AA: Boterea eta Desberdintasun Globalak

IA: Poder y Desigualdades Globales

Prof. Igor Calzada, PhD, MBA, FeRSA

EHU · Departamento de Políticas Públicas e Historia Económica
+
Ikerbasque

Voces africanas nos miran y evalúan · V edición

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DOI
10.5281/zenodo.23548229
Zenodo · Presentación

Co-funded by the European Union



Mozambique · agosto de 2017

Coopera.eus · Grupo Pro África
Con la colaboración de Hegoa

I. MARCO

01

IA, poder y desigualdades globales

Gogora ekar ditzagun...



Amartya Sen

Sen, A. (1999).
Development as Freedom.
Oxford University Press.



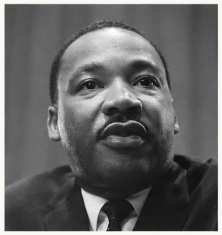
Elinor Ostrom

Ostrom, E. (1990).
Governing the Commons: The Evolution of Institutions for Collective Action.
Cambridge University Press.
doi:10.1017/CBO9780511807763



Nelson Mandela

Mandela, N. (2005, 3 February).
Speech at the Make Poverty History rally.
Trafalgar Square, London.



Martin Luther King Jr.

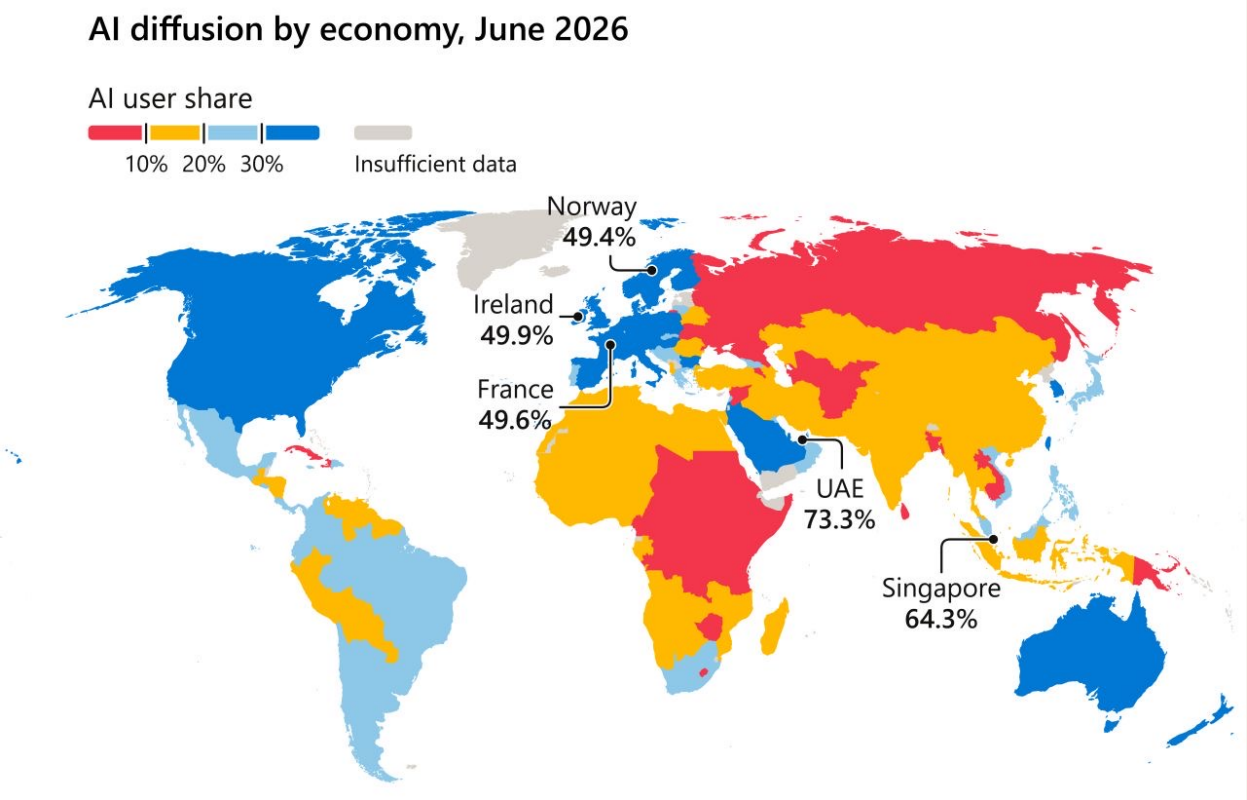
King, M. L., Jr. (1964, 11 December).
The Quest for Peace and Justice.
Nobel Lecture, Oslo.

Argazkien iturriak: UT Dallas · Princeton University Press · Mandela: South Africa The Good News, 2008 (CC BY 2.0) · King: Marion S. Trikosko / Library of Congress, 1964.
Mandela irudiaren lizentzia: creativecommons.org/licenses/by/2.0

Geopolítica mundial, infraestructuras y ciudades

Aurkezpena Zenodon
Presentación en Zenodo

La difusión global de la IA generativa



Gipuzkoa

72,7%

Norte Global

28,8%

Sur Global

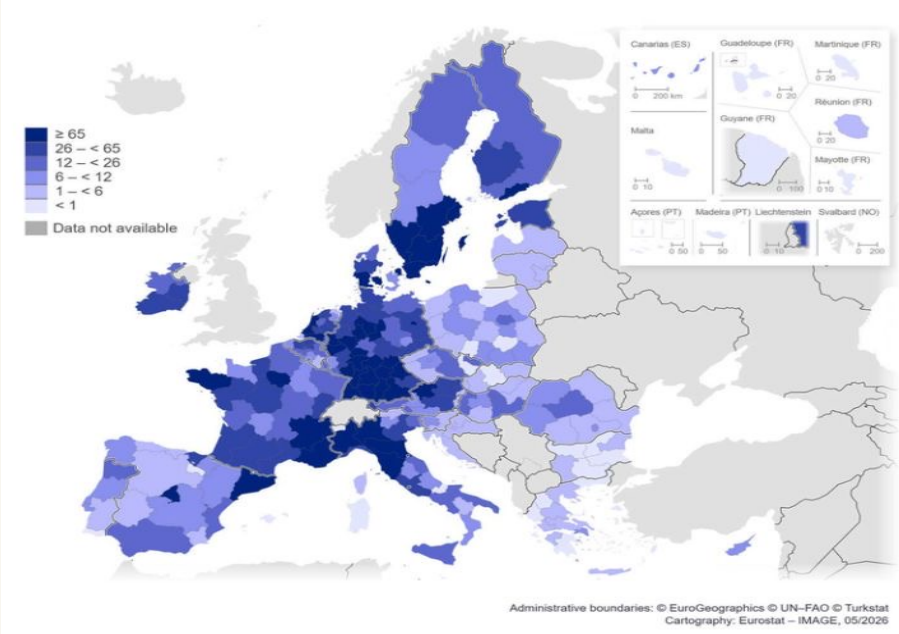
16,2%

Sudáfrica: 23,9%
Mozambique: 11,4%

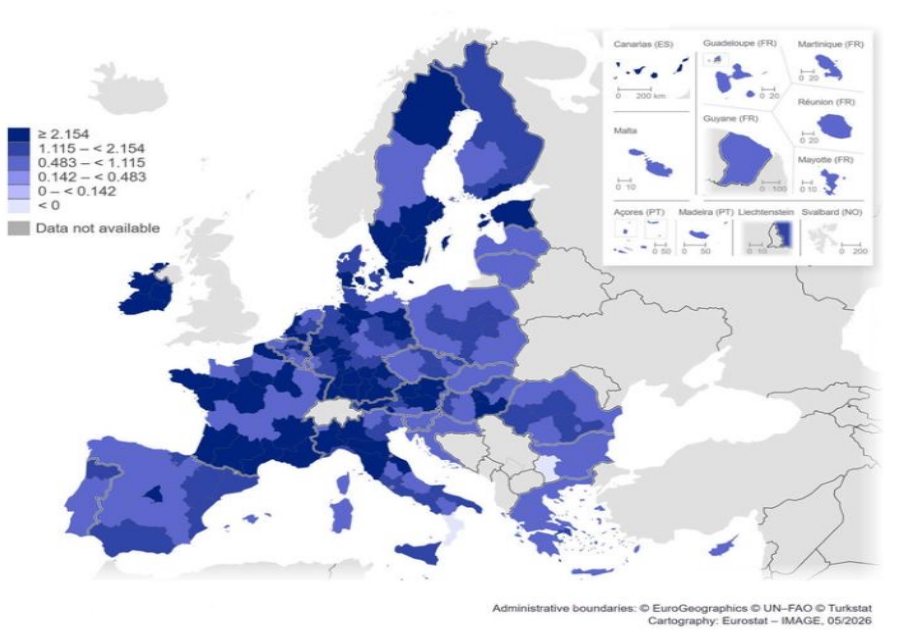
Microsoft AI Economy Institute. (2026). *Global AI Diffusion: Q2 2026 Trends and Insights*. Microsoft. Datos de junio de 2026; informe publicado en septiembre de 2026. https://www.microsoft.com/en-us/research/wp-content/uploads/2026/09/Microsoft-AI-Diffusion-Report-2026-Q2.pdf
Calzada, I., & Eizaguirre, I. (2026). Anticipatory AI Governance in the Age of Supercomputing: A Mixed-Methods Multistakeholder Approach in the Basque Country. *Big Data and Cognitive Computing, 10*(7), 229. https://doi.org/10.3390/bdcc10070229

La geografía regional de la innovación en IA

Patentes de IA · 1980–2019



Centralidad tecnológica · 2015–2019



Capacidades locales y conexiones con otras regiones

Buarque, B., Casas, P., Fernández-Macías, E., González-Vázquez, I., Hynes, R., Kogler, D. F., & Salotti, S. (2026). The geography of artificial intelligence in European regions: innovation, exposure and use. Regional Studies, 60(1), 2681659. DOI: 10.1080/00343404.2026.2681659. Figura 1. Medidas, periodos y escalas diferentes.

Tres brechas: acceso, datos y algoritmos



Colombia · julio de 2017



ACCESO

94% / 23%

Internet en países de NG/ SG

DATO

¿Estamos representados?

Lenguas, realidades y derechos de uso

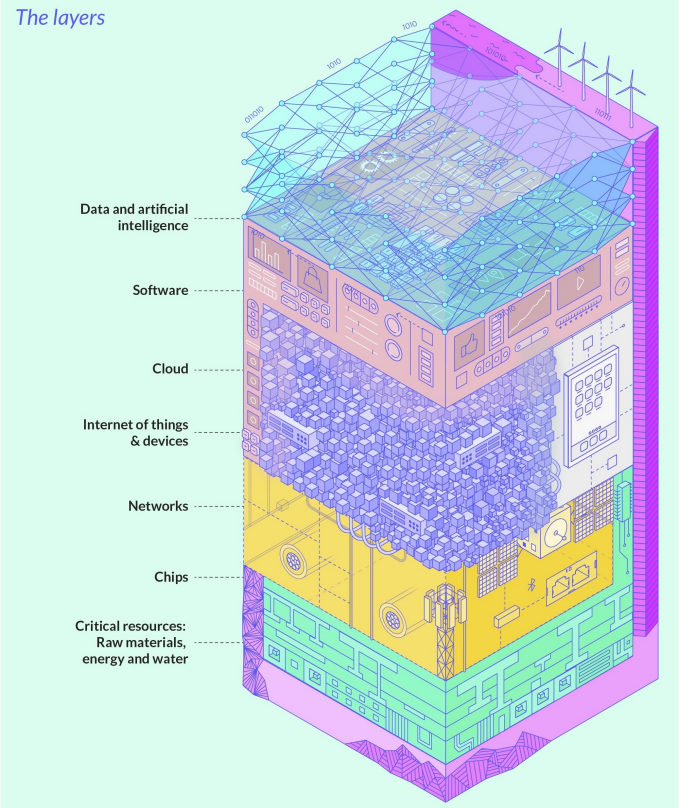
ALGORÍTMICA

¿Podemos decidir?

Adaptar, evaluar y reclamar

International Telecommunication Union (2025). Measuring digital development: Facts and Figures 2025. ITU. Uso de internet, no uso de IA. Grupos de renta distintos de Norte/Sur Global.

El stack: siete capas y dependencias distintas



1. Datos e IA
Modelos y usos

2. Software
Plataformas y aplicaciones

3. Nube
Almacenamiento y cómputo

4. Dispositivos
Móviles, sensores y equipos

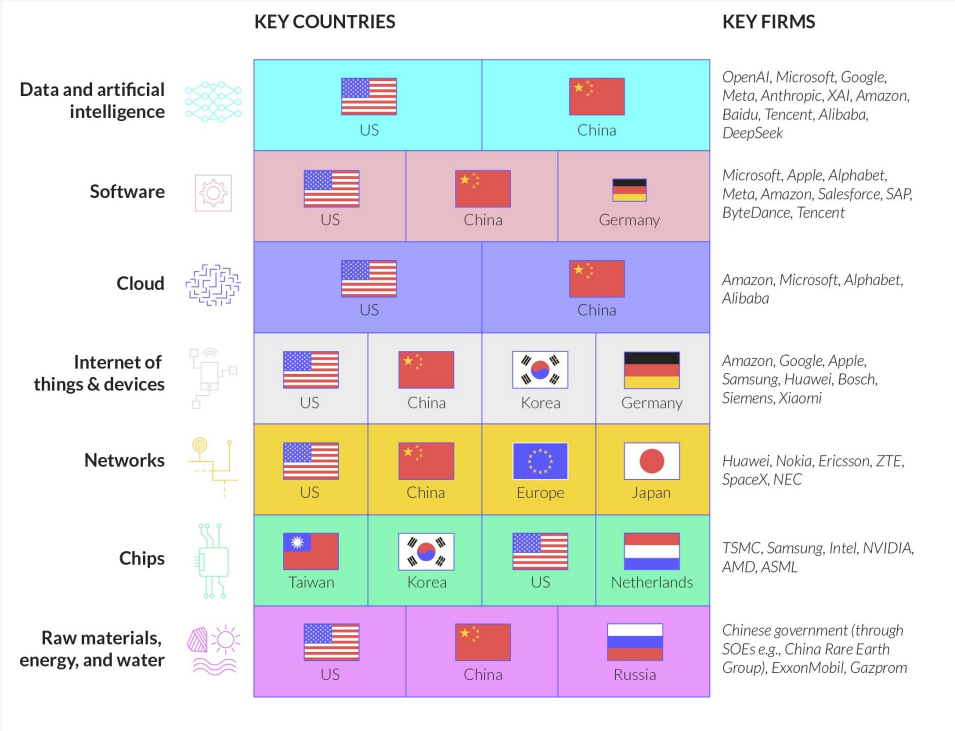
5. Redes
Cables y conectividad

6. Chips
Diseño, fabricación y maquinaria

7. Recursos
Materias primas, energía y agua

Bria, F., Timmers, P., & Gernone, F. (2025). EuroStack: A European Alternative for Digital Sovereignty. Bertelsmann Stiftung. DOI: 10.11586/2025006.

La geopolítica del stack y la posición de África



0,6%

de la capacidad mundial
de centros de datos está en África

Sudáfrica · nube

AWS: Ciudad del Cabo, 2020
Google: Johannesburgo, 2024

Modelos y lenguas

Sudáfrica: InkubaLM
Nigeria: N-ATLaS

GPU: unidad de procesamiento gráfico. EUV: ultravioleta extrema.
ASML: fabricante neerlandés de máquinas de litografía para chips.

Bria, Timmers y Gernone (2025), EuroStack, DOI: 10.11586/2025006. ADCA (2026); AWS (2020); Google Cloud (2024); fichas de Lelapa AI y NCAIR/Awarri. Referencias completas al final.

¿Quién genera el valor, quién decide y quién cobra?

70%

AWS + Microsoft + Google

del mercado europeo de nube
Proveedores europeos: 15%



0,6%

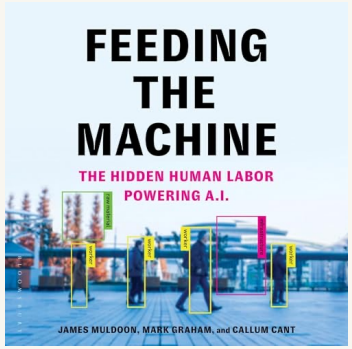
en África

de la capacidad mundial
de centros de datos

Datos · infraestructura · usuarios · condiciones de uso

Synergy Research Group (2025, 24 July). European Cloud Providers' Local Market Share Now Holds Steady at 15%. ADCA (2026). Data Centres in Africa 2026: The Economic Report. Indicadores distintos: nube europea y capacidad mundial de centros de datos.

Ciudades y trabajo humano en la cadena de la IA



Ciudad / caso	Papel en la cadena	Cuestión de política pública
Dublín	Centro de datos de Google	Infraestructura y recursos del territorio
Johannesburgo	Región de Google Cloud, 2024	Ubicación local y capacidad de decisión
Nairobi · 2023	Anotación de datos; caso Sama	Condiciones de trabajo y voz colectiva

94%

Muestra de 116 empresas BPO

Fairwork

94% con servicios parciales o totales desde el Sur Global
Pago, condiciones, contratos, gestión y representación

Fairwork (2025). Fairwork AI Ratings 2024/5: Who Powers AI? Assessing Fairness in the AI Supply Chain. Global Partnership on AI. Muldoon, J., Graham, M., & Cant, C. (2024). Feeding the Machine: The Hidden Human Labour Powering AI. Canongate.

II. TRABAJO DE CAMPO

02

Investigación-Acción en el Sur Global



Colombia y Mozambique: capacidades y aprendizajes

UNIVERSITY OF OXFORD

European Commission

UN HABITAT FOR A BETTER URBAN FUTURE

FULBRIGHT COMMISSION EDUCATE ★ EXCHANGE ★ ENGAGE ★ LEAD

UKRI Economic and Social Research Council

Smart Rural Communities: investigación acción













sustainability

MDPI

Article

Smart Rural Communities: Action Research in Colombia and Mozambique

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[2] Fulbright Scholar-In-Residence (S-1-UK), US-UK Fulbright Commission, Unit 302, 3rd Floor Camelford House, 89 Albert Embankment, London SE1 7TP, England, UK

[3] Urban Transformations ESRC & Future of Cities Programmes, COMPAS, University of Oxford, 58 Banbury Road, Oxford OX2 6QS, England, UK

[4] Bezhaupen, Basque Foundation for Science, Plaza Euskadi 5, 48009 Bilbao, Spain

[5] Faculty of Social Sciences and Communication, University of the Basque Country, Barrio Sarriena s/n, 48940 Leioa, Spain; igor.calzada@ehu.eus; Tel.: +34-6307572876

Abstract: This article contributes to the ongoing discussion on rural development programs aligning with the Sustainable Development Goals (SDGs) in the Global South. The research question examines how the Smart Rural Communities (SRC) framework can support the SDGs as an international cooperation model. The article presents findings from fieldwork action research including a critical analysis of the hegemonic discourse on smart cities and provides final recommendations. Additionally, it introduces the concept of SRC. The fieldwork action research was conducted in post-conflict rural areas in Colombia's Bolívar region and remote settlements in Mozambique's Cabo Delgado province. Led by Ayuda En Acción in collaboration with co-operatives such as Mundubide Foundation, Akonjo, and LKD from Mondragon Cooperative Corporation, the initiatives aimed to leverage local knowledge and digital technologies. The SRC framework integrates Green and Information and Communication Technology (ICT) and social innovation to promote the well-being of rural residents. The article comprises (i) an introduction, (ii) a literature review, (iii) a presentation of the fieldwork action research in Colombia and Mozambique, (iv) findings from a SWOT analysis and policy recommendations for SRC Living Labs, (v) conclusions addressing the research question. The SRC framework offers valuable insights for international cooperation models striving to achieve the SDGs in the Global South.

Keywords: smart rural communities; action research; SDGs; agenda 2030; Global South; living labs; social innovation; smart villages; smart cities; data cooperatives; data sovereignty

1. Introduction: Smart Rural Communities and Sustainable Development Goals in the Global South

The Sustainable Development Goals (SDGs) adopted by the United Nations aim to address the world's most pressing challenges by 2030, including poverty, hunger, and inequality, while ensuring environmental sustainability. In recent years, there has been a growing focus on rural development programs in the Global South that align with the SDGs, recognizing the significance of uplifting marginalized communities and promoting equitable development. Despite substantial efforts and investments, many rural communities in the Global South continue to confront various challenges such as limited access to basic services such as healthcare and education, as well as constrained economic opportunities. Moreover, rural areas often face a data and digital divide which hampers their participation in the digital economy and information society. Social exclusion further exacerbates these difficulties, perpetuating inequalities within and between communities.

The challenges faced by rural communities in the Global South are multifaceted and require a deeper examination to address the complex issues they face. Limited access to

Artículo · Sustainability

Calzada, I. (2023). Smart Rural Communities: Action Research in Colombia and Mozambique. Sustainability, 15(12), 9521. DOI: 10.3390/su15129521 Archivo del proyecto: Mozambique, 2017.

Mozambique: capacidades en acción



Mozambique · julio de 2017



Mozambique · julio de 2017



Mozambique· julio de 2017

Archivo de campo

Pemba · Mozambique

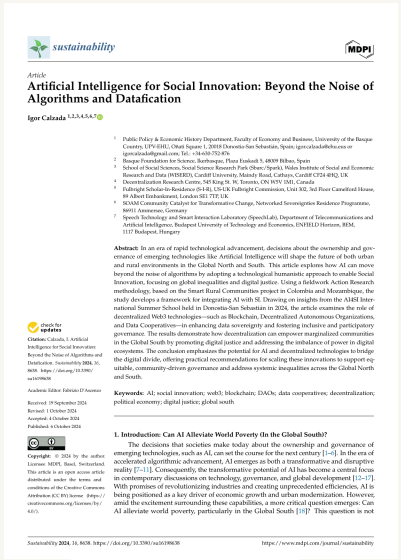
Un profesor con una tableta

Un médico y una base sanitaria que podía aprovechar mejor

Necesidades y saberes de cada comunidad

Calzada, I. (2023). Smart Rural Communities: Action Research in Colombia and Mozambique. Sustainability, 15(12), 9521. DOI: 10.3390/su15129521 Archivo de campo de 2017. Episodios del profesor y del médico: recuerdos personales del autor en la etnografía realizada desde la Universidad de Oxford.

AI for Social Innovation: organizar capacidades



sustainability

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Article

Artificial Intelligence for Social Innovation: Beyond the Noise of Algorithms and Datafication

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2 Basque Foundation for Science, Barthaque, Plaza Euskadi 5, 48009 Bilbao, Spain
3 School of Social Sciences, Social Science Research Park (Shaw/Spark), Wales Institute of Social and Economic Research and Data (WISERD), Cardiff University, Maindy Road, Cathays, Cardiff CF24 4HQ, UK
4 Decentralization Research Centre, 545 King St. W, Toronto, ON N5V 1M1, Canada
5 Fulbright Scholar-in-Residence (S-14), US-UK Fulbright Commission, Unit 302, 3rd Floor Cancelford House, 89 Albert Embankment, London SE1 7TP, UK
6 SOAM Community Catalyst for Transformative Change, Networked Sovereignties Residence Programme, 86911 Amsterdam, Germany
7 Speech Technology and Smart Interaction Laboratory (SpeechLab), Department of Telecommunications and Artificial Intelligence, Budapest University of Technology and Economics, ENFIELD Horizon, BEM, 1117 Budapest, Hungary

Abstract: In an era of rapid technological advancement, decisions about the ownership and governance of emerging technologies like Artificial Intelligence will shape the future of both urban and rural environments in the Global North and South. This article explores how AI can move beyond the noise of algorithms by adopting a technological humanistic approach to enable Social Innovation, focusing on global inequalities and digital justice. Using a fieldwork Action Research methodology, based on the Smart Rural Communities project in Colombia and Mozambique, the study develops a framework for integrating AI with SI. Drawing on insights from the AHSI International Summer School held in Donostia-San Sebastián in 2024, the article examines the role of decentralized Web3 technologies—such as Blockchain, Decentralized Autonomous Organizations, and Data Cooperatives—in enhancing data sovereignty and fostering inclusive and participatory governance. The results demonstrate how decentralization can empower marginalized communities in the Global South by promoting digital justice and addressing the imbalance of power in digital ecosystems. The conclusion emphasizes the potential for AI and decentralized technologies to bridge the digital divide, offering practical recommendations for scaling these innovations to support equitable, community-driven governance and address systemic inequalities across the Global North and South.

Keywords: AI; social innovation; web3; blockchain; DAOs; data cooperatives; decentralization; political economy; digital justice; global south

1. Introduction: Can AI Alleviate World Poverty (In the Global South)?

The decisions that societies make today about the ownership and governance of emerging technologies, such as AI, can set the course for the next century [1–6]. In the era of accelerated algorithmic advancement, AI emerges as both a transformative and disruptive reality [7–11]. Consequently, the transformative potential of AI has become a central focus in contemporary discussions on technology, governance, and global development [12–17]. With promises of revolutionizing industries and creating unprecedented efficiencies, AI is being positioned as a key driver of economic growth and urban modernization. However, amid the excitement surrounding these capabilities, a more critical question emerges: Can AI alleviate world poverty, particularly in the Global South [18]? This question is not

Sustainability 2024, 16, 8638. https://doi.org/10.3390/su16198638 https://www.mdpi.com/journal/sustainability

Sustainability · 2024

Designing Opportunities

- Ayuda en Acción y las conexiones entre Norte y Sur
- Alianzas para sostener iniciativas de innovación social

Bauform eG

- Cooperativa de datos en la construcción
- Pymes que comparten información y conocimiento

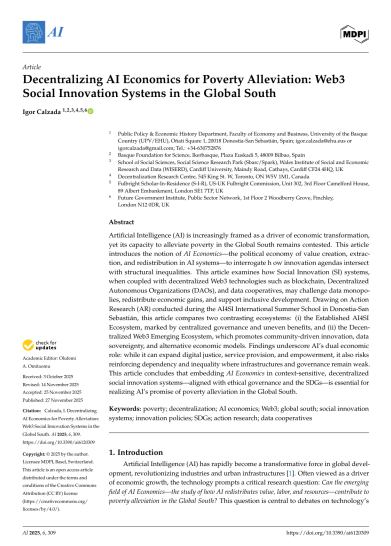
Salus.coop

- Datos sanitarios bajo gobernanza ciudadana
- Condiciones colectivas de uso



Calzada, I. (2024). Artificial Intelligence for Social Innovation: Beyond the Noise of Algorithms and Datafication. Sustainability, 16(19), 8638. DOI: 10.3390/su16198638 Casos en pp. 8–10.

AI Economics: casos Web3 en la economía real



AI

MDPI

Article

Decentralizing AI Economics for Poverty Alleviation: Web3 Social Innovation Systems in the Global South

Igor Calzada [1,2,3,4,5,6]

1 Public Policy & Economic History Department, Faculty of Economy and Business, University of the Basque Country (UPV/EHU), Otsuti Square 1, 28018 Donostia-San Sebastián, Spain; igor.calzada@ehu.eus or igorcalzada@gmail.com; Tel.: +34-6367528376
2 Basque Foundation for Science, Barthaqua, Plaza Euskadi 5, 48009 Bilbao, Spain
3 School of Social Sciences, Social Science Research Park (Shaw/Spark), Wales Institute of Social and Economic Research and Data (WISERD), Cardiff University, Maindy Road, Cathays, Cardiff CF24 4HQ, UK
4 Decentralization Research Centre, 545 King St. W, Toronto, ON K5V 1M1, Canada
5 Fulbright Scholar-In-Residence (S-I-R), US-UK Fulbright Commission, Unit XII, 3rd Floor Camelford House, 89 Albert Embankment, London SE1 7TP, UK
6 Future Government Institute, Public Sector Network, 1st Floor 2 Woodberry Grove, Finchley, London N12 0DR, UK

Abstract

Artificial Intelligence (AI) is increasingly framed as a driver of economic transformation, yet its capacity to alleviate poverty in the Global South remains contested. This article introduces the notion of *AI Economics*—the political economy of value creation, extraction, and redistribution in AI systems—to interrogate how innovation agendas intersect with structural inequalities. This article examines how Social Innovation (SI) systems, when coupled with decentralized Web3 technologies such as blockchain, Decentralized Autonomous Organizations (DAOs), and data cooperatives, may challenge data monopolies, redistribute economic gains, and support inclusive development. Drawing on Action Research (AR) conducted during the AI4SI International Summer School in Donostia-San Sebastián, this article compares two contrasting ecosystems: (i) the Established AI4SI Ecosystem, marked by centralized governance and uneven benefits, and (ii) the Decentralized Web3 Emerging Ecosystem, which promotes community-driven innovation, data sovereignty, and alternative economic models. Findings underscore AI's dual economic role: while it can expand digital justice, service provision, and empowerment, it also risks reinforcing dependency and inequality where infrastructures and governance remain weak. This article concludes that embedding *AI Economics* in context-sensitive, decentralized social innovation systems—aligned with ethical governance and the SDGs—is essential for realizing AI's promise of poverty alleviation in the Global South.

Keywords: poverty; decentralization; AI economics; Web3; global south; social innovation systems; innovation policies; SDGs; action research; data cooperatives

1. Introduction

Artificial Intelligence (AI) has rapidly become a transformative force in global development, revolutionizing industries and urban infrastructures [1]. Often viewed as a driver of economic growth, the technology prompts a critical research question: *Can the emerging field of AI Economics—the study of how AI redistributes value, labor, and resources—contribute to poverty alleviation in the Global South?* This question is central to debates on technology's

check for updates

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AI · 2025

Grassroots Economics / Sarafu · Kenia

≈55.000 cuentas

Dataset 2020–2021 · USSD



Fishcoin · sede en Singapur

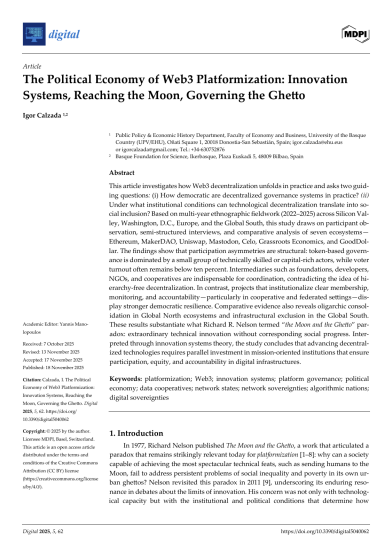
Incentivos para aportar datos de la cadena pesquera

BanQu · aplicación en Zambia

Trazabilidad de compras y recibos agrícolas

Calzada, I. (2025). Decentralizing AI Economics for Poverty Alleviation: Web3 Social Innovation Systems in the Global South. AI, 6(12), 309. DOI: 10.3390/ai6120309 Tabla 2, pp. 16–17. Sarafu: Mattsson, Criscione y Ruddick (2022), Scientific Data, 9, 426. DOI: 10.1038/s41597-022-01539-4.

Digital: descentralización y poder de decisión



digital

MDPI

Article

The Political Economy of Web3 Platformization: Innovation Systems, Reaching the Moon, Governing the Ghetto

Igor Calzada [1,2]

[1] Public Policy & Economic History Department, Faculty of Economy and Business, University of the Basque Country (UPV/EHU), Oñati Square 1, 20018 Donostia-San Sebastián, Spain; igor.calzada@ehu.eus or igorcalzada@gmail.com; Tel.: +34 6305 7287x

[2] Basque Foundation for Science, Ikerbasque, Plaza Euskadi 5, 48009 Bilbao, Spain

Abstract

This article investigates how Web3 decentralization unfolds in practice and asks two guiding questions: (i) How democratic are decentralized governance systems in practice? *(ii)* Under what institutional conditions can technological decentralization translate into social inclusion? Based on multi-year ethnographic fieldwork (2022–2025) across Silicon Valley, Washington, D.C., Europe, and the Global South, this study draws on participant observation, semi-structured interviews, and comparative analysis of seven ecosystems—Ethereum, MakerDAO, Uniswap, Mastodon, Celo, Grassroots Economics, and GoodDollar. The findings show that participation asymmetries are structural: token-based governance is dominated by a small group of technically skilled or capital-rich actors, while voter turnout often remains below ten percent. Intermediaries such as foundations, developers, NGOs, and cooperatives are indispensable for coordination, contradicting the idea of hierarchy-free decentralization. In contrast, projects that institutionalize clear membership, monitoring, and accountability—particularly in cooperative and federated settings—display stronger democratic resilience. Comparative evidence also reveals oligarchic consolidation in Global North ecosystems and infrastructural exclusion in the Global South. These results substantiate what Richard R. Nelson termed *"the Moon and the Ghetto"* paradox: extraordinary technical innovation without corresponding social progress. Interpreted through innovation systems theory, the study concludes that advancing decentralized technologies requires parallel investment in mission-oriented institutions that ensure participation, equity, and accountability in digital infrastructures.

Keywords: platformization; Web3; innovation systems; platform governance; political economy; data cooperatives; network states; network sovereignties; algorithmic nations; digital sovereignties

1. Introduction

In 1977, Richard Nelson published *The Moon and the Ghetto*, a work that articulated a paradox that remains strikingly relevant today for *platformization* [1–8]: why can a society capable of achieving the most spectacular technical feats, such as sending humans to the Moon, fail to address persistent problems of social inequality and poverty in its own urban ghettos? Nelson revisited this paradox in 2011 [9], underscoring its enduring resonance in debates about the limits of innovation. His concern was not only with technological capacity but with the institutional and political conditions that determine how

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Published: 18 November 2025

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Digital · 2025

7 ecosistemas

Ethereum · MakerDAO · Uniswap · Mastodon
Celo · Grassroots Economics · GoodDollar



Tokens y votos

Acumular activos puede aumentar el poder de gobierno

Quién propone, quién decide y quién puede salir

Calzada, I. (2025). The Political Economy of Web3 Platformization: Innovation Systems, Reaching the Moon, Governing the Ghetto. Digital, 5(4), 62. DOI: 10.3390/digital5040062 Análisis cualitativo de siete ecosistemas.

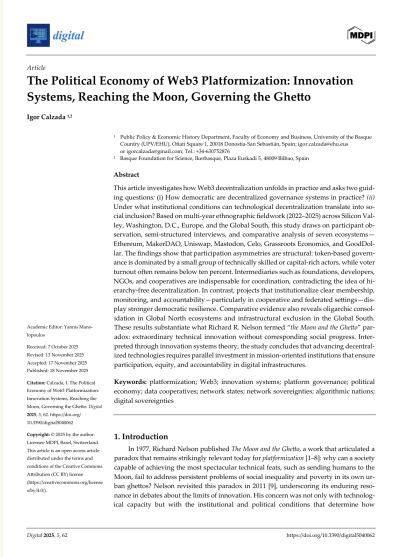
III. TENDENCIAS

03

Alternativas y Comentarios Finales

Cooperación, soberanía y poder de decisión

Descentralización y gobierno de las decisiones



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Article

The Political Economy of Web3 Platformization: Innovation Systems, Reaching the Moon, Governing the Ghetto

Igor Calzada [1,2]

[1] Public Policy & Economic History Department, Faculty of Economy and Business, University of the Basque Country (UPV/EHU), Oñati Square 1, 20018 Donostia-San Sebastián, Spain; igor.calzada@ehu.eus
or igorcalzada@gmail.com; Tel.: +34-6305 52876
[2] Basque Foundation for Science, Ikerbasque, Plaza Euskadi 5, 48009 Bilbao, Spain

Abstract

This article investigates how Web3 decentralization unfolds in practice and asks two guiding questions: (i) How democratic are decentralized governance systems in practice? (ii) Under what institutional conditions can technological decentralization translate into social inclusion? Based on multi-year ethnographic fieldwork (2022–2025) across Silicon Valley, Washington, D.C., Europe, and the Global South, this study draws on participant observation, semi-structured interviews, and comparative analysis of seven ecosystems—Ethereum, MakerDAO, Uniswap, Mastodon, Celo, Grassroots Economics, and GoodDollar. The findings show that participation asymmetries are structural: token-based governance is dominated by a small group of technically skilled or capital-rich actors, while voter turnout often remains below ten percent. Intermediaries such as foundations, developers, NGOs, and cooperatives are indispensable for coordination, contradicting the idea of hierarchy-free decentralization. In contrast, projects that institutionalize clear membership, monitoring, and accountability—particularly in cooperative and federated settings—display stronger democratic resilience. Comparative evidence also reveals oligarchic consolidation in Global North ecosystems and infrastructural exclusion in the Global South. These results substantiate what Richard R. Nelson termed "*the Moon and the Ghetto*" paradox: extraordinary technical innovation without corresponding social progress. Interpreted through innovation systems theory, the study concludes that advancing decentralized technologies requires parallel investment in mission-oriented institutions that ensure participation, equity, and accountability in digital infrastructures.

Keywords: platformization; Web3; innovation systems; platform governance; political economy; data cooperatives; network states; network sovereignties; algorithmic nations; digital sovereignties

1. Introduction

In 1977, Richard Nelson published *The Moon and the Ghetto*, a work that articulated a paradox that remains strikingly relevant today for *platformization* [1–8]: why can a society capable of achieving the most spectacular technical feats, such as sending humans to the Moon, fail to address persistent problems of social inequality and poverty in its own urban ghettos? Nelson revisited this paradox in 2011 [9], underscoring its enduring resonance in debates about the limits of innovation. His concern was not only with technological capacity but with the institutional and political conditions that determine how

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Digital · 2025

Reglas de voto y control

Voto por tokens
Activos digitales

→

Peso del capital
Puede concentrar influencia

Socios
Representación colectiva

→

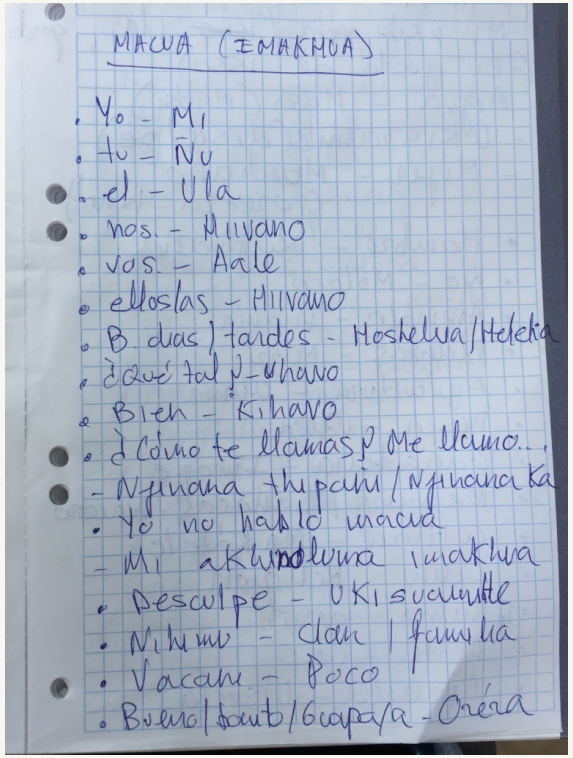
Controles efectivos
Supervisión y reclamaciones

Ethereum · MakerDAO · Uniswap · Mastodon

Celo · Grassroots Economics · GoodDollar

Calzada, I. (2025). The Political Economy of Web3 Platformization: Innovation Systems, Reaching the Moon, Governing the Ghetto. Digital, 5(4), 62. DOI: 10.3390/digital5040062

África desarrolla su propia voz tecnológica



Mozambique · agosto de 2017

InkubaLM · Sudáfrica

Lelapa AI · modelo pequeño
5 lenguas africanas, además de inglés y francés

N-ATLaS · Nigeria

NCAIR / Awarri · adaptación de Llama 3
Hausa, igbo, yoruba e inglés

Evaluación con hablantes y liderazgo de equipos locales

Lelapa AI (2024). InkubaLM-0.4B. Model card. NCAIR / Awarri (2025). N-ATLaS. Model card. Fotografía: cuaderno del trabajo de campo del autor, Mozambique, agosto de 2017.

Euskadi: cooperación y economía política de la IA



Caldada and Eizaguirre Discover Cities (2025) 2:73 Discover Cities
https://doi.org/10.1007/s44327-025-00116-9

EDITORIAL Open Access

Digital inclusion and Urban AI: strategic roadmapping and policy challenges

Igor Calzada[1,2,3,4,5*] and Itziar Eizaguirre[6]

1 (Re)Discovering Cities? From Smart Cities to Urban AI

In the early decades of the twenty-first century, the lexicon of urban studies was reconfigured by the pervasive invocation of the *"Smart City"* [32–35, 44]. Proponents of this vision—often anchored in technocentric imaginaries—heralded a future in which digital technologies, data analytics, and networked infrastructures would solve the intractable challenges of urban governance, service delivery, and citizen engagement [8, 36, 37, 42–45, 72, 87, 88, 113–117]. Yet, as David Harvey (2008) reminds us, urbanism is never a neutral process: it is entangled with political economy [10, 93], the exercise of power [2], and the contestation of space [39]. The so-called "Smart City" era, while promising efficiency and innovation, often obscured the asymmetries it reproduced—deepening digital divides, privileging corporate control over urban data, and underplaying the nuanced realities of human and planetary wellbeing [17].

Building on Richard E. Nelson's seminal metaphor in *The Moon and the Ghetto* (1977) and his later reflection (*The Moon and the Ghetto revisited*, 2011), the persistent question—why societies can land humans on the moon but fail to resolve entrenched urban inequalities—resonates strongly in the age of *Urban AI*. As Fountain [54] argues, this dilemma now extends to the algorithmic domain, where the promises of AI risk reproducing structural biases unless governance frameworks explicitly target systemic inequities [51]. The CIDOB report on Urban AI underscores this tension [56], warning that technological capabilities alone cannot bridge the socio-political gaps embedded in urban systems. Instead, innovation must be mission-oriented, context-aware, and equity-driven—principles that also underpinned the 2025 UIK Summer School on *Digital Inclusion & Generative AI* [26–28], held on 13–16 July 2025 in Donostia–San Sebastian, Basque Country (Spain,https://www.uik.eus/en/activity/digital-inclusion-generative-artificial-intelligence-gipuzkoa-socially-cohesive-digitally). There, municipal leaders, civic technologists, and community organisations reframed "smartness" as a means to empower marginalised populations, safeguard digital rights, and strengthen democratic resilience [19]. Reinterpreting Nelson's challenge in this light, *Urban AI* becomes not

Discover

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Euskadi · material de la escuela de 2025

ONG y universidades

Diagnóstico con las comunidades y formación de equipos

Instituciones públicas

Contratar, evaluar y responder a reclamaciones

Pymes y cooperativas

Datos para producción, mantenimiento y calidad

Discover Cities · 2025

Calzada, I., & Eizaguirre, I. (2025). Digital inclusion and Urban AI: strategic roadmapping and policy challenges. Discover Cities, 2, 73. DOI: 10.1007/s44327-025-00116-9
Caso Microdeco: SPRI (2021, 18 June). Gestión inteligente de procesos productivos en tiempo real. Caso Microdeco.

Dos libros: gobernanza en castellano, economía en inglés

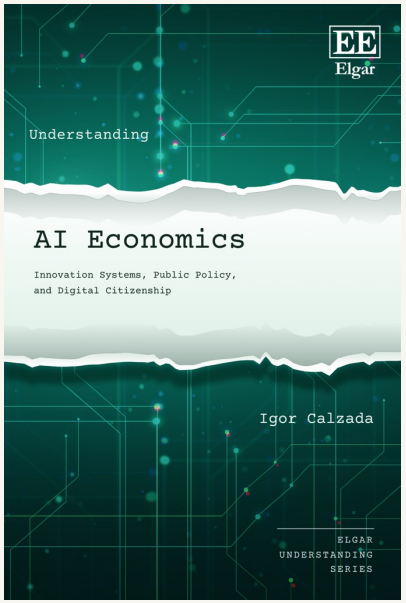


Gobernanza Anticipatoria de la IA

Tirant Humanidades
Diciembre de 2026

Presentación prevista:
15 de diciembre · UOC
Acceso abierto previsto

Referencia del libro



Understanding AI Economics

Edward Elgar
Marzo de 2027

Ficha editorial

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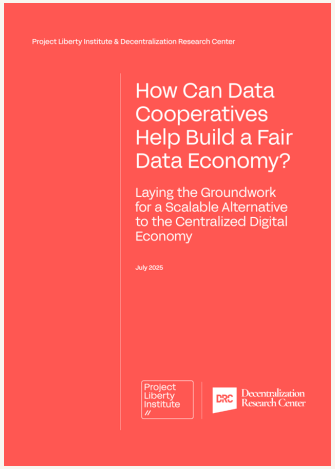
Cooperativas de datos: soberanía y negociación colectiva


smart cities

Article

Data Co-Operatives through Data Sovereignty

Igor Calzada


Project Liberty Institute & Decentralization Research Center

How Can Data Cooperatives Help Build a Fair Data Economy?

Laying the Groundwork for a Scalable Alternative to the Centralized Digital Economy

July 2025

Project Liberty Institute

Decentralization Research Center

Enyorata Loviluku · Tanzania

Mujeres organizadas en cooperativa para facilitar acceso al crédito

¿Qué podemos trasladar al gobierno de los datos?

Permisos colectivos y representación
Poder de negociación y capacidad técnica



Smart Cities · 2021

Project Liberty · 2025

Calzada, I. (2021). Data Co-Operatives through Data Sovereignty. Smart Cities, 4(3), 1158–1172. DOI: 10.3390/smartcities4030062.
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Cooperativas de datos: capacidad colectiva para decidir

Personas
Aportación voluntaria

→

Cooperativa
Permisos y supervisión

→

Investigación
Usos autorizados

→

Resultados
Retorno público

←

Retirada del permiso y rendición de cuentas

Salus.coop · Barcelona

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Resultados abiertos y protección de la información
Condiciones sobre quién usa los datos y para qué

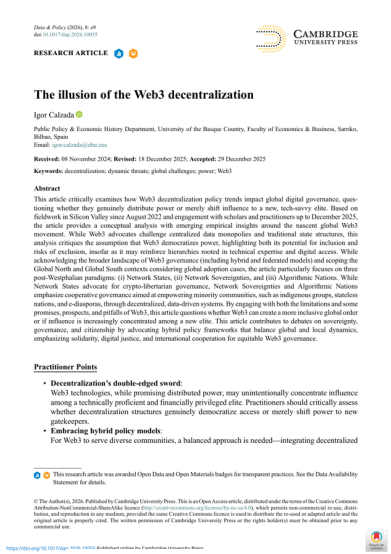


Mozambique · agosto de 2017

La forma cooperativa necesita reglas y capacidad técnica

Calzada, I. (2024). Artificial Intelligence for Social Innovation: Beyond the Noise of Algorithms and Datafication. Sustainability, 16(19), 8638. DOI: 10.3390/su16198638
Salus.coop: licencia Common Good. https://www.salus.coop/ · Caso también desarrollado en Calzada (2021), Digitranscope, cap. 4, pp. 59–75. https://doi.org/10.2760/503546

Web3 y África: quién gobierna la descentralización



Data & Policy (2026), 8: e9
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CAMBRIDGE UNIVERSITY PRESS

RESEARCH ARTICLE

The illusion of the Web3 decentralization

Igor Calzada

Public Policy & Economic History Department, University of the Basque Country, Faculty of Economics & Business, Sarriko, Bilbao, Spain
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Keywords: decentralization; dynamic threats; global challenges; power; Web3

Abstract

This article critically examines how Web3 decentralization policy trends impact global digital governance, questioning whether they genuinely distribute power or merely shift influence to a new, tech-savvy elite. Based on fieldwork in Silicon Valley since August 2022 and engagement with scholars and practitioners up to December 2025, the article provides a conceptual analysis with emerging empirical insights around the nascent global Web3 movement. While Web3 advocates challenge centralized data monopolies and traditional state structures, this analysis critiques the assumption that Web3 democratizes power, highlighting both its potential for inclusion and risks of exclusion, insofar as it may reinforce hierarchies rooted in technical expertise and digital access. While acknowledging the broader landscape of Web3 governance (including hybrid and federated models) and scoping the Global North and Global South contexts considering global adoption cases, the article particularly focuses on three post-Westphalian paradigms: (i) Network States, (ii) Network Sovereignties, and (iii) Algorithmic Nations. While Network States advocate for crypto-libertarian governance, Network Sovereignties and Algorithmic Nations emphasize cooperative governance aimed at empowering minority communities, such as indigenous groups, stateless nations, and e-diasporas, through decentralized, data-driven systems. By engaging with both the limitations and some promises, prospects, and pitfalls of Web3, this article questions whether Web3 can create a more inclusive global order or if influence is increasingly concentrated among a new elite. This article contributes to debates on sovereignty, governance, and citizenship by advocating hybrid policy frameworks that balance global and local dynamics, emphasizing solidarity, digital justice, and international cooperation for equitable Web3 governance.

Practitioner Points

- **Decentralization's double-edged sword**: Web3 technologies, while promising distributed power, may unintentionally concentrate influence among a technically proficient and financially privileged elite. Practitioners should critically assess whether decentralization structures genuinely democratize access or merely shift power to new gatekeepers.
- **Embracing hybrid policy models**: For Web3 to serve diverse communities, a balanced approach is needed—integrating decentralized

This research article was awarded Open Data and Open Materials badges for transparent practices. See the Data Availability Statement for details.

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The illusion of the Web3 decentralization

- Grassroots Economics · intercambios comunitarios
- Kotani Pay · conexión con pagos móviles
- Kiva Protocol · historial crediticio

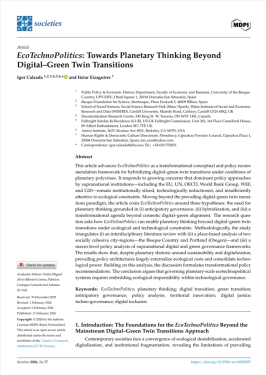
Network States
Network Sovereignties
Algorithmic Nations

¿Se distribuye el poder o aparece una nueva élite?

Data & Policy · 2026

Calzada, I. (2026). The illusion of the Web3 decentralization. Data & Policy, 8, e9. DOI: 10.1017/dap.2026.10055.

EcoTecnoPolítica: territorio, recursos y distribución


societies

Article

EcoTechnoPolitics: Towards Planetary Thinking Beyond Digital–Green Twin Transitions

Igor Calzada [1,2,3,4,5,6,*] and Itziar Eizaguirre [7]


https://doi.org/10.7203/IREP.8.1.34060

EcoTecnoPolítica:
¿Más Allá de las Transiciones Digitales-Verdes en la Era de la Inteligencia Artificial?

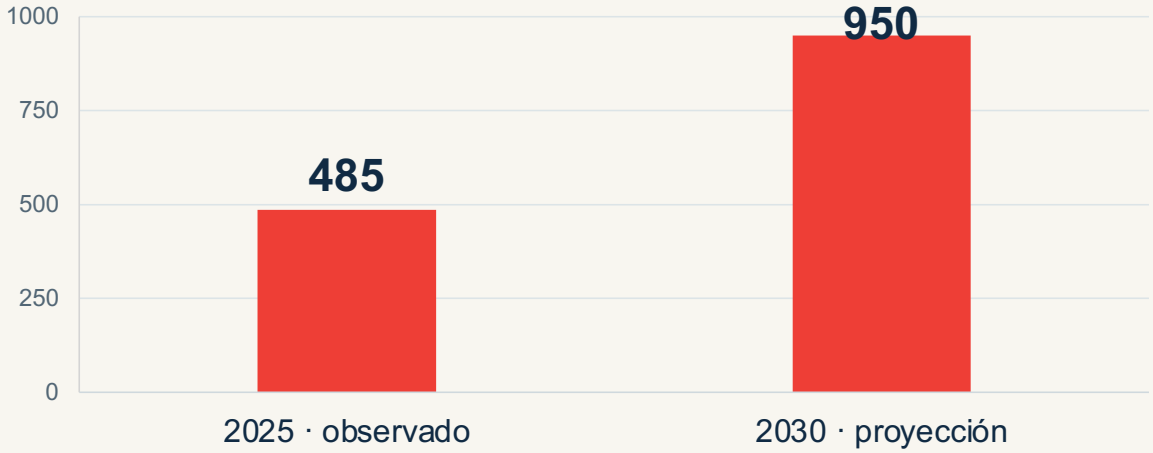
Itziar Eizaguirre[1]
Igor Calzada[2]

Recibido: 24/02/2026 Aceptado: 19/05/2026

Societies · 2026

IREP · 2026

Electricidad mundial · TWh/año



¿Dónde quedan los beneficios y quién soporta los costes?

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AFROPOLITAN: ¿una ciudadanía (digital) africana en red?





África y su diáspora:
www.afropolitan.io

¿Quién participa?
¿Quién decide?
¿Quién queda fuera?

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Cinco comentarios finales para el debate

1 **Comprender la cadena completa**

Infraestructura, contratos y relaciones de poder

2 **Partir del territorio**

Necesidades definidas con las comunidades y los profesionales

3 **Compartir capacidad**

Datos, cómputo y conocimiento bajo reglas comunes

4 **Dejar instituciones capaces**

Cooperación, universidad y tejido productivo del país

5 **Evaluar quién decide y quién gana**

Beneficios, costes y poder real de las comunidades



Muchas gracias · Conversación con Ivy y el público



Smart Rural Communities · Colombia, 2017 · Archivo de investigación del autor

¿Qué capacidad gana la comunidad para decidir?

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