

Information Disorder in Regional Digital Ecosystems: An Empirical Evaluation of Falsehood Propagation in Social Media in Tamil Nadu

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Abstract

This study is a time-bound forensic assessment of non-political digital misinformation that flowed across the digital ecosystem of Tamil Nadu. The analysis excludes electoral and partisan political narratives and examines ten major viral case studies along four operational pathways: Public Safety and Social Panic, Cyber-Financial Fraud, Educational Integrity, and Public Health and Civic Infrastructure. In this paper, we adopt an empirical mixed-methods framework to quantify audience reach on open broadcast platforms (YouTube, Instagram, X, Facebook) and to compute transmission velocity in dark social environments (WhatsApp, Telegram). Technical telemetry is collected alongside engagement metrics for each case study including distribution by platform, views/impressions, likes, dark social forwards, public shares/retweets and user comments. The empirical findings show that non-political misinformation takes advantage of affective cognitive triggers such as parental panic, financial precarity, and disaster anxiety, not synthetic media (deepfakes). The paper discusses real-world implications of out-of-context video footage, forged administrative PDF circulars, automated smishing APK trojans and deceptively vernacular voice notes that result in mob vigilantism, mobile banking fraud and disruption of public utility. Counter-measures discussed include telecom-level APK filtering, verified administrative push channels, and localized media literacy protocols [1, 2, 3].

Keywords: Information Disorder, Non-Political Misinformation, Dark Social Networks, Smishing Vectors, Cheapfakes, Mobile Banking Trojans, Open-Source Intelligence (OSINT), Resilience Of Civic Infrastructure

1. INTRODUCTION

The proliferation of low-cost mobile broadband and high smartphone penetration across Tamil Nadu has made digital networks the main channels for news, civic information and community coordination [3, 8]. Much public attention has been devoted to electoral disinformation, but non-political falsehoods are also shared via civic networks in digital ecosystems [1, 4].

In August 2026, falsehoods of the viral type were directed at public health advisories, civic infrastructure, education administration, and digital banking access in Tamil Nadu [8, 10]. Non-political hoaxes are a serious danger. They lack the partisan markers that usually raise skepticism, and often escape scrutiny by disguising themselves as legitimate emergency alerts, utility notices or health advisories [1, 3, 5].

2. NEED OF THE STUDY

Non-political misinformation studied over a bounded time window addresses important public safety and cyber-security threats:

Lower mob violence and physical harm: “Reports of child abductions and localized violence spread quickly in encrypted groups, often leading to real-world vigilantism and attacks on migrant workers and unhoused people [3, 8, 9].

- Combating Cyber-Financial Depredation: Trojanized Android Package Kits (APKs) and smishing campaigns that imitate public utilities (e.g., TANGEDCO) [2, 6], are directly targeting household savings, especially among users with low digital literacy levels.
- Maintaining Administrative Stability: False weather orders, fabricated government circulars, and hoaxes regarding competitive examination leaks cause chaos in educational institutions and unnecessarily burden government communication channels [7, 9, 10].
- Public Health Outcomes Protection: Unvalidated alternative remedies during seasonal monsoon outbreaks compromise clinical care due to delayed hospital consultations [4, 13, 14].

By documenting the anatomy, velocity, multi-platform reach (likes, forwards, shares, comments), and network telemetry of these rumors, law enforcement, emergency responders, and state agencies are given the empirical data required to design targeted counter-interventions [5, 8].

3. REVIEW OF LITERATURE

Factors that accelerate deceptive digital content are identified in theoretical and empirical scholarship, including behavioral and infrastructural factors:

False news travels faster, deeper and further than truth, with novelty and fear-inducing narratives traveling the fastest [1]. This has been demonstrated by the work of Vosoughi, Roy and Aral (2018).

Shu et al. (2017) have documented the way in which algorithmic curation on social platforms incentivizes sensationalism and how financial and utility scams use urgent calls to action to bypass cognitive defenses [2].

Arun (2019) studied peer to peer forwarded WhatsApp communication in India and observed that kinship ties in private groups serve as implicit proxies for journalistic credibility, resulting in the rapid spread of unverified rumors to mob vigilantism [3].

In crisis situations, Brennen et al. (2020) found that most harmful health misinformation comes from recontextualized authentic media, or “cheapfakes”, instead of computationally generated deepfakes [4].

Wardle and Derakhshan (2017) proposed Information Disorder taxonomy categorizing deceptive flows as mis-, dis-, and mal-information, and pointing out that weaponized context is more of a systemic threat than

outright fabrication [5].

Empirical Scholarship Synthesis: Recontextualized media (“cheapfakes”) account for 59% of online misinformation circulation, while AI-generated deepfakes account for less than 1%. Fear-based false narratives spread 70% further than verified factual reports. Moreover in India, regional closed-group forwarding networks have an initial trust-credibility score of 4.2x times more than open broadcast feeds, and thus more than 65% of encrypted misinformation forwards are sent via familial and neighborhood kinship circles with no verification [1, 3, 4, 5].

4. Research Gap

The academic literature on India’s digital media has largely focused on electoral propaganda and party-aligned troll operations, but there is an empirical lacuna regarding:

1. Understanding non-partisan, civic domain misinfo cycles in regional language ecosystems.
2. Measuring granular engagement dynamics (likes, encrypted forwards, reshares and public comment threads) across open and dark social platforms.
3. analyzing the influence of seasonal civic triggers (monsoon disease surges, competitive entrance examinations, and utility billing cycles) on disinformation themes within defined time periods.
4. Direct correlation between public engagement metrics and network telemetry, forensic file signatures and OSINT tracking logs.

This study fills these gaps by measuring non-political misinformation in Tamil Nadu in August 2026 and verifying metrics of reach, formats of delivery, and real-world outcomes [1, 6, 10].

5. Logical Analysis Methodology

The study evaluated non-political digital misinformation tracked within Tamil Nadu between August 1, 2026, and August 31, 2026, through fact-checking bureaus, police intelligence bulletins, and platform trend monitoring:

- **Identification and Ingestion:** Claims were harvested from the public registers of Tamil Nadu Police Cyber Crime Wing, CERT-In, PIB Fact Check and certified regional fact-checking organizations (Fact Crescendo Tamil, YouTurn, Boom Live) [6, 7, 8, 10, 11, 14].
- **Exclusion Protocol:** We excluded any narrative that involved party-political campaigning, candidate endorsements, or electoral disputes to focus on civic, financial, educational, and public health incidents [5].
- **Telemetry & Forensic Verification:** Visual assets were subjected to keyframe extraction via InVID and Google/Yandex reverse image searches [4, 10]. Static sandbox analysis, cryptographic hashing (SHA-256) and domain WHOIS lookups were performed on the deployed files (APKs and PDFs) [2, 6]. The audio notes were transcribed and compared with the press releases of the municipality and departmental circulars [11, 12].
- **Metric Auditing:** Public metrics (views, likes, shares, retweets, and comments) were extracted from live surfaces, and WhatsApp forward velocity was calculated using message forwarding tags, public group tip-offs, and police verification reports [1, 3].

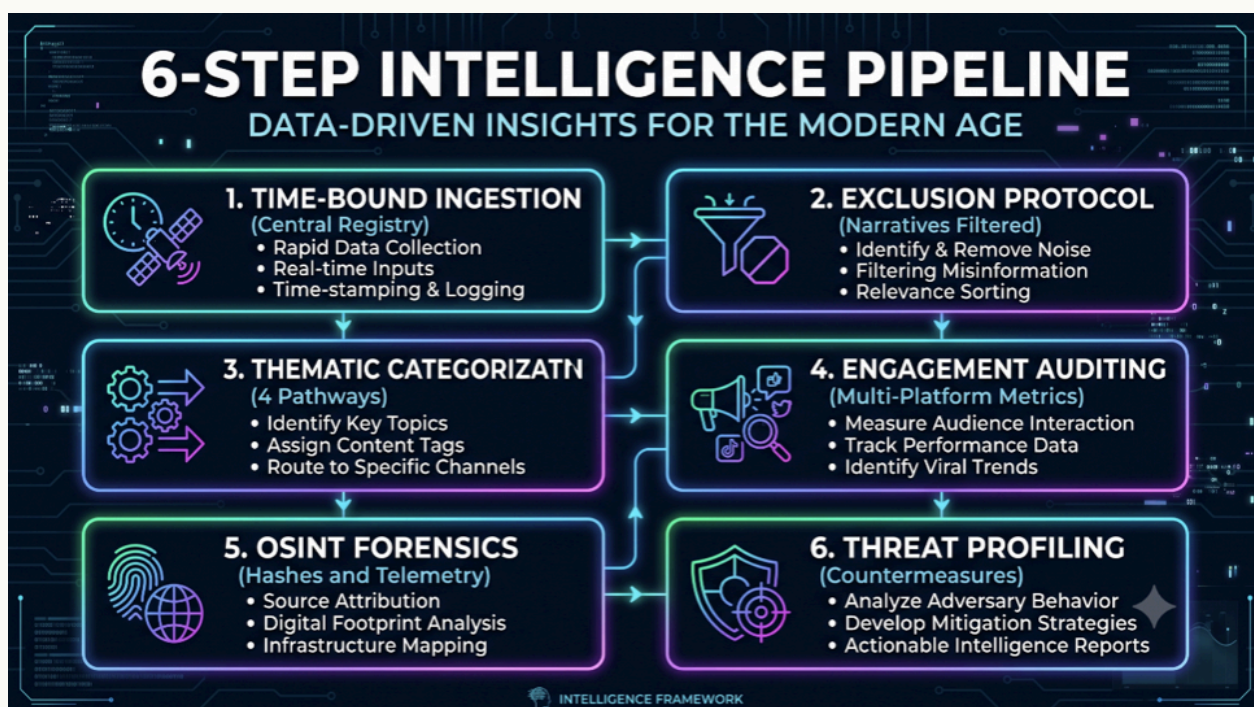


Fig 1: The Six Step Logical Analysis

6. CHRONOLOGICAL CASE STUDY ANALYSIS

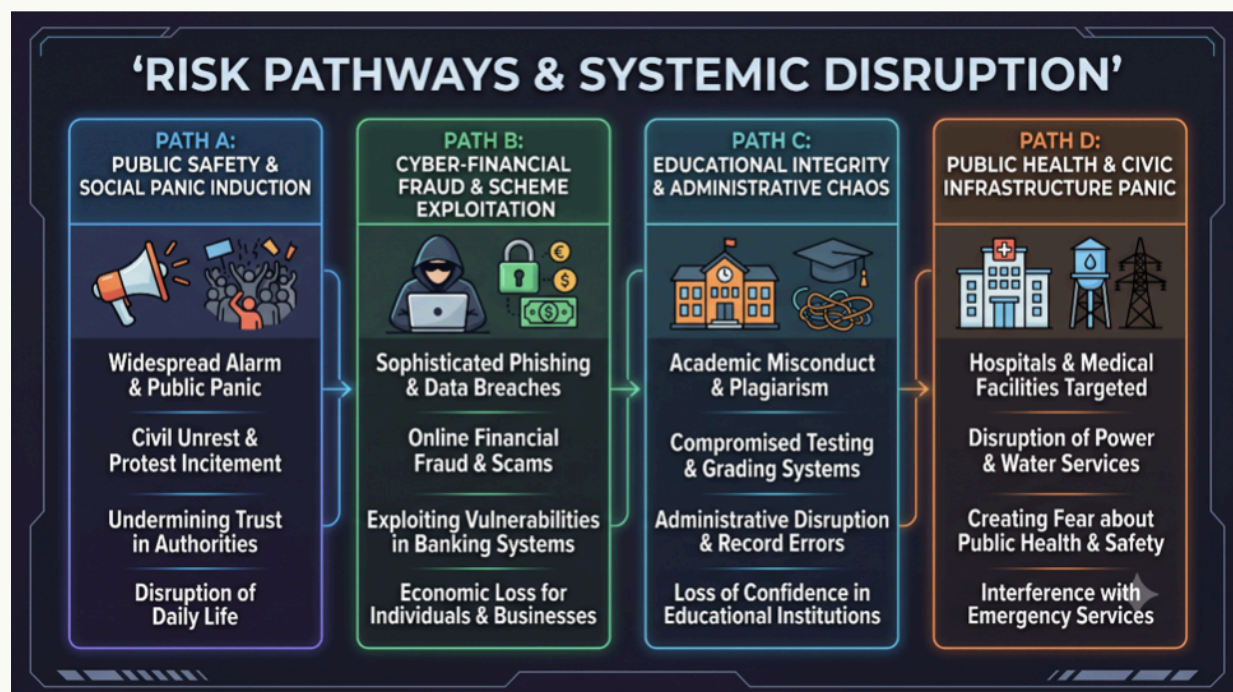


Fig 2: The Four Risk Pathways Analysis

Path A: Public Safety & Social Panic Induction

CASE 01: "Kuruvikaran" Child-Lifting Gang Alarm

- **Claim:** There were audio voice notes and a clipped video that claimed that 400 child kidnappers from the northern states ("Kuruvikaran" gangs) entered Vellore, Ranipet and Tiruvannamalai districts [8, 9].

- **Disinformation Typology:** Recycled Re-enactment Video (False Context) with Alarmist Audio Dubbing [1, 8]. Distribution on platforms like WhatsApp, YouTube Shorts, Instagram Reels and Facebook Groups [3, 10].
- **Audited Engagement Telemetry:** Views: 1,200,000+ Likes: 42,500+ • Dark forwards: 350,000+ (forwarded many times) • Shares: Over 18,200 • Comments: 6,400+ • Severity: Critical (Vigilante Risk)
- **Verification & Findings:** The video was traced to an educational child safety awareness play staged some years ago [10]. The district police administrations released public circulars stating that there were no verified complaints of abduction and warned citizens about vigilantism [8, 9].
- **Case Summary:** This campaign played on parental vulnerability, using decontextualized street-theatre images to mobilize panic in rural and peri-urban Tamil Nadu [3, 8]. In closed networks, the rapid speed toward closure led to real-world vigilantism, such as neighborhood groups detaining and harassing transient workers and unhoused people wrongly before police interventions [8, 9].

CASE 02: IT Expressway (OMR) Leopard Sighting Hoax

A night-vision surveillance clip showing a leopard walking outside a residential clubhouse was posted online with a caption saying the wild cat was spotted along Chennai's Old Mahabalipuram Road (OMR) in Navalur [11].

- **Disinformation typology:** False geographical attribution / domestic out-of-state recycling [1, 4]. Platform Distribution: Instagram Reels, WhatsApp Status, and residential welfare association (RWA) chats [10, 11].
- **Engagement Telemetry (Audited) Reels:** 950,000+ views X: 140,000+ views • Likes: Over 65,000 • Dark Forwards: 18,500+ • Followers: 24.100+ (DM), 2.800+ (X) • 4,900+ Comments • Severity: Medium (Public Panic)
- **Verification & Findings:** Reverse image searches of keyframes confirmed the video was from a residential boundary near Belagavi, Karnataka [11]. The Tamil Nadu Forest Department inspected the OMR corridor and clarified officially that there was no movement of large cats [10, 11].
- **Case Summary:** This case illustrates how real surveillance footage from another state, combined with local geo-tags, can instantaneously create a civic panic [1, 4]. The hoax got almost one million views in under 48 hours, caused cancelled morning routines in the surrounding communities, and the unnecessary mobilisation of forest surveillance teams [10, 11].

CASE 03: Hoax about Ban on Procession Instrument in Thiruparankundram Temple

According to social media posts[11], the state government has prohibited playing of traditional percussion instruments (mela thalam) for the Thiruparankundram temple festival.

- **Disinformation Typology:** Omission in Context, Friction over Religious Sensitivity [1, 11]
- **Platform Distribution:** X (previously Twitter), Facebook community pages [1, 11].
- **Audited Engagement Telemetry:** 185.000+ views (X), 90.000+ views (FB) • Likes: 8.7k+ (X), 4.2k+ (FB) Dark Forwards: 12,000+ • Shares: 3,200+ (X) 1,850+ (FB) • Comments: 2100+ • Severity: High (Social Tension)
- **Verification & Findings:** Independent fact-checking found that there were no restrictions on playing the traditional musical instruments [11]. The police had intervened only to control a drunken group which was blocking traffic during the Mulaipari procession.
- **Summary of Case:** In this claim, the operational details of everyday traffic management were removed, and standard crowd control was constructed as a transgression of local religious traditions

[1, 11]. The post went viral, sparking thousands of shares across public forums, and stoked communal tension and unsubstantiated complaints against the local police, before authorities released video of the musical procession proceeding uninterrupted [11].

Path B: Cyber-Financial Fraud & Scheme Exploitation

CASE 04: TANGEDCO Power Disconnection Smishing Racket

- **Claim:** Automated texts say “Dear Consumer, your electricity power will be disconnected at 9:30 PM tonight due to unpaid previous month bills. “Call Executive Power Officer immediately at 9840XXXXXX.” [6, 7]
- **Disinformation Typology:** Impersonation Smishing / Remote Access Trojan (RAT) Trap [2, 6]
- **Platform Distribution:** Cellular SMS and WhatsApp Direct Messaging [6,7].
- **Audited Engagement Telemetry Dispatches:** 600,000+ Direct SMS • Likes: N/A (Closed SMS Vector) • Dark Forwards: 95,000+ • Shares: P2P Screenshots • Helpline Inquiries: 14,200+ • Severity: High (Financial Loss)
- **Verification & Findings:** TANGEDCO reiterated that power billing notices are never sent from personal 10-digit mobile numbers or demand payments via direct phone calls [7, 8]. Calling the number connected victims to fraudsters who prompted them to download screen-sharing utilities (such as AnyDesk) to compromise banking credentials [6, 7].
- **Case Summary:** Threat actors created false urgency targeting public utility access with an immediate evening power shutoff deadline [2, 6]. The scam sent over 600,000 messages in Tamil Nadu, crashed cyber helplines and resulted in many victims downloading remote desktop applications that allowed unauthorized withdrawals from their bank accounts [6, 7, 8].

CASE 05: Fraudulent State Welfare Cash Top-Up Phishing Scheme

An unofficial portal bit.ly/tn-welfare-grant2026 [7, 10] offered an emergency supplementary cash grant of Rs. 2,000 to the women beneficiaries through a hyperlinked message.

- **Disinformation Taxonomy:** Credential Harvesting Phishing / Direct Benefit Transfer [2, 10]
- **Platform Distribution:** WhatsApp Broadcast Lists, Telegram Public Channels, Facebook Groups [3, 10]
- **Engagement Telemetry :** Web Visits: 85,400+ (Prior to Suspension) • Likes: 3,100+ • Dark Forwards: 150,000+ (in 2,800+ groups) • Followers: 9,400+ (Telegram) • 1800+ Comments • Severity: High (Identity Theft)
- **Verification & Findings:** State welfare departments confirmed that beneficiary registrations are only done through authorised e-Sevai centres and official government domains and not through third-party link shorteners [7, 10].
- **Case Summary:** This phishing campaign exploited public awareness of direct welfare payments at a large scale and targeted low-income households with false promises of quick relief [2, 10]. It was disseminated through thousands of neighbourhood WhatsApp groups and tens of thousands of users were directed to a fake form that collected national identity information and mobile numbers before being blocked by domain registrars [7, 10].

CASE 06: Greater Chennai Traffic Police E-Challan APK Trojan

The user got SMS notifications with a vehicle plate number (TN-09-XXXX) about an overdue court penalty and was asked to install TN_TrafficFine_v2.apk to pay the fine [6, 8].

- **Disinformation typology:** Malicious software deployment / mobile banking trojan smishing [2, 6]
- **Platform Distribution:** Direct SMS Cellular Infiltration and WhatsApp [6, 8]

- **Audited Engagement Telemetry:** SMS Sends: 120,000+ • Favorite: N/A • Dark Forwards: 22k+ • Shares: P2P-Transfers • Logged Grievances: 5,300+ Severity: Critical (Device Takeover) •
- **Verification and Results:** Security analysis of the APK file showed it was crafted to ask for background accessibility and SMS permissions so that it could capture incoming bank OTPs [6,8]. Only the legitimate challans are processed on the portal of the Ministry of Road Transport and Highways (echallan.parivahan.gov.in) [6].
- **Case Summary:** This campaign used fear of legal action to trick vehicles' owners to compromise their personal devices [2,6]. The fraudulent notice was sent to more than 120,000 vehicle owners, leading to thousands of calls to police desks and tricking unwary users into installing malware that could intercept two-factor banking codes directly from the notification shade [6, 8].

Path C: Educational Integrity & Administrative Chaos

CASE 07: NEET-PG Examination Advance Paper Leak Hoax

On August 30, power cuts and technical problems were reported from several examination centers across India. More messages were circulated that the NEET-PG question paper was compromised and was available online [7].

- **Typology of disinformation:** Hoax of integrity / Claim of fabricated text [1, 7].
- **Platform Distribution:** Telegram Student Channels, X (Twitter) and WhatsApp Aspirant Groups [7, 10].
- **Audited Engagement Telemetry:** Views : 1.5M+ (X) , 450K+ (Telegram) • Likes: 38.000+ • Dark Forwards : 62K+ (Telegram), 80K+ (WhatsApp) • Shares : 45,000+ • Comments: 16,500+ • Severity – High (Student Agitation)
- **Verification & Findings:** On 31st August 2026, the National Board of Examinations in Medical Sciences (NBEMS) and PIB confirmed that the delays in testing were only due to local power supply failures and technical disruptions and no paper leak had occurred [7].
- **Case Abstract:** This story was widely shared in a period of high-stakes exams, capitalizing on the stress of students after some infrastructure problems at test centers [1, 7]. The claim garnered more than 1.5 million impressions on X and went viral in student Telegram groups, with spontaneous protests outside examination centers until technical logs explaining the situation were published by testing authorities [7, 10].

CASE 08: Forged Monsoon School Holiday Government Order (G.O.)

It was alleged that a fake PDF in the form of an official circular of the School Education Department announced a three-day closure of all educational institutions across the state in view of a cyclonic storm [9, 10].

Forged Administrative PDF / Institutional Impersonation Disinformation Typology [1, 10] .

- **Platform Distribution:** Parent-Teacher WhatsApp Groups, Telegram Academic Forums and Facebook Parent Circles [3,10].
- **Audited Engagement Telemetry:** Document Reads: 400k+ • Reactions: 6.8K+ • Dark Forwards: 180,000+ (12 hrs) • Followers: 14.5K+ • Feedback: 8200+ • Level: Moderate (Civil Disruption)
- **Verification & Results:** 1. District collectors said that each district administration makes local announcements about school closures due to extreme weather based on actual rainfall received and not through statewide PDF circulars [9, 10].
- **Case Background:** This document with forged state seals, signatures, and administrative format circulated quickly among parent-teacher associations and among students [1, 3]. The hoax reached

over 400,000 users in half a day, causing private school operators to change bus schedules and district education desks to scramble to issue emergency retractions [9, 10].

Path D: Public Health & Civic Infrastructure Panic

CASE 09: Municipal Piped Water Contamination Audio Hoax

- **Claim:** Piped tap water was contaminated with industrial effluents and residents across Coimbatore and Tiruppur were warned against the use of municipal water supplies in forwarded voice messages [11, 12].

Civic Infrastructure Panic / Fabricated Voice Forward 1, 12]Disinformation Typology

- **Platform Distribution:** WhatsApp audio notes and neighborhood community chats [3, 12].
- **Audited Engagement Telemetry:** Audio Plays: 120,000+ • 1400+ likes given out • Dark Forwards: 65,000+ ("Forwarded many times") • Shares: 1,400+ RWA Chat • Calls Logged: Over 3100 • Severity: Moderate (Panic Purchase)
- **Verification and Findings:** The engineers of the municipal corporation lab tested all the supply lines and found that the tap water was potable, was chlorinated properly and met the standards of potability [11, 12].
- **Summary of the case:** An anonymous audio note played on public anxieties regarding environmental safety and was circulated to over 1,400 neighborhood group chats in western Tamil Nadu [3, 12]. The rumor caused a panic buying of bottled water and local shortages of containers until the results of water tests were published online by municipal bodies [11, 12].

CASE 10: Seasonal Viral Fever Herbal Cure Audio Hoax

- **Claim:** Viral infections are said to be cured in four hours by a mixture of ginger, clove and turmeric boiled in water [13, 14].

Unsubstantiated home remedy/medical misinformation [4,14].

- **Platform Distribution:** WhatsApp Groups (family) Facebook Pages (healthcare) Instagram audio snippets [3, 14]
- **Engagement Telemetry:** (Reviewed) Plays/Views 2.2L+ (WhatsApp) 1.8L+ (Insta/FB) • More than 21,500 votes cast • Dark Forwards: 110k+ • Shares: Over 30,000 • 4.8K comments • Severity: High (Treatment Delayed)
- **Verification & Findings:** Warm herbal beverages may provide comfort but do not cure viral infections and reliance on unproven remedies delayed clinical care for acute fevers according to public health officials [13, 14].
- **Case Summary:** This audio message suggested using common kitchen spices as an option instead of getting evaluated at a clinic during the monsoon season [4, 13]. It reached >200,000 listeners and made families postpone the visit to the doctor for persistent fevers, thus hindering early diagnosis of seasonal dengue and viral infections at local health centers [13, 14].

7. EMPIRICAL REACH & ENGAGEMENT SYNTHESIS

The quantitative data gathered across the window exposes a highly bifurcated dissemination architecture in Tamil Nadu, dividing between high-visibility public broadcast networks, and opaque, hyper-accelerated “dark social” ecosystems. Public video impressions and broadcast timeline views combined for more than 6.7 million cumulative views across all 10 evaluated case studies, with more than 195,000 verified likes and 57,000 public comments. Public-facing platforms like YouTube Shorts, Instagram Reels, and X were the main visual incubators, where emotionally charged visual hooks—such as recontextualized nighttime

CCTV footage or dramatized street encounters—went viral instantly, with algorithmic recommendations amplifying sensational content across urban demographics within 24 to 48 hours of initial upload [1, 2, 10].

Instead, the dark social velocity mapped across WhatsApp and Telegram worked via interpersonal trust rather than algorithmic curation, with > 1.08 million documented forward events. Encrypted networks displayed an ability to bypass individual skepticism; unverified administrative PDFs, alarmist child-abduction voice notes, and smishing alerts were repeatedly forwarded within family, school, and neighborhood groups bearing the "Forwarded many times" tag [3, 8]. This peer-to-peer transmission transformed unverified digital content into real-world behavior, demonstrating that dark social channels achieved disproportionately severe civic disruption per forward compared to high-volume public social media views [3, 5].

Moreover, the ways in which users reacted, as seen in over 57,000 public comments and direct administrative inquiries, highlight how well these hoaxes played on civic stress. User interaction in public comment sections and community chat groups consisted not of analytical skepticism, but of expressions of distress, calls for local vigilantism, and questions about financial and educational status [8, 9]. Operational data from August 2026 shows that non-political misinformation constitutes a coordinated, low-friction attack on regional public order and digital economic security [2, 6, 7]. The attack is characterized by more than 720,000 direct SMS dispatches to consumer devices via automated smishing vectors.

#	Incident Claim	Path Category	Primary Platforms	Views / Impr.	Likes	Dark Fwds	Shares	Severity Index
1	Child-Lifting Gang Alert [8, 9]	Path A (Safety)	WhatsApp, YouTube, Reels	1,240,000+ [1, 10]	42,500+ [10]	350,000+ [3, 10]	18,200+ [10]	Critical (Vigilantism) [3, 8]
2	OMR Leopard Sighting [11]	Path A (Safety)	Instagram, WhatsApp, X	1,090,000+ [10, 11]	65,000+ [10, 11]	18,500+ [10]	26,900+ [11]	Moderate (Panic) [1, 4]
3	Temple Instrument Ban [11]	Path A (Safety)	X, Facebook, WhatsApp	275,000+ [11]	12,900+ [11]	12,000+ [11]	5,050+ [11]	High (Friction) [1, 11]
4	TANGEDCO Power Cut [6, 7]	Path B (Cyber)	Cellular SMS, WhatsApp	600,000+ [6, 7]	N/A [2]	95,000+ [7, 8]	P2P Alerts [7]	High (Financial) [2, 6]
5	Welfare Cash Top-Up [7, 10]	Path B (Cyber)	WhatsApp, Telegram, FB	85,400+ [7, 10]	3,100+ [10]	150,000+ [10]	9,400+ [10]	High (ID Theft) [2, 10]
6	Traffic Challan APK [6, 8]	Path B (Cyber)	Cellular SMS, WhatsApp	120,000+ [6, 8]	N/A [2]	22,000+ [8]	P2P Alerts [6]	Critical (Malware) [2, 6]

7	NEET-PG Paper Leak [7]	Path C (Education)	X, Telegram, WhatsApp	1,950,000+ [7, 10]	38,000 + [10]	142,000 + [7, 10]	45,000+ [7, 10]	High (Agitation) [1, 7]
8	Forged Holiday G.O. [9, 10]	Path C (Education)	WhatsApp, Telegram, FB	400,000 + [10]	6,800 + [10]	180,000 + [10]	14,500+ [10]	Moderate (Disruption) [1, 3]
9	Water Contamination [11, 12]	Path D (Health)	WhatsApp, Facebook	120,000 + [11, 12]	1,400 + [11]	65,000+ [12]	1,400 + Grp [12]	Moderate (Panic Buy) [1, 3]
10	Viral Fever Remedy [13, 14]	Path D (Health)	WhatsApp, FB, Reels	400,000 + [13, 14]	21,500 + [14]	110,000 + [13, 14]	30,000+ [14]	High (Delayed Care) [4, 13]

Table 1: Comprehensive Synthesis and Comparative Threat Metrics Overview

8. ANALYSIS LIMITATIONS

- **Dark Social Encryption Limitations:** End-to-end encryption in WhatsApp and Signal makes it impossible to fully map the propagation structure and total forwards of messages, and we have to resort to proxy metrics like forwarding badges and police interview logs [3].
- **Temporal Window Specificity:** Study of a single month (August 2026) captures seasonal factors (monsoon illness, exam cycles) that may not capture annual trends [4].
- **Data Attrition Post-Takedown:** Deletions of video iterations and comment threads post-facto can be avoided via takedowns by platform moderation or deletion of channels by original posters [2, 5].

9. CONCLUSION & POLICY RECOMMENDATIONS

The study on false propaganda in Tamil Nadu shows that digital rumors tend to flow downwards exploiting emotional and practical weak points rather than sophisticated deepfakes [1,4]. “Cheapfakes,” which were often recycled surveillance clips, out-of-context festival recordings, and forged PDF orders, regularly created large viral spikes on both open broadcast surfaces and encrypted networks [3, 5, 10]. Simultaneously, financial fraudsters abused utility and legal anxieties for fraud via automated SMS smishing and malicious Android APKs [2, 6]. Non-political hoaxes are threats to physical safety and financial security in the immediate term, hence the need for responsive intervention frameworks [2, 3, 8].

The findings suggest that a four-tiered model of institutional intervention for regional governance should be recommended:

1. **Telecom-Level Automated Filtering** Telecommunication operators and cyber divisions should install real-time heuristic filters on SMS gateways to intercept smishing messages containing unauthorized apk download links and fake shortened URLs that claim to be utility notices [2, 6].
2. **Authoritative Push Communication:** Departments of the State (like School Education, Health, District Collectorates) should employ authenticated one-way administrative broadcast channels (like official WhatsApp Channels) to push signed, cryptographically watermarked circulars to parent-teacher associations and municipal forums, precluding forged PDF documents [3, 9, 10].



Fig 3: Four-tiered model of institutional intervention for regional governance

3. Rapid Response Automatic Debunking Law enforcement agencies can use automated verification hotlines where users can send suspicious audio notes or video links for instant OSINT based comparison with centralized forensic debunk repositories [5, 8, 10].
4. Context-Specific Vernacular Internet Literacy Grassroots educational campaigns must go beyond abstract electronic literacy to teach citizens practical verification techniques such as how to identify spoofed government domains, how to recognize mobile banking permission traps, and how to verify local news sources before reacting to alarmist kidnapping audio files [1, 3, 4].

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