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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 operational mechanisms through which organic new media entities function in the ecosystem produced by deconglomeration, decentralization, and demassification, with Indonesia as context. Method: This study employs a systematic literature review of 29 peer-reviewed articles (2020 to 2025) selected from 412 initial records, grounded in the New Media Communication Domain framework, Mediamorphosis, and Teknologimorfosis, and illustrated with Indonesian secondary data on media consumption, media entities, advertising expenditure, and YouTube rankings. Results: The NMOS model identifies five mechanisms: algorithmic gatekeeping (M1), attention economy architecture (M2), prosumer and participatory production (M3), datafication (M4), and platform governance (M5). Platform corporations such as YouTube, Meta, and TikTok are treated as governing infrastructure: like the printing press, they carry media content, but they also run M1, M2, M4, and M5, whereas M3 belongs to the media entities, including prosumers, that operate on top of them. In Indonesia, online outlets dominate the press companies verified by the Press Council (964 of 1,789 in 2023), daily Internet use far exceeds television viewing, and individual creators lead the YouTube rankings, although television still dominates measured advertising expenditure. 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 two-layer media regulation: infrastructure rules for platforms and press regulation for media entities.

Keywords: platform governance, platformization, algorithmic gatekeeping, creator economy, media regulation, 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 (broadcast and streaming) fell to 2 hours 41 minutes (DataReportal, 2019–2024). Online outlets are the largest category of press companies verified by the Press Council (964 of 1,789 in 2023), out of an estimated 47,000 press companies, about 43,000 of them online (Dewan Pers, 2023, pp. 16-17). Television ratings have declined since 2012 according to AC Nielsen data cited by Revolusi (2022), and the four most-subscribed Indonesian YouTube channels are individual creators rather than television stations (Databoks, 2025). 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).

Although each process is well studied, no existing conceptual model integrates deconglomeration, decentralization, and demassification within a single operational framework that explains how new media entities actually function. Studies of each process describe ownership shifts, new entrants, or audience fragmentation, but not the mechanisms through which the resulting media entities operate and compete. 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 conceptual distinction underlies this synthesis. Platform corporations, including YouTube, Meta, TikTok, Instagram, and Spotify, are treated here as governing infrastructure: like the printing press or the broadcast transmitter, they carry the content of media entities, but unlike those technologies they also rank, monetize, datafy, and moderate it (Plantin et al., 2018; Nieborg and Poell, 2018; Plantin and Punathambekar, 2019). In NMOS terms, platforms run M1, M2, M4, and M5, while media entities, including prosumers, run M3 on top of them. This position differs both from treating platforms as neutral conduits and from treating them as media conglomerates (cf. Stockmann, 2023; Gumati, 2024). Hence the operating-system metaphor: as an operating system sits between hardware and applications, platforms allocate visibility (M1) and income (M2), log interaction (M4), and set permissions (M5), while media entities, from outlets to individual prosumers, are the applications that produce content on top of them (M3).

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, Revolusi (2022) argues that television channels underperform organic creators; although several television channels had passed 10 million subscribers by 2020 (detikInet, 2020), individual creators still top the national ranking (Databoks, 2025). This suggests 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, 2025) extends this by articulating five evolutionary principles (inheritance, convergence, persistence, complexity, and acceleration), among which Complexity (friction in adoption) and Acceleration (the rising pace of innovation) are particularly relevant here: extended to the media domain, Complexity explains why deconglomeration does not proceed linearly, while Acceleration explains why growth of decentralized media entities outpaces regulatory frameworks. Platformization research shows that platform corporations penetrate societal sectors as infrastructures and make cultural production platform-dependent (van Dijck, 2021; Nieborg and Poell, 2018). Printing presses once carried Kompas and Jawa Pos, and transmitters carried RCTI, Trans TV, and Metro TV. In the digital era, an estimated 43,000 online outlets in Indonesia (Dewan Pers, 2023, pp. 16, 152-153) increasingly depend on platforms such as Google, YouTube, Meta, and TikTok for reach. The analogy holds for distribution but not for governance. The broadcasting era already regulated two layers, frequency licensing for transmitter infrastructure and KPI content standards for broadcasters; the platform era requires the same, with infrastructure rules for platforms, whose governing functions presses and transmitters never had, and press rules for media entities.

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?

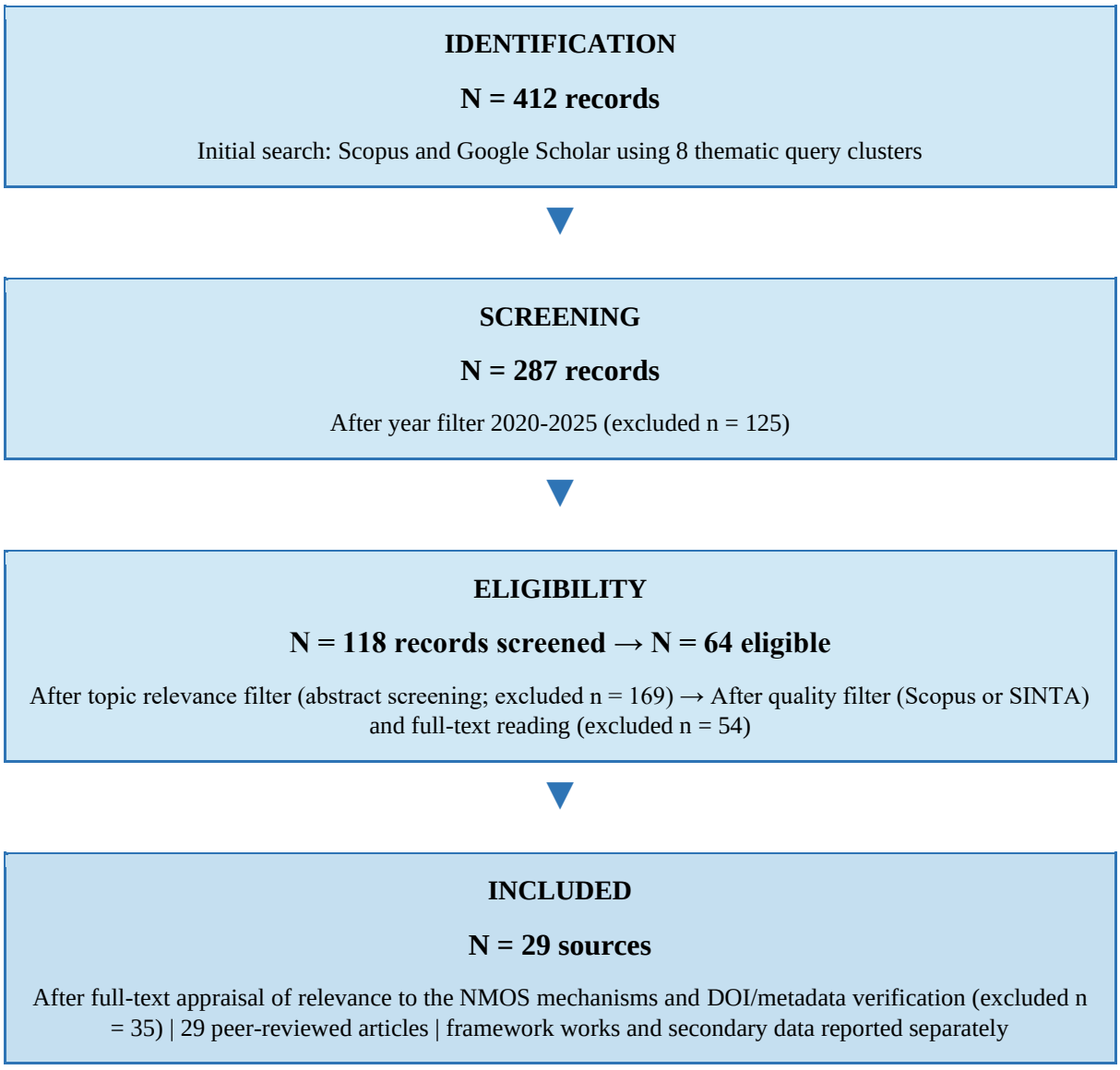
METHODS

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 (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 illustration: secondary data from the Indonesian media landscape illustrate, but do not test, the model's propositions.

Literature was systematically searched across two databases, Scopus and Google Scholar, with an initial search in 2024 and an update in October 2025. 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) peer-reviewed journal articles published from 2020 to 2025; (b) published in Scopus-indexed journals or SINTA-accredited 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. Institutional and industry data were treated as secondary data. Books, pre-2020 works, and the authors' own prior work (Revolusi, 2022, 2025) serve as framework and corroborating sources but are not counted in the corpus, so that the model's anchor is not also its evidence. 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. Theme assignments were cross-checked independently by a second author, and disagreements were resolved by discussion until consensus was reached; no reliability coefficient was calculated. Figure 1 summarizes the selection process and Table 1 presents the distribution of the final corpus.

Figure 1. PRISMA Flow Diagram for Systematic Literature Review



Source: Authors' systematic search (2024–2025)

Table 1. Distribution of Literature by Thematic Cluster

Thematic Cluster	Core Journals	N	Indexing
Algorithmic Gatekeeping and Platform Algorithms	New Media and Society; Big Data and Society; Social Media and Society	5	Scopus Q1
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; New Media and Society	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	6	Scopus Q1
Deconglomeration and Demassification	European Journal of Communication; International Journal of Press/Politics	3	Scopus Q1
Platform Governance and Regulation	New Media and Society; The Information Society; Information, Communication and Society; Journal of Digital Media and Policy; Media, Culture and Society	5	Scopus Q1/Q2
Indonesian Media Context	Media and Communication; Asian Journal of Communication; JISPO Jurnal Ilmu Sosial dan Ilmu Politik; Jurnal Studi Komunikasi	4	Scopus Q1/Q2; Sinta 2-3
TOTAL	**16 distinct journals**	**29**	

Source: Authors' thematic synthesis (2025)

To illustrate the model's propositions in context, secondary data from publicly available sources (DataReportal, Databoks, Dewan Pers, detikInet, and Nielsen data reported by SWA and Kontan) were compiled and are presented as Figures 2 through 5; Figure 6 is the authors' conceptual assessment, informed by Reuters Institute for the Study of Journalism (2024) and APJII (2023).

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 2 presents the full domain comparison. In Revolusi's (2022) terms, "3D panoramic" is the audio-visual format of broadcasting, as opposed to the portrait format of interpersonal media and the 2D pages of documents; the fourth domain adds text to it and is also called the IoT (Internet of Things) domain. 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.

Table 2. 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)

The distinction between platform infrastructure and media entities must first be established (Flew and Gillett, 2021). Table 3 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 (cf. Badr, 2021; Craufurd Smith et al., 2021). The predominance of online outlets among verified press companies (Dewan Pers, 2023, p. 17), outlets that increasingly depend on search and social platforms for reach, is an empirical manifestation of deconglomeration and decentralization. These organic media entities depend on platform technology for distribution much as newspapers depended on printing presses, although platforms, unlike presses, also govern what they carry (Plantin et al., 2018).

Table 3. Platform Technology Infrastructure, Legacy Media Conglomerates, and Organic New Media Entities across Three Media Eras

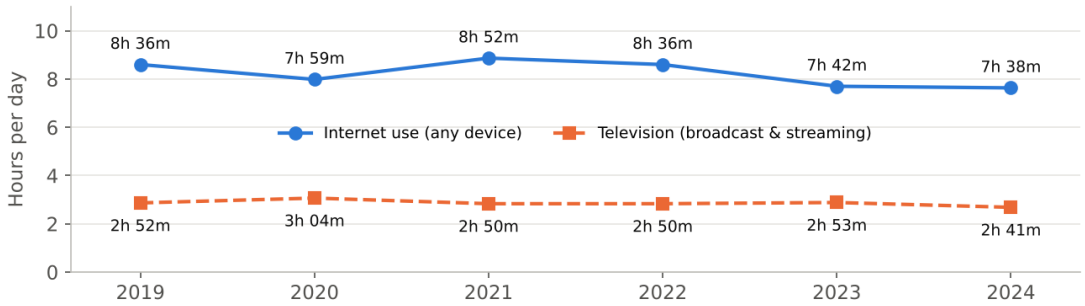
Ecosystem Layer	Print Era	Broadcasting Era	New Media Era
Platform Technology Infrastructure (distribution and governance)	Printing press, paper mills, distribution networks	Broadcast transmitters, towers, decoder hardware	**YouTube, Instagram, TikTok, Meta, Spotify**

Ecosystem Layer	Print Era	Broadcasting Era	New Media Era
Legacy Media Conglomerates	Kompas Gramedia, Jawa Pos Group	RCTI (MNC Group), Trans TV (CT Corp), tvOne (Bakrie Group)	Legacy media adapting digitally: Kompas.com (Kompas Gramedia), iNews.id (MNC)
Organic New Media Entities (products of decentralization)	Local newspapers, community pamphlets, newsletters	Community radio, locally licensed television	**Local news portals, hobby podcasts, community YouTube channels, specialist newsletters**
Regulator	Press Council, Press Law	KPI, Broadcasting Law, frequency licensing	Press Council (cyber media guidelines), KPI (limited), Komdigi, MR 10/2021 (Gumati, 2024), Perpres 32/2024

Source: Revolusi (2022); Masduki (2021); Gumati (2024); Dewan Pers (2012); Republic of Indonesia (2024)

The secondary datasets document the structural transformation of the Indonesian media landscape. Figure 2 establishes the structural shift in media consumption (DataReportal, 2019–2024). Internet use exceeds television viewing by a wide margin in every year with available data. This gap represents a structural realignment: the economic and audience base that sustained legacy television as the dominant medium in Indonesia has weakened, with a ratings decline reported from 2012 (Revolusi, 2022). Daily viewing time does not show that decline continuing: television viewing stayed between 2 hours 50 minutes and 3 hours 4 minutes from 2019 to 2023 before falling to 2 hours 41 minutes in 2024 (DataReportal, 2019–2024; Databoks, 2020). Internet use peaked at 8 hours 52 minutes in the 2021 pandemic year and fell by 1 hour 14 minutes by 2024, consistent with post-pandemic normalization, yet remained almost three times television viewing. Because the survey covers Internet users aged 16 to 64, the gap is smaller for the population as a whole.

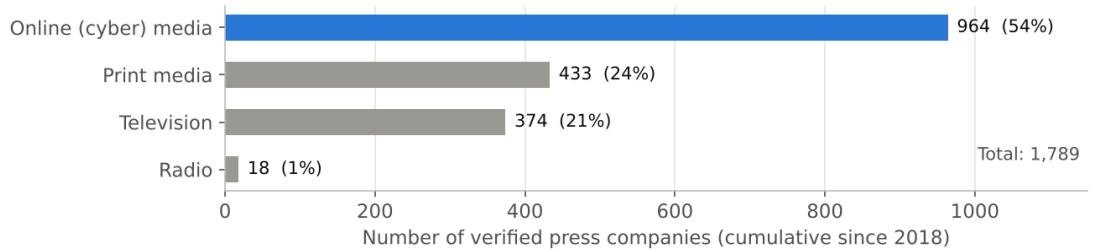
Figure 2. Daily Media Consumption Shift in Indonesia, 2019 to 2024



Source: DataReportal (2019–2024); Databoks (2020)

Figure 3 shows that online outlets account for 964 (54 percent) of the 1,789 press companies verified by the Press Council (Dewan Pers, 2023, p. 17). Because only about 1,800 of an estimated 47,000 press companies are verified (Dewan Pers, 2023, pp. 16, 152-153), these figures understate decentralization: many local, community, hobby-based, and specialist outlets operate unverified. The coexistence of print and broadcast with a larger online sector is consistent with the coevolution dynamic described by Fidler (1997) and extended by Revolusi (2022).

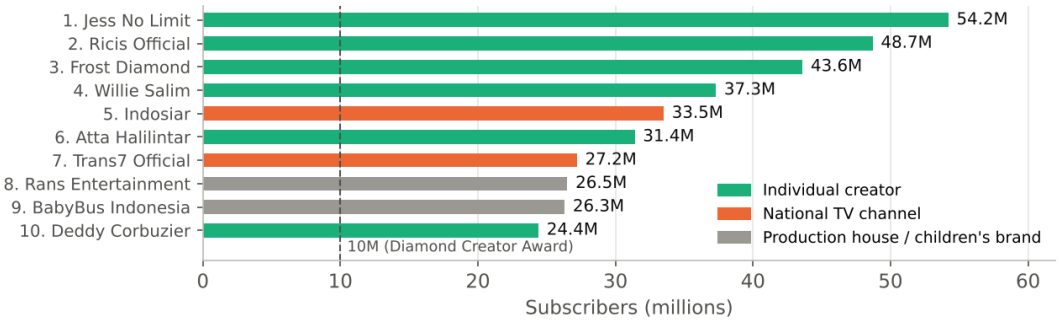
Figure 3. Press Companies Verified by the Indonesian Press Council, by Media Type, 2023



Source: Dewan Pers (2023, p. 17)

Figure 4 qualifies Revolusi's (2022) finding. Television channels are not marginal on YouTube: Indosiar (33.5 million) and Trans7 (27.2 million) rank fifth and seventh. Yet the four most-subscribed channels, and six of the top ten, are individual creators operating natively within the prosumer logic of the New Media Communication Domain (Databoks, 2025; Duffy et al., 2021), although several of these channels are celebrity-led or operate as companies, so the creator-TV contrast is approximate. This supports the argument that televisimorphosis through simple convergence is insufficient (Revolusi, 2022) and that the full NMOS logic, including M3 and M4, confers an advantage.

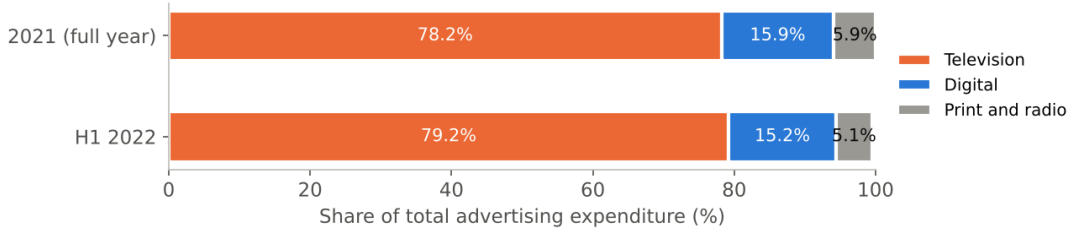
Figure 4. The Ten Most-Subscribed YouTube Channels in Indonesia by Channel Type, June 2025



Source: Databoks (2025); classification by the authors

Figure 5 shows that the economic dimension of deconglomeration lags behind the audience dimension: in Nielsen's gross rate-card data, television held 78.2 percent of measured advertising expenditure in 2021 and 79.2 percent in the first half of 2022, while digital held about 15 percent (SWA, 2022; Kontan, 2022). Rate-card data exclude discounts and under-represent platform self-service and creator spending, so this gap requires further primary data. Deconglomeration thus occurs at the level of audiences and the number of entities, while ownership of large digital media remains concentrated (Tapsell, 2017).

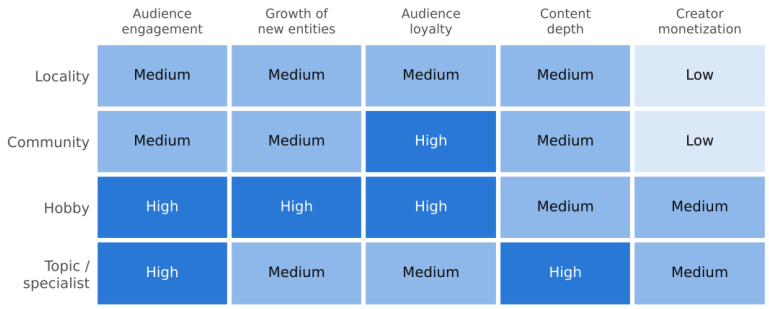
Figure 5. Indonesian Advertising Expenditure Share by Medium, 2021 and First Half of 2022 (Nielsen, Gross Rate Card)



Source: Nielsen Indonesia, as reported by SWA (2022) and Kontan (2022)

Figure 6 presents the authors' illustrative assessment, not measured values, of the four decentralization bases across five dimensions, informed by Reuters Institute for the Study of Journalism (2024) and APJII (2023). Topic or specialist entities are rated highest on content depth and, with hobby-based entities, on creator monetization, reflecting the attention economy advantage of niche expertise (Schellewald, 2023; Tornberg and Uitermark, 2022). Community-based and hobby-based entities are rated highest on audience loyalty. Locality-based entities are characterized by M1 and M3 dynamics, as local prosumer journalists use algorithmic distribution to serve geographically defined audiences that legacy media increasingly fail to reach (Bhandari and Bimo, 2022).

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



Source: Authors' conceptual assessment, informed by 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 29 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 multiple sources in the corpus, in most cases three or more. The first five dimensions became M1 to M5; the other three were absorbed as effects or boundaries of these (audience segmentation as the output of M1 and M2, platform dependency as a result of M1, M2, and M5, and regulatory interfaces as the outer edge of M5). M1 emerged from five sources on algorithmic curation and gatekeeping. M2 has the thinnest base: two core sources on attention economy and related constructs in one source from the algorithmic cluster; it is retained because platformization research outside the corpus describes the same logic (Nieborg and Poell, 2018). M3 emerged from four core sources on prosumer dynamics and creator economies, with related constructs in the Indonesian-context cluster. M4 emerged from six sources on datafication and surveillance capitalism. M5 emerged from five sources on platform governance and regulation. The five mechanisms are treated as one operational model because the corpus seldom discusses them in isolation: studies of algorithmic curation also address datafication, and studies of creator monetization also address platform governance.

The governing-infrastructure position, central to the NMOS model, warrants balanced examination. The distinction draws on layered accounts of the platform ecosystem (van Dijck, 2021) and on regulatory debates over whether platforms are carriers, publishers, or a new category subject to co-regulation (Flew et al., 2021; Flew and Gillett, 2021; Stockmann, 2023), although none of these authors treats platforms as neutral conduits. However, critical

perspectives challenge this distinction. Bandy and Diakopoulos (2021) find that timeline algorithms alter the news users see, Gorwa et al. (2020) show how automated moderation shapes visibility, and Flew et al. (2021) note editorial-like platform functions; together these accounts present platforms as active editorial agents rather than passive infrastructure. Hence NMOS treats platforms as governing rather than neutral infrastructure: these editorial effects are the M1, M2, and M5 functions platforms perform, calling for infrastructure rules on access, interoperability, and algorithmic transparency alongside press rules for dependent media entities.

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). 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) (Bandy and Diakopoulos, 2021; 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, 2023). The net result is a self-reinforcing loop (M3, M4, M1, M2, and back to M3) that advantages entities operating natively within the New Media Communication Domain, consistent with the creator lead in Figure 4.

Table 4. The NMOS Conceptual Model: Structural Conditions, Operational Mechanisms, and Ecosystem Output

STRUCTURAL CONDITIONS	NMOS MODEL	ECOSYSTEM OUTPUT
Deconglomeration Relative decline of legacy conglomerates in audience reach (cf. Badr, 2021; Craufurd Smith et al., 2021) **Decentralization** Media entities grow to local, community, hobby, topic bases (Toffler, 1980) **Demassification** Mass audiences fragment into niche communities, with substantial overlap (Mukerjee, 2023; Webster and Ksiazek, 2012)	**M1 - Algorithmic Gatekeeping** **M2 - Attention Economy Architecture** **M3 - Prosumer and Participatory Production** **M4 - Datafication** **M5 - Platform Governance** *(operational logic of new media entities)*	**ORGANIC NEW MEDIA ENTITIES** Local and regional news portals Community media (religious, ethnic, professional) Hobby channels (food, automotive, gaming) Specialist newsletters and podcasts *Distributed through Platform Technology Infrastructure* *(YouTube, TikTok, Instagram, Spotify)*
(creates space for)	*(describes operational logic of)*	*(produces diversity of)*

Source: Authors' synthesis (2025)

Table 5 presents each mechanism with its operational definition, key sources, and roles in deconglomeration, decentralization, and demassification. The citations in Table 5 list the sources behind each mechanism; all mechanisms except M2 rest on three or more core corpus sources. The table shows that each mechanism contributes to all three processes, which is the conceptual basis for the claim that NMOS constitutes a synthesis of the three structural transformation processes.

Table 5. 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	Role in Decentralization	Role in Demassification
M1 Algorithmic Gatekeeping	Automated content curation based on behavioral data, replacing human editorial discretion (Bandy and Diakopoulos, 2021; Gorwa et al., 2020; Gillespie, 2020)	Reduces the structural advantages of legacy conglomerates, since reach no longer depends on owned distribution (Duffy et al., 2021)	Enables small and local media entities to reach relevant audiences without large distribution capital (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; Bandy and Diakopoulos, 2021)
M2 Attention Economy Architecture	Monetization of user attention as the primary economic unit; favors content building deep engagement (Tornberg and Uitermark, 2022; Schellewald, 2023; Bhandari and Bimo, 2022; Nieborg and Poell, 2018)	Rewards engagement rather than scale, weakening the advantage of mass-audience conglomerates (Tornberg and Uitermark, 2022)	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)
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: eliminates institutional prerequisites for founding a media entity (Zulli and Zulli, 2022)**	**Primary mechanism of decentralization: multiplies small entities whose trajectories are shaped by nested precarities (Duffy et al., 2021; Duffy and Meisner, 2023; 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	Small media entities access analytics previously exclusive to conglomerates	Democratizes audience intelligence for small entities, yet	Enables extreme personalization; entities serve increasingly specific

NMOS Mechanism	Operational Definition and Key Sources	Role in Deconglomeration	Role in Decentralization	Role in Demassification
	analyzable data managed by platform technology infrastructure (Flensburg and Lomborg, 2023; Couldry, 2020; Dencik, 2020; Lomborg et al., 2020)	(Flensburg and Lomborg, 2023)	critics warn of new dependencies (Couldry, 2020; Dencik, 2020; Curran, 2023)	micro-niches; risks of surveillance capitalism (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; Flew et al., 2021; Flew and Wilding, 2021)	Governance must actively support ecosystem diversity to avoid entrenching incumbent advantages (van Dijck, 2021)	Opens distribution access to non-conglomerate entities, though rules can be applied punitively (Meisner, 2023)	Opens space for niche communities previously unserved by mass media; governance can also be weaponized through mass reporting and algorithmic punishment (Meisner, 2023)

Source: Authors' synthesis from systematic literature review (2025)

The typology in Table 6 shows decentralization as a parallel process across four bases, each with a distinct entity type, mechanism set, and audience. 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 of audiences seeking specialized expertise.

Table 6. 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	City news portals; regional YouTube channels; digital community radio	Two-way, Prosumer, Unscheduled	M1, M3
Community	Serves communities of shared identity: religious, ethnic, professional	Digital pesantren media; professional community channels; student media	Two-way, Prosumer, Interactive	M3, M2

Basis	Media Entity Characteristics	Indonesian Examples	Domain Properties (Revolusi, 2022)	Dominant NMOS Mechanisms
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	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)

Several structural conditions may limit or reverse the dynamics that NMOS describes. 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. Third, the platform governance mechanism (M5) can systematically fail or be weaponized: Meisner (2023) documents 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); in Indonesia, digitalization has already enabled large media groups to grow into digital conglomerates (Tapsell, 2017). These conditions qualify, rather than invalidate, the model.

Figures 2 to 4 are consistent with decentralization and demassification at the audience level, while Figure 5 shows that the economic dimension lags. 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. Third, the gatekeeping concept must be updated from the editorial model to the algorithmic model, with its normative implications for democratic communication (Bandy and Diakopoulos, 2021; Gorwa et al., 2020; Gillespie, 2020). For media policy, NMOS supports two-layer regulation. At the infrastructure layer, rules follow the platform-run mechanisms: algorithmic transparency for M1 (Bandy and Diakopoulos, 2021); limits on exploitative interface design and fair creator monetization terms for M2, since platforms set and pay these

terms (Duffy et al., 2021; Meisner, 2023); data sovereignty for M4 (Zuboff, 2022; Couldry, 2020); and accountable content governance for M5 (Flew and Gillett, 2021; Stockmann, 2023). At the media entity layer, the press regime, including the Press Council's cyber media guidelines (Dewan Pers, 2012), governs outlets and those prosumers of M3 who practice journalism. Indonesia already has elements of both layers: platform registration under MR 10/2021, whose implementation falls short of its objectives (Gumati, 2024), and Presidential Regulation 32/2024 on publisher rights, which links the two layers: it obliges platforms to support quality journalism, including through news-distribution algorithm design and cooperation with press companies verified by the Press Council, which also forms the supervising committee (Republic of Indonesia, 2024, Arts. 5, 6, and 9).

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 mediamorphosis from describing new media domains to explaining 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 governing-infrastructure position assigns four mechanisms to platforms and one to media entities, giving a theoretical basis for regulating the two layers separately.

Two substantive conclusions follow. First, platforms are best understood as governing infrastructure: like the printing press and the broadcast transmitter, they carry the content of media entities, but they also run algorithmic gatekeeping, attention markets, datafication, and governance. The estimated 43,000 online outlets in Indonesia (Dewan Pers, 2023, p. 16) are media entities that increasingly depend on this infrastructure for reach. Regulation should therefore work in two layers, infrastructure rules for platforms and the press regime for media entities, linked by instruments such as Presidential Regulation 32/2024 (Republic of Indonesia, 2024), rather than treating platforms either as neutral carriers or as media conglomerates.

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 helps explain why creators operating natively within the New Media Communication Domain lead the platform rankings ahead of legacy institutions attempting convergence from outside it.

This study has four limitations. First, the SLR-based model requires validation through primary empirical data, and its secondary data are heterogeneous in source and year; 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 review has procedural gaps: per-database counts and duplicate removal were not recorded, coding relied on consensus between two authors without a reliability coefficient, M2 rests on only two core sources, and the guiding framework is the authors' own, which is why it was kept outside the corpus. Third, the four-base decentralization typology is conceptually derived and may require refinement through qualitative fieldwork with media practitioners. Fourth, 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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