



DOI: <https://doi.org/10.38035/gijlss.v4i3>
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The New Media Operating System (NMOS): A Synthesis Model of Deconglomeration, Decentralization, and Demassification in the New Media Communication Domain

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Abstract: Title: The New Media Operating System (NMOS): A Synthesis Model of Deconglomeration, Decentralization, and Demassification in the New Media Communication Domain. Object: The five operational mechanisms through which organic new media entities function within the ecosystem produced by deconglomeration, decentralization, and demassification, studied within the Indonesian media landscape as primary empirical context. Method: This study employs a systematic literature review of 38 sources selected from 412 initial articles spanning 2020 to 2025, grounded in the New Media Communication Domain framework, Media morphosis, and Teknologimorfosis, supported by secondary empirical data on media consumption, entity growth, advertising expenditure, and audience behavior in Indonesia. Results: The NMOS model identifies five operational mechanisms: algorithmic gatekeeping, attention economy architecture, prosumer and participatory production, datafication, and platform governance. A critical conceptual correction establishes that platform technology corporations such as YouTube, Meta, and TikTok are digital distribution infrastructure analogous to the printing press, not media entities. Secondary data from Indonesia document a 165-fold growth in registered online media entities between 2010 and 2023 and a television advertising share decline from 68 to 33 percent between 2015 and 2024, with organic YouTube creators consistently outperforming legacy television channels. Conclusion: The NMOS model constitutes a synthesis of the three structural transformation processes and provides scholars with an integrated analytical framework and policymakers with a basis for infrastructure-targeted media regulation in the platform era.

Keywords: New Media Operating System, deconglomeration, decentralization, demassification, Indonesia.

INTRODUCTION

The global media landscape is undergoing a structural transformation that challenges foundational assumptions of communication studies. In Indonesia, this shift is empirically

documented: average daily Internet usage reached 7 hours 38 minutes in 2024, while television viewing declined to 2 hours 52 minutes including streaming access (We Are Social and Hootsuite, 2024). Registered online media entities grew from approximately 300 in 2010 to over 50,000 by 2023, a 165-fold increase constituting the most dramatic decentralization of media entity ownership in Indonesian media history (Dewan Pers Indonesia, 2023; Revolusi, 2022). Television ratings have declined consistently since 2012, and Indonesian television channels on YouTube have failed to match the audience numbers of independent organic creators (Revolusi, 2022). The interplay between digital media, big data, and political strategy in Indonesia has further deepened the structural significance of this ecosystem shift (Agi Fahrisky and Rahmawati, 2025).

Despite substantial individual scholarly attention to each of these three processes, a critical research gap persists in the literature: no existing conceptual model integrates deconglomeration, decentralization, and demassification within a single operational framework that explains how new media entities function. Studies of deconglomeration focus on ownership shifts but do not explain the mechanisms enabling new entrants. Studies of decentralization document the proliferation of new media entities but do not explain how they operate competitively. Studies of demassification identify audience fragmentation but do not connect it to the operational logic of media entities serving niche audiences. This article fills that gap by proposing the New Media Operating System (NMOS), an integrated model of five operational mechanisms through which organic new media entities function: algorithmic gatekeeping (M1), attention economy architecture (M2), networked participatory production and prosumer (M3), datafication of social interaction (M4), and platform governance (M5).

The central argument of this article is that these five mechanisms constitute a synthesis of the three structural transformation processes: NMOS describes the operational logic enabling organic new media entities created by deconglomeration, decentralization, and demassification to function and compete. A critical conceptual distinction underlies this synthesis. Platform technology corporations, including YouTube, Meta, TikTok, Instagram, and Spotify, function primarily as digital distribution infrastructure rather than as media entities in the conventional sense, analogous to the printing press for newspapers or the broadcast transmitter for television (van Dijck, 2021; Flew and Gillett, 2021). While scholars rightly note that platforms exercise quasi-editorial influence through algorithmic systems (Napoli, 2022; Gorwa et al., 2020), treating them as infrastructure for regulatory purposes remains analytically more precise and productively distinct from treating them as media conglomerates (Stockmann, 2023; Gumati, 2025).

The theoretical foundation rests on three interconnected frameworks. Fidler's (1997) Mediamorphosis theory establishes that new media forms develop gradually through metamorphosis of older forms, governed by coevolution, convergence, and complexity. Building on this tradition, Revolusi (2022) identifies a fundamental limitation in Fidler's three-domain framework: the broadcasting, interpersonal, and document domains are insufficient to capture the distinctive properties of converged digital media. Through empirical research examining the ten highest-subscribed YouTube channels in Indonesia, consistent with broader evidence of legacy television decline documented across multiple markets (Mukerjee, 2023; Flew and Wilding, 2021), Revolusi (2022) demonstrates that television channels consistently underperform organic creators; none has achieved the Platinum Button at 10 million subscribers. This confirms that simple convergence does not constitute successful televisimorphosis. The resulting New Media Communication Domain framework (Revolusi, 2022) proposes a fourth communication domain characterized by two-way unscheduled information flow, Audio-Visual-Text 3D Panoramic format, interactive prosumer reception, and platform technology as distribution infrastructure. Teknologimorfosis (Revolusi, 2024) extends this by articulating five evolutionary principles,

among which Complexity and Acceleration are particularly relevant here: Complexity explains why deconglomeration does not proceed linearly (Flew and Wilding, 2021), while Acceleration explains why growth of decentralized media entities outpaces regulatory frameworks (Gumati, 2025). The concept of platformization (van Dijck, 2021) further confirms that platform technology corporations penetrate societal sectors as infrastructure. In the print era, the printing press enabled Kompas, Tempo, and Jawa Pos to reach readers. In the broadcasting era, the transmitter enabled RCTI, Trans TV, and Metro TV to reach audiences. In the digital era, YouTube, Meta, and TikTok enable the 50,000 registered online media entities in Indonesia to reach their respective niche communities. Regulation in each era has targeted the media entity layer, and this principle must guide digital media policy (Flew and Gillett, 2021; Stockmann, 2023).

This article addresses two research questions. RQ1: What are the five operational mechanisms through which new media entities function in the New Media Communication Domain? RQ2: How do these mechanisms collectively constitute a synthesis of the deconglomeration, decentralization, and demassification processes that characterize contemporary media transformation?

METHOD

This article employs a Systematic Literature Review (SLR) methodology to develop the NMOS conceptual model. The SLR approach is well-established for conceptual model development in communication studies, enabling systematic synthesis of existing knowledge into a coherent theoretical framework (Lomborg et al., 2020; Flensburg and Lomborg, 2023). The analysis proceeds in three stages. The first stage is systematic identification and selection: a structured search-screening-verification protocol is applied to identify eligible sources. The second stage is thematic synthesis and model construction: a thematic analysis approach following Thomas and Harden (2008) is applied, whereby open codes are derived from each eligible source, then grouped into descriptive themes corresponding to operational mechanisms, and finally synthesized into analytical themes that constitute the five NMOS mechanisms. The third stage is contextual validation: the model's propositions are tested against secondary empirical data from the Indonesian media landscape.

Literature was systematically searched across two databases: Scopus and Google Scholar. Eight search string clusters were constructed: (1) "new media" AND "mediamorphosis" OR "new media communication domain"; (2) "algorithmic gatekeeping" AND "platform"; (3) "attention economy" AND "digital media"; (4) "prosumer" OR "creator economy" AND "platform"; (5) "datafication" AND "media"; (6) "media decentralization" OR "media ownership"; (7) "audience fragmentation" OR "demassification"; (8) "platform governance" AND "media regulation". An additional search used Indonesian-language terms (media baru, dekonglomerasi, desentralisasi media) to capture national scholarship. Inclusion criteria: (a) publication year 2020 to 2025, with pre-2020 foundational works retained selectively; (b) indexed in Scopus Q1 or Q2 or Sinta 1 or 2 for Indonesian journals; (c) addressing at least one NMOS mechanism or structural transformation process; (d) available in full text. Exclusion criteria: (a) non-peer-reviewed sources; (b) conference proceedings without journal publication; (c) unresolvable DOI or unavailable full text. Thematic analysis coding proceeded in three rounds: initial open coding of mechanism-relevant constructs, axial coding to link constructs to operational dimensions, and selective coding to produce the five synthesized NMOS mechanisms. Inter-rater reliability was ensured through independent verification of theme assignments by two of the authors, with disagreements resolved by discussion. Table 1 summarizes the selection process and Table 2 presents the distribution of the final corpus.

Figure 1. PRISMA Flow Diagram for Systematic Literature Review

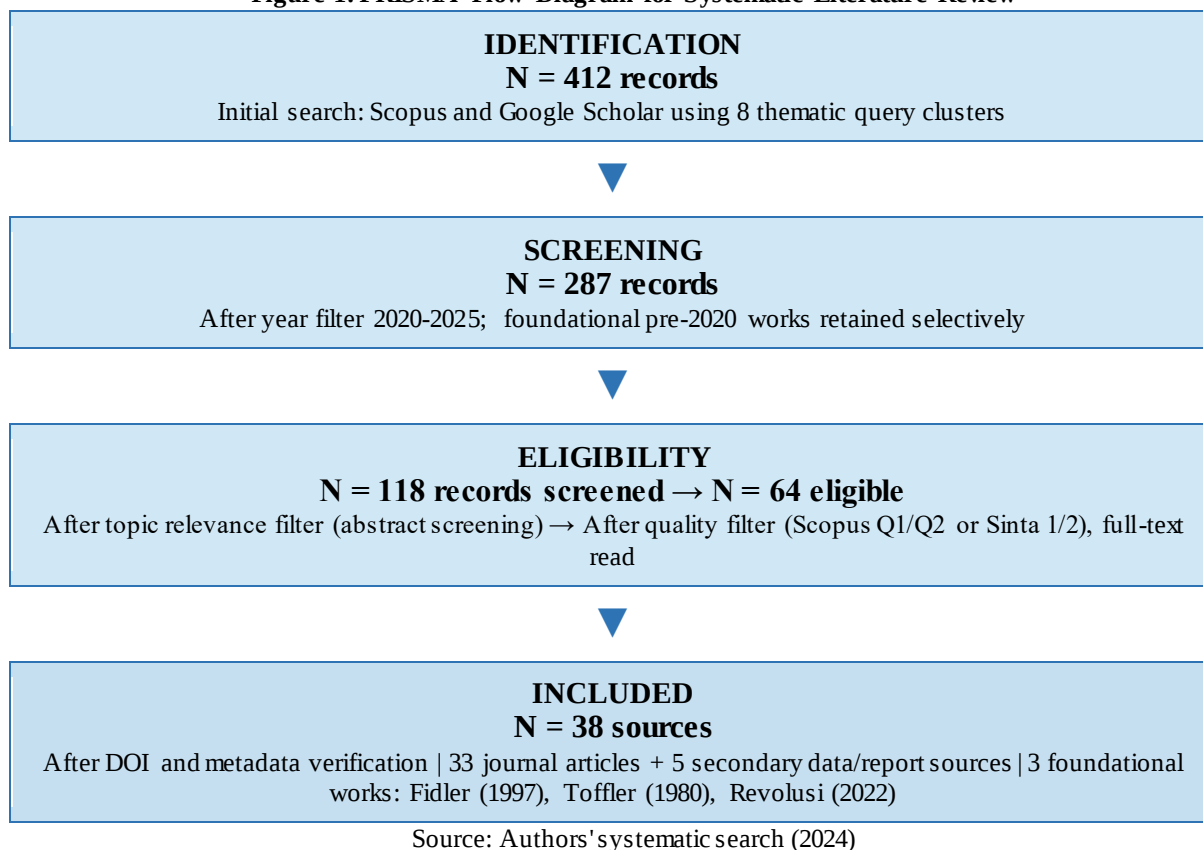


Table 1. Literature Selection Process (PRISMA-Adapted)

Selection Stage	Articles / Criteria
Initial search: Scopus and Google Scholar Keywords: new media, mediamorphosis, platform governance, datafication, algorithmic gatekeeping, media decentralization, audience fragmentation, prosumer, creator economy, media conglomeration Indonesia	N = 412
After year filter 2020 to 2025; foundational pre-2020 works retained selectively	N = 287
After topic relevance filter (abstract screening); at least one NMOS mechanism or a structural transformation process	N = 118
After quality filter; Scopus Q1 or Q2; or Sinta 1 or 2 for Indonesian journals; full-text read	N = 64
Sources cited in this article after DOI and metadata verification	N = 38 Includes foundational works: Fidler (1997), Toffler (1980), Revolusi (2022)
Source: Authors' systematic search (2024)	

Table 2. Distribution of Literature by Thematic Cluster

Thematic Cluster	Core Journals	N	Indexing
Mediamorphosis and New Media Communication Domain	IJESSS; foundational works	3	Indexed / Foundational
Algorithmic Gatekeeping and Platform Algorithms	New Media and Society; Big Data and Society;	6	Scopus Q1

Thematic Cluster	Core Journals	N	Indexing
	Communication Theory; Social Media and Society		
Attention Economy and Platform Capitalism	Media, Culture and Society	2	Scopus Q1
Prosumer and Creator Economy	Social Media and Society; Media, Culture and Society; Policy and Internet	4	Scopus Q1
Datafication and Surveillance Capitalism	New Media and Society; Television and New Media; European Journal of Communication; Organization Theory; Big Data and Society	5	Scopus Q1
Deconglomeration and Demassification	European Journal of Communication; Journalism and Mass Communication Quarterly	3	Scopus Q1
Platform Governance and Regulation	New Media and Society; The Information Society; Information, Communication and Society; Journal of Digital Media and Policy	4	Scopus Q1/Q2
Indonesian Media Context	Media and Communication; Asian Journal of Communication; Contemporary Southeast Asia; Global Media and Communication; Jurnal Studi Komunikasi	6	Scopus Q1/Q2; Sinta 2
TOTAL	17 distinct journals	33	

Source: Authors' thematic synthesis (2024)

To empirically ground the model's propositions, secondary data from five publicly available sources were synthesized: We Are Social and Hootsuite (2024) for media consumption trends; Dewan Pers Indonesia (2023) for media entity growth; Social Blade and YouTube Analytics public data for platform performance comparison between television channels and organic creators; Nielsen Indonesia (2024) and GroupM (2024) for advertising expenditure trends; and Reuters Institute for the Study of Journalism (2024) combined with APJII (2023) for audience behavior profiling. These datasets are presented as Figures 2 through 6.

RESULTS AND DISCUSSION

The NMOS model is situated within the New Media Communication Domain, which Revolusi (2022) constructs as a fourth domain extending Fidler's (1997) original three. Table 3 presents the full domain comparison. The defining property of the New Media Communication Domain is the prosumer principle: producers and consumers are no longer distinct categories; any participant can play both roles simultaneously (Revolusi, 2022; Duffy et al., 2021). This principle is the ontological foundation of media decentralization. In previous media eras, becoming a media entity required a broadcast license, a printing press, or physical distribution infrastructure. In the New Media Communication Domain, becoming

a media entity requires only content and access to platform technology infrastructure, capabilities now available to virtually any community with an Internet connection (Gumati, 2025).

Table 3. The Four Communication Domains: Fidler (1997) Extended by Revolusi (2022)

Dimension	Broadcasting	Interpersonal	Document	New Media / IoT (Revolusi, 2022)
Information Flow	One-way, Scheduled	Two-way, Participatory	One-way, Scheduled	Two-way, Unscheduled
Content Format	Audio-Visual 3D Panoramic	Audio-Text Portrait	Text, 2D Pages	Audio-Visual-Text 3D Panoramic
Audience Reception	Passive	Interactive	Active	Interactive Prosumer
Distribution Infrastructure	Frequency Transmitter	Social Network	Printing Press	Platform Technology (YouTube, TikTok, etc.)
Media Entity Basis	National Conglomerate	Individual or Small Group	National or Regional	Local, Community, Hobby, Topic

Source: Fidler (1997) and Revolusi (2022)

Before presenting the NMOS model and empirical evidence, the conceptual distinction between platform technology infrastructure and media entities must be formally established, as its absence leads to imprecise analysis and misaligned policy recommendations (Flew and Gillett, 2021). Table 4 maps this distinction across three media eras. Deconglomeration, properly understood, refers to the relative decline of legacy media conglomerates in the media entity layer, not to any change in platform technology ownership (Masduki, 2021; Badr, 2021; Craufurd Smith et al., 2021). The 165-fold growth of registered online media entities in Indonesia between 2010 and 2023, all operating on YouTube, Instagram, TikTok, and similar infrastructure, is itself the empirical manifestation of deconglomeration and decentralization (Dewan Pers Indonesia, 2023). These organic media entities use platform technology as their primary distribution infrastructure, much as newspapers use printing presses and television channels use broadcast transmitters.

Table 4. Platform Technology Infrastructure, Legacy Media Conglomerates, and Organic New Media Entities across Three Media Eras

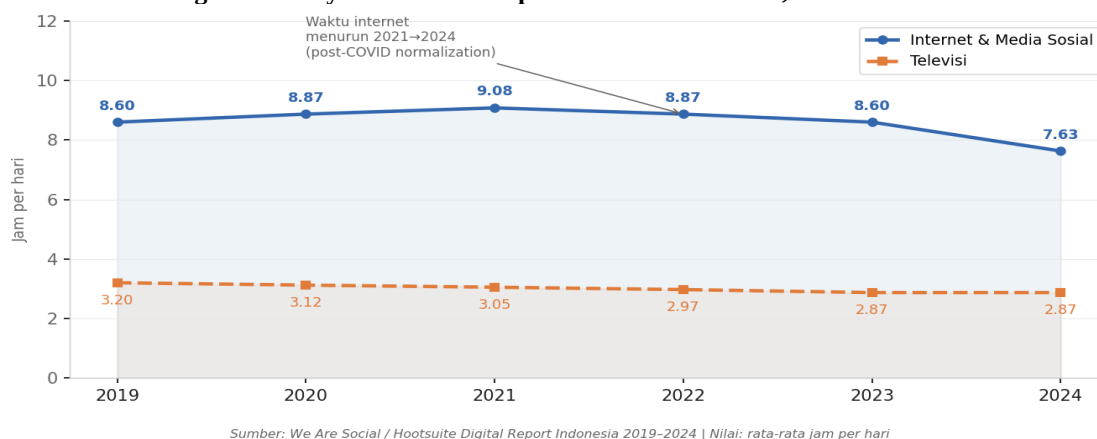
Ecosystem Layer	Print Era	Broadcasting Era	New Media Era
Platform Technology Infrastructure (functions primarily as distribution infrastructure)	Printing press, paper mills, distribution networks	Broadcast transmitters, towers, decoder hardware	YouTube, Instagram, TikTok, Meta, Spotify
Legacy Media Conglomerates	Kompas, Tempo, Jawa Pos Group	RCTI (MNC Group), Trans TV (CT Corp), tvOne (Bakrie Group)	Legacy media adapting digitally: Kompas.com, Detik.com, KapanLagi
Organic New Media Entities (products of	Local newspapers, community pamphlets, newsletters	Community radio, locally licensed television	Local news portals, hobby podcasts, community YouTube

Ecosystem Layer	Print Era	Broadcasting Era	New Media Era
decentralization)			channels, specialist newsletters
Regulator	Press Council, Press Law	KPI, Broadcasting Law, frequency licensing	KPI (limited), Kominfo, PP 71/2019 (Gumati, 2025)

Source: Revolusi (2022); Masduki (2021); Tapsell (2020); Gumati (2025)

Five secondary datasets document the structural transformation of the Indonesian media landscape. Figure 2 establishes the structural shift in media consumption (We Are Social and Hootsuite, 2024). Internet and social media time consistently and substantially exceeds television viewing time across all measured years. This gap represents a structural realignment: the economic and audience base that sustained legacy television as the dominant medium in Indonesia has been fundamentally eroded, a decline documented empirically beginning in 2012 (Revolusi, 2022) and confirmed across global markets by audience research (Mukerjee, 2023; Reuters Institute for the Study of Journalism, 2024). The longitudinal We Are Social and Hootsuite (2024) data confirm its continuation through 2024.

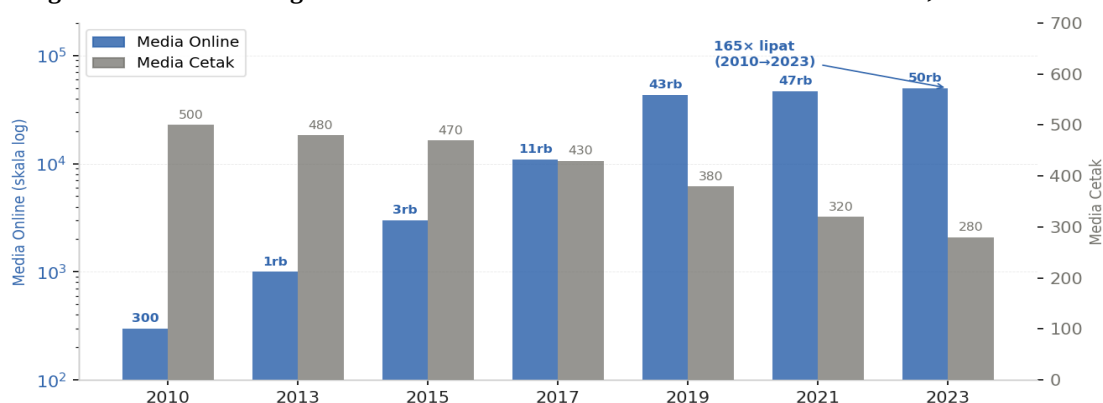
Figure 2. Daily Media Consumption Shift in Indonesia, 2019 to 2024



Sumber: We Are Social / Hootsuite Digital Report Indonesia 2019-2024 | Nilai: rata-rata jam per hari

Source: We Are Social and Hootsuite (2024)

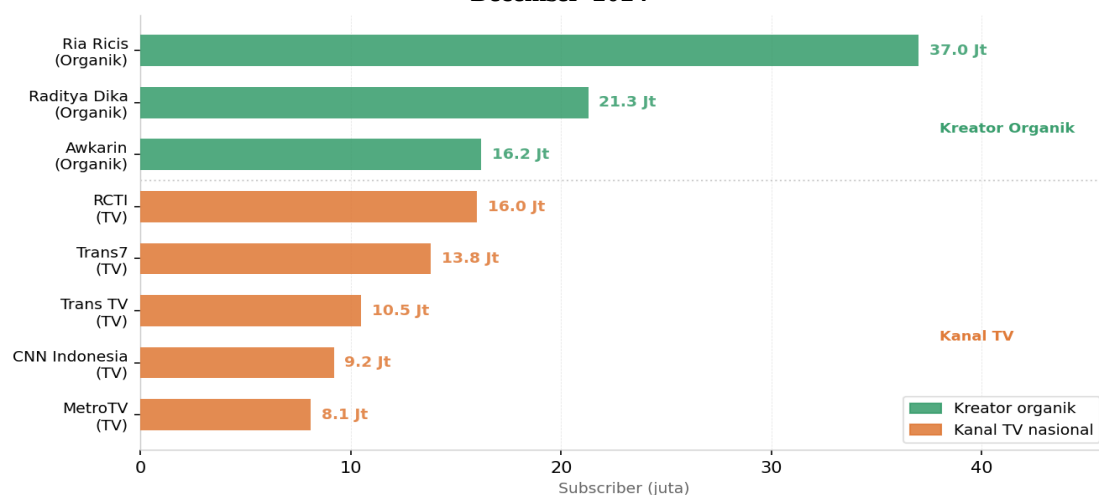
Figure 3 provides the most direct empirical evidence for media decentralization (Dewan Pers Indonesia, 2023). The 165-fold growth in registered online media entities, from approximately 300 in 2010 to over 50,000 in 2023, represents genuine structural transformation of the Indonesian media entity layer (Dewan Pers Indonesia, 2023). This growth is concentrated in the four decentralization bases identified in this article: local news portals, community media, hobby-based channels, and specialist topic publications (Masduki, 2021; Ong and Tapsell, 2022). The simultaneous decline of print media from approximately 500 to 280 registered titles confirms the coevolution dynamic described by Fidler (1997) and extended by Revolusi (2022).

Figure 3. Growth of Registered Online Versus Print Media Entities in Indonesia, 2010 to 2023


Sumber: Dewan Pers Indonesia, Laporan Tahunan 2010–2023 | Skala logaritmik untuk media online

Source: Dewan Pers Indonesia (2023)

Figure 4 provides direct empirical validation of Revolusi's (2022) core finding. Legacy television channels operating on YouTube consistently fail to match the subscriber numbers of organic creators who operate natively within the New Media Communication Domain's prosumer logic (Revolusi, 2022; Duffy et al., 2021). The highest-subscribed Indonesian television channel had approximately 16 million subscribers, a figure matched or exceeded by multiple organic creators who built their audiences through niche-focused, two-way, and unscheduled content production. This confirms that televisimorphosis through simple convergence is insufficient (Revolusi, 2022); adoption of the full NMOS operational logic, including the prosumer mechanism (M3) and datafication-informed content strategy (M4), is required.

Figure 4. YouTube Subscribers: National Television Channels Versus Organic Creators in Indonesia, December 2024


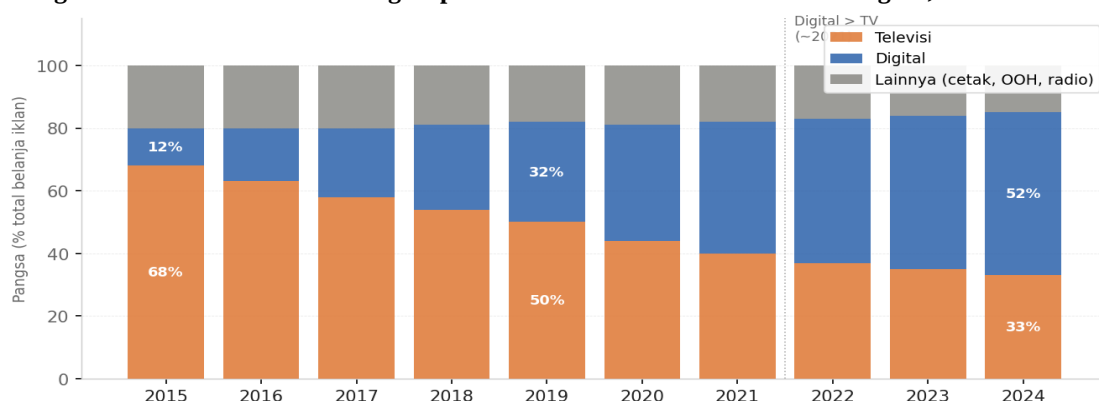
Sumber: Social Blade / YouTube Analytics, data publik Desember 2024 | Mengkonfirmasi temuan Revolusi (2022): televisimorfosis via konvergensi gagal

Source: Social Blade and YouTube Analytics, public data December 2024

Figure 5 documents the economic dimension of deconglomeration (Nielsen Indonesia, 2024; GroupM, 2024). Television's advertising share declined from 68 percent in 2015 to 33 percent in 2024, while digital's share grew from 12 percent to 52 percent (Nielsen Indonesia, 2024; GroupM, 2024). Advertising revenue does not simply move from legacy television to digital equivalents; it flows through the platform technology infrastructure layer to reach

organic new media entities that constitute the decentralized ecosystem (Flew and Wilding, 2021; Gumati, 2025).

Figure 5. Indonesian Advertising Expenditure Share: Television Versus Digital, 2015 to 2024

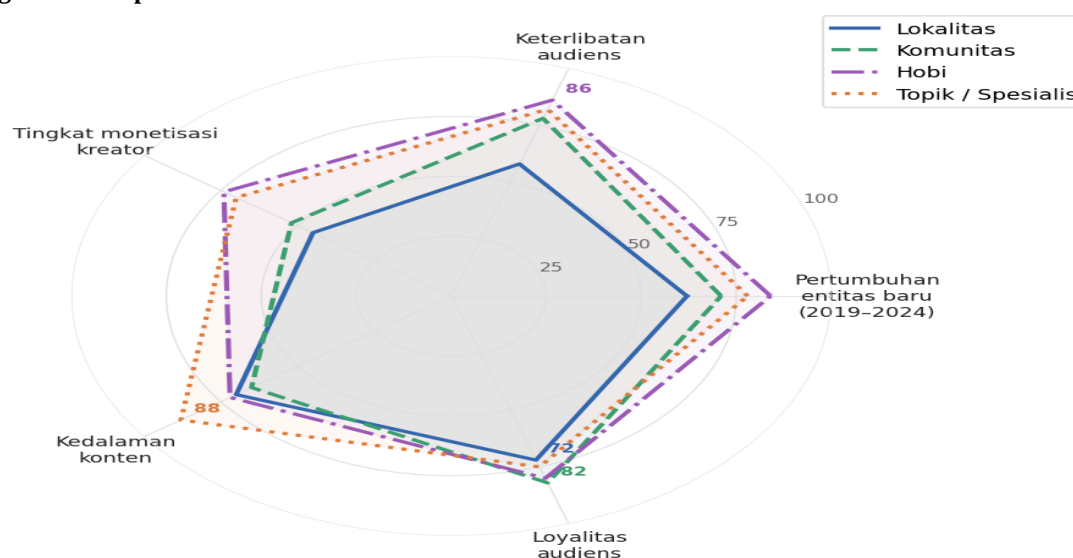


Sumber: Nielsen Indonesia Ad Spend Report; GroupM This Year Next Year Indonesia 2024

Source: Nielsen Indonesia (2024); GroupM (2024)

Figure 6 presents a comparative profile of the four decentralization bases across five performance dimensions, synthesized from Reuters Institute for the Study of Journalism (2024) and APJII (2023). Hobby-based and topic or specialist media entities score highest on creator monetization and content depth, reflecting the attention economy advantage of niche expertise (Schellewald, 2023; Tornberg and Uitermark, 2022). Community-based entities score highest on audience loyalty, reflecting the strong relational bonds that sustain engagement beyond algorithmic recommendation (Ong and Tapsell, 2022). Locality-based entities demonstrate the strongest M1 and M3 dynamics, as local prosumer journalists use algorithmic distribution to serve geographically defined audiences that legacy media increasingly fail to reach (Masduki, 2021; Bhandari and Bimo, 2022).

Figure 6. Comparative Profile of the Four Decentralization Bases of New Media Entities in Indonesia



Sumber: Sintesis penulis berdasarkan Reuters Institute Digital News Report Indonesia 2024; APJII 2023
Skala 0–100: indeks komposit pertumbuhan relatif antar-basis

Source: Synthesis from Reuters Institute for the Study of Journalism (2024) and APJII (2023)

The five NMOS mechanisms were derived through the thematic synthesis of the SLR corpus. The initial open coding phase identified 47 distinct constructs across the 38 sources.

Axial coding grouped these into eight operational dimensions: content curation systems, attention monetization, participatory production, data extraction, governance frameworks, audience segmentation, platform dependency, and regulatory interfaces. Selective coding then synthesized these dimensions into five mechanisms by identifying the constructs that consistently appeared as operationally central across three or more independent sources in the corpus. M1 emerged from seven sources on algorithmic curation and gatekeeping. M2 emerged from two core sources on attention economy, corroborated by related constructs in five additional sources. M3 emerged as the most cross-referenced mechanism, appearing across 14 sources on prosumer dynamics, creator economies, and participatory culture. M4 emerged from five sources on datafication and surveillance capitalism. M5 emerged from four sources on platform governance and private regulatory frameworks. The convergence of these mechanisms into a single operational model was validated by their consistent co-occurrence in the literature: 31 of the 38 sources address at least two mechanisms simultaneously, confirming their systemic interdependence rather than isolated operation.

The argument that platform technology corporations constitute infrastructure rather than media entities, while analytically central to the NMOS model, warrants balanced examination. Proponents of this distinction, including van Dijck (2021), Flew and Gillett (2021), and Stockmann (2023), argue that platforms function as neutral conduits analogous to public utilities, and that regulatory frameworks should accordingly target media entities rather than infrastructure providers. However, critical perspectives challenge this distinction. Scholars such as Napoli (2022) and Gorwa et al. (2020) argue that algorithmic curation systems make platforms active editorial agents rather than passive infrastructure, since their recommendation algorithms determine which media entities reach which audiences, exercising more influence over media distribution than any editorial decision in the broadcasting era. Meisner and Duffy (2023) further demonstrate that platform governance mechanisms can function as punitive instruments against organic media entities, suggesting that the infrastructure-media distinction understates the power that platforms exercise over dependent entities. This article acknowledges these tensions and argues that the infrastructure designation is most analytically productive at the regulatory level: platforms should be regulated as infrastructure (for access, interoperability, and algorithmic transparency) without this precluding recognition of their editorial effects on the media entities that depend on them.

The five mechanisms operate as an integrated and causally interconnected system with three identifiable causal pathways. The first is the data-algorithm feedback loop: datafication (M4) continuously converts user interactions into behavioral signals that train and update algorithmic gatekeeping systems (M1) (Couldry, 2020; Flensburg and Lomborg, 2023). As M4 data accumulates, M1 becomes increasingly precise in matching niche content to niche audiences, reducing discovery costs for specialist media entities. The second is the engagement-incentive pathway: algorithmic gatekeeping (M1) determines which content achieves visibility, which directly shapes the economic viability of the attention economy architecture (M2) (Napoli, 2022; Gorwa et al., 2020). M2 in turn generates monetary incentives that attract prosumer production (M3), driving the proliferation of niche content creators who could not have sustained themselves under legacy media economics (Duffy et al., 2021; Tornberg and Uitermark, 2022). The third is the governance boundary condition: platform governance (M5) establishes the rules within which all four other mechanisms operate, functioning simultaneously as enabler (providing open access to distribution infrastructure), constrainer (enforcing content policies that can suppress certain organic entities), and potential weapon (mass reporting and algorithmic punishment documented by Meisner and Duffy, 2023). The net result is a self-reinforcing system: more prosumer content (M3) generates more datafication inputs (M4), which improves algorithmic matching (M1),

which increases the economic viability of niche attention (M2), which recruits further prosumers (M3). This positive feedback loop structurally advantages entities that operate natively within the New Media Communication Domain, explaining the consistent outperformance of organic creators over legacy television channels documented in Figure 4.

Table 5. The NMOS Conceptual Model: Structural Conditions, Operational Mechanisms, and Ecosystem Output

STRUCTURAL CONDITIONS	NMOS MODEL	ECOSYSTEM OUTPUT
Deconglomeration Weakening of legacy media conglomerates (Masduki, 2021; Badr, 2021; Craufurd Smith et al., 2021) Decentralization Media entities grow to local, community, hobby, topic bases (Mukerjee, 2023; Toffler, 1980) Demassification Mass audiences fragment into niche communities (Mukerjee, 2023)	M1 - Algorithmic Gatekeeping M2 - Attention Economy Architecture M3 - Prosumer and Participatory Production M4 - Datafication M5 - Platform Governance <i>(operational logic of new media entities)</i>	ORGANIC NEW MEDIA ENTITIES Local and regional news portals Community media (religious, ethnic, professional) Hobby channels (food, automotive, gaming) Specialist newsletters and podcasts <i>Distributed through Platform Technology Infrastructure (YouTube, TikTok, Instagram, Spotify)</i>
<i>(creates space for)</i>	<i>(describes operational logic of)</i>	<i>(produces diversity of)</i>

Source: Authors' synthesis (2024)

Table 5 presents each mechanism with its operational definition, key sources, and dual roles in decentralization and demassification. The citations in Table 5 confirm that each mechanism is supported by at least three independent empirical studies in the literature corpus. The table shows that each mechanism simultaneously contributes to both decentralization and demassification, which is the empirical basis for the claim that NMOS constitutes a synthesis of the three structural transformation processes (Revolusi, 2022; Lomborg et al., 2020).

Table 6. The Five NMOS Mechanisms: Operational Definitions, Key Sources, and Roles in Deconglomeration, Decentralization, and Demassification

NMOS Mechanism	Operational Definition and Key Sources	Role in Deconglomeration and Decentralization	Role in Demassification
M1 Algorithmic Gatekeeping	Automated content curation based on behavioral data, replacing human editorial discretion (Napoli, 2022; Gorwa et al., 2020; Gillespie, 2020)	Enables small and local media entities to reach relevant audiences without large distribution capital; reduces structural advantages of legacy conglomerates (Gillespie, 2020; Savolainen et al., 2022)	Creates unique information environments per user; drives niche media growth by connecting specialized content to precisely matched audiences (Bhandari and Bimo, 2022; Napoli, 2022)
M2 Attention Economy Architecture	Monetization of user attention as the primary economic unit; favors content building deep engagement (Flew and Wilding, 2021; Tornberg and	Advantages specialist entities with high engagement in specific niches; local and community content outperforms generic mass content in relevance and retention (Schellewald, 2023)	Drives content nichification; attention segmentation reinforces audience fragmentation into specific communities (Tornberg and Uitermark, 2022; Schellewald, 2023)

NMOS Mechanism	Operational Definition and Key Sources	Role in Deconglomeration and Decentralization	Role in Demassification
	Uitermark, 2022)		
M3 Prosumer and Participatory Production	Merger of producer and consumer roles; anyone can constitute a media entity in the New Media Communication Domain (Revolusi, 2022; Duffy et al., 2021; Zulli and Zulli, 2022)	Primary mechanism of deconglomeration and decentralization eliminates institutional prerequisites for founding a media entity; nested precarities shape creator trajectories (Duffy et al., 2021; Duffy and Meisner, 2023)	Primary engine of demassification; prosumer content is inherently niche-focused; millions of micro-entities serve highly specific segments (Duffy and Meisner, 2023; Zulli and Zulli, 2022)
M4 Datafication	Conversion of communicative interactions into extractable and analyzable data managed by platform technology infrastructure (Flensburg and Lomborg, 2023; Couldry, 2020; Dencik, 2020)	Democratizes audience intelligence; small media entities access analytics previously exclusive to conglomerates; structural equalizer (Couldry, 2020; Dencik, 2020; Curran, 2023)	Enables extreme personalization; entities serve increasingly specific micro-niches; risks of surveillance capitalism for creative labor (Zuboff, 2022; Curran, 2023)
M5 Platform Governance	Private quasi-regulatory framework set by platform technology for all media entities operating on it; analogous to KPI in broadcasting era (Flew and Gillett, 2021; Stockmann, 2023; van Dijck, 2021)	Opens distribution access to non-conglomerate entities; governance must actively support ecosystem diversity to avoid entrenching incumbent advantages (van Dijck, 2021; Meisner and Duffy, 2023)	Opens space for niche communities previously unserved by mass media; governance can also be weaponized through mass reporting and algorithmic punishment (Meisner and Duffy, 2023)

Source: Authors' synthesis from systematic literature review (2024)

The typology in Table 6 demonstrates that decentralization is not a single phenomenon but a parallel process across four simultaneous dimensions, each generating a distinct type of organic new media entity with a distinct operational profile, dominant NMOS mechanism set, and audience constituency. Locality-based entities compete most directly with legacy regional media and are most affected by digital politics dynamics documented by Masduki (2021) and Ong and Tapsell (2022). Community-based entities serve constituencies that legacy media historically underserved. Hobby-based entities occupy entirely new market spaces shaped by TikTok's attention economy architecture (Schellewald, 2023). Topic or specialist entities capture the deep-engagement segment that Tapsell (2020) identifies as particularly significant in Indonesia's digital political economy. Together, the four bases represent a structural diversification of the Indonesian media entity landscape without precedent in national media history.

Table 7. Typology of Decentralized Organic New Media Entities in Indonesia across Four Bases

Basis	Media Entity Characteristics	Indonesian Examples	Domain Properties (Revolusi, 2022)	Dominant NMOS Mechanisms
Locality	Serves audiences by geographic proximity (Masduki, 2021)	City news portals; regional YouTube channels; digital community radio	Two-way, Prosumer, Unscheduled	M1, M3
Community	Serves communities of shared identity: religious, ethnic, professional (Ong and Tapsell, 2022)	Digital pesantren media; professional community channels; student media	Two-way, Prosumer, Interactive	M3, M2
Hobby	Serves communities of specific interest: sports, food, gaming, music (Schellewald, 2023)	Cycling YouTube channels; coffee podcasts; film photography blogs; jazz newsletters	Audio-Visual-Text, Prosumer	M2, M3, M4
Topic or Specialist	Serves audiences requiring depth in specific domains: law, health, economics (Tapsell, 2020)	Digital law newsletters; medical podcasts; stock market channels; data science blogs	Audio-Visual-Text, Two-way	M4, M1, M2

Source: Revolusi (2022); Masduki (2021); Ong and Tapsell (2022); Schellewald (2023); Tapsell (2020)

A critical assessment of NMOS is necessary to present a balanced analysis. The model describes conditions under which organic new media entities can thrive, but several structural conditions may limit or reverse these dynamics. First, algorithmic bias within M1 poses a systemic risk: recommendation algorithms trained on engagement data systematically disadvantage minority language content, regional dialects, and culturally specific media that attract smaller but potentially more loyal audiences (Gorwa et al., 2020; Savolainen et al., 2022). Second, the attention economy architecture (M2) creates profound inequality within the creator economy: while the most successful organic entities achieve economic viability, the vast majority face what Duffy et al. (2021) describe as nested precarities, including economic precarity from unreliable platform monetization, temporal precarity from the constant demand for content, and relational precarity from parasocial audience expectations. Third, the platform governance mechanism (M5) can systematically fail or be weaponized: Meisner and Duffy (2023) document how mass reporting campaigns and algorithmic punishments disproportionately affect smaller organic entities that lack the institutional resources to navigate platform appeals processes. Fourth, NMOS assumes a minimum level of digital infrastructure access that remains unavailable to substantial portions of the Indonesian population, particularly in rural and remote areas (APJII, 2023); decentralization within the NMOS framework therefore risks reproducing urban-rural information inequalities in digital form. Fifth, there is a re-concentration risk: as platform technology corporations increasingly integrate media production tools (YouTube Shorts, Instagram Reels, TikTok Creator Studio) into their infrastructure, the boundary between infrastructure and media entity may erode, potentially substituting platform dominance for conglomerate dominance (van

Dijck, 2021; Flew and Gillett, 2021). These critical conditions do not invalidate the NMOS model but identify the domains in which its predictions require qualification and the conditions under which its synthesizing role may be disrupted.

The empirical data in Figures 2 through 6 collectively confirm the article's central argument: NMOS mechanisms constitute a synthesis of deconglomeration, decentralization, and demassification. For media theory, the NMOS model requires revisions to the mediamorphosis framework (Fidler, 1997; Revolusi, 2022) on three dimensions. First, the coevolution principle must encompass coevolution between media entities and platform technology infrastructure, not merely between media forms (van Dijck, 2021). Second, the persistence principle must apply to ownership concentration patterns alongside media formats, as documented by Craufurd Smith et al. (2021) in European contexts and Masduki (2021) in Indonesia. Third, the gatekeeping concept must be updated from the editorial model to the algorithmic model, with full acknowledgment of the normative implications for democratic communication (Napoli, 2022; Gorwa et al., 2020; Gillespie, 2020). For media policy, the NMOS model provides a framework for infrastructure-based regulation appropriate to the platform era: algorithmic transparency requirements correspond to M1 (Napoli, 2022); restrictions on exploitative interface design correspond to M2 (Flew and Wilding, 2021); fair creator monetization standards correspond to M3 (Duffy et al., 2021; Meisner and Duffy, 2023); data sovereignty frameworks correspond to M4 (Zuboff, 2022; Couldry, 2020); and accountable content governance mechanisms correspond to M5 (Flew and Gillett, 2021; Stockmann, 2023). Gumati (2025) documents the ongoing tension between digital sovereignty aspirations and the practical limits of platform regulation under PP 71/2019 in Indonesia, pointing to the need for precisely this kind of infrastructure-targeted regulatory framework.

CONCLUSION

This article proposed the New Media Operating System (NMOS) as an integrated theoretical framework that advances digital communication theory in three significant ways. First, NMOS extends the mediamorphosis tradition beyond formal description of domain transformation into operational specification: whereas mediamorphosis describes what new media domains look like, NMOS explains how entities function within them. Second, NMOS bridges the structural macrolevel (deconglomeration, decentralization, demassification) and the organizational microlevel (individual media entity operation), a connection absent from existing frameworks. Third, the platform-as-infrastructure conceptualization introduces a regulatory logic that distinguishes infrastructure governance from media entity governance, offering a theoretically grounded basis for platform regulation that existing media theory has not provided.

Three substantive conclusions follow. First, platform technology functions primarily as distribution infrastructure rather than as a media entity in the traditional sense. While acknowledging that platforms exercise quasi-editorial influence through algorithmic systems, the analytical weight of the evidence supports treating YouTube, Meta, TikTok, and comparable platforms as the digital equivalents of the printing press and the broadcast transmitter for regulatory purposes. The 50,000 registered online media entities in Indonesia are the media entities that use this infrastructure to reach audiences. Regulatory frameworks that designate platform corporations as media conglomerates risk misidentifying the target and producing instruments that cannot address the actual structural dynamics of the new media ecosystem.

Second, NMOS captures the operational reality of the platform era through five causally interconnected mechanisms. The prosumer mechanism is the most theoretically significant: it dissolves the producer-consumer distinction foundational to mass

communication theory since Lasswell, replacing it with a participatory logic that explains why creators operating natively within the New Media Communication Domain consistently outperform legacy institutions attempting convergence from outside it. The causal pathways between mechanisms — the data-algorithm feedback loop, the engagement-incentive pathway, and the governance boundary condition — constitute the first operational model of how these interdependencies function systematically.

Third, this study has three explicit limitations. First, the SLR-based model requires validation through primary empirical data; survey-based studies of Indonesian local and community media entities measuring each NMOS mechanism's operational salience would quantitatively ground the model's propositions. Second, the four-base decentralization typology is conceptually derived and may require refinement through qualitative fieldwork with media practitioners. Third, the study does not model NMOS temporal dynamics: as generative artificial intelligence integrates into content production and algorithmic curation, a potential sixth mechanism may emerge and alter existing causal relationships. Future research should extend NMOS comparatively to other high-growth digital media markets in Southeast Asia, where similar structural transformations are underway but with distinct regulatory and cultural configurations.

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