

RESEARCH PROPOSAL

1. TITEL PROJECT

Cyber Troops and Computational Propaganda in Southeast Asia: A Comparative Study of Public Opinion Manipulation

2. PROJECTVOORSTEL

Objectives

This research project studies comparatively how social media-based public opinion manipulation is organised in Thailand, the Philippines and Indonesia. To do so, this project builds an interdisciplinary research collaboration to implement a new, innovative multi-methods approach. Alongside a strong network of local partners, this project brings together three KNAW institutes working on social media, reflecting their ambition to strengthen their presence, networks and capabilities in this field.

Computational propaganda – the coordinated dissemination of political disinformation by networks of hired social media influencers ('cyber troops') – constitutes a considerable and growing threat for the quality of public debate and, consequently, democracy around the worldⁱ. Coordinated social media campaigns have had considerable, well-documented effects - from fostering Brexit and undermining trust in Covid19 measures to influencing the outcomes of elections such as Marcos' recent victory in the Philippinesⁱⁱ. As ruling elites have started using computational propaganda to cement their grip on power, this 'authoritarian innovation'ⁱⁱⁱ is weakening many already fragile democracies^{iv}. This threat is particularly pronounced in Southeast Asia^v, where high social media penetration and low newspaper readership provide perfect conditions for 'buzzers' (Indonesia), 'keyboard warriors' (Philippines), or 'trolls' (Thailand) to engage in 'information operations' and to spread political disinformation and propaganda.^{vi}

While online behavior of cyber troops has been relatively well-documented by computational scientists^{vii}, their offline organisation remains largely unknown. Due to methodological challenges and disciplinary divides, we know very little about the funding sources, functioning and structure of the networks spreading propaganda through social media. Addressing this urgent challenge, this project will set up a unique collaboration: Dutch and Southeast Asian researchers from computational science, social sciences and humanities will collaborate to further develop a multi-method approach we recently tested in a small Indonesia-based pilot. By combining interviews with 78 'buzzers' and a computational analysis of their online campaigns, this pilot not only showed the viability of this method but also its societal relevance: our recently published findings^{viii} were covered by all major Indonesia news outlets^{ix}, prompting government representatives to deny employing social media teams to promote government policies^x.

The proposed project extends this pilot by engaging in a first-ever comparative study of the infrastructure of computational propaganda. Focusing on three countries with comparable economies and social media usage which are either backsliding democracies (Philippines and Indonesia) or recently turned authoritarian (Thailand), this project employs this comparison to study the interaction between political regimes and computational propaganda. The main research questions of this project are: **(1) How is the dissemination of computational propaganda organized in Indonesia, the Philippines and Thailand and (2) what are the causes and consequences of variation between these countries?**

By addressing these questions, this project has the following objectives:

1. Employ and further develop a multi-method approach to study comparatively the organization of computational propaganda in the Philippines, Indonesia and Thailand
2. Strengthen public debate in these countries by producing academic and non-academic publications that raise public awareness about how cyber troops distort public debate.
3. Set up a research collaboration between researchers from computational science, area study specialists and humanities and from the Netherlands and Southeast Asia in order to develop a grant proposal (to be submitted to Horizon Europe or a similar large program) to further expand the comparative study of computational propaganda.

Methodology

The unique contribution of this project is that it studies both the digital information flows *and* the networks of actors creating these flows. This project pioneers a multi-method approach by combining computational social media analysis, digital ethnography, and fieldwork, implemented by an interdisciplinary research collaboration (see table 1). Whereas computational social media analysis (called SNA) serves to study the scope, effectiveness and distribution of propaganda on Twitter, digital ethnography will zoom in on the narrative and discursive strategies employed by cyber troops, while interviews with ‘buzzers’ will serve to trace the organization, strategies, and political interests behind cybertroops.

This project will select in the first month of the project (per country) *three* recent debates on politically contentious topics. Through social network analysis (SNA) using the hashtags associated with these topics, the computational scientists on this project will analyse these debates on Twitter, Instagram and Facebook in terms of (particularly) the presence of bots and cybertroops. They will use computational tools to identify the bots and disinformation campaigns run by cybertroops^{xi}. A second phase of SNA (in the second year) will use input from the interviews to trace the character and impact of the propaganda strategies identified by the interviews. The fieldwork component builds on the SNA analysis: supported by local partners and elaborate interview-protocols drafted by coordinators, six (trained) researchers per country (two per theme) will a. engage in digital ethnography and b. interview active buzzers on the nature of their work and their network. These buzzers will be identified through the SNA analysis, and contacted either online or (as during our Indonesian pilot) using the personal networks of our local researchers^{xii}. We aim to interview 60 buzzers (20 per theme) per country on the following aspects of their work: 1. Their recruitment and motivation; 2. The strategies employed to influence public debate; 3. Their role and daily activities as part of such campaigns; 4. Organization and collaboration within cyber troops; 5. Salaries and funding sources and 6. Personal reflection on ethics. Interview transcripts will be anonymized and stored safely.

Table 1: Cybertroops project: Workflow and division of tasks

Country	Selected debates on social media	Data mining & archiving of debates	SNA analysis of these online debates & identification of buzzers		Selection, training and supervision of local researchers for:		Analysis and writing research output
					Interviews with buzzers	Digital ethnography	
Thailand	Elections 2023; Monarchy, Justice	IISG (Sevi Kavvadia) together with SEA partners	Janjira Sombatpoonsiri	Meertens (Cedric Waterslot) will their support analysis	Janjira Sombatpoonsiri	Yatun Sastramidjaja with two local researchers per country	Coordinators together with local partners
Philippines	Elections 2022; revisionism; land reform		Jason Cabañes		Jason Cabañes		
Indonesia	Elections 2024, Omnibus law bill, KPK		Ismael Fahmi		Wijayanto		
Overall coordination:	Ward Berenschot (KITLV), Yatun Sastramidjaja (UvA) & Postdoc						

Table 2. Research consortium

Name	Background, institution	Role in project
Ward Berenschot	Professor Comparative Political Anthropology, KITLV and University of Amsterdam	Project coordinators together with postdoc
Yatun Sastramidjaja	Assistant professor Anthropology, University of Amsterdam	
Postdoc employed at KITLV	Tbd	Coordinates, directs fieldwork, and leads writing of publications and grant proposal

Ismail Fahmi	Computer scientist, Universitas Islam Yogyakarta & Drone Emprit	SNA analysis Indonesia
Wijayanto	Communication scientists, LP3ES & Universitas Diponegoro	Select, train and direct local researchers Indonesia
Janjira Sombatpoonsiri	Political scientist, Chulalongkorn University	SNA analysis & select, train and direct local researchers Thailand
Jason Cabañes	Communication scientist, De La Salle University	SNA analysis & select, train and supervise local researchers Philippines.
Cedric Watersloot	Computational Scientist, Meertens institute	Support Social Network Analysis (SNA), host SNA workshop at Meertens.
Zefi Kavvadia	Digital archivist, IISG	Support scraping and digital archiving social media posts of all three countries

Comparative approach

This project compares three economically similar countries that offer relevant variation in terms of both the character of the regime and the strength of oppositional forces. In all three countries episodes of anti-regime protests have triggered intense bouts of pro-government propaganda. Our key comparative hypothesis is that the nature of political regimes shapes the nature of computational propaganda: in a closed autocracy where power is largely centralized in the hands of a ruling elite (such as Thailand), we expect computational propaganda to be highly asymmetrical (i.e. involving mainly pro-elite campaigns) and centrally-organised^{xiii}. In more open democracies with more political competitiveness (such as the Philippines and Indonesia), we expect more symmetrical propaganda (i.e. adopted by pro- and contra-government), implemented and funded by a wider range of actors. We will also explore the reverse relationship between computational propaganda and political regime: by documenting how pro-government campaigns harass and silence alternative voices, we study whether and to what extent computational propaganda has contributed to the recent democratic backsliding in all three countries.

<i>Country</i>	<i>Political Regime</i>	<i>Opposition</i>	<i>Hypothesized character of computational propaganda</i>
Indonesia	A partly free yet increasingly repressive democracy	Previously strong (student) protests have died down; almost all political parties coopted	Pro- and contra-government social media propaganda by fluid underground networks of hired 'buzzers'; some cyber-policing of anti-government critics.
Thailand	An authoritarian regime ruled by military junta	Authoritarian regime facing regular protests; deep polarization.	Intense social media propaganda by centrally-organised 'troll armies' funded by junta-allied (economic) elites; harassment and silencing of opposition.
Philippines	A partly free yet increasingly illiberal democracy.	Political competition between dominant families facing growing but disorganized netizen and youth opposition.	Pro-government 'keyboard warriors' and hired 'troll armies', funded by government-allied (economic) elites; yet civil society's resistance is relatively strong due to limited repression.

Contribution to the objectives of the Academy institutes fund

Substantive assessment criteria A:

This project serves key strategic aims of KITLV, IISG and Meertens, serving the ambition of all these three institutions to strengthen and expand their social media research.

For KITLV, the main coordinating institute, this project expands and builds on its long-standing research on challenges to democracy in Southeast Asia^{xiv}. As an area-studies institute with extensive knowledge of Southeast Asian politics and strong networks in the region, KITLV is uniquely well-positioned to facilitate the synergy between computational science and area studies that this project envisions. By building an innovative research consortium involving leading Southeast Asian researchers in this field (see table 2) and laying the groundwork for future grant (Horizon Europe) proposals, this project serves KITLV's ambition to expand its research on (the politics of) social media. This project also

serves KITLV's aim to boost skills, publications and capacities of Southeast Asian researchers.

For Meertens Institute this project strengthens – and benefits from – its existing efforts to integrate the usage of digital research methods and apply the study of (big) data to cultural dynamics. The project benefits from Meertens' existing expertise within KNAW's Humanities Cluster (HuC) and its digital humanities lab in digital archiving, digital methods and big data analysis. Collaboration with Meertens allows this project to connect with the TwiXL infrastructure for cross-media research on public debates and the larger (NWO-funded) CLARIAH Media Suite infrastructure. In turn, this project will contribute new channels for knowledge and research exchange with new partners in Southeast Asia. This project will also serve Meertens institute to explore the potential doing similar research in the Netherlands.

For IISG this project connects with its ambition to expand its capabilities to capture and archive social media data. This project provides IISG with an opportunity to explore the challenges involved in archiving social media. The social media material collected by this project will be stored by IISG, thus providing an interesting supplement to IISG's collections on political activism in Southeast Asia.

Substantive assessment criteria B:

This project contributes towards addressing two recommendations of the portfolio committee:

- The committee advised the Humanities cluster as a whole, but also specifically IISG and Meertens, to intensify its efforts to promote and facilitate digital archiving and the usage of digital research methods (p.19). By engaging in computational social network analysis, fostering the documentation and analysis of social media usage across Southeast Asia, and organising exchanges between computer scientists, this project contributes towards these ends.
- The committee advised KITLV to diversify its collaborations by engaging in more collaborations across academic disciplines and between different institutes and universities (p.20). With the proposed project with its broad interdisciplinary collaboration KITLV gives shape to this ambition.

Activities/intended results

Table 4. Planning activities and results		
<i>Period</i>	<i>Activity</i>	<i>Results/output</i>
Jan 2023	Start postdoc; (hybrid) kick-off workshop & final selection of debates.	Detailed research plan, interview manual
Feb – May 2023	SNA-phase: analysis of selected debates on social media (postdoc, SEA partners, with advice from Meertens researchers)	SNA report & identification of buzzers for interviews
	In-person SNA workshop @ Meertens (May 23)	
May – August 2023	Selection of local researchers by SEA partners (6 per country) & two-day (hybrid) training workshops in each country	18 trained local researchers
Sept – december 2023	Fieldwork-phase: local researchers conduct interviews with buzzers	60 interviews per country & three country reports
December 2023	Comparative (hybrid) workshop to discuss and compare results of interviews.	
Nov – Dec 2023	Digital ethnography (YS, with 6 local researchers, Meertens)	Digital ethnography report
Feb 2024	Second phase of SNA: using interviews to deepen computational analysis; second SNA workshop @ IISG	Digital archive of scraped social media material
	Digital archiving (IISG)	
Jan– July 2024	Rewrite reports into academic articles (coordinators & SEA research partners)	Three articles in Q1/2 academic journals
August – December 2024	Preparations edited book or special issue & grant proposal	Special issue Cybertroops in SEA
November – December 2024	Seminars and press conferences in Thailand, Philippines, and Indonesia to launch publications and country reports	Knowledge dissemination to media and stakeholders

Dec 2024	Concluding hybrid workshop on computational propaganda at Digital Humanities Lab.	
Dec 2024	Writing First draft Horizon Europe (or similar) grant proposal	First draft grant proposal

Motivation for the chosen project form, duration and size of (requested) budget

The proposed project design – a two-year project with funded postdoc, two additional self-funded coordinators working in tight collaboration with Southeast Asian partners through regular workshops – is chosen because it maximizes the opportunities for - and coordination of - the required interdisciplinary collaboration and interaction. Employing local researchers for interviewing buzzers is – as we learned through our pilot – an effective strategy to gain access to (and trust of) these informants. The proposed budget allows for the necessary workshops as well as training and funding of local researchers, while also providing a strong, three-person coordination-team to supervise and coordinate the different components and steps of this project.

Our decision to submit a revised proposal this year reflects not just our commitment to this field of research but also our conviction that the current, further-developed research design is eminently feasible. The project has a tight design: the project now has precise and well-circumscribed research activities (as described in table 1) and a very clear division of tasks between a relatively large group of committed researchers. The postdoc will share the coordination tasks with Ward Berenschot and Yatun Sastramidjaja, while our Southeast Asian partners will support the training and supervision of the local researchers. Both our experience implementing a small pilot on a shoe-string budget, and the participation of experienced and well-networked Southeast Asian partners further convince us that the project's aims are very much achievable in two years.

Personnel deployment and balanced budget per year

We will employ one postdoc (0,84 fte) for the full two-year period of the project (at KITLV); in each country six field researchers (paid-for-service) for four months in Year 1; and one digital archivist (0,6fte) for six months (at IISG) in Year 2. KITLV and the University of Amsterdam will fund the participation of research co-ordinator Ward Berenschot and Yatun Sastramidjaja (both for 0.1 fte for 2 years).

Word Count: 1838 (excluding tables and references)

References

- ⁱ See Samantha Bradshaw, Hannah Bailey, and Philip N. Howard, "Industrialized Disinformation: 2020 Global Inventory of Organized Social Media Manipulation" (Oxford: Programme on Democracy & Technology, 2021, demtech.oii.ox.ac.uk); Samantha Bradshaw and Philip N. Howard, "The Global Disinformation Order: 2019 Global Inventory of Organised Social Media Manipulation" (Oxford: Project on Computational Propaganda, 2019; comprop.oii.ox.ac.uk); Michael Buehler, Ed Schatz, Sameen M. Ali, Christopher Greene, and Janjira Sombatpoonsiri, Janjira, "How Information Disorder Affirms Authoritarianism and Destabilizes Democracy: Evidence, Trends, and Actionable Mitigation Strategies from Asia and the Pacific" (U.S Agency for International Development, 2022; <http://dx.doi.org/10.2139/ssrn.3996805>).
- ⁱⁱ See Tobias R. Keller and Ulrike Klinger, "Social Bots in Election Campaigns: Theoretical, Empirical, and Methodological Implications", *Political Communication*, 36 (2019): 171-189; Ross Tapsell, "Social Media and Elections in Southeast Asia: The Emergence of Subversive, Underground Campaigning", *Asian Studies Review*, 45 (2018): 117-134; Yuriy Gorodnichenko, Tho Pham, and Oleksandr Talavera. "Social Media, Sentiment and Public Opinions: Evidence from# Brexit and# USElection". *European Economic Review*, 136 (2021), <https://doi.org/10.1016/j.euroecorev.2021.103772>; Mattio Cinelli, "The Covid-19 Social Media Infodemic." *Scientific Reports*, 10 (2020): 1–10. On the role of social media in Marcos' electoral success in the Philippines, see for example <https://www.france24.com/en/live-news/20220508-golden-age-marcos-myths-on-philippine-social-media>.
- ⁱⁱⁱ See Marcus Mietzner, 'Authoritarian Innovations in Indonesia: Electoral Narrowing, Identity Politics and Executive Illiberalism', *Democratization*, 27(2020): 1021-1036; Nicole Curato and Diego Fossati, 'Authoritarian Innovations: Crafting Support for a Less Democratic Southeast Asia', *Democratization*, 27(2020): 1006-1020.
- ^{iv} See Peter Dahlgren, "The Internet, Public Spheres, and Political Communication: Dispersion and Deliberation", *Political Communication*, 22 (2005), 147–162; Andrew Chadwick, *Internet Politics: States, Citizens, and New Communication Technologies* (Oxford: Oxford University Press, 2006); W. Lance Bennett and Sonia Livingston, "The Disinformation Order: Disruptive Communication and Decline of Democratic Institutions", *European Journal of Communication*, 33 (2018), 122-139.
- ^v See Sinpeng, Aim. *Opposing Democracy in the Digital Age: The Yellow Shirts in Thailand*. University of Michigan Press, 2021; Thomas Power and Eve Warburton (Eds.), *Democracy in Indonesia: From Stagnation to Regression?* (Singapore: ISEAS Publishing, 2020), and Edward Aspinall and Ward Berenschot, *Democracy for Sale: Elections, Clientelism, and the State in Indonesia* (Ithaca, N.Y.: Cornell University Press, 2019).
- ^{vi} See Yatun Sastramidjaja and Wijayanto, *Cyber Troops, Online Manipulation of Public Opinion and Co-optation of Indonesia's Cybersphere* (Trends in Southeast Asia, no. 7/2022. Singapore: ISEAS-Yusof Ishak Institute); Sinpeng, Aim, and Ross Tapsell. *From Grassroots Activism to Disinformation: Social Media Trends in Southeast Asia*. Singapore: ISEAS Publishing, 2021; Jonathan Ong and Jason V. Cabañes, "Architects of Networked Disinformation: Behind the Scenes of Troll Accounts and Fake News Production in the Philippines" (Scholar Works @UMassAmherst, 2018; <https://doi.org/10.7275/2cq4-5396>); Janjira Sombatpoonsiri, "Manipulating Civic Space: Cyber Trolling in Thailand and the Philippines", *GIGA Focus*, 3 (2018), <https://www.giga-hamburg.de/en/publications/giga-focus/manipulating-civic-space-cyber-trolling-in-thailand-and-the-philippines>.
- ^{vii} See for example, Uyheng, Joshua, Lynnette Hui Xian Ng, and Kathleen M Carley. 'Active, Aggressive, but to Little Avail: Characterizing Bot Activity during the 2020 Singaporean Elections'. *Computational and Mathematical Organization Theory* 27, no. 3 (2021): 324–42; Keller, Tobias R, and Ulrike Klinger. 'Social Bots in Election Campaigns: Theoretical, Empirical, and Methodological Implications'. *Political Communication* 36, no. 1 (2019): 171–89.
- ^{viii} See <https://www.insideindonesia.org/edition-146-oct-dec-2021>
- ^{ix} Some examples of this news coverage: <https://news.detik.com/berita/d-5792741/peneliti-ungkap-fenomena-cyber-troops-dan-ancaman-bagi-demokrasi-indonesia>; <https://www.kompas.id/baca/polhuk/2021/11/01/pasukan-siber-menggerus-demokrasi>; <https://www.cnnindonesia.com/teknologi/20211101162308-192-715118/peneliti-bongkar-gerak-terorganisir-buzzer-hingga-besar-gaji>; <https://koran.tempo.co/read/editorial/469224/editorial-mengapa-buzzer-menjadi-parasit-dan-membuat-kemunduran-demokrasi-kian-terasa-di-era-jokowi>; <https://koran.tempo.co/read/nasional/469176/buzzer-dan-pasukan-siber-berperan-di-revisi-uu-kpk-dan-uu-cipta-kerja>;

^x See <https://www.kompas.id/baca/polhuk/2021/11/02/pemerintah-tepis-dugaan-pengerahan-pasukan-siber-untuk-menggiring-opini-publik>

^{xi} For a description of the computational tools we intend to apply, see Keller and Klinger, *Social Bots in Election Campaigns*.

^{xii} On our experiences implementing this methodology, see Sastramidjaja, Yatun, Ward Berenschot, Wijayanto, and Ismail Fahmi. 'The Threat of Cyber Troops'. *Inside Indonesia*, no. 146: Oct-Dec (2021).

^{xiii} See for example, 'Facebook removes Thai-linked information influencing accounts', Reuters, 4 March 2021.

^{xiv} See Edward Aspinall and Ward Berenschot, *Democracy for Sale: Elections, Clientelism, and the State in Indonesia* (Ithaca, N.Y.: Cornell University Press, 2019), and Ward Berenschot, Henk Schulte Nordholt, and Laurens Bakker (Eds.), *Citizenship and Democratization in Southeast Asia* (Leiden: Brill, 2016).