*, 2(3), 1–13. <https://doi.org/10.5334/STA.CU>

Meier, P. (2015). “Digital humanitarians: How big data is changing the face of humanitarian response”. *CRC Press / Taylor & Francis*.

Mhlanga, D. (2023). Digital sovereignty and the Fourth Industrial Revolution in Africa. *Journal of African Business*, 24(3), 355–372. <https://doi.org/10.1080/15228916.2022.2103042>

- Nabukenya, J., & Van der Velden, M. (2022). Data governance in African contexts: Emerging approaches and persistent asymmetries. *Information Technology for Development*, 28(4), 723–741. <https://doi.org/10.1080/02681102.2022.2037125>
- Noesselt, N. (2026). Fragmented global AI governance? Chinese AI leadership dreams and Africa's quest for digital autonomy. *Global Policy*. <https://doi.org/10.1111/1758-5899.70199>
- Noyes, A., & Yarwood, J. (2013). "The AU Continental Early Warning System: From Conceptual to Operational?" *International Peacekeeping*, 20(3), 249–262. <https://doi.org/10.1080/13533312.2013.838393>
- OCHA. (2016). "Building data responsibility into humanitarian action. OCHA Policy and Studies Series." <https://www.unocha.org/publications/report/world/ocha-think-brief-building-data-responsibility-humanitarian-action>
- OECD. (2025). *Governing with artificial intelligence: The state of play and way forward in core government functions*. OECD Publishing. <https://doi.org/10.1787/795de142-en>
- Okolloh, O. (2009). "Ushahidi, or 'testimony': Web 2.0 tools for crowdsourcing crisis information". *Participatory Learning and Action*, 59, 65–70.
- Raji, I. D., Smart, A., White, R. N., Mitchell, M., Gebru, T., Hutchinson, B., Smith-Loud, J., Theron, D., & Barnes, P. (2022). Closing the AI accountability gap: Defining an end-to-end framework for internal algorithmic auditing. *Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency*, 33–44. <https://doi.org/10.1145/3531146.3533073>
- Reuters. (2025). *Africa holds less than 1% of global data centre capacity*. Reuters.
- Sambasivan, N., Kapania, S., Highfill, H., Akrong, D., Paritosh, P., & Aroyo, L. (2021). "Everyone wants to do the model work, not the data work": Data cascades in high-stakes AI. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '21)*. <https://doi.org/10.1145/3411764.3445518>
- Santana, M., et al. (2024). Impact of data imbalance between high-income and low- and middle-income contexts on AI performance. *Scientific Reports*, 14, Article 11234. <https://doi.org/10.1038/s41598-024-11234-7>
- Santosh, B. S. S. (2025). Digital colonialism and data sovereignty: International and national legal perspectives in the digital era. *Journal of Contemporary Legal Studies*, 24(2). <https://doi.org/10.36643/mjrl.24.2.digital>
- SIPRI (2017), "Technology at the Service of Peace," 2017. <https://www.sipri.org/commentary/blog/2017/technology-service-peace>
- Strand, H., Wilhelmsen, L., Nygård, H. M., Urdal, H., & Gleditsch, N. P. (2023). *Trends in armed conflict, 1946–2022*. Peace Research Institute Oslo. <https://www.prio.org/publications/13053>
- Thaldar, D., Botes, M., Badru, A., Chenia, H., Duma, S., Dlamini, S. B., Amin, N., Hugo, W., Govender, R., Bruce-Brand, J., Vosloo, A., Koorbanally, N. A., & Chuturgoon, A. (2025). Generative AI governance in higher education: A case study from Africa. *Frontiers in Political Science*, 7, 1666661. <https://doi.org/10.3389/fpos.2025.1666661>

Tiggeloven, T., Pfeiffer, S., Matanó, A., van den Homberg, M., Thalheimer, L., Reichstein, M., & Torresan, S. (2025). The role of artificial intelligence for early warning systems: Status, applicability, guardrails, and ways forward. *iScience*, 28(11), 113689. <https://doi.org/10.1016/j.isci.2025.113689>

United Nations Development Programme (UNDP). (2024). *Only 5% of Africa's AI talent has access to required compute power*. UNDP.

United Nations Office of the Special Adviser on Africa (OSAA). (2018, November). Mapping study of the conflict prevention capabilities of African regional economic communities. United Nations Secretariat. <https://www.un.org/osaa/sites/www.un.org.osaa/files/files/documents/2020/Dec/mappingreport.pdf>

Wählich, M., & Kufus, F. (2025). Leveraging AI in peace processes: A framework for digital dialogues. *Data & Policy*, 7, e65. <https://doi.org/10.1017/dap.2025.10031>

Wählich, M., & Kufus, F. (2026). Structural dilemmas of PeaceTech: AI, power, and peacebuilding in the digital age. *Peacebuilding*, 1–11. <https://doi.org/10.1080/21647259.2026.2644694>

Wakunuma, S., Eke, J., & colleagues. (2025). Decoloniality impact assessment for AI. *AI & Society*. <https://doi.org/10.1007/s00146-025-02105-w>

Wilkinson, J., Eaves, D., & colleagues. (2025). *The case for expanding digital public infrastructure: How open, scalable technology can serve citizens, preserve sovereignty and save money*. Chatham House. ISBN 978-1-78413-660-4.

Young, H. R., Cha, Y. K., den Boer, H., Schellens, M. K., Nash, K. E., Watmough, G. R., Donovan, K., Patenaude, G., Fleming, S., Butchart, B., & Woodhouse, I. (2023). Strata: Mapping climate, environmental and security vulnerability hotspots. *Political Geography*, 100, 102791. <https://doi.org/10.1016/j.polgeo.2022.102791>