

INDIA AS A DIGITAL POWERHOUSE An Assessment of Young India's Aspirations

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INDIA AS A DIGITAL **POWERHOUSE** AN ASSESSMENT OF YOUNG INDIA'S ASPIRATIONS



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Foreword

e are publishing the second edition of our Young India and Tech Survey at a time when the country's stature on the world stage is the strongest yet and it is being recognised as a global digital powerhouse.

India's G20 presidency in 2023 served as a platform for promoting its model of digital public infrastructure, which is now being adopted and adapted by other countries, and for championing the idea of data for development, which could drive growth. Earlier, India's tenure as chair of the Global Partnership on Artificial Intelligence in 2022 allowed it to articulate a clear vision for responsible and ethical AI development, and its emphasis on ensuring "AI for all" and fostering an "AI innovation spirit" resonated both at home and abroad.

Indeed, in the past two years, tech in India has made strides. As of late 2024, Indian citizens were making over 500 million digital payments every day—the highest number in the world. In 2023, the country enacted its landmark Digital Personal Data Protection Act; passed the Digital India Bill towards updating the national regulatory framework for tech and digital affairs; and drafted a new Digital Competition Bill aimed at creating a more level playing field for tech actors.

The Indian approach to technological growth has focused on innovation while ensuring inclusion and sustainable development. Young India recognises these successes. As the present survey shows, 99 percent of Indian youth today believe that India is a digital superpower.

India's growth is driven by a burgeoning digital economy and its demographic dividend. Yet, youth voices often remain underrepresented in Indian policy debates. *The Young India and Tech Survey* aims to capture the perspectives of this crucial demographic and aims to understand how young Indians view the role of technology in their lives, how they wish to see tech evolve in the future, and how they believe governments, businesses, and other stakeholders could support the country's digital transformation.

This year's survey dives deeper into the so-called 'digital trilemma' by unpacking the trade-offs between individual privacy, economic development, and national security. These elements are weighed against each other to better understand respondents' priorities.

While there is overwhelming support for the need to fortify national interests and economic progress, concerns about privacy persist; 91 percent of respondents want companies to specify how their data is being used, and 91 percent are in favour of purpose limitation. Concerns about foreign platforms using Indians' data are especially acute. Seventy-five percent of respondents are comfortable with their data being processed outside the country, but 97 percent want these firms to abide by India's regulations.

Economic progress is a priority for respondents, with 90 percent saying they do not have a problem with the government sharing anonymised data with Indian startups to increase their competitiveness and capacity to innovate. This despite 95 percent believing that India is already a competitive player in the global digital space. Ninety-seven percent of respondents also feel that stronger government oversight needs to be exercised over techrelated interventions. This indicates that government intervention and regulation is perceived as an enabler of, rather than a constraint on digital innovation in India.

There is a bedrock of trust in the government and public institutions with respect to national security. Ninety-three percent of respondents feel that internet shutdowns in the interest of national security are beneficial. India's continued drive to boost transparency and support law enforcement through means such as breaking end-to-end encryption also has popular support. Moreover, 92 percent of respondents believe that VPN services should collect users' personal data and submit it to the government for national security purposes.

In terms of plurilateral groupings and architectures, the Quad and G7+4 resonate most strongly with young Indians. Indian youth regard these two groupings as the country's most preferred cooperation partners for matters related to the regulation and development of emerging technologies.

Finally, the survey highlighted differences across demographic groups within the sample. On certain issues, the youth's opinions varied across geographical regions, age, and gender. For example, Gen-Z respondents appear more confident than millennials about India's ability to address digital monopolies and anti-competitive practices under existing laws. Further, men are more likely than women to demand data accountability from the government.

As India consolidates its position in an increasingly fraught world order, its youth are aware of the risks associated with digital expansion and the geopolitics of technology. Young India is wary of external actors gaining influence over domestic markets, and is keen for the institution of governance systems that uphold the principles of sovereignty, inclusion, and productive collaboration. Indian youth recognise that digital spaces are not silos and that tech policies must align with the country's broader strategic interests.

With India advancing its digital ecosystems, its youth population must be recognised as equal stakeholders in evolving debates around technology. It is our hope that this edition of ORF's Young India and Tech Survey will contribute to the conversations that help India script its digital future.

Samir Saran President, Observer Research Foundation

Key Findings



98.6 percent

of respondents agree that India is a digital superpower.



97.3 percent

want the government to have more control and oversight over the internet.

3

96.9 percent

are of the view that digital innovations like the Unified Payments Interface (UPI) and Aadhaar have improved the lives of the average Indian citizen.

48.2 percent

believe that the sectors with the highest potential in India are software development and IT services; 39.4 percent see the greatest potential in content creation (e.g., OTT, social media); and 12.4 percent consider hardware development (e.g., semiconductors and electronics) as the future.

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96.6 percent

agree that foreign tech companies and online service providers should abide by Indian data and individual privacy regulations.

.....

.....



96.3 percent

want the Indian government to demand transparency from Artificial Intelligence (AI)based platforms. 95 percent are in favour of high-risk AI platforms being subjected to trial mechanisms before being deployed for general use.



95.37 percent

of respondents report feeling safer online this year than during the first ORF survey in 2022, with women being more likely than men to report this improvement in sentiment. 8

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Gen-Z youths

are most likely to share personal information while using online services.

91.6 percent

of respondents would be comfortable with the government sharing anonymised data with Indian startups so that they can build tech solutions for defence and security applications.

.....



The Quad

is the preferred partner for digital cooperation; BRICS is the least preferred partner.

The Young India and Tech Survey is grounded in the concept of what is called the 'digital trilemma' between individual privacy, national security, and economic development. Young India's priorities have been made clear.

The 2024 survey reveals that the youth are prioritising economic development and national security over individual privacy. On one hand, the success of DPIs like UPI and the predatory behaviour of Big Tech has driven home the need for transparency and regulation. On the other hand, continued wariness of Chinese technology and interests play a role in shaping security perceptions. This pushback against foreign tech platforms and Chinese security threats have led to a willingness to compromise individual privacy for the good of national security.

India's rapid digital transformation is characterised by innovative public infrastructure and inclusive technology initiatives. Domestically, Young India has called for greater transparency, regulation, and accountability from the government but is also deeply aware of the challenges that the country faces as it continues to establish itself in the global digital economy.



Introduction

ver the last decade, India has been positioning itself to become a global powerhouse in electronics and information technology (IT). India has been at the forefront of innovation of digital public goods such as the India Stack, the National Digital Health Mission, and the National Data and Analytics Platform. The country also has ambitious goals for its electronics sector and aims to achieve manufacturing worth US\$300 billion by 2026.¹

Ministry of Electronics & IT, Government of India, https://pib.gov.in/PressReleasePage.aspx?PRID=1792189

As India emerges as the world's most populous nation, this revolution is being led by its sizeable young population. However, Young India's relationship with technology is also fraught with auxiliary considerations, namely, individual privacy, national security, and economic development. These considerations form a Penrose triangle, or the digital trilemma, of which only two conditions may be satisfied at any given point. The furthering of any two of the policy objectives will necessarily come at the cost of the third. This trilemma underpinned the analysis in the 2022 edition of the *Young India and Tech Survey* and will be expanded upon in the present edition. This iteration attempts to create a trend analysis as a continuation of the previous edition and understand the trilemma in greater depth.

In this report, the authors explore how India's youth perceive the role of technology in their own lives as well as in the future trajectory of their nation. The analysis uses data collected from a primary survey that investigates the youth's opinions on matters relating to individual privacy, national sovereignty and security, and economic development, and the interaction of these parameters with each other. It also measures the relative importance given to each of the three considerations of the digital trilemma to identify policy pathways that align with this generation's priorities.

Context and Rationale for the Study

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national security, and economic development. The 2024 report takes this further and attempts to use the insights generated from the survey to reconcile the trilemma. In this edition, we surveyed 3,414 individuals from the same age group (18-35 years) to understand how perceptions have evolved and to explore how all three considerations can be given equal importance to ensure equitable and safe digital development for all.

This year's survey is based on thematic areas under digital transformation as outlined within the UN 2030 Agenda and Youth 20 thematic areas identified by India as part of its G20 presidency 2023. The assessment of the three values of individual privacy, economic development, and national security run across all identified thematic areas:

- Digital skills and youth entrepreneurship
- Accessibility, affordability, and usability of information and communications technology tools
- Domestic technology development, research, and innovation
- Conducive policy environment for industrial diversification
 - Multilateral cooperation on satellite use and general infrastructure sharing; re-evaluation of tariff and non-tariff barriers limiting trade in critical digital devices that support meaningful connectivity; and global standards on the regulation of emerging technologies
 - Digital and financial literacy



Notes on the Survey

A. Questionnaire Structure

ORF collaborated with NielsenIQ to administer the questionnaire to a sample of 3,414 individuals across 22 cities. The questionnaire comprised four sections:

- 1. Demographic details
- 2. Digital habits
- 3. India's laws and regulations
- 4. India and the world

The three considerations of the trilemma—individual privacy, national security, and economic development—run across the questions in sections 2, 3, and 4, either as linear values or as comparative trade-offs.

For the purposes of this survey, the term 'individual privacy'² refers to the right of users to keep their personal and sensitive information (including biometrics, and financial and location data) safe from unauthorised, non-consensual use by business and government entities. The scope of individual privacy includes practices adopted by individuals to ensure cyber hygiene and their understanding of consent framework and cybercrime.

Security, meanwhile, is measured at a community level and is primarily a responsibility of the state.³ Under the subject of national sovereignty and security, the survey studied the willingness of an individual to share their data with the government or privatesector enterprises to ensure the country's sovereignty and law enforcement, along with their inclination to support technology protectionism.

Under economic development, the survey evaluated the perceptions of economic progress arising from digital initiatives and the willingness of individuals to share their data for improved delivery of public services and economic gains.

Resolving the trilemma would require making trade-offs in accordance with public opinion. In order to disaggregate parameters and assess the significance of each one, the survey also contained questions that required respondents to make a choice by prioritising one parameter over another. It also contained questions to assess respondents' views of the government's role in the country's digital future, including through domestic investments as well as collaborations with countries viewed as trustworthy partners.

² International Association of Privacy Professionals, "About the IAPP," International Association of Privacy Professionals, https://iapp.org/about/what-is-privacy/

³ David A. Baldwin, "The Concept of Security," *Review of International Studies* 23, no. 1 (1997), https://www.jstor.org/stable/20097464.

B. Survey Design

The respondents belonged to the age group of 18 to 35 years, which was further divided into two groups: 18-25 years (Gen Z) and 26-35 years (millennials). Equal representation was maintained between the two age groups to ensure that there is no age bias in terms of the population covered. Efforts were also made to ensure equal representation of males and females across all cities. The survey was conducted telephonically and covered 3,414 Indian citizens residing in 22 cities, across four zones.

At the first stage of sample selection, respondents were selected randomly from a database of urban youth, i.e., any individual aged 18-35 years with a mobile phone. This sample frame was stratified on the basis of gender to ensure that an equal proportion of male and female respondents was selected in each city. Within this stratification, the selection of the final respondents was randomised.



*The circle for Andaman & Nicobar represents the combined samples of Andaman & Nicobar Island and Lakshadweep Islands, as the survey includes both regions together.

Created with Datawrapper

C. Note on Accessibility and Inclusion

The survey questions were framed in a manner that would be accessible to a wide range of respondents, and care was taken in the use of complex terminology or jargon. The questions were supplemented with explanations where required, to allow respondents to contribute to the survey in an informed manner. The survey was mindful of including a wide range of respondents in terms of age, gender, geography, education levels, and employment to ensure a diverse and representative sample. The scale of answers varied across questions, ranging from "Yes/No" to multiple-choice responses. To give respondents flexibility in answering and to account for the gap in digital literacy in India, the questionnaire provided response options such as "Not yet but getting there" and "Don't know/Can't say". As the survey was completely telephonic, it was characterised by limitations typically associated with such surveys. For example, non-verbal clues from the respondents would not have been captured by the survey data.

D. Methodology for Analysis

To understand Young India's perceptions of the fast-evolving technology policy landscape, the survey data was analysed using a combination of descriptive statistics and statistical inference to identify patterns in the respondents' views.

The survey set out to understand how the digital trilemma or Penrose triangle between individual privacy, national security, and economic development can be resolved. It employs a multinomial logistic regression to weigh each of these indicators against each other. The analysis also involves developing correlations between indicators and demographic variables. The variables are defined as follows (some percentages might not add up to 100 percent due to rounding off).



Distribution by Gender





Distribution by Education: Proportion of people who pursued education till class XII and those who pursued education after class XII

Distribution by Occupation Status: Employed and Unemployed





Distribution by Geographical Region: North, South, East, and West

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Trends Analysis

his section is a comparison of key findings from 2022 to 2024.

- Cyber-hygiene practice reporting has shown improvement, with 56 percent of respondents claiming to always read the privacy policies of online services compared to 38 percent in the earlier survey.
- In the 2022 survey, 79 percent of respondents were comfortable sharing personal data either as medical records, locational data, financial history, in some or all of these

forms to assist in law enforcement and for national security purposes. This percentage increased to 96 percent in this year's survey.

- About 57 percent of the respondents were comfortable with sharing personal data outside of India to help with law enforcement. This percentage has increased to 73 percent in the current survey.
- Young India continues to be concerned about how their data is being used. Ninety percent of respondents wanted the government to specify how their personal data was being used, and 91 percent would like the same from private companies. In 2022, 88 percent of respondents thought it was important that they have a say in how institutions, including the government and private companies, share their data.
- In continuation of the trend of concerns over data use, 91 percent of respondents felt that personal data collected to provide a specific service should be erased after delivery of the service. In the earlier survey, 79 percent of respondents supported mandatory erasure of a user's personal information on the request of the user.
- In 2022, 70 percent of respondents thought that foreign tech firms should abide by Indian data and individual privacy regulations. This year, the figure stands at 97 percent.
- Fifty-five percent of respondents in this edition reported using a VPN "sometimes". This is a huge leap from 16 percent in 2022. The percentage of respondents who use VPNs "always" has also increased from 12 percent to 23 percent.



Findings and Analysis





1.1. Do you think India is a digital superpower?

Young India is confident in the country's global standing in matters of technology.

An overwhelming majority of respondents (98.56 percent) said that they believed India is a digital superpower. This trend was apparent across regions, age, gender, education, and income levels. There are a number of possible reasons for this perception, including the highly successful digital payments revolution, the startup boom across industries, greater internet penetration, and Indian and Indian-origin leadership in global tech giants.

Eastern India was most emphatic about India's status as a superpower, with 99.69 percent responding "Yes" and only 0.10 percent responding "No" to the question. Southern India had a significant lead in negative responses, with 2.26 percent of respondents saying "No". The demographic group with the least "Yes" responses was individuals with household monthly incomes between INR 5,001-15,000, of whom 94.4 percent responded positively.

1.2. Do you think India should have a more controlled model of internet governance with stronger government control and oversight?

India needs to prioritise internet governance.

97.28 percent of respondents called for greater government intervention in the digital realm. The absence of a data governance law at the time of the survey is a significant reason Young India may have found digital governance in the country to be lacking. However, India has since passed the Digital Personal Data Protection Act, 2023, which lays out how digital personal data must be processed. This is a notable step towards creating a safe digital ecosystem. Concerns about misinformation, hate speech, and cybercrime may also have contributed to the demand for a more regulated online environment. This trend was also evident across all demographic indicators. Southern India had the least "Yes" responses, at 92.83 percent, while all other regions had over 98 percent of "Yes" responses.

99 percent of respondents believe India is a digital superpower.

97 percent think India should have stronger government oversight.

Despite high confidence in India's digital prowess, there is overwhelming support for increased government control. This suggests that government oversight is perceived as complementary to India's digital growth, not as a hindrance.

1.3. Do you think India is a globally competitive player in the digital technology space?

Young Indians are confident about India's digital competitive edge.

95.37 percent of the respondents perceive India as having a strong standing in global digital technologies. The country's IT outsourcing industry, the emergence of successful tech startups, and India's growing influence in software development give the country a central role on the global stage.

Southern India was once again relatively conservative in its response, with 92.83 percent responding positively. The presence of multiple IT hubs in the region, such as Bengaluru and Hyderabad, might have exposed the population to more diverse global players and highlighted areas of technological development such as AI and semiconductor manufacturing, where India is lacking. Among all the demographics, individuals with household monthly incomes between INR 5,001-15,000 had the most significant negative responses, with 11.11 percent responding "No".

1.4. Do you think digital innovations like the Unified Payments Interface (UPI) and Aadhaar have improved the lives of the average Indian citizen?

India needs to ensure that the benefits of digital payments systems reach individuals from lower-income groups.

The India Stack has been one of the most notable technological innovations in the country, and the UPI has been its most tangible manifestation in the everyday lives of citizens. This is likely why 96.87 percent of respondents think that it has improved the lives of average citizens.

However, the demographic group where significantly fewer respondents confirmed an improvement in their lives was individuals with household incomes between INR 5,001-15,000, where 86.11 percent of the respondents said "Yes", which is less than in any other demographic group. Addressing the needs of lower income groups is an important area of potential growth for India's digital payments market.

1.5. In which of these sectors do you think India has the most potential?

Young Indians do not see much potential in the hardware development sector.

The highest percentage of respondents believe that India has the most potential in software development and IT services. India's established place in the global arena, existing skilled workforce, and a history of success in this sector has led to Young India having continued hope in the country's potential. Southern India, with its IT hubs, was significantly more likely to see potential in this sector.

The next most frequent answer was content creation (e.g., OTT, social media, YouTube), with northern India more likely to give this response. Women were also more likely than men to see potential in this sector.

The least frequent response was hardware development (semiconductors, electronics). This trend was consistent across all demographics, with southern India giving relatively more responses at 17.13 percent.

2. Digital Habits

2.1. Do you feel safer online this year than you did last year?

Women feel safer online this year than at the time of the 2022 survey.

Overall, 95.37 percent of respondents felt safer online this year. A high number of "Yes" responses was seen among both men and women. Women were more likely to report feeling safer this year. This is a significant development in India's digital journey.

2.2. How often do you input accurate personal information such as age, name, and location when registering or signing up for online services?

Gen-Z youths are most likely to share personal information while using online services.

Half of the respondents reported entering accurate information "Sometimes", 10.02 percent "Never" do so, and 37.58 percent "Always" do while registering for online services. Respondents between the ages of 18 and 23 years are more likely to input accurate personal information than their older counterparts. Respondents between the ages of 30 and 35 years are the most likely to never do so.


2.3. How often do you accept third-party cookies on the websites that you visit?

Young India is not averse to accepting third-party cookies.

21.62 percent of respondents said they always accept thirdparty cookies, 10.95 percent said they never accept cookies, and 67.43 percent said that they sometimes accept them. There is no statistically significant difference among the various age demographics.



2.4. How often do you use VPN services?

Women are more likely than men to use VPNs.

21.59 percent of respondents claim that they never use VPN services,⁴ while 55.30 percent reported using them "Sometimes". 23.11 percent of respondents said they never use VPNs.

Men are more likely to report never using VPN services compared to women.

78 percent of respondents reported using VPN services at least sometimes.

92 percent think that these services should collect and share the personal data of users with national governments for national security purposes.

This indicates that Indians are using VPNs to access online services unavailable in the country rather than for privacy protection, as they support data collection by providers.

A Virtual Private Network (VPN) is a technology that masks a user's IP address, allowing them to access the internet anonymously.

4



2.5. How often do you read the privacy policies of online services before you sign up for them or use them?

Higher education contributes to cyber-hygiene.

56.39 percent of respondents claimed to "Always" read privacy policies before accepting them, while 11.04 percent of respondents said they "Never" do. Age does not have a statistically significant effect on these results. However, respondents with a bachelor's degree or higher were more likely to report always reading privacy policies compared to those who had completed their education till class ten or below. The latter group was also the most likely to report "Never" reading privacy policies.

2.6. Are you satisfied with how online platforms explain their privacy policies?



Privacy policies need to be made more accessible to all demographics.

92.74 percent of respondents were satisfied with the way online platforms explain their privacy policies, with 18-23 year olds being the most satisfied age group. However, individuals with lower levels of education are less likely to engage with or understand these policies.

Those who had completed their education till class ten or less are less likely to be satisfied with the current presentation of privacy policies. The length and jargon of privacy policies is often a huge hindrance to universalising informed consent. These policies need to be made more accessible to promote cyber-hygiene among Indians. 2.7. You received the following SMS on your mobile phone, "Dear HDFC Customer, your HDFC NET BANKING will be suspended today, please update your PAN card using the following link." Which of the following would you do?



There is no demographic pattern in vulnerability to cybercrime.

On receiving such a message, 42.62 percent of respondents said they would call their bank, 55.48 percent said they would ignore the message, and 1.90 percent said they would click the link and update their details. Age, gender, region, and education do not have a statistically significant effect on these results.

While there is no linear relationship between income and responses, the greatest demographic variation is seen between income groups. The group most likely among any demographic to click the link is those with a household monthly income between INR 75,001-1,00,000 per month, with 5.56 percent of respondents in this group stating that would update their details on the link. The least likely groups are those with incomes of INR 15,000 or less and INR 1,00,000 or more. None of the respondents in these groups said that they would click on the link.

3. India's Laws and Regulations

3.1. Should the government specify how it is using your personal data?



There is great demand for data accountability from the government.

Nearly nine in every 10 respondents (89.66 percent) want the government to specify how their personal data is being used. Respondents from southern India were the least likely demographic group to call for such specification, with the number of "Yes" responses standing at 83.27 percent, which is significantly lower than the 92.04 percent from respondents from western India.

Men were also statistically more likely than women to think that the government should specify how it uses personal data, with 92.45 percent of men responding "Yes" compared to 86.86 percent of women.



3.2. Should private companies specify how they are using your personal data?

There is great demand for data accountability from private companies.

91.04 percent of respondents want private companies to specify how their personal data is being used—a 1.5 percent increase from the previous question regarding data accountability from the government. 91.03 percent of women expressed interest in knowing how private companies use their data, compared to 86.86 percent for government use. There is no difference in the responses of men and women to this question.

Similar to the last question, respondents from southern India are the least likely demographic group to call for such specification. 83.53 percent responded positively, which is significantly lower than the 93.26 percent and 93.40 percent of respondents from eastern and western India, respectively. 3.3. In case of deliberate misuse of your personal data, should the entity responsible for the collection and processing of your data be penalised?



There is a strong call for liability in cases of deliberate personal data misuse.

A large majority of respondents (96.31 percent), felt that the entity responsible for collecting and processing data should be penalised if personal data is misused.

The group with the greatest percentage of demand was northern India, at 98.95 percent. Southern India is an exception among regions, with only 90.17 percent responding "Yes". Men are also more likely than women to want penalisation for data misuse. The group least likely to demand penalisation is the income group of INR 5,000-15,000. 3.4. In case of data breaches/unintentional leakages of your personal data, should the entity responsible for the collection and processing of your data be penalised?



The cause of a data breach does not affect the demand for liability.

At 95.84 percent, there is no statistical significance between demand for penalties when data breaches are unintentional versus intentional (96.31 percent, as seen in the previous question). The demographic with the greatest percentage of "Yes" responses is eastern India. Similar to the question on deliberate data misuse, men are more likely to demand penalties, and individuals in the income group of INR 5,000-15,000 are least likely to demand penalisation.

3.5. Your personal data, including your phone number, home, address, and personal health information are leaked through your insurance provider and sold on the web. Should your insurance provider compensate you?



There is a strong demand for compensation in case of personal data leaks.

95.9 percent of respondents felt that they should be compensated by their insurance provider if their personal data was leaked and sold. The largest difference between demographic group responses was between respondents living in the north and south: 97.71 percent of respondents from northern India felt that they should be compensated whereas 89.51 percent from southern India felt the same.

Education also played a statistically significant role in influencing responses. Higher education was associated with greater demand for compensation, with 96.08 percent of respondents with a bachelor's degree or higher responding positively compared to only 90.8 percent of respondents who had completed their education till class ten.

3.6. You find out that your personal data is being sold online by cybercriminals. Would you file a complaint with the police or other relevant authorities?



There is high willingness to report data theft among young Indians.

97.3 percent of respondents said that they would file a complaint with the police or other relevant authorities if they found out that their personal data was being sold online by cybercriminals, 2.1 percent said they would not file a complaint, and 0.7 percent said that they would like to but do not know whom to approach. The only demographic factor that had statistical significance was region, with 98.4 percent of respondents from the east saying "Yes" compared to 94.95 percent of respondents from the south.

3.7. Do you think personal data collected from you to provide a specific service should be erased after you have received these services?



Purpose limitation is important to Young India.

The majority of respondents felt that purpose limitation is important when it comes to their personal data. 90.6 percent of respondents wanted their personal data, when collected for a specific purpose, to be erased after that purpose had been served, while 9.3 percent of respondents did not think this was necessary. Respondents from northern India were more likely to demand purpose limitation, with 91.79 percent responding positively but only 85.26 percent reporting the same from southern India.



3.8. Should the government be able to censor/prohibit certain kinds of content online?



A majority of respondents are of the view that censorship is an important function that the government holds the right to. 96.6 percent of respondents said that the government should be able to censor/prohibit certain kinds of content online and only 3.3 percent said it should not. Further research is required to determine the nuances of what kind of content Young India believes needs censoring.

Region and education were once again the demographic factors that showed statistical significance. 98.61 percent of northern Indian youth thought that the government should be allowed to censor online content, while this number dropped to 90.04 percent for southern Indians. A higher level of education was associated with a greater likelihood of being amenable to censorship, with 96.98 percent of respondents with a bachelor's degree or higher saying "Yes", compared to 93.1 percent of respondents who had completed their education till class ten.

3.9. Should the government be able to temporarily shut down internet services in certain areas for the purposes of national security?



The majority of respondents support government-initiated internet shutdowns for national security.

93.3 percent of respondents thought that the government should be able to temporarily shut down internet services in certain areas for the purposes of national security, and 6.7 percent of respondents did not think so. The difference was most stark between the north and south, with 94.21 percent of respondents from northern India responding in favour of internet shutdowns for national security compared to 87.78 percent of respondents from southern India agreeing. This difference was statistically significant. 3.10. During a time of political unrest, should governments be able to temporarily shut down internet services to stop the spread of misinformation and reduce violence on the streets?



The majority of respondents are amenable to internet shutdowns during political unrest.

94.9 percent of respondents said that during a time of political unrest, governments should be able to temporarily shut down internet services to stop the spread of misinformation and reduce violence on the streets, and 5.1 percent said it should not. The surveyed sample responded very similarly to the previous question. The most statistically significant demographic factor for this question was region. There was a minor increase in positive responses from northern India, with 94.64 percent agreeing that the government should be able to shut down the internet for the specific goal of preventing misinformation and reducing violence. Positive responses from southern India stayed the same, at 87.78 percent.

97 percent of respondents think that digital public goods have improved lives.

97 percent favour stronger government oversight of the internet.

93 percent agree governments should temporarily shut down internet services for national security.

94.9 percent support shutdowns during political unrest to curb misinformation and reduce violence.

There is a high level of trust in institutions. Widespread acknowledgment of benefits from government-backed digital initiatives, strong support for increased governance, and high confidence in the government during emergencies are strong indicators of trust.



3.11. Should foreign tech companies and online service providers abide by Indian data and individual privacy regulations?

There is an expectation of regulatory compliance by foreign tech companies.

96.6 percent of respondents thought that foreign tech companies and online service providers should abide by Indian data and individual privacy regulations while 3.3 percent did not. Respondents from northern India were more likely to favour domestic regulatory compliance, with 98.67 percent in favour compared to 90.57 percent of respondents from southern India. Higher levels of education were associated with a higher likelihood to desire compliance with domestic regulation, but this relationship was not statistically significant. 75 percent of respondents are comfortable with their personal data being processed outside of India to access online services.

97 percent want online service providers to abide by Indian regulations.

Young India does not demand that data be stored within the country as long as foreign technology companies are subject to Indian laws and regulations. Enforcement is a greater concern than data localisation.



3.12. Which of the following statements do you agree with? Cryptocurrency is:

Young India sees cryptocurrency as an alternative digital currency, with mixed views on its uses.

Young India largely views cryptocurrency as an alternative digital currency, with 52.6 percent of respondents saying so. 21.1 percent of respondents viewed cryptocurrencies in a negative light, believing that it is used primarily for betting and gambling. 16.8 percent had a positive outlook, believing that cryptocurrency is a precursor to a more revolutionary financial instrument. 9.5 percent of respondents were unsure about their stand on cryptocurrency.

3.13. Should the Indian government demand transparency from Albased platforms?



There is widespread demand for government-mandated transparency for AI platforms.

Transparency from AI-based platforms is an important issue for Young India, with 96.3 percent responding in favour of the government demanding transparency, and only 3.3 percent feeling that it was not necessary. A higher level of education was associated with greater likelihood of wanting transparency. 96.81 percent of respondents with a bachelor's degree or higher wanted the government to demand transparency, but this number dropped to 91.95 percent for people who had only completed their education till class ten.



3.14. Should high-risk AI solutions be subject to trial mechanisms before being deployed for general use?

There is a demand for safer AI through mandated trial mechanisms before deployment.

Respondents were strongly in favour of high-risk AI platforms being subjected to trial mechanisms before being deployed for general use. 95 percent wanted trials, while only 4.8 percent of respondents did not think trials were necessary. Respondents who had completed their education till class ten were more likely to respond positively to the question of trial mechanisms, at 96.55 percent, than to the question of transparency, at 91.95 percent. Men were also more likely than women to want trials for high-risk AI platforms, with 96.37 percent responding "Yes" compared to 93.54 percent of women. 53 percent of respondents view cryptocurrency as an alternative currency, but 21 percent associate it with gambling.

96 percent demand transparency from AI platforms.

While opinions are divided on the purpose of cryptocurrency, the broad demand for transparency across technologies indicates a cautious view of emerging technology. There is strong demand for robust regulatory frameworks to ensure responsible development.



3.15. Who should invest resources in education and literacy around data governance and privacy?

The government needs to take the lead in investment in data literacy.

Respondents saw the investment of resources in education and literacy around data governance and privacy as primarily being the responsibility of the government, with 98.2 percent in favour. 76.6 percent of respondents thought that the industry should be investing in creating more data literacy, and 58.8 percent thought that non-governmental organisations should do so.

90 percent of respondents believe the government should specify how personal data is used, and 91 percent believe that the industry should do the same.

98 percent think the government should invest in data literacy. 77 percent think the industry should do the same.

People expect similar levels of transparency and public interest investment from both governments and corporations, signaling an equal distribution of accountability. The government and industry are seen as equal contributors to India's digital ecosystem.

3.16. Who should invest resources in supporting women's skilling, education, and leadership in digital technologies?



The government needs to take the lead in supporting women's skilling, education, and leadership in digital technologies.

Respondents felt that the responsibility of investing resources in supporting women's skilling, education, and leadership in digital technologies lies with all three actors: the government, industry, and non-governmental organisations. 97.7 percent thought that the government should be investing resources, 78.7 percent thought that the industry should, and 66.5 percent thought that non-governmental organisations should.



3.17. Do you think India's current laws and institutions are sufficient to tackle current digital monopolies?

Young India is not worried about the country's ability to tackle digital monopolies.

Young India is largely satisfied with India's competition laws for digital companies. 91.9 percent of respondents said they thought current laws and institutions are sufficient to tackle current digital monopolies, one percent said the laws are not yet sufficient but are getting there, and 6.8 percent said that the current laws are insufficient. The two demographic factors that had statistical significance for responses were age and region. There was an inverse relationship between age and satisfaction with the current laws. When asked if the current laws are sufficient, affirmative responses were recorded among 93.6 percent of respondents between the ages of 18-23 years, 92.67 percent of respondents between the ages of 24-29 years, and 88.63 percent of respondents between the ages of 30-35 years. Respondents from northern India were also more likely to think that the laws were sufficient, with 93.48 percent responding "Yes" compared to only 84.99 percent from southern India.

4. India and the World

4.1. Which of the following groups should India cooperate with on regulating new and emerging technologies like AI?



Note: Don't know/ Can't say responses have not been represented in this graph.

4.2. The Indian government plans to permit cross-border data flows to "trusted" jurisdictions. Which of the following economies would you classify as a trusted jurisdiction for India to share its data with?



Note: Don't know/ Can't say responses have not been represented in this graph.

There is low trust in China, and the Quad is the preferred partner for cooperation.

Respondents were asked two questions about cooperation and partnerships with international groupings. Regarding groups that respondents thought India should cooperate with on regulating new and emerging technologies like AI, positive answers were as follows: 78.7 percent for G7 plus 4 (UK, Canada, France, Germany, Italy, Japan, United States, South Korea, Australia, and South Africa), 60.7 percent for BIMSTEC (Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka, Thailand), 50.4 percent for BRICS (Brazil, Russia, India, China, South Africa), 73.8 percent for G20, and 94.2 percent for Quad.

Positive responses for which economies they would classify as trusted jurisdictions for India to share its data with were as follows: 78.6 percent for G7 plus 4, 58.1 percent for BIMSTEC, 51.1 percent for BRICS, 74.2 percent for G20, and 92.9 percent for Quad.

Young India is wary when it comes to China. Any grouping that includes China or countries that China has close relationships with saw a plunge in trust. The Quad was by far the preferred partner for cooperation, regulation, and sharing of data.

5. Trade-Offs in the Digital Trilemma

Existence of the Digital Trilemma

This report postulates the existence of a digital trilemma wherein national security and economic development are consistently chosen over individual privacy. This hypothesis is empirically validated by seeking responses in the survey to questions that represent one of the following two trade-offs: national security versus individual privacy; and economic development versus individual privacy. The digital trilemma is said to exist if all of the following conditions are fulfilled:

Condition 1: If a significant majority of respondents of the survey chooses one value over another in a specific question.

Condition 2: If a significant majority of respondents of the survey consistently chooses the same value across most (more than 50 percent) of questions representing the same trade-off.

Condition 3: If a significant majority of respondents of the survey satisfy the above two conditions in case of both the trade-offs.

Empirical Testing of the Trade-Off Between National Security and Individual Privacy

This exercise is carried out by analysing the responses to the following questions to determine whether conditions 1 and 2 are satisfied for the existence of the digital trilemma.

5.1. Should governments be able to access users' personal data from online platforms if the government suspects any activity that may be harmful to national security?



5.2. Should the government be able to access users' personal data from online platforms in case of emergencies, such as natural disasters or pandemics?



5.3. Should the government share anonymised data with Indian startups so that they can build tech solutions for defence and security applications?





5.4. Are you comfortable with your personal data being shared outside of India to help with law enforcement purposes?

5.5. Do you think VPN services should collect the personal data of users and submit them to national governments for national security and law enforcement purposes?



5.6. End-to-end encryption is a key feature of WhatsApp. Should WhatsApp let the Indian government override this and access users' messages for national security?



More than 94 percent of the respondents were in favour of the government being able to access users' personal data from online platforms either in case of suspicion about harm to national security (96.05 percent) or in case of emergencies such as natural disasters of pandemics (94.84 percent). About 92 percent of respondents support the government sharing anonymised data with Indian startups so that they can build tech solutions for defence and security applications. About 73 percent of the respondents are comfortable with their personal data being shared outside of India to help with law-enforcement purposes. About 92 percent of respondents think that VPN services should collect the personal data of users and submit them to national governments for national security and law enforcement purposes. About 87 percent of the respondents are in agreement with WhatsApp letting the Indian government override end-to end encryption and access users' messages for national security.

From the perspective of region, southern India is consistently the least supportive of national security over individual privacy and demonstrates a relatively greater concern for individual privacy. When asked whether governments should share anonymised data with Indian startups so that they can build tech solutions for defence and security applications, 85 percent of respondents from southern India agreed compared to 94 percent of respondents from western India (which is the region with the largest majority). Similarly, about 68 percent of respondents from southern India with personal data being shared outside of India to help with law-enforcement purposes, much lower than 75 percent, the proportion for the highest scoring region of eastern India.

The variation in the age of respondents appears to have no systematic impact on the support for national security over individual privacy. While a significant majority of respondents from all age groups support national security over individual privacy, there is a large gap between the size of the majority across age groups in some instances. For example, among respondents aged 18-23 years, 76.3 percent were comfortable with their personal data being shared outside of India to help with law-enforcement purposes; among respondents aged 30-35 years, this is 71.5 percent. The proportion of those comfortable with WhatsApp
allowing the Indian government to override encryption and access users' messages for national security is 85 percent among respondents aged 18-23 years and 89 percent among respondents aged 30-35 years.

From the perspective of gender, female respondents consistently outperformed male respondents in supporting national security vis-à-vis individual privacy. In three out of the six questions that empirically test the existence of this trade-off, female support exceeds male support by at least five percent. The proportion of respondents who were comfortable with the government sharing anonymised data with Indian startups so that they can build tech solutions for defence and security applications is 10 percent higher among females (78 percent) than males (68 percent). Differences in the education, employment status, and household income of respondents do not generate any systematic effect on the support lent to national security against individual privacy. However, these differences cause variations in the size of the majority. This is most noticeable in the context of the proportion of people who are comfortable with their personal data being shared outside of India to help with law enforcement purposes. Among categories of employment, the largest majority (recorded by the category of parttime employees) is 81 percent, and the lowest majority (recorded by the category of self-employed/entrepreneurs) is 66 percent. Among categories of education, the largest majority (recorded by the category of those have completed higher secondary education) is 75 percent and the lowest majority (recorded by the category of those who have completed their education till class ten) is 65 percent.

However, it is worth noting that the majority (53 percent) of respondents whose household income is less than or equal to INR 5,000 is not comfortable with their personal data being shared outside of India to help with law-enforcement purposes. For this set of respondents, individual privacy is more important than national security. Except for the "full-time employee" category, the majority, which supports sharing personal data outside of India to help with law-enforcement purposes, is the lowest across every other category of respondents based on classification by demographic factors under study. Clearly, condition 1 is unambiguously satisfied for each question employed for empirically testing the trade-off between national security and individual privacy. While condition 2 is also satisfied, an exercise is conducted to determine whether the set of respondents belonging to the majority in favour of the trade-off is the same across more than 50 percent of the questions. The study finds that 81 percent of respondents belong to the majority, which consistently supports the trade-off across most (more than half) questions that empirically test it. In fact, 58 percent of respondents belong to the majority, which consistently supports the trade-off across *all* questions that empirically test it. This provides strong evidence in favour of the existence of this tradeoff.

There is very small demand for independent oversight for the government to access and share personal data. This is likely the result of a combination of high trust in the government and the country's reactive approach to data privacy.

Empirical Testing of the Trade-Off Between Economic Development and Individual Privacy

This exercise is carried out by analysing the responses to the following questions to determine whether conditions 1 and 2 for the existence of the digital trilemma are satisfied.

5.7. Should the government share anonymised data to homegrown Indian startups so that they can compete with their non-Indian counterparts?



5.8. Are you comfortable with your personal data being processed outside of India so that you can access online services like Google Search, Twitter, or Facebook?



Almost 90 percent of the respondents are comfortable with the government sharing anonymised data to homegrown Indian startups so that they can compete with their non-Indian counterparts. In comparison, the size of the majority of respondents who are comfortable with their personal data being processed outside of India to ensure access to online services like Google Search, Twitter, or Facebook is significantly lower at 75.22 percent.

The size of the majority of respondents from southern India who support economic development over individual privacy is consistently the lowest in comparison with other regions. The proportion of those who are comfortable with their personal data being processed outside of India for access to online services like Google Search, Twitter, or Facebook is 66 percent among respondents in southern India. This proportion is significantly higher at 80 percent among respondents from western India, which is the region with the largest majority. While 82 percent of the respondents from southern India are supportive of the government sharing anonymised data to homegrown Indian startups so that they can compete with their non-Indian counterparts, this proportion is significantly higher, at 92 percent, among respondents from northern India, the region with the largest majority.

Age does not affect the majority support in favour of economic development vis-à-vis individual privacy. Differences in gender also do not bring about any changes in the majority support for economic development over individual privacy. In fact, the proportion of those who are in favour of the government sharing anonymised data to homegrown Indian startups so that they can compete with their non-Indian counterparts is almost the same among male (90.11 percent) and female (89.44 percent) respondents. However, the proportion of those comfortable with their personal data being processed outside of India for access to online services like Google Search, Twitter, or Facebook is 78 percent among male respondents.

Differences in employment status do not affect the majority support for economic development vis-à-vis individual privacy. However, the proportion of those who are comfortable with their personal data being processed outside of India to ensure access to online services like Google Search, Twitter, or Facebook varies across different employment categories. This proportion is 83 percent among respondents who are part-time employees—the category with the largest majority—and significantly lower, at 70 percent, among respondents who are students, the category with the lowest majority.

While the differences in the household incomes of respondents do not induce systematic changes in the majority support expressed for economic development over individual privacy, they do influence the size of the majority across various categories of household income. For example, the proportion of those who are in favour of the government sharing anonymised data to homegrown Indian startups so that they can compete with their non-Indian counterparts is 91 percent among respondents with household incomes between INR 30,001-50,000 and 64 percent among respondents with household incomes over INR 1,00,000.

Clearly, condition 1 is unambiguously satisfied across each question employed for empirically testing the trade-off between economic development and individual privacy. While condition 2 is also satisfied, an exercise is conducted to determine whether the set of respondents belonging to the majority in favour of the trade-off is the same across all questions. The study finds that 69 percent of respondents belong to the majority, which consistently supports the trade-off across *all* questions that empirically test it. This provides strong evidence in favour of the existence of this trade-off.

Assessment of Condition 3 for the Existence of the Digital Trilemma

The study finds that 61 percent of the respondents support both national security and economic development over individual privacy across the majority of the questions that empirically test these trade-offs. This suggests evidence in favour of the existence of the digital trilemma. However, only about 48 percent of respondents support both national security and economic development over individual privacy across all questions that empirically test these trade-offs.

6. Calculating Odds of Responses

Interaction Between Demographic Factors and the Probability of Responses

The study attempts a quantitative mapping of demographic factors to the probability of responses across certain questions. This is done by employing a multinomial logistic regression across the four questions under consideration. The model specifications and results are listed in Appendix C.

In order to arrive at the equation used for computing the odds of responding "Yes" versus "No" to Q5.1, equation (1) is estimated. The results of this exercise are tabulated in Table 1. Based on the criteria for statistical significance of coefficients and Akaike's Information Criterion for model selection, the following model has been finalised for determining the odds of responding "Yes" versus "No".

Equation (1): $\frac{Prob(response=Yes)}{Prob(response=No)} = \exp(3.682629 - 0.2641399 * x_{21} - 0.9212361 * x_{22} + 0.1928073 * x_{23} + 0.74606768 * x_{31} + 0.54247176 * x_{32} + 0.8742965 * x_{33} - 1.742634 * x_{34} + 34.8947948 * x_{35} - 1.164341 * x_{36} - 0.7536395 * x_{51})$

The odds of responding "Yes" versus "No" for a respondent belonging to the reference category—a female aged 18-23 years from eastern India with household income in the range INR 15,001-30,000—are 39.75. The probability of responding "Yes" far exceeds the probability of responding "No". Differences in region, income, and gender bring about changes in the odds of responding "Yes" versus "No" relative to the reference category.

All other variables remaining constant, the odds for responding "Yes" versus "No" are lower by 60 percent when the respondent comes from southern India rather than eastern India. All other variables remaining constant, the respondent is two times more likely to respond "Yes" rather than "No" when the respondent's household income increases from INR 15,001-30,000 to INR 30,001-50,000. All other variables remaining constant, the odds of

responding "Yes" rather than "No" are lower by 82 percent when the respondent's household income increases from INR 15,001-30,000 to more than INR 1,00,000. Similarly, all other variables remaining constant, the odds of responding "Yes" than "No" are lower by 69 percent when the respondent's household income decreases from INR 15,001-30,000 to INR 5,001-15,000. All other variables remaining constant, the odds of responding "Yes" than "No" are lower by 53 percent when the respondent is a male rather than a female.

Following the same procedure for as Q5.1 the following model is determined that defines the odds of responding "Yes" versus "No" to Q5.4:

Equation (4): $\frac{Prob(response=Yes)}{Prob(response=No)} = \exp(0.770873 - 0.09594247 * x_{21} - 0.2446037 * x_{22} - 0.1480718 * x_{23} + 0.3448549 * x_{31} + 0.445185 * x_{32} + 0.1749093 * x_{33} - 0.2580342 * x_{34} + 23.640442 * x_{35} - 0.9281603 * x_{36} + 0.2575764 * x_{41} + 0.3380858 * x_{42} + 0.1607718 * x_{43} + 0.2139093 * x_{44} - 0.4750613 * x_{51} - 0.1140245 * x_{61} + 0.4530183 * x_{62} - 0.1160977 * x_{63} + 0.3120057a_{64} * x_{64})$

The odds of responding "Yes" versus "No" for the respondent belonging to the reference category are 2.16. The probability of responding "Yes" far exceed the probability of responding "No". In this case, differences in region, income, education, gender, and employment appear to result in significant changes in the odds of responding "Yes" versus "No". All other variables remaining constant, the odds for responding "Yes" versus "No" are lower by 22 percent among respondents from southern India compared to eastern India. All other variables remaining constant, the odds of responding "Yes" versus "No" are higher by 41 percent when the respondent's household income increases from INR 15,001-30,000 to INR 30,001-50,000. All other variables remaining constant, the odds of responding "Yes" rather than "No" are higher by 56 percent when the respondent's household income increases from INR 15,001-30,000 to INR 50,001-75,000. Similarly, all other variables remaining constant, the odds of responding "Yes" than "No" are lower by 60 percent when the respondent's household income decreases from INR 15,001-30,000 to INR 5,001-15,000. All other variables remaining constant, the odds of responding "Yes" than "No" are lower by 53 percent when the respondent is male rather than female. All other variables remaining constant, the odds for responding "Yes" versus "No" are higher by 40 percent when the respondent's education level is a master's degree or higher compared to higher secondary. All other variables remaining constant, the odds for responding "Yes" versus "No" are higher by 43 percent for respondents whose education level is a master's or higher compared to respondents with a bachelor's. All other variables remaining constant, the odds of responding "Yes" versus "No" are lower by 38 percent when the respondent is male rather than female. All other variables remaining constant, the odds of responding "Yes" versus "No" are higher by 57 percent when the respondent's employment status changes from full-time employee to part-time employee. All other variables remaining constant, the odds of responding "Yes" versus "No" are higher by 37 percent when the respondent's employment status changes from full-time employee to student.

Following the same procedure as for Q5.1 and Q5.4, the following model is determined that defines the odds of responding "Yes" versus "No" to Q5.7:

Equation (2): $\frac{Prob(response=Yes)}{Prob(response=No)} = \exp(1.976589 + 0.1572603 * x_{21} - 0.8113601 * x_{22} + 0.04426453 * x_{23} + 0.5998072 * x_{31} + 0.6117012 * x_{32} + 0.128633 * x_{33} - 1.145391 * x_{34} + 36.23326841 * x_{35} - 0.2109802 * x_{36})$

The odds of responding "Yes" versus "No" for a respondent belonging to the reference category are 7.22. The probability of responding "Yes" far exceeds the probability of responding "No". In this case, only differences in region and income appear to result in significant changes in the odds of responding "Yes" versus "No". All other variables remaining constant, the odds for responding "Yes" versus "No" are lower by 56 percent when the respondent comes from southern India rather than eastern India. All other variables remaining constant, the odds of responding "Yes" versus "No" are higher by 82 percent when the respondent's household income increases from INR 15,001-30,000 to INR 30,001-50,000. All other variables remaining constant, the odds of responding "Yes" versus "No" are higher by 84 percent when the respondent's household income increases from INR 15,001-30,000 to INR 50,001-75,000. All other variables remaining constant, the odds of responding "Yes" rather than "No" are higher by 14 percent when the respondent's household income increases from INR 15,001-30,000 to more than INR 1,00,000.

Following the same procedure as the previous questions, the following model is determined that defines the odds of responding "Yes" versus "No" to Q5.8:

Equation (3): $\frac{Prob(response=Yes)}{Prob(response=No)} = \exp(1.392905 - 0.2004003 * x_{11} - 0.2672192 * x_{12} - 0.2646933 * x_{21} - 0.6331803 * x_{22} - 0.02138352 * x_{23} + 0.2933662 * x_{41} + 0.3323849 * x_{42} + 0.4894517 * x_{43} + 0.355091 * x_{44} - 0.2947084 * x_{51} - 0.1121406 * x_{61} + 0.2966766 * x_{62} - 0.13264294 * x_{63} - 0.2782297a_{64} * x_{64})$

The odds of responding "Yes" versus "No" for a respondent belonging to the reference category are 4.03. The probability of responding "Yes" far exceeds the probability of responding "No". In this case, differences in age, region, education, gender, and employment appear to result in significant changes in the odds of responding "Yes" versus "No". All other variables remaining constant, the odds for responding "Yes" versus "No: are lower by 24 percent when the respondent's age increases from the range 18-23 years to the range 30-35 years. All other variables remaining constant, the odds for responding "Yes" versus "No" are lower by 23 percent when the respondent comes from northern India rather than eastern India. All other variables remaining constant, the odds for responding "Yes" versus "No" are lower by 47 percent when the respondent comes from southern India rather than eastern India. All other variables remaining constant, the odds for responding "Yes" versus "No" are higher by 63 percent when the respondent's education level is reduced from a master's or higher to diploma/vocational training. All other variables remaining constant, the odds for responding "Yes" versus "No" are higher by 39 percent when the respondent's education level is reduced from a master's or higher to higher secondary. All other variables remaining constant, the odds for responding "Yes" versus "No" are higher by 43 percent when the respondent's education level is reduced from a master's or higher to a bachelor's. All other variables remaining constant, the odds of responding "Yes" versus "No" are lower by 26 percent when the respondent is a male rather than a female. All other variables remaining constant, the odds of responding "Yes" versus "No" are lower by 11 percent when the respondent's employment status changes from full-time employee to part-time employee.

7. Logit Testing the Digital Trilemma

This report employs a series of logit and probit models to examine the hypothesis of the existence of a digital trilemma. This was done by examining the likelihood of the respondents choosing a particular aspect of the trilemma when faced with a trade-off between national security, economic development, and individual privacy. Each logit and probit model assessed the impact of the various demographic characteristics of the respondents, such as region, gender, income level, age, education level, and employment status, on their preferences in these trade-offs.

For the purposes of analysis in each question, either a logit or a probit model was used to determine the statistical significance in the data. The final selection of the model was based on its superior predictive performance, which was indicated by lower Mean Squared Error (MSE) and Akaike Information Criterion (AIC) values compared to alternative specifications. The MSE was used to measure the average squared difference between the observed and predicted values, providing a gauge of the model's accuracy, while the AIC evaluated the model's goodness-of-fit, balancing fit and complexity, with lower values indicating a more efficient model.

Individual Privacy versus National Security

1. Should governments be able to access users' personal data from online platforms if the government suspects any activity that may be harmful to national security?



The logit model analysed the likelihood of individuals responding "Yes" to whether governments should be able to access users' personal data from online platforms if they suspect harmful activity to national security. This model's election is supported by its lower MSE and AIC values compared to alternative specifications.

The significant predictors include being from the south, being male, and income levels. Specifically, individuals from the south were significantly less likely to respond "Yes" compared to those from the east. Males were also significantly less likely to respond "Yes" compared to females. Income level shows a strong positive effect, with low-income ($\beta = 1.786$, p < 0.01) and middle-income ($\beta = 2.571$, p < 0.01) individuals significantly more likely to respond "Yes" compared to high-income individuals. Other variables, such as being a millennial, being from the north or west regions, having pursued education till class XII, and being unemployed, did not significantly affect the likelihood of responding "Yes". The constant term is positive and significant, indicating the baseline likelihood of responding "Yes" when all predictors are at their reference levels.

2. Are you comfortable with your personal data being shared outside of India to help with law enforcement purposes?



The probit model evaluates the likelihood of individuals responding "Yes" to whether they are comfortable with their personal data being shared outside of India to help with law enforcement purposes. This model's selection is supported by its lower MSE and AIC values compared to alternative specifications.

The significant predictors include age, region, gender, and income. Millennials are significantly less likely to be comfortable compared to Gen-Z individuals (β = -0.178, p < 0.01), indicating a lower comfort level with data sharing for law enforcement purposes among millennials. Similarly, individuals from the south are significantly less comfortable compared to those from the east (β = -0.181, p < 0.05). Males are also significantly less likely to be comfortable with their data being shared outside of India for law enforcement purposes compared to females (β = -0.310, p < 0.01). Among income levels, individuals in middle-income groups are significantly more likely to be comfortable compared to those in high-income groups (β = 0.473, p < 0.05). Other variables, such as being from the north or west regions, having pursued education till class XII, and being unemployed, do not significantly affect the likelihood of being comfortable with data sharing for law enforcement purposes. The constant term is positive and significant (β = 0.565, p < 0.05), indicating a baseline likelihood of responding "Yes" when all predictors are at their reference levels.

National Security versus Economic Development

3. Should the government be able to temporarily shut down internet services in certain areas for the purposes of national security?



The logit model assesses the likelihood of individuals responding "Yes" to whether the government should be able to temporarily shut down internet services in certain areas for national security purposes. This model's selection is supported by its lower MSE and AIC values as compared to alternative specifications.

Significant predictors include region and education level. Specifically, individuals from the south are significantly less likely (β = -1.130, p < 0.01) to support temporary internet shutdowns compared to those from the east. Additionally, those who pursued education till class XII are significantly less likely (β = -0.355, p < 0.05) to support such measures compared to those who pursued education after class XII. Other variables, including being a millennial, being from the north or west regions, being male, being unemployed, and income levels, do not significantly affect the likelihood of supporting internet shutdowns. The constant term is not significant, indicating no significant baseline likelihood of responding "Yes" when all predictors are at their reference levels. The unusually large coefficients and standard errors for income levels suggest potential issues with data quality or model convergence in these categories.

4. Should foreign tech companies and online service providers abide by Indian data and individual privacy regulations?



The logit model evaluates the likelihood of individuals responding "Yes" to whether foreign tech companies and online service providers should abide by Indian data and individual privacy regulations.

Significant predictors include region and income levels. This model's selection is supported by its lower AIC values compared to alternative specifications. Individuals from the south are significantly less likely (β = -1.852, p < 0.01) to support this idea compared to those from the east, indicating a lower level of agreement among respondents from the south. Among income levels, those in middle-income groups are significantly more likely (β = 2.013, p < 0.01) to support this idea compared to those in high-income groups. Other variables, such as age, being from the north or west regions, gender, education level, and employment status, do not significantly influence the likelihood of supporting this regulation. The constant term is positive and significant (B = 2.548, p < 0.01), indicating a strong baseline likelihood of responding "Yes" when all predictors are at their reference levels. Overall, the model suggests that region (specifically the south) and middle income significantly affect support for foreign tech companies adhering to Indian data and privacy regulations, while other factors do not show a significant impact.

Economic Development versus Individual Privacy

5. Should the government share anonymised data to homegrown Indian startups so that they can compete with their non-Indian counterparts?



The logit model evaluates the likelihood of individuals responding "Yes" to the question of whether the government should share anonymised data to help Indian startups compete with their non-Indian counterparts. This model's selection is supported by its lower MSE and AIC values compared to alternative specifications.

The model highlights several significant predictors. Individuals from the south are significantly less likely to respond "Yes" compared to those from the east. Those who pursued education till class XII are more likely to respond "Yes" compared to those who pursued education till class X. Income levels also play a significant role; individuals with low incomes ($\beta = 1.058$, p < 0.05) and middle incomes ($\beta = 1.715$, p < 0.01) are more likely to respond "Yes" compared to high-income individuals. Other variables, such as being a millennial, being from the north or west regions, being male, and being unemployed, do not significantly influence the likelihood of responding "Yes". The constant term is not significant, indicating that the baseline likelihood of responding "Yes" when all predictors are at their reference levels is not significantly different from 0.

6. Are you comfortable with your personal data being processed outside of India so that you can access online services like Google Search, Twitter, or Facebook?



The logit model evaluates the likelihood of individuals responding "Yes" to the question of whether they are comfortable with their personal data being processed outside of India to access online services like Google, Twitter, or Facebook. This model's selection is supported by its lower MSE and AIC values as compared to alternative specifications.

The significant predictors include age, region, gender, and occupation. Millennials are significantly less likely to respond "Yes" compared to Gen-Z individuals, indicating less comfort with their personal data processing outside India. Similarly, individuals from the south are significantly less likely to be comfortable with their data being processed outside of India compared to those from the east. Males are also significantly less comfortable with data being processed abroad compared to females. Additionally, unemployed individuals show significantly lower comfort levels compared to those who are employed or in other occupations (β = -0.248, p < 0.05). Other variables, such as being from the north or west regions, having pursued education till class XII, and income levels, do not significantly affect the likelihood of responding "Yes". The constant term is positive and significant ($\beta = 1.790$, p < 0.01), indicating a baseline likelihood of responding "Yes" when all predictors are at their reference levels.



Scope for Future Research

his second edition of the Young India and Tech Survey sheds light on the perspectives of the nation's youth on the digital trilemma. The survey reveals Young India's concerns about emerging challenges, prioritising economic development and national security over individual privacy. While the survey has attempted to be comprehensive, the sample size was limited, at 3,414. Given India's population, a larger sample would be more appropriate to reflect on population statistics, but this was not possible in this edition due to time and budget constraints. Further, the coverage of 22 cities represents only a limited urban perspective in the questionnaire. As more testable hypotheses emerge, there is a need to focus specifically on the trade-off between economic development and national security—a theme that will be addressed in future editions of the survey.

The 2024 survey maps choices across India's geography. For future research, it will also be beneficial to map choices across socioeconomic factors such as income, gender, and education. This will provide a better representation of perceptions across demographic characteristics, and vice-versa.



A. City-Wise Frequency Distribution of the Sample

Region	City	Sample Size	Per- centage	Male	Female
East	Bhubaneswar	150	4.39	75	75
	Guwahati	150	4.39	75	75
	Kolkata	200	5.86	100	100
North	Dehradun	152	4.45	76	76
	Indore	150	4.39	75	75
	Jaipur	151	4.42	75	76
	Lucknow	151	4.42	76	75
	Ludhiana	150	4.39	75	75
	New Delhi	201	5.89	100	101
	Patna	150	4.39	75	75
	Raipur	150	4.39	75	75
	Ranchi	154	4.51	78	76
	Shimla	150	4.39	75	75
	Srinagar	100	2.93	50	50
South	Bangalore	153	4.48	79	74
	Chennai	200	5.86	100	100
	Hyderabad	150	4.39	75	75
	Kozhikode	150	4.39	75	75
	Lakshadweep + Andaman and Nicobar Islands	100	2.93	50	50
West	Ahmedabad	150	4.39	75	75
	Goa	150	4.39	75	75
	Mumbai	202	5.92	100	102



B. Frequency Distribution of the Sample by Socioeconomic Factors







4. Education



5. Monthly Income



c. Model Specifications for the Interaction Between Demographic Factors and the Probability of Responses

In questions 5.1, 5.4, 5.7, and 5.8, the following equation is estimated:

$$ln\left(\frac{Prob(response=Yes)}{Prob(response=No)}\right) = a_0 + a_{11} * x_{11} + a_{12} * x_{12} + a_{21} * x_{21} + a_{22} * x_{22} + a_{23} * x_{23} + a_{31} * x_{31} + a_{32} * x_{32} + a_{33} * x_{33} + a_{34} * x_{34} + a_{35} * x_{35} + a_{36} * x_{36} + a_{41} * x_{41} + a_{42} * x_{42} + a_{43} * x_{43} + a_{44} * x_{44} + a_{51} * x_{51} + a_{61} * x_{61} + a_{62} * x_{62} + a_{63} * x_{63} + a_{64} * x_{64}$$

Where:

- a_0 : The log odds of responding "Yes" versus "No" by the reference category, in this, case, a full-time employed female from east India aged between 18-23 years with household income in the range INR 15,001-30,000 and has master's degree or higher
- a_{11} : Increase in the log odds of responding "Yes" versus "No" when the age of the respondent from the reference category changes from the range 18-23 years to the range 24-29 years
- a_{12} : Increase in the log odds of responding "Yes" versus "No" when the age of the respondent from the reference category changes from the range 18-23 years to the range 30-35 years
- a_{21} : Increase in the log odds of responding "Yes" versus "No" when the region of the respondent from the reference category changes from east India to north India
- a_{22} : Increase in the log odds of responding "Yes" versus "No" when the region of the respondent from the reference category changes from east India to south India
- a_{23} : Increase in the log odds of responding "Yes" versus "No" when the region of the respondent from the reference category changes from east India to west India
- a_{31} : Increase in the log odds of responding "Yes" versus "No" when the income of the respondent from the reference category changes from the range INR 15,001-30,000 to INR 30,001- to 50,000
- a_{32} : Increase in the log odds of responding "Yes" versus "No" when the income of the respondent from the reference category changes from the range INR 15,001-30,000 to INR 50,001- to 75,000

- a_{33} : Increase in the log odds of responding "Yes" versus "No" when the income of the respondent from the reference category changes from the range INR 15,001-30,000 to INR 75,001-1,00,000
- a_{34} : Increase in the log odds of responding "Yes" versus "No" when the income of the respondent from the reference category changes from the range INR 15,001-30,000 to more than INR 1,00,000
- a_{35} : Increase in the log odds of responding "Yes" versus "No" when the income of the respondent from the reference category changes from the range INR 15,001-30,000 to less than INR 5,000
- a_{36} : Increase in the log odds of responding "Yes" versus "No" when the income of the respondent from the reference category changes from the range INR 15,001-30,000 to INR 5,001-15000
- a_{41} : Increase in the log odds of responding "Yes" versus "No" when the education of the respondent from the reference category changes from master's or higher to their education till class ten
- a_{42} : Increase in the log odds of responding "Yes" versus "No" when the education of the respondent from the reference category changes from master's or higher to higher secondary
- a_{43} : Increase in the log odds of responding "Yes" versus "No" when the education of the respondent from the reference category changes from master's or higher to diploma/ vocational training
- a_{44} : Increase in the log odds of responding "Yes" versus "No" when the education of the respondent from the reference category changes from master's or higher to bachelor's
- a_{51} : Increase in the log odds of responding "Yes" versus "No" when the gender of the respondent from the reference category changes from female to male
- a_{61} : Increase in the log odds of responding "Yes" versus "No" when the employment status of the respondent from the reference category changes from full-time employee to not currently employed
- a_{62} : Increase in the log odds of responding "Yes" versus "No" when the employment status of the respondent from the reference category changes from full-time employee to part-time employee

- a_{63} : Increase in the log odds of responding "Yes" versus "No" when the employment status of the respondent from the reference category changes from full-time employee to self-employed/entrepreneur
- a_{64} : Increase in the log odds of responding "Yes" versus "No" when the employment status of the respondent from the reference category changes from full-time employee to student
- x_{11} : Takes the value 1 when age of respondent is 24-29 years, and 0 otherwise
- x_{12} : Takes the value 1 when age of respondent is 30-35 years, and 0 otherwise
- x_{21} : Takes the value 1 when region of respondent is north India, and 0 otherwise
- x₂₂: Takes the value 1 when region of respondent is south India, and 0 otherwise
- x₂₃: Takes the value 1 when region of respondent is west India, and 0 otherwise
- x_{31} : Takes the value 1 when income of respondent is in the range INR 30,001-50,000, and 0 otherwise
- *x*₃₂: Takes the value 1 when income of respondent is in the range INR 50,001-75,000, and 0 otherwise
- x_{33} : Takes the value 1 when income of respondent is in the range INR 75,001-1,00,000, and 0 otherwise
- x₃₄: Takes the value 1 when income of respondent is more than INR 1,00,000, and 0 otherwise
- x_{35} : Takes the value 1 when income of respondent is INR 5000 or less, and 0 otherwise
- *x*₃₆: Takes the value 1 when income of respondent is in the range INR 5001- 15000, and 0 otherwise
- x₄₁: Takes the value 1 when the education of the respondent is till class ten, and 0 otherwise
- *x*₄₂: Takes the value 1 when the education of the respondent is higher secondary, and 0 otherwise
- x_{43} : Takes the value 1 when the education of the respondent is diploma/vocational training, and 0 otherwise

- x_{44} : Takes the value 1 when the education of the respondent is bachelor's, and 0 otherwise
- x_{51} : Takes the value 1 when the gender of the respondent is male, and 0 otherwise
- x_{61} : Takes the value 1 when the employment status of the respondent is not currently employed, and 0 otherwise
- x_{62} : Takes the value 1 when the employment status of the respondent is part-time employee, and 0 otherwise
- x_{63} : Takes the value 1 when the employment status of the respondent is self-employed/ entrepreneur, and 0 otherwise
- *x*₆₄: Takes the value 1 when the employment status of the respondent is student, and 0 otherwise

Estimation of Equation in Case of Q5.1

Coefficient	Estimate	p-value
<i>a</i> ₀	3.6113693	2.007750e-11
<i>a</i> ₁₁	0.1424189	0.6045048
<i>a</i> ₁₂	0.0190198	0.9509963
a ₂₁	-0.3041109	0.2934728
a ₂₂	-0.9076720	0.001066946
a ₂₃	0.1498164	0.6866568
<i>a</i> ₃₁	0.67044921	0.01113408
a ₃₂	-0.06940868	0.1255544
a ₃₃	0.9279215	0.2278749
a ₃₄	-1.731967	0.0006239689
<i>a</i> ₃₅	72.30743253	NaN
a ₃₆	-1.147667	0.02446979
<i>a</i> ₄₁	0.4171413	0.48356669
a ₄₂	0.5961741	0.1272628
<i>a</i> ₄₃	0.05468755	0.90596790
a ₄₄	0.5194794	0.1047418
<i>a</i> ₅₁	-0.9962587	3.613785e-05
a ₆₁	-0.9166536	0.008042336
a ₆₂	-0.2678602	0.4226787
a ₆₃	-0.1638448	0.5773334
a ₆₄	-0.2099663	0.5511391

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