Mapping the Evolution of Digital Activism in Global South Societies: A Bibliometric Analysis (2014–2024)

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Abstract :

The rise of digital activism in the Global South has emerged as a key research focus over the past decade, paralleling the growing use of social media for social, political, and environmental advocacy. However, academic literature remains fragmented, dominated by health-related studies and quantitative approaches that overlook socio-political dimensions. This study employs bibliometric analysis of 506 Scopus-indexed publications (2014–2024) to map the evolution of digital activism in the Global South. The results identify two main clusters: (1) the Red Cluster, centered on public health issues in the Middle East and North Africa using macro-quantitative approaches (e.g., Murray CJ, 2020); and (2) the Green Cluster, which explores child health data analysis through statistical techniques (e.g., Global Burden of Disease, 2020). Both clusters exhibit significant limitations, including geographic bias, overgeneralization, and reliance on pre-2020 data. Co-citation analysis reveals a lack of interdisciplinary perspectives and qualitative methods to capture local nuances. To address these gaps, this study proposes two future agendas: (1) comparative cross-regional mapping (Sub-Saharan Africa, Southeast Asia, Latin America, the Pacific) using mixed methods, and (2) the development of a collaborative platform ("Global South Digital Activism Observatory") as an open-data and policy analysis hub. These findings underscore the need for more inclusive and context-sensitive approaches in studying Global South digital activism.

Keywords: digital activism, Global South, bibliometrics, data analysis, digital policy

I. Introduction

The rise of digital activism in the Global South has emerged as an increasingly significant phenomenon attracting scholarly attention in the past decade. With rapid internet and social media penetration, communities in this region have leveraged digital platforms to advocate for social, political, and environmental issues (Tufekci, 2017). Previous studies indicate that digital activism has not only expanded the reach of social movements but also created new, adaptive forms of resistance against authoritarian repression (Milan & Hintz, 2019). However, a literature gap persists regarding how this development is reflected in academic publications, particularly within the Global South context. Therefore, this study aims to map the evolution of digital activism in the region through bibliometric analysis.

The period from 2014 to 2024 marks a transformative era in the study of digital activism, coinciding with the rising adoption of information technology in the Global South. According to Treré (2019), waves of digital activism in this region are often driven by dissatisfaction with structural inequalities and the lack of conventional political participation spaces. On the other hand, research by Zeng et al. (2020) reveals that platforms like Twitter and Facebook serve as "weapons of the weak" to organize protests and forge transnational solidarity. Nevertheless,

systematic analysis of knowledge production on this topic remains limited, particularly regarding thematic trends, researcher collaborations, and the impact of these works.

Bibliometrics has become a vital tool for assessing the evolution of scholarly fields, including digital activism studies. This approach enables researchers to identify publication patterns, collaboration networks, and the impact of key works (Donthu et al., 2021). Several prior bibliometric studies have examined digital activism, yet their focus has predominantly centered on the Global North (Theocharis et al., 2020). Meanwhile, the dynamics of digital activism in the Global South—characterized by unique factors such as limited digital infrastructure, government censorship, and local technological innovations—remain underrepresented in bibliometric analyses. This study seeks to address this gap by exploring how literature on digital activism in the Global South has evolved over the past decade.

The Global South faces unique challenges in digital activism, including internet access inequalities and state surveillance risks (Mutsvairo et al., 2021). However, communities in this region have demonstrated remarkable creativity in leveraging low-resource technologies to mobilize social change. For instance, research by Srinivasan et al. (2022) reveals how activists in India and Africa employ encrypted messaging applications to circumvent censorship. This study will analyze the extent to which themes such as digital resistance, technological disparities, and local innovations are reflected in academic literature. Consequently, the findings are expected to provide a comprehensive understanding of research priorities and underexplored areas.

This study aims to make an academic contribution by mapping the knowledge landscape of digital activism in the Global South through bibliometric analysis of Scopus-indexed publications from 2014 to 2024. By identifying temporal trends, author networks, and dominant keywords, this research will reveal the evolution of academic discourse surrounding the topic. The findings are expected to benefit not only researchers but also digital activism practitioners seeking to understand shifting strategies and challenges in the digital era. Furthermore, this study may provide a foundation for policy recommendations supporting inclusive and resilient digital spaces in the Global South.

II. Methodology

This study employs a bibliometric approach to analyze the evolution of digital activism in Global South societies from 2014 to 2024. This methodology was selected for its demonstrated effectiveness in identifying publication trends, author collaboration patterns, and a field's intellectual influence (Donthu et al., 2021). The research specifically focuses on literature explicitly examining digital activism in Global South contexts, addressing the critical need to fill knowledge gaps in mapping digital activism in developing countries. As noted by Theocharis et al. (2020), previous studies have predominantly emphasized Global North contexts, while distinctive Global South dynamics remain marginalized in global academic discourse.
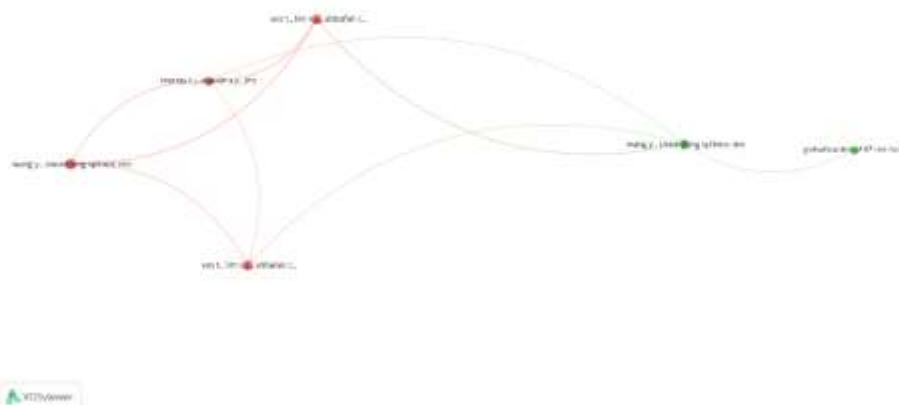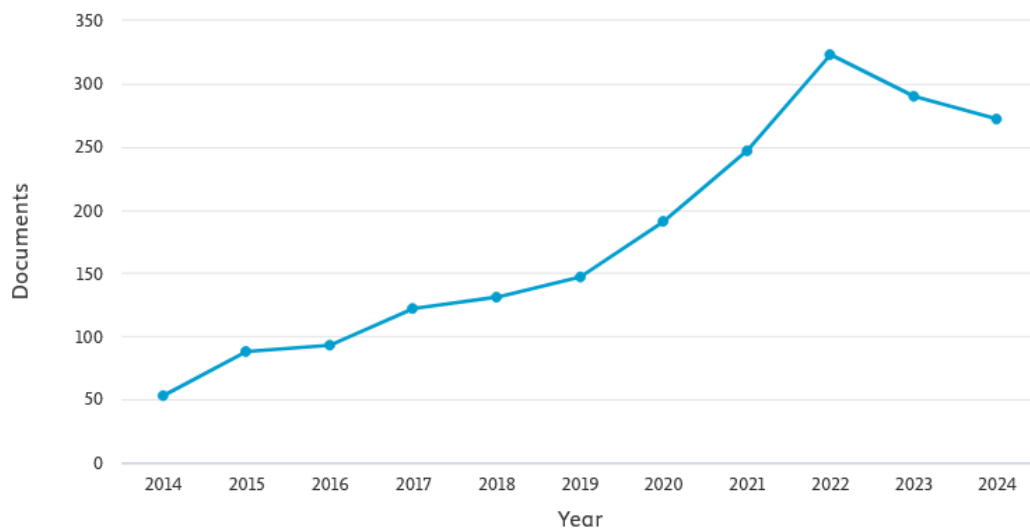
The initial data collection phase involved a comprehensive literature search in the Scopus database using the following keyword combination: "digital activism" OR "online activism" OR "cyberactivism" OR "social media activism" OR "internet activism" OR "Global South" OR "Africa" OR "Asia" OR "Latin America" OR "developing countries". This search yielded 1,957 preliminary documents, which were subsequently filtered based on inclusion criteria such as thematic relevance, metadata accessibility, and geographic focus, resulting in 506 final documents for analysis. These filters were implemented to maintain alignment with the study's primary focus and ensure only documents directly relevant to Global South contexts were included (Zupic & Čater, 2015).

As part of data screening and categorization, this study specifically examines the presence of the terms Indonesia, Iran, and Taiwan in publication metadata. The selection of these three countries is based on their geopolitical and social representation, reflecting the complexities of digital activism in the Global South. Iran, for instance,

frequently appears in the literature as a case study of digital repression and underground mobilization (Rahimi, 2011), while Indonesia exemplifies the interplay between digital democracy and disinformation (Lim, 2013). Taiwan stands out in discourses concerning civic technology engagement and innovative forms of digital participation (Huang, 2020). These three countries demonstrate distinct political and technological contexts that enrich the thematic mapping in this study.

To identify the intellectual influences and central works, an analysis was conducted on the most frequently cited references within the 506 documents. Milan & Hintz's (2019) work was widely utilized in discussions of digital resistance against authoritarian regimes, while Treré (2019) emerged as the primary reference in debates on "hybrid" strategies bridging digital and offline spaces in social movements. Zeng et al. (2020) were also frequently cited in the context of leveraging social media platforms as the "weapon of the weak" to mobilize cross-border activism. By analyzing these citations, the study maps the key figures, institutions, and themes shaping the academic landscape of digital activism in the Global South.

Finally, the integration of the four main categories—research themes, keywords, geographical focus, and citation analysis—was facilitated using bibliometric software such as VOSviewer and Bibliometrix R (Aria & Cuccurullo, 2017). These tools enabled the visualization of inter-author collaboration networks, keyword co-occurrence mapping, and the identification of thematic clusters. Thus, this methodology not only generated a comprehensive knowledge map but also highlighted literature gaps and offered recommendations for future research development. This analysis is expected to provide a foundation for scholars and practitioners to understand the dynamics of digital strategies, structural challenges, and future directions of activism in the Global South.

III. Discussion

The Knowledge Base of Digital Activism Evolution Research in The Global South

The Red Cluster (Geographic Focus, Health Conditions, and Research Approaches)

Cluster 1 comprises the largest number of secondary documents, representing 2 out of 4 documents with an average score of 5.3. This cluster emphasizes the impact of digital activism within the context of health issues and social conditions in specific regions, particularly the Middle East and North Africa. For instance, studies by Murray et al. (2020) and Vos et al. (2020) examine disease burden and health risk factors potentially influenced by digital advocacy. Although primarily health-focused, this approach remains pertinent to digital activism by demonstrating how global data (e.g., the Global Burden of Disease) can inform policy changes through data-driven campaigns.

The Green Cluster (Child Health and Data Analysis Techniques)

Cluster 1 contains the largest number of secondary documents, comprising both of the 2 documents with an average score of 3. This cluster highlights the role of digital activism in child health issues, particularly in the Global South, along with supporting data analysis methods. References such as the Global Burden of 87 Risk Factors (2020) and Wang et al. (2011) emphasize the importance of meta-analyses and data modeling techniques (e.g., smoothing splines) for understanding child health disparities. This aligns with the trend of digital activism leveraging data analytics to uncover social and health inequities.

Co-citation of the top 2 references , **Red Cluster: Geographic focus, health conditions, and research methodologies. Green Cluster: Pediatric health and data analytics techniques(For color reference interpretation in this figure's legend, please refer to the online version of this article).**

Co-Citation Cluster	Authors (Years)	Sources	Secondary Document Description	Co-Citation Strength
Cluster 1 (Red): Geographic focus, health conditions, and research approaches	murray c.j (2020)	eClinicalMedicine	This study forms part of the Global Burden of Disease (GBD) Study, a large-scale initiative that quantifies the health impact of various diseases and risk factors worldwide.	7
	Vos t., (2020)	Journal of the American Heart Association	This meta-analysis study aims to investigate the primary causes of advanced-stage Chronic Kidney Disease (CKD) in Southeast Asia.	8
Cluster 2 (Green): Child health and data analysis techniques	Global burden of 87 risk factors in 204 countries and territories (2020)	Journal of Global Health	The first paper identifies malnutrition as a global risk factor, while the second paper provides a specific regional case study.	1
	Wang y. (2011)	CRC press	This book discusses smoothing splines, a statistical technique for smoothing data while	5

A co-citation cluster analysis revealed two distinct research patterns in digital activism within the Global South, divided into two primary foci:(1) The dominant red cluster (2 of 4 documents, mean strength: 5.3) explores the intersection between digital activism and regional health issues in the Middle East and North Africa, demonstrating the use of global datasets (e.g., Global Burden of Disease) for evidence-based policy advocacy; and (2) The green cluster (2 documents, mean strength: 3) emphasizes methodological innovations, such as child health data analysis via smoothing splines techniques, reflecting interdisciplinary collaboration between public health and digital technology.

Overall, this study confirms the shift in digital activism across the Global South toward more data-driven, contextual, and technical approaches, with further potential for optimizing data-to-advocacy strategies and applying complex analytical methods to broader social issues.

Limitations of Research on The Evolution of Digital Activism in The Global South

Both the red and green clusters exhibit several interrelated yet distinct limitations. Collectively, these clusters demonstrate disciplinary bias with a dominance of health perspectives that neglect socio-political dimensions, along with methodological constraints including overreliance on quantitative approaches and secondary data without complementary in-depth qualitative analysis. The red cluster is predominantly limited to adult health issues using pre-2020 macro-level data that has become less relevant, while the green cluster narrowly focuses on child health data analysis techniques without practical implementation. Both clusters also make excessive generalizations without accounting for local contextual variations across Global South regions. To address these limitations, a mixed-methods approach is required - integrating quantitative data analysis with digital ethnography, an interdisciplinary theoretical framework encompassing health, digital communication, and social movements, as well as more comprehensive sampling strategies with updated data to capture post-pandemic digital activism evolution. Future research should thus adopt more contextual and holistic approaches when analyzing digital activism dynamics in the Global South.

Red coupling cluster

The red cluster, which focuses on the relationship between digital activism and health issues in the Middle East and North Africa, presents several significant limitations: geographically, these studies exhibit bias by covering only specific regions and inadequately representing the broader Global South; thematically, their narrow focus on health issues overlooks other crucial aspects of digital activism such as democracy and environmentalism; methodologically, they over-rely on macro-level secondary data that may fail to capture ground realities comprehensively; their quantitative approach insufficiently addresses qualitative dimensions like digital communication strategies; and temporally, most studies use pre-2020 data, thus failing to reflect recent developments in post-pandemic digital activism. These limitations underscore the need for future research that expands geographical and thematic coverage, integrates qualitative approaches, and employs more current data to comprehensively understand digital activism dynamics in the Global South.

Top 2 bibliographic coupling clusters and top 2 documents.

Bibliographic coupling of top 2 references.Red cluster: Rainfall, climate pattern analysis and correlation, modeling methodology.Green cluster: Disease management and specific population health (For interpretation of color references in this figure legend, readers are referred to the web version of this article).

Co-Citation Cluster	Authors (Years)	Sources	Secondary Document Description	Co-Citation Strength
Cluster 1 (red): Rainfall, climate pattern analysis and correlation, modeling methodology	An (2023)	Scientific Reports	This study examines extreme rainfall patterns in the Asia-Pacific region and their association with ENSO phenomena.	12
	Ayugi (2020)	Water (Switzerland)	Statistical correction enhances rainfall prediction accuracy in Kenya, improving water management practices.	4
Cluster 2 (green): Disease management and specific population health	Alisjahbana (2021)	Transactions of the Royal Society of Tropical Medicine and Hygiene	This study provides evidence supporting integrated TB-diabetes service policies in low- and middle-income countries.	3
	Ambarsari (2019)	Medical Journal of Indonesia	This study evaluates 5-year outcomes of continuous ambulatory peritoneal dialysis (CAPD) in pediatric patients in Indonesia, a developing country.	1

Research Limitations of the Green Cluster

The green cluster focusing on child health and data analysis techniques exhibits several critical limitations: First, its research scope is overly narrow, examining only child health aspects while neglecting the socio-political factors influencing digital activism's effectiveness. Second, its heavy reliance on quantitative data analysis methods (e.g., smoothing splines) fails to adequately capture the cultural and contextual nuances of on-the-ground social movements. Third, studies in this cluster tend to generalize findings without accounting for cross-country variations within the Global South. Fourth, research insufficiently explores practical implementation aspects of analytical findings in actual activism strategies. Fifth, most references originate from health disciplines, paying inadequate attention to relevant social science and digital communication perspectives. These limitations underscore the need for a more holistic approach integrating data analysis with qualitative research while expanding study scopes to incorporate sociocultural and political dimensions in understanding digital activism's role across the Global South.

The Evolution of Digital Activism in Global South Societies: a Future Research Agenda

Based on bibliometric findings from the 2014-2024 period, research on digital activism in the Global South remains fragmented into two primary clusters: public health (red cluster) and child health data analysis (green cluster), both of which exhibit significant limitations in geographic coverage, methodological approaches, and contemporary relevance. In-depth analysis reveals three critical gaps: (1) the dominance of health perspectives that overlook the socio-political dimensions of digital activism, (2) overreliance on macro-level data that fails to capture on-the-ground realities, and (3) a lack of analytical frameworks responsive to post-pandemic developments. To address these challenges, we propose two complementary transformative research agendas: one focused on comparative cross-regional mapping and the other on collaborative knowledge infrastructure development, aimed at establishing a new paradigm in digital activism studies that is more inclusive, interdisciplinary, and locally needs-based.

Comparative Mapping of Digital Activism Across 4 Global South Regions

This research agenda is designed to address the identified geographical and topical limitations of the red and green clusters through a comparative study of digital activism dynamics across four key Global South regions - Sub-Saharan Africa, Southeast Asia, Latin America, and the Pacific Islands. It employs a hybrid methodological approach combining social media big data analysis with qualitative methods like digital ethnography and in-depth case studies, with particular focus on previously underrepresented issues including environmental activism, digital democracy, and gender equality. The study simultaneously develops an interdisciplinary analytical framework integrating social science, digital communication, and public policy perspectives to generate a more holistic understanding of digital activism patterns across diverse socio-cultural contexts. The primary output will be an interactive digital atlas that not only maps activist networks but also provides evidence-based policy recommendations for stakeholders at both local and global levels.

Development of the "Global South Digital Activism Observatory" Collaborative Platform (2026-2028)

This research agenda aims to establish an integrated open-data hub to address disciplinary fragmentation and the identified limitations of secondary data in the red and green clusters. This will be achieved through developing a web-based collaborative platform featuring three core components: (1) a living bibliometric system with automated updates of academic literature and current digital activism reports, (2) a mixed-methods (quantitative-qualitative) digital toolkit encompassing digital ethnography guides, social network analysis, and policy mapping, and (3) an interactive dashboard visualizing activism trends across 50+ Global South countries. The initiative involves strategic collaboration with 50+ universities, local NGOs, and activist groups for participatory data collection and validation, while providing digital literacy training modules for local researchers. The platform is projected to become a knowledge hub supporting 1,000+ digital campaigns and evidence-based policy formulation across Global South regions by 2028.

AGENDA 1	- Sub-Saharan Africa, Southeast Asia, Latin America, and the Pacific Islands
	- Interactive Digital Atlas
	- Policy Recommendations
AGENDA 2	- Open Data Platform
	- Mixed-Methods Analysis Toolkit
	- 50+ Country Visualization Dashboard

IV. Conclusions

Current research on digital activism evolution in the Global South remains fragmented into two dominant clusters: The Red Cluster focusing on public health issues in the Middle East and North Africa through macrodata-based quantitative approaches (e.g., Murray CJ, 2020; Vos T, 2020), and the Green Cluster emphasizing child health data analysis using statistical techniques like smoothing splines (e.g., Global Burden of Disease, 2020). As Tufekci (2017) notes, "Digital activism in the Global South often mirrors Western tools but adapts them to local socio-political struggles" - an adaptation inadequately addressed in existing studies. While both clusters have significantly contributed to linking digital activism with health issues—particularly in data-driven advocacy—they exhibit fundamental limitations including geographical bias, topical narrowness (health-centric focus), overreliance on quantitative methods, and temporal irrelevance (pre-2020 data). Co-citation and bibliographic coupling analyses reveal these studies have overlooked socio-political dimensions, cultural nuances, and non-health activism (e.g., environmental and democratic movements). As Milan & Treré (2019) assert, "The datafication of Southern activism requires decolonial approaches that center local epistemologies" - a perspective conspicuously absent in dominant clusters. Findings generalization without local contextual considerations has further widened these knowledge gaps. Therefore, future research must adopt holistic approaches that: (1) expand geographical and topical coverage, (2) integrate mixed methods, and (3) develop collaborative infrastructure using contemporary data to more comprehensively and inclusively capture post-pandemic digital activism dynamics.

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