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REPORT ON THE ANALYTICAL UNDERSTANDINGS BEHIND TIKTOK'S BAN BY THE GOVERNMENT OF INDIA

EXECUTIVE SUMMARY BY

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Report on the Analytical Understandings Behind TikTok's Ban by the Government of India

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Synopsis. The Government of India on June 29, 2020 banned 59 mobile applications by invoking its power under Section 69A of the Information Technology Act, 2000 read with Information Technology (Procedure and Safeguards for Blocking of Access of Information by Public) Rules 2009. The ban was announced through a Press Release and the reason given in the Press Release for banning these apps is “protecting the sovereignty, integrity, defence, state security and Public Order of India”. The Report focuses on the Analytical Underpinnings of the Ban of the TikTok and other applications under the assessment parameters of (1) Proceduralism; (2) Constitutionalism; (3) Algorithmic Politics and Diplomacy; and (4) Economic Rejuvenation and Limitations with an Executive Summary by the Chairperson, ISAIL.

Executive Summary

Algorithmic Politics is on a deep yet unclear surge. Special reasons that have involved algorithms into politics and strategy are the extra-diversification of artificial intelligence and the congeniality of disruptive technology. Although, the use of technology is connected with the construct of ideology and policy – it is important that a nation-state's ideological upbringings are estimated about how algorithms or for any part, any kind of technology has a sustainable and reasonable future. We therefore believe that the TikTok+59 apps-ban initiated by the Government of India should not be seen in direct connection with the border disputes and engagement between India and China, as happened on June 15th, 2020 near the Galwan Valley. India is a founding member of the Global Partnership on Artificial Intelligence, upcoming chair of the G20, the upcoming non-permanent member of the UN Security Council and has been invited by Russian Federation already to join the Eurasian Economic Union. Therefore, India's role in a multilateral world would surely be significant. In light of the digital South-South Cooperation and a lack of reinvented cybersecurity strategy despite the Government's genuine efforts, this move, we believe – is central to India's interest to safeguard the nexus between data belonging to the people within the cyber and territorial jurisdiction of India, and the algorithmic tools, which involve cybersecurity and cyber identity concerns as well. This is a brief analysis about the ban of TikTok by our Research Interns, and we are open to any kind of criticism or comment. You can mail your comments to us at executive@isail.in.



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1 Proceduralism

- The procedural formalities for enforcing the ban are given in with Information Technology (Procedure and Safeguards for Blocking of Access of Information by Public) Rules 2009.
- According to Rule 5, the power to exercise said ban can solely be exercised upon request and review from a competent Court or “Nodal Officer”.
- In addition to this another Rule that needs to be complied with is Rule 7 of the Information Technology (Procedure and Safeguards for Blocking of Access of Information by Public) Rules 2009, which lays down that the request for banning a computer resource needs to be reviewed by a Committee comprising of a “Designated Officer as its chairperson and representatives, not below the rank of Joint Secretary in Ministries of Law and Justice, Home Affairs, Information and Broadcasting and the Indian Computer Emergency Response Team appointed under Sub-section (1) of Section 70B of the Act.
- Rule 8 also comes into force and requires that the Designated Officer serve a notice to the intermediary against whom the request for ban is made and the intermediary is allowed a chance to file a reply or give clarifications.
- Subsequently the Committee compares and contrasts its findings with Section 69A and approves the ban only if it finds merit in the request for ban. The Press Release does not mention under which Rules the ban has been sanctioned, so it might be contended that the government has failed to comply with the Legal Procedure.
- Keeping the issue of procedural law aside, to avoid limited literal interpretations, the Indian Cyber Crime Coordination Centre in the Ministry of Home Affairs, as per the Press Release, had requested the Government of India to take action with respect to the applications and the cybercrime implications, which are duly involved.
- It may be assumed through the text of the Press Release made available by the Press Information Bureau that the Press Release might have taken recourse to Rule 9 which allows a ban to be sanctioned in an emergency situation.
- Under this provision the Designated Officer under the Information Technology Act, 2000 may directly transfer the request for ban to the Secretary of the Department of Information Technology, who may sanction the ban if he finds the reasons for the ban satisfactory. This request is further directed to the Committee for ratification and sanction.

- The first issue which must be understood is that the term ‘emergency situation’ should not be equated with the Article 352 to 360 of the Constitution of India, 1950 in due interpretation because the proceduralist function of emergency provisions is yet to evolve despite the literature available.
- Also, there is a lack of policy paralysis research over as to how emergency reservations can be established through the state, what services would be under application, what services are affected and so on. It may not be an aesthetic issue for administrators because the executive wing of the Governments have the primacy over such matters to implement recourses. However, due to lack of approach and literature, it is clear that terms like ‘emergency situation’ cannot be construed to the constitutional framework related to the presidential proclamation of emergency.
- The second issue could be that under the Blocking Rules of 2008, individual grounds for blocking must be established, if the terms like Software are readily defined under the retrospective legal instruments under Indian Law. However, that still does not merit the argument if the ban itself was selective, as the Ministry of Home Affairs may render some clarification on the nature of the ban later.
- Nevertheless, the selective banning of apps would be subject to national security implications, which cannot be limited to how popular or academic opinions are made.

2 Constitutionalism

- As this decision is unprecedented, there is not much literature available on it with respect to Constitutional Law. We do not believe that we find ourselves competent to subjectively implement the triangular representation and clustered representation of the Articles 14, 19 and 21 of the Constitution of India, 1950. However, keeping the subjective approaches of interpretation models aside, it is asserted that a ban of 59 apps would have obvious effects over the exercisable opportunity connected to the Article 19 – which can be connected to not only the 59 apps, but any particular service or instrument – which might be a subject-matter in issues related to the Part III of the Constitution.
- In Anuradha Bhasin vs Union of India [W.P(C). No.19716/2019-L], the Supreme Court explicitly laid down that the principle of restriction should be congruent with the proportionality standard. However, the standard of proportionality duly proposed – according to our estimates, cannot be formalistic, neither they can bear absolute and dictatorial control over affairs related to state action and the Part III of the Constitution of India, 1950. Thus, it would be quite indeterminate to decide as to how exact the proportionality and its dimensions would surely be.

3 Algorithmic Politics and Diplomacy

TikTok’s journey to relevance has been characterised by rough road and has mortally ceased to exist as a geo-political casualty between the mixed relations between

the People's Republic of China and the Republic of India. It had been a bag of mixed re-sponse till it flourished in India, with several proponents vying for it and in similar kind cauterising its use. However, the common response and concern across the world has been similar, i.e. it is a surveillance tool thinly veiled as a social media app.

- TikTok was still placed way behind Facebook, google and likes, but experienced a growth, described in the words of Sheryl Sandberg as 'worrying'. However, the point of focus lies upon a different aspect, which is the manner of usage of the app.
- TikTok is characterised by its exceptional algorithm that super-personalises the recommendation to each user. A basic conjecture can be sustained that such recommendation algorithms utilises a larger dataset than other social media platforms, therefore data privacy issues arises. However, such idea cannot hold much water as the amount of data generated by TikTok through user interaction is lesser than YouTube, Facebook and Instagram. The point of data generation comes cleverly from a brilliant tactic of presenting shorter format of videos, with a higher retention of user and attention span, an average user spends 10 minutes worth of time at a stretch against Instagram, which stands at 3, but still fails to meet up with the 20 minutes mark of Facebook. As the amount of data generated is proportional to the user interaction, the individual within the same span of time is interaction with way more videos in TikTok, compared to Facebook or YouTube, thereby the metric for each video differs and therefore is cleverly generating data set that are further utilised in creating super personalised recommendation.
- The app is characterised by its feed page, which is super specialised contingent upon the following points of data collection:
 - User information: The videos liked, accounts followed, comments posted and the content created.
 - Video information: captions, the music used, the hashtags and the text description.
 - Device and account settings: Language preference, country setting and device type
 - The history of Likes, shares, comments and percentage watched are factored in while deciding the recommendations.
- The cycle of content creation is relatively lesser than YouTube as the timing constraints for content creation, lowers the qualitative and increases the quantitative bar for the content, easy creation and sustained distribution to people of similar geographical setting, language preference, the device type, the songs they preferred, the account they followed, the content created.
- It became much easier to collate people into categories of preference due to the extremely short videos and the high number of videos watched over the time, thereby creating super specialised content for each individual.
- The very structure of TikTok content creation allowed such categorisation of people, as it made inherently easier to specialise recommendation which in author's opinion is a bigger concern than the alleged data privacy issue.
- With the brilliant recommendation structure, the next point of concern is the fact of user retention. The efficacy of the recommendation algorithms can be understood from the fact that user retention on TikTok is over 10 minutes, 3 times that of

Instagram. With an impressionable audience dedicating a high amount of time and being swayed over by the content. It forms another point of concern. The interesting point out of the privacy policy of TikTok is the kind of Metadata and device information collected app and file names and types, keystroke patterns or rhythms, and platform.

- A Comparative analysis with the collection of interesting data in twitter:
 - Information such as browser cookie IDs, mobile device IDs, hashed email addresses, demographic or interest data, and content viewed or actions taken on a website or app.
 - Log Data includes information such as your IP address, browser type, operating system, the referring web page, pages visited, location, your mobile carrier, device information (including device and application IDs), search terms (including those not submitted as queries), and cookie information
- A proper and observable difference between the kind of data collected between twitter and TikTok is that the Twitter doesn't collects data such as keystrokes and furthermore as stated explicitly within the policy statement of the twitter, *prima facie* comparison between the two gives an impression that users of twitters have Subsequent control over the data so provided as compared to Tiktok.
- The following has brought into observation the following things:
 - They set up a local proxy server on your device for "transcoding media", but that can be abused very easily as it has zero authentication. Setting up a local proxy on the device which is remotely configurable. (Zakdoffman, 2020)
 - TikTok CDN transferred data over HTTP against HTTPS to move sensitive data across internet, open to man-in-middle attacks which is a very big concern as it completely exposes the data principal to unsophisticated attacks that can easily executed. (Mysk, 2020)
 - Copying and pasting the clipboard with every keystroke.
 - Obfuscation against the viewing the function of the app.
 - Data is forwarded to Facebook as against GDPR.
 - Besides conventional trackers (Google Analytics), the highly controversial method of device fingerprinting is performed to assign a unique hash value for the browser so accessed. (Rufposten, 2020)
- TikTok was undergoing evolution as a platform and could be compared to the 2010 levels of YouTube. The nature of the ease, the super specialised content, combined with an impressionable and compliant audience provided legitimate concerns of the platform holding the potential of acting as a propaganda machine highly effective in identifying the requisite audience for its delivery. It eliminates the need for the propaganda seekers to effectively reach out to different sources and places people of similar interest within the same vertical of super specialised recommendations. Thereby at a point where the platform would have achieved maturity and gained social acceptance amongst the wider audience, it would have functioned as a eligible platform perfected for propaganda.
- However, it is to be noted that the TikTok had not qualified to such levels of usage. Regarding the levels of privacy, the threats were believed to be consistent as there

were several security and lax standards implemented with questionable methods such as fingerprinting, usage of HTTP instead of HTTPS.

- There are superlative degree across various parties, with the highest degree of reaction coming from American tech leaders and European tech proponents being very concerned with the privacy issues regarding TikTok and the regulatory compliance regime of the CCP which is touted to be an anti-thesis to data privacy. The CCP believes in the dual use of a state asset, that its civilian aspect should be co-terminus with the military application, it has been openly observed in many state sponsored companies, espionage attempts of intellectual property from US universities. The development of the politics is interesting, as reciprocity from the CCP as to the openness of democratic economy is not observed, as evident within the Great firewall of China and disallowing the competitors.

4 Economic Rejuvenation and Limitations

- The Ministry of Information Technology has banned 59 Chinese apps including TikTok and ShareIt on 29th June, 2020 using section 69A of the IT Act. The reasons for this ban as stated in the press release include prejudice to the sovereignty and integrity of India, defence of India, security of state and public order, privacy and data security concerns and bipartisan concerns (Delhi, PIB, 2020).
- This move by the Indian government is likely to affect India's cyber economy as some of the applications that were banned were widely popular. The ban opens the market up for new apps that could cater to the demand of the people. The ecosystem's ingenuity is said to slow down as a result of the ban as apps in India are inspired by the adept engineering of Chinese apps (Bureau, 2020). With a rush to fill the gap left in the market by TikTok following the ban, the innovation of new, original AI technology might be affected. In effect, causing path dependence, the tendency to become committed to develop in particular ways, which leads to institutional inertia (Greener, 2017).
- The costs of this move need to be ascertained to gauge its effectiveness. Regulation should seek to minimize the sum of damage costs from security breaches and administrative costs as it otherwise risks interfering with properly functioning markets, introducing inefficiencies where none existed leading to a downturn in the market, and in extreme cases, a market failure (The Law and Economics of Software Security, 2006). In the present scenario, as most people are likely to comply with the move of the government, the administrative costs of this decision can be predicted to be comparatively low as opposed to a ban on apps without there being conflicts of this sort.
- This move by the Indian government has, however, dealt a blow to the confidence of Chinese investors and traders due to which the Indian economy could remain subdued for a considerable period of time (ANI, 2020).
- The imbalanced trading relationship between India and China was predicted to lead to tensions and conflicts as Indian attempts to insulate domestic industries from Chinese competition are bound to clash with Beijing's appetite for a greater market for

its exports (Mears, 2019). Thus, the banning of these apps could possibly lead to further conflict and economic inefficiencies, which can be resolved when reasonable bureaucratic reforms are put into place.

- The Ministry of IT has stated misuse of apps for stealing and unauthorized transmission of data of users to servers outside India as one of the reasons for the ban. (Bureau, 2020) This sets precedent of governmental action against privacy violations and data collection. Although this could hinder or slow the development of AI, protection of user privacy is necessary to ensure compliance with rights of individuals. In addition, such measures could improve consumer confidence towards AI based software and apps (PTI, 2020).
- An alternate and more effective solution to counter privacy concerns would be development of laws to prevent such breaches. This would be a more effective solution addressing privacy issues of all applications, not just Chinese ones. Thus, it can be observed that the primary motivating factor for this move is bipartisan concerns and not data privacy concerns.
- The apps, specifically TikTok, being banned has several implications. TikTok's popularity can be accredited to its artificial intelligence software that tracks user preferences and activity to dictate the content watched (Barret, 2020). The ban opens up opportunities for Indian apps to use similar consumer AI strategies to gain popularity.
- India has a large tech market which is growing at rapid rates. According to the Economic Survey 2019, India is the global leader in monthly data consumption, with average consumption per subscriber per month increasing 157 times from 2014 to 9.8 GB in June 2019 (Warsia, 2020). Further, the number of smartphone users is expected to double by 2024 (Madhukalya, 2020). Firms are also heavily investing in enabling technologies due to the rise in demand for tech services as phenomenon like work from home promise to become a norm in light of the COVID-19 pandemic. (Warsia, 2020) In the next two years, 50,000 startups are expected to develop in India, most of which are tech-based. (Warsia, 2020)
- India accounted for about 30.3% of TikTok downloads. (Madhukalya, 2020) The vastness of India's tech economy coupled with the popularity of the banned apps shows the gap in the market created due to the ban. With the main player in the market being banned, Indian companies can use the opportunity to develop or promote product that use consumer AI. This could potentially lead to an increase in the use of consumer AI software in the Indian market. Apps like Chingari and Mitron are already being promoted by appealing to former TikTok users.
- However, Unless Indian apps are of a level that can compete with other international ones, Indian apps and services may not seek to gain from this move and it may have no positive impact on the Indian players in the market. India's prohibition is said to be likely to give American companies and apps an edge in the global tech market over Chinese competitors. (Bloomberg, 2020).
- But as these apps have been banned only in India, Indian companies are likely to be the only ones to develop products to cater to the demand of the people in India suited to their needs and taste. Further, we can observe negative sentiment towards China's

tech revolution around the world with US trying to cut off Huawei. India having one of the largest populations in the world, can be a self sustainable market.

- If other countries also follow India's lead to establish virtual embargo, Indian apps developed to compete in similar spheres that Chinese apps reigned could gain popularity due to India's large population and head-start, although the chances of this occurrence are low.
- Although the banning of these popular apps may provide opportunities to Indian companies to integrate and develop AI and could create a positive impact, there are also implications of this decision on the media industry. TikTok is a globally used application and has become one of the most popular apps amongst the younger generation. Although its primary purpose is entertainment, it is also used as a medium for communication etc.