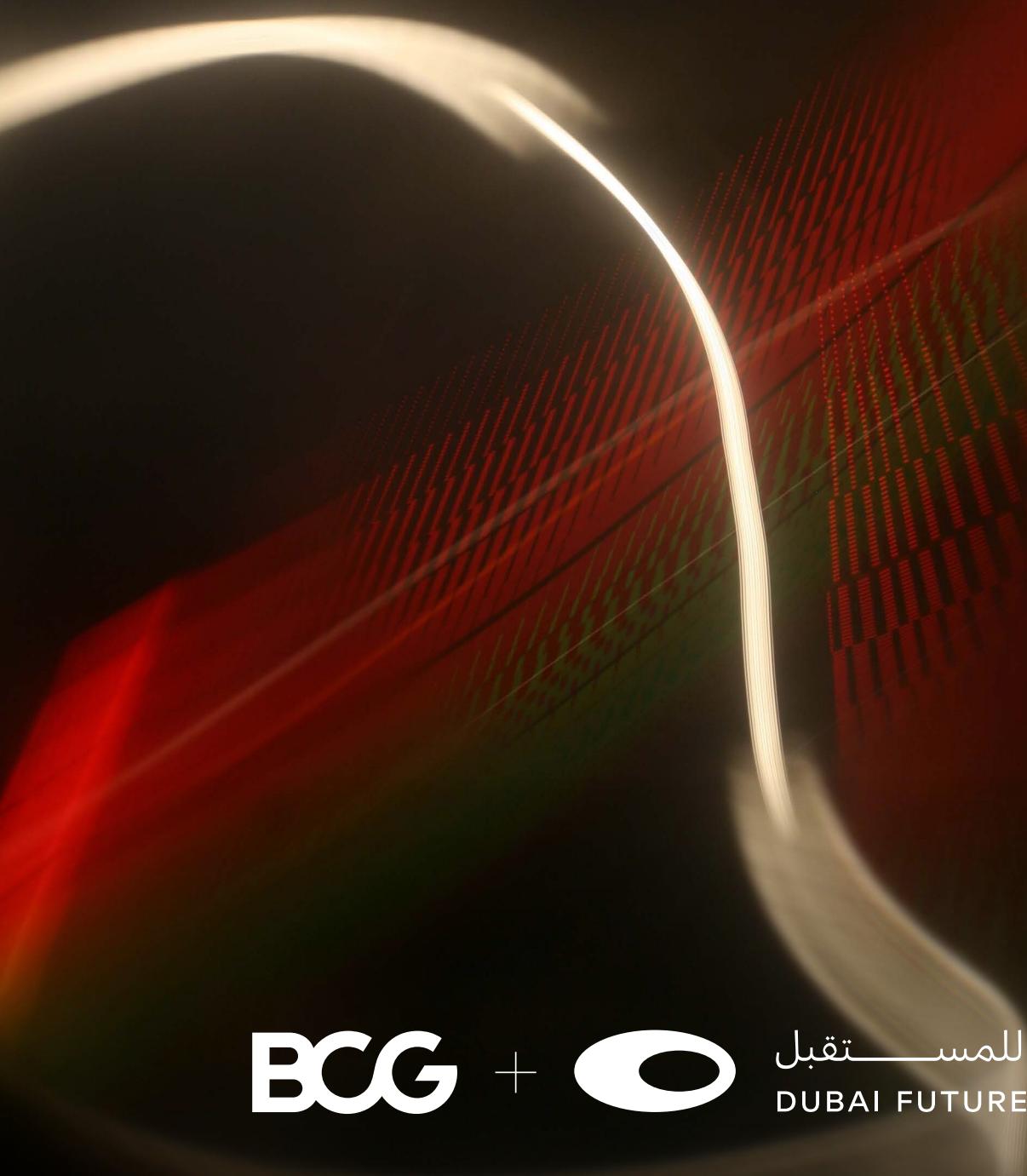


# Steering the GenAI Ship: Policy Considerations for a Smart and Resilient Future

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مؤسسة دبي للمستقبل  
DUBAI FUTURE FOUNDATION

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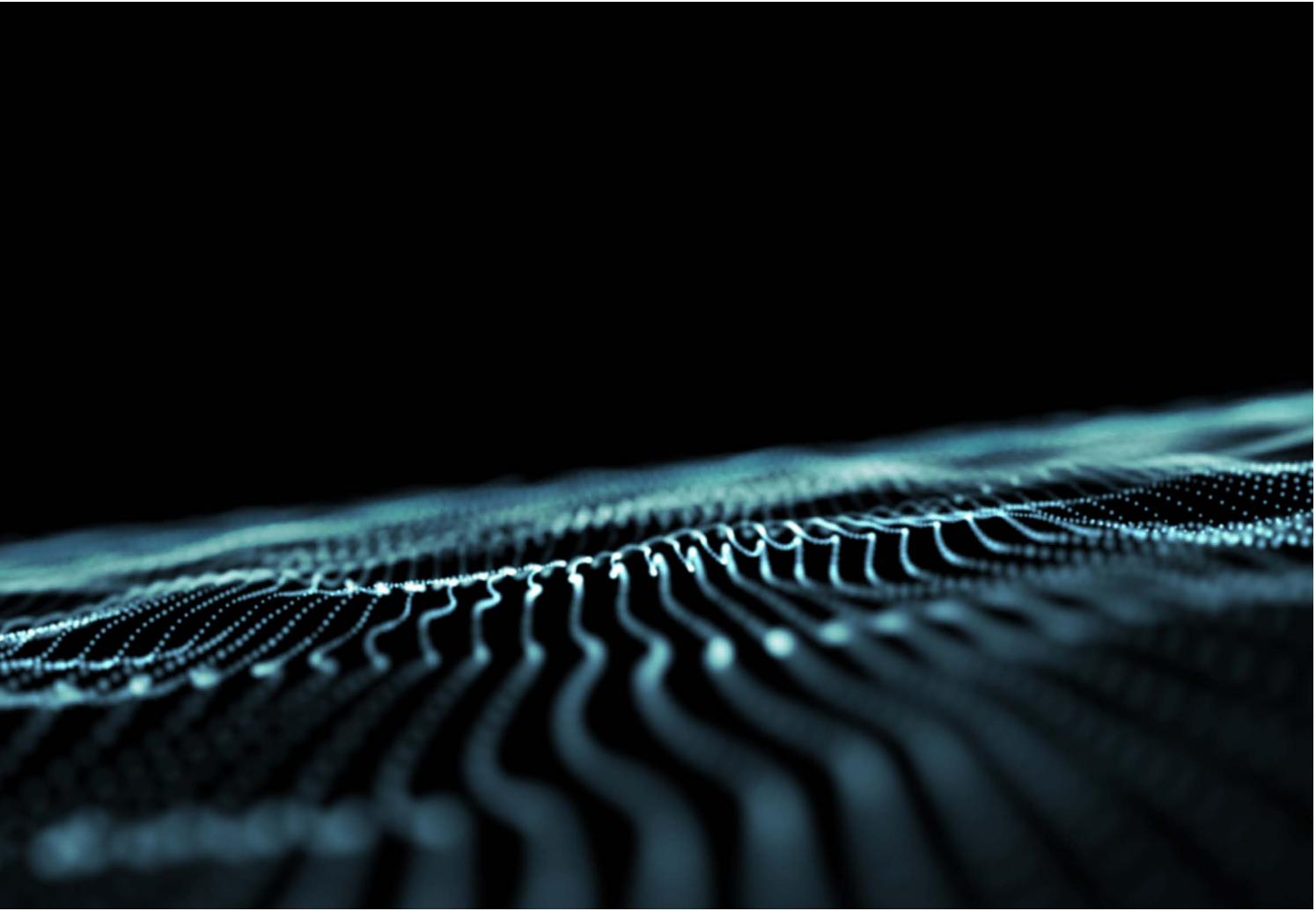
## **The unprecedented growth of GenAI presents immense opportunities for economic growth, as well as new implications for policymakers and regulators committed to heightening their need for preparedness**

From the cloud to blockchain, a litany of technologies have vied to be frontrunners in revolutionizing the world in the last half decade. However, none have been coronated like Generative Artificial Intelligence (GenAI), whose emergence has captured the attention of corporations, journalists, students, and even governments. Until January 2023, the most used GenAI application, ChatGPT, had signed up 100 million users in less than two months, the fastest growing user-base in history at the time, beating TikTok which took nine months to record similar numbers. And while ChatGPT was subsequently dethroned by Meta's latest social media foray, Threads, which achieved the feat in five days, the emergence of new platforms continues to push GenAI deeper into the mainstream consciousness of internet users worldwide.

Could the adoption of GenAI systems surpass that of social media and the smartphone? We will find out soon enough, but the following quote about the rise of the

Internet from a Newsweek article in 1995 should help pare down any dismissive opinions naysayers might have: "The truth is that no online database will replace your daily newspaper, no CD-ROM can take the place of a competent teacher, and no computer network will change how the government works".

As GenAI systems proliferate in areas as varied as government services and business processes to translation services and the news, the fact is becoming clearer than ever: we are witnessing an astonishing and exponential growth of opportunities in innovation, efficiency, and personalized solutions, as the potential of GenAI systems becomes more familiar to the world. But as with the growth of any new paradigm-shifting technology, GenAI's rapid increase also presents policymakers, and in particular national security practitioners, with cause for consideration.



# The Basics of GenAI

**A**I is a machine's ability to imitate intelligence, often through a learning process. Traditional AI is used by both public and private organizations across industries and geographies. It relies on supervised training to classify and analyze data that it is provided with, and responds to specific inputs by detecting patterns, making conclusions, and predicting outcomes accurately. This technology can perform a variety of actions based on input data, including advising the decision-making processes or controlling robots.

On the other hand, where traditional AI classifies existing data, GenAI generates new content creatively. Because it is trained on data of various formats and employs AI algorithms capable of detecting complex patterns, it can generate new outputs while unsupervised. By building on prior advances in deep learning and machine learning,

GenAI demonstrates high levels of creativity that allow it to generate unique content such as audio, code, images, text simulations, and videos. This is why GenAI is showing tremendous potential in commercial areas such as content creation, marketing and sales, research, and more.

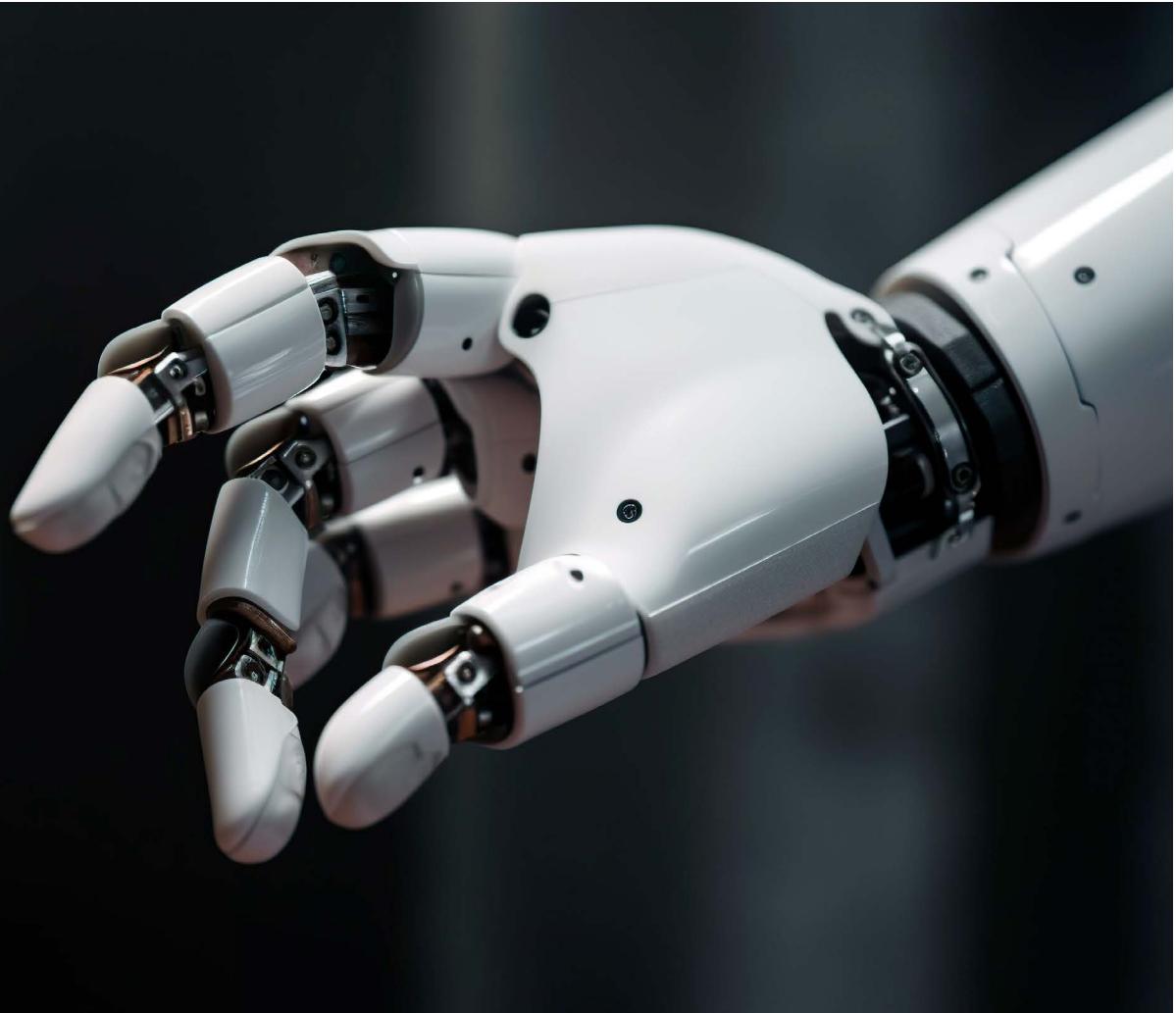
In a controlled BCG study, GenAI has demonstrated the ability to improve performance on tasks involving ideation and content creation by an average of 40%, and even up to 90%, when compared to performance on similar tasks that were processed without relying on the technology. Such dramatic results demonstrate AI's ability to reimagine processes, enable competitive advantage, and remake industries. Such results are encouraging a wide and fast-growing field of organizations to pursue fully integrating AI into their structures and transforming into future-built companies.

## How does GenAI's rise compare with other viral technologies?

GenAI's potential has led to a surge in media, corporate and consumer interest around the world, especially thanks to OpenAI's ChatGPT platform, which is currently running the fourth version of its GPT language learning model (LLM). Where Spotify took 150 days and Instagram took 75, ChatGPT took just 5 days to record 1 million users. The astounding scale of growth is trumped only by the fact that its growth continued to accelerate, reaching 100 million users in 2 months. ChatGPT has so far recorded the fastest growth rate of any technology in history, and it is fueling

further interest in an industry that has already seen \$2.7 billion invested between 2021 and 2022.

Anticipating a boon for its own fortunes, Microsoft has invested \$10 billion to bring its GenAI potential to its Bing platform, renew its search-engine rivalry with Google, and explore ways to integrate it across its suite of productivity software. Meanwhile, Google has also announced its own GenAI-powered search engine called Bard, Chinese tech giant Baidu has launched a GenAI search bot called ERNIE, and social question and answer website Quora has released its own GenAI service called Sage.



## An Undeniable Tech Revolution

Tech giants competing to maintain their primacy through revamped search engines and chatbots aren't the only arena in which GenAI's potential is surging. It was merely a few months ago that Adobe's Sensei had begun enabling GenAI-powered text-based assistance across its suite of audio, visual and marketing platforms. Platforms such as Midjourney and Stable Diffusion had birthed a whole new world of AI-generated art, and companies such as Scenario AI continue to successfully raising funding to perfect AI technology that can generate 3D video game characters and scenes using conversational inputs.

Simultaneously, a flood of low- or no-code AI applications running GenAI are entering the market and promising to transform the entire gamut of business operations for enterprises of all sizes. Rows and Rowy are offering to turn novices into spreadsheet gurus and help businesses

become smart by automating the conversion of data into reports. Squarespace wants to leverage GenAI to help smaller businesses build websites faster. Durable is offering small businesses a whole suite of marketing, finance, HR and web services, all powered by the transformative power of GenAI. Additionally, on the back of its first ever conference for developers in November 2023, OpenAI has launched the first-ever app store for an AI platform to complement the far-reaching capabilities of its language learning model. OpenAI will also play a large part in enabling the potential of Microsoft's first change to its keyboards in three decades, the introduction of a dedicated 'AI key' to allow access to Copilot, its new AI tool for Windows 11. Meanwhile, Google has enjoyed success with its ChatGPT competitor Bard and is in the process of integrating it with Gemini, its cutting-edge image generation model which is capable of generating diverse and high-fidelity graphics.

As new GenAI solutions are rolled out weekly, businesses and governments are rushing to take advantage of an undeniable, and unavoidable, tech revolution. The new tech gold rush has led to skyrocketing demand for graphics processing units (GPUs). Previously considered valuable primarily to video gamers, the ability of GPUs to handle multiple complex calculations simultaneously makes them adept at handling complex analytics, research, and AI. It's why Nvidia's stock has risen by 200% in less than eight months to become only the fifth trillion-dollar company by market capitalization in the world.

Governments around the world are now exploring the potential of analytics processing in research and AI and accelerating investments. The US Department of Energy has allocated \$1.8 billion to build 2 exascale supercomputers (sourcing GPUs from NVIDIA) for scientific research; the UK Treasury will spend upwards of \$1 billion to build its own exascale 'BritGPT'; both the EU and Japan have also budgeted a combined \$1.5 billion to build their own computers roughly a thousand times more powerful than any supercomputer in existence.

## AI's projected economic impact

ChatGPT exponentializing the awareness and use of GenAI technology across diverse domains is evidence of how the rapid evolution of GenAI presents a transformative landscape for nations worldwide. GenAI's advancements offer countries with widespread adoption an incredible opportunity to drive commercial opportunities, stimulate economic activity, and push the boundaries of innovation.

By just 2025, the GenAI global market is estimated to reach up to \$100 billion, or 30% of the size of the total AI market. The ability to inject some serious horsepower isn't limited to mere speculations or confined to lab spaces. Industries, ranging from healthcare to entertainment, are already experiencing the transformative impact of GenAI in most systematic or creative tasks, including but not limited to accounting, coding, translation services, and game design.

As more organizations join the movement to explore implementations of GenAI, the expected automation of workplace tasks at an unprecedented scale could lead to significant increases in productivity and GDP. Tech giants, the influential frontrunners in the technological arena, are already taking note of this and rapidly integrating GenAI extensions to automate their myriad services, helping shape a future where customer service queries are managed efficiently by AI, and intricate software glitches are resolved without human intervention.

Findings from MIT and Goldman Sachs suggest GenAI could automate 18% of workplace operations, freeing up more than a third of the time workers take to complete mundane administrative responsibilities and allowing

them to devote more brain space to complex problem-solving scenarios. The resulting boost to innovation is projected to increase global GDP by 7% in 10 years and will be felt across all parts of the business sector, from ideation to commercialization.

Novel innovation resulting from GenAI stands to unlock new value for corporations as well as startups, be it in AI-enabled virtual assistants guiding users online, or the intricate algorithms powering autonomous vehicles. Productivity gains will also be felt across every step of the innovation value chain, including discovery, development, and deployment. And as GenAI use grows, its benefits could end up surpassing economic or productivity-related parameters to encompass avenues where creatives harness it to draft episodic screenplays or produce groundbreaking and visually enthralling artwork that captivates audiences.

## Emerging risks

Growth in GenAI usage also presents significant multi-sector risks, especially those related to the ever-expanding remit of national security concerns around the economy, politics, society, military, and cybersecurity.

### MISINFORMATION CAMPAIGNS

The ability to generate mountains of content on command will inundate information networks, complicating the task of discerning misinformation and disinformation. Sophisticated and convincing fake news, images, and videos proliferating online rapidly have the power to influence public opinion, sow social unrest, and destabilize institutions. Deepfakes, such as the 2018 manipulated video of a US presidential candidate calling on countries to withdraw from the Paris Climate Agreement, can become much more sophisticated and have serious implications for election interference, political tension, and criminal activity. Such content, as well as false narratives, essays, and conspiracy-driven social media bots, can threaten to tarnish countries' reputations, sparking crises and diplomatic conflicts.

### TRUST, BIAS, AND SOCIETY

GenAI is only as good as the data it is trained on. Biased data can perpetuate discriminatory tendencies in areas such as hiring, lending and criminal justice. Additionally, by collecting and analyzing vast personal data, GenAI use raises privacy concerns, as misuse can lead to identity theft, blackmail, invasive advertising, cyberbullying and harassment. Until recently, GenAI systems such as ChatGPT would provide uncited and paraphrased responses, unlike traditional search engines, risking intellectual property and copyright infringement. While GPT-4, Bard and the latest iterations of other LLM's are now capable of providing citations and source-lists, they are still not immune to errors in contextualizing information, or sourcing information accurately.

Furthermore, sophisticated fake reviews and online ratings can erode trust in retail, hospitality, and healthcare organizations. Economically, GenAI-powered automation in industries such as marketing, manufacturing, and healthcare could reshape the job market. The World Economic Forum's estimates suggest 85 million jobs may disappear by 2025, while a former US Treasury Secretary has said that up to a third of men between 25-54 may possibly be out of work by 2050.

#### **MILITARY EQUIPMENT AND INTERNATIONAL SECURITY**

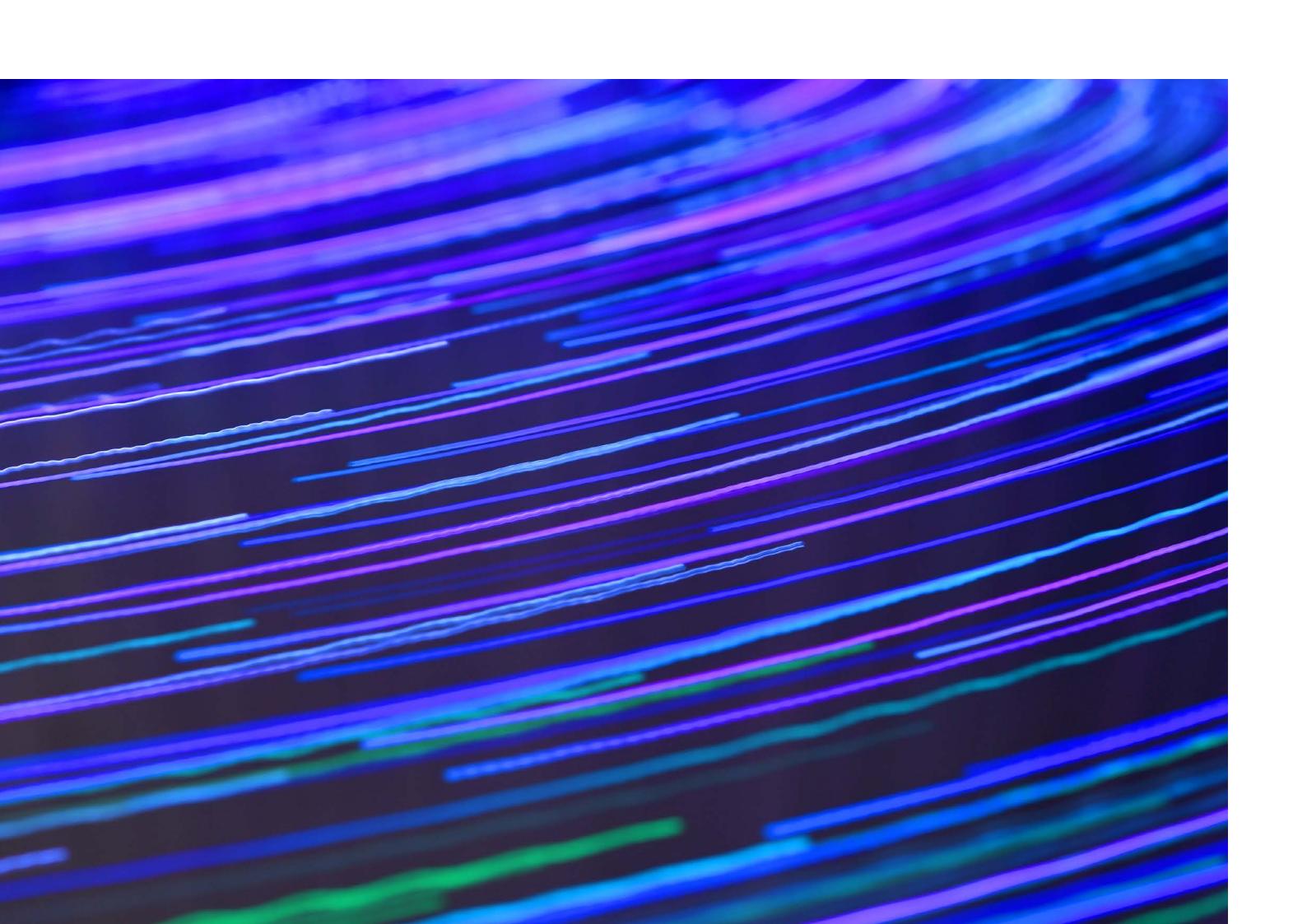
Global intelligence agencies are increasingly exploring the strategic integration of GenAI technology including in critical intelligence processes. However, the use of GenAI tools in the field is still nascent and needs to be explored more closely. For instance, GenAI tools can sometimes produce 'hallucinations', accidental misinformation, or be erroneously confident in their predictions. Meanwhile, lethal autonomous weapons systems, a growing area of research and investment that don't require human control, use data to predict human behavior, gather intelligence, perform surveillance, and identify potential targets but can make tactical virtual combat decisions that may breach regulations. The latter phenomenon prompted calls at the first UN Security Council meeting on AI in July 2023 to prohibit the use of such weapons technology. Also, unlike nuclear, chemical, or biological agents, AI tools can be moved around the world and leave very little trace, making it harder to take action against malicious actors looking to instigate instability and chaos.

#### **CYBERSECURITY**

The digital economy's growth increases vulnerability to GenAI models trained by cybercriminals and nation- or non-state actors. ChatGPT, for instance, can generate human-like language and produce code in several different programming languages, making it invaluable for potential criminals with little technical knowledge. GenAI can automate sophisticated social engineering lures to increase an attacker's productivity by creating malicious scripts, spreading malware, or using chatbots without accents and language-barriers to conduct phishing attacks. It can also fabricate financial reports, invoices, and other documents to aid fraud and other financial crimes.

#### **Mitigating risks associated with GenAI**

More than 51% of IT professionals predict successful cyberattack incidents enabled by ChatGPT to grow by the end of 2023. But while this might seem alarming, it is important to realize that the vast majority of these can be mitigated. Most of the risks with GenAI use have existed in every nation from well before GenAI use began to surge. A pragmatic and ethical approach that considers regulations to encourage the responsible use of AI, raise citizen's awareness of bias, malicious activity, and 'hallucinations', can go a long way toward alleviating a substantial number of concerns. The possibility of restricting access to adults and leveraging the ability of GenAI systems to empower pre-emptive security measures, such as ethical hacking, is also worthy of consideration.



# The Need for A Holistic Regulatory Framework

It is becoming increasingly important to advocate for the responsible development, deployment, and use of AI technologies. The benefits of harnessing the potential of GenAI outweigh the risks associated with its use, but the latter must be judiciously managed to further the responsible development, deployment, and use of AI technologies.

Key to any country's development holistic regulatory framework should be rigorous studies assessing GenAI from a broader perspective. These studies should extend beyond being academic and take a multi-faceted stock of the opportunities and use cases of GenAI, threats and mitigation measures, communication strategies, and future directions and recommendations.

Additionally, existing approaches to regulatory frameworks so far have taken the form of one of three focus areas; national security-focused (such as in the US), consumer protection and risk-oriented (as in the EU), and one which utilizes existing regulators to provide guidelines and frameworks on specific use cases (as in the UK and ASEAN countries). Drawing inspiration from a range of responsible AI frameworks, the following principles can serve as a starting point to develop a needed regulatory approach:

- **Safety, security, and robustness.** With rapidly evolving technologies, such as AI-enabled automation in industrial manufacturing and complex algorithms guiding the development of autonomous vehicle

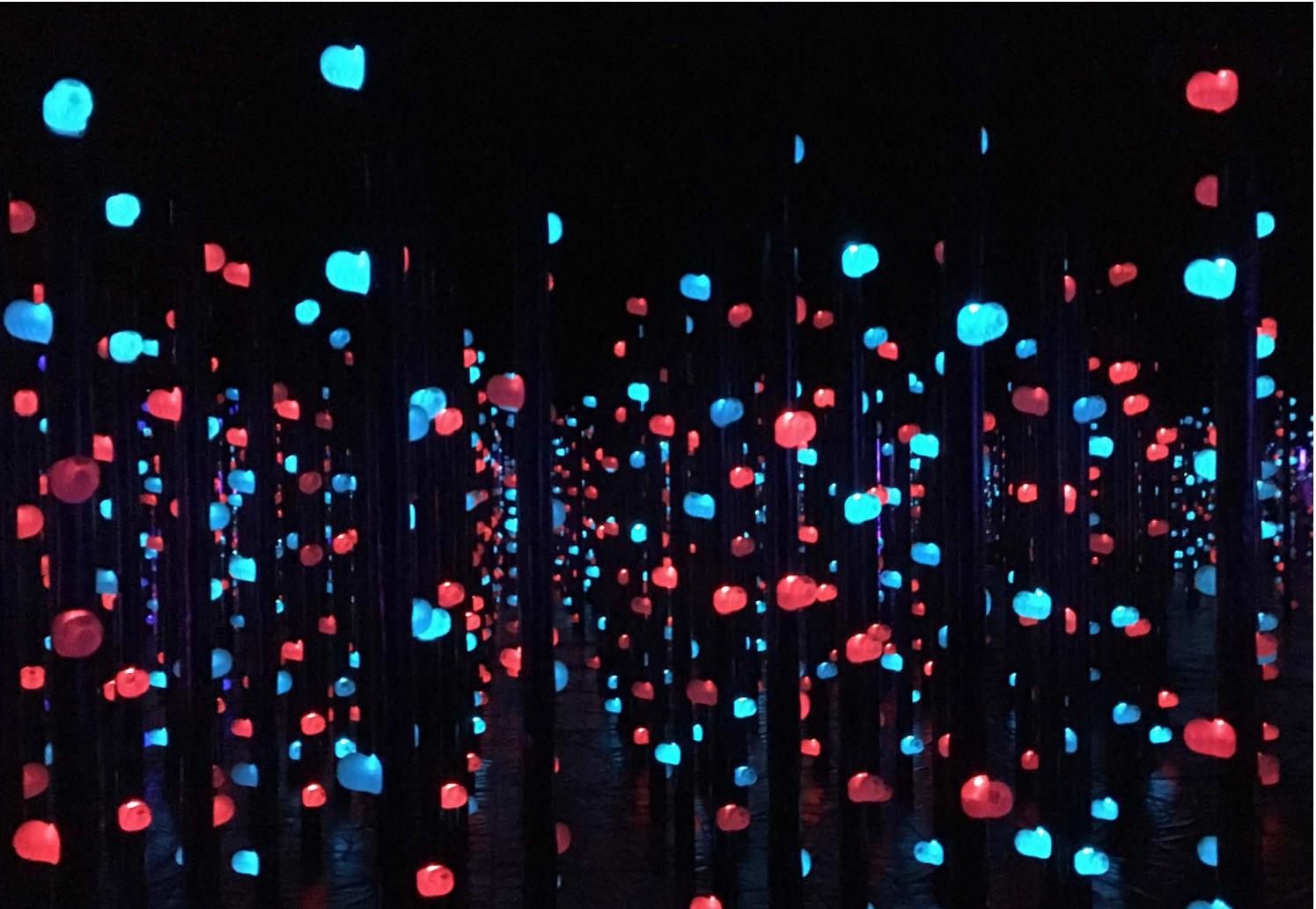
technology development, frameworks should mandate stringent testing cycles to ensure public safety. The AI Risk Management Framework (RIMF) of the US National Institute of Standards and Technology (NIST) is an example of a mechanism that identifies and classifies all AI systems based on its purpose and the decision it makes, allowing the organization itself, as well as those that it works with, to implement mechanisms such as technical safeguards, policies and procedures, and training systems to prevent misuse or harm resulting from the technology.

- **Transparency and clarity.** Algorithms should not only be understandable, but regulators should have sufficient information about AI systems, inputs, and outputs and have clarity on how decisions are made. The efforts of AI Sweden, the country's national center for applied AI, and its collaboration with more than 100 academic institutions, as well as public and private sector organizations, serve as notable examples of providing a clear window into AI-driven decision-making processes.
- **Fairness.** Regulations should foster equality, human rights, data protection, consumer law, and public law. The Global Partnership on AI (GPAIF), a joint Canada-France initiative, in collaboration with 29 other countries, is a step in the right direction towards promoting alignment with international conventions on fundamental rights and ensuring AI doesn't perpetuate biases, especially in critical areas such as immigration and policing.

• **Contestability.** As mentioned above, GenAI systems have been known to err. Should that occur, affected parties must be able to make use of regulatory redress routes to contest harmful AI outcomes. In the EU, the General Data Protection Regulation (GDPR) includes provisions that allow individuals to contest decisions made solely based on automated processing.

• **Accountability and governance.** As with any regulatory framework, responsibility must be established for oversight related to the supply and use of AI systems, as well as clear lines of accountability if systems were to falter. Singapore's Model AI Governance Framework, for instance, lays out comprehensive accountability guidelines for AI use and oversight.

• **Architecture.** Given GenAI's issues with misinformation and bias, countries may consider using AI software architecture that weeds it out at the source by detecting user intent and choosing data sources appropriately. Examples of attempts to counter such issues include nation-specific GenAI systems, such as Falcon 180B, launched by the UAE's Advanced Technology and Research Council; as well as the UK's Online Safety Bill, soon to become law, which proposes to curb misinformation by making social media companies responsible for the content they host and placing new duties on them to encourage filtering inaccurate or harmful material.



# How Countries can Build Resilience

For countries on the cusp of formulating policies and regulatory frameworks related to the rise of GenAI in line with the opportunities and risks outlined above, examining the approaches of countries further along in their journeys can provide valuable insights toward regulating the AI space. These strategies work to strike a balance: creating fertile ground for the space's further growth, while also mitigating areas in which the negative impact of the technology can be felt, in order to strive for global leadership in promoting the development and adoption of AI.

Several national approaches stress the importance of ethics and the overarching burden of responsibility associated with the use of AI technologies. For instance, France, through its Plan AI, and the UK, through its AI Sector Deal, are funding research into AI safety and the development of techniques to detect and prevent its malicious use, as well as enacting public education initiatives on the potential risks involved in the use

of the technology. These countries aren't just passively cautioning against the pitfalls of AI; they're proactively investing in AI safety research. By sponsoring the development of methods to detect and counteract harmful AI applications, they are establishing a framework that promotes safe innovation. Furthermore, recognizing the importance of an informed public, these nations are launching educational campaigns to raise awareness about the potential risks and rewards of AI.

On the other hand, the US National Security Commission on Artificial Intelligence has taken a proactive national security-facing stance on GenAI, acknowledging its role as a tool for advancement and as one to bring more robustness to its overall national defense. The mandate here is two-fold: implement defensive initiatives to mitigate national security risks and allow the country to lead the field in terms of AI-response based national security technology.

## UNITED STATES OF AMERICA (USA)

While the US Government's Blueprint for an AI Bill of Rights provides guidance to businesses on the ethical use of AI tools, regulators in the country are calling for increased laws and provisions to ensure consumer, economic, and international safety. Additionally, the US Chamber of Commerce, based on its AI Commission report, is pushing for a risk-based AI regulatory framework, similar to frameworks proposed in the EU.

The US State Department has also released the Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy, outlining best practices for the ethical and accountable development, deployment, and use of military AI capabilities, including autonomous systems. The document emphasizes adherence to international law and maintaining human control.

In terms of industry, tech leaders are proactively collaborating to develop best practices for the responsible use of AI. The Partnership on AI includes companies such as Google, Facebook, and Microsoft, and has been established to ensure that AI is used for the benefit of society. Google, Microsoft, OpenAI, and Anthropic, have also established the Frontier Model Forum to draw on their combined technical and operational expertise to develop technical benchmarks and a public library of solutions that can support industry best practices in AI.

## UNITED KINGDOM (UK)

The UK Government's AI Code lays down guidelines for the safe, trustworthy, and ethical development and deployment of AI systems while striking a balance between copyright holders and generative AI firms to benefit both parties from the use of copyrighted material in training data. However, despite the guidelines efforts, the UK Government's 2022 Policy Paper on AI Regulation made no specific reference to GenAI models such as ChatGPT.

In March 2023, the UK issued the Pro-innovation Regulation of Technologies Review Digital Technologies report calling for regulatory sandboxes for AI and issuing a clear position on the relationship between AI and intellectual property rights.

## EUROPEAN UNION (EU)

Since April 2021, the EU has been at the forefront of developing a comprehensive legal framework with its proposed AI Act. The regulation is less restrictive and intends to address several concerns related to the use of AI, including privacy, transparency, accountability, and safety. The AI Act is now nearing its final stages before

ratification; however, it has faced intense lobbying against it from US tech companies. The main provisions of the AI Act include:

- Risk-based approach: The regulation defines high-risk AI systems as those that pose significant risks to the health, safety, or fundamental rights of individuals, such as AI systems used in healthcare, transportation, or public services. Higher-risk AI systems are subject to more stringent requirements.
- Prohibition of certain AI applications: The regulation prohibits certain AI applications that are considered to pose an unacceptable risk to the safety, health, or fundamental rights of individuals, such as AI systems used for social scoring or exploitation of vulnerable groups.
- Transparency and accountability: Systems must be transparent and explainable, with clear documentation and traceability. Developers and deployers of AI systems are also required to maintain appropriate records and conduct risk assessments.
- Certification: Proposes the creation of a voluntary EU-level certification scheme for AI systems to provide assurance to users and to facilitate cross-border deployment of AI systems.
- Enforcement and supervision: Proposes the establishment of a European Artificial Intelligence Board (EAIB), which will oversee the implementation of regulations and ensure consistent enforcement across the EU.

Additionally, to help the European law enforcement community, The Europol Innovation Lab organized several workshops with subject matter experts from across its domain to explore how criminals can abuse GenAI systems such as ChatGPT, as well as how the technology can assist investigators in their daily work.

## CHINA

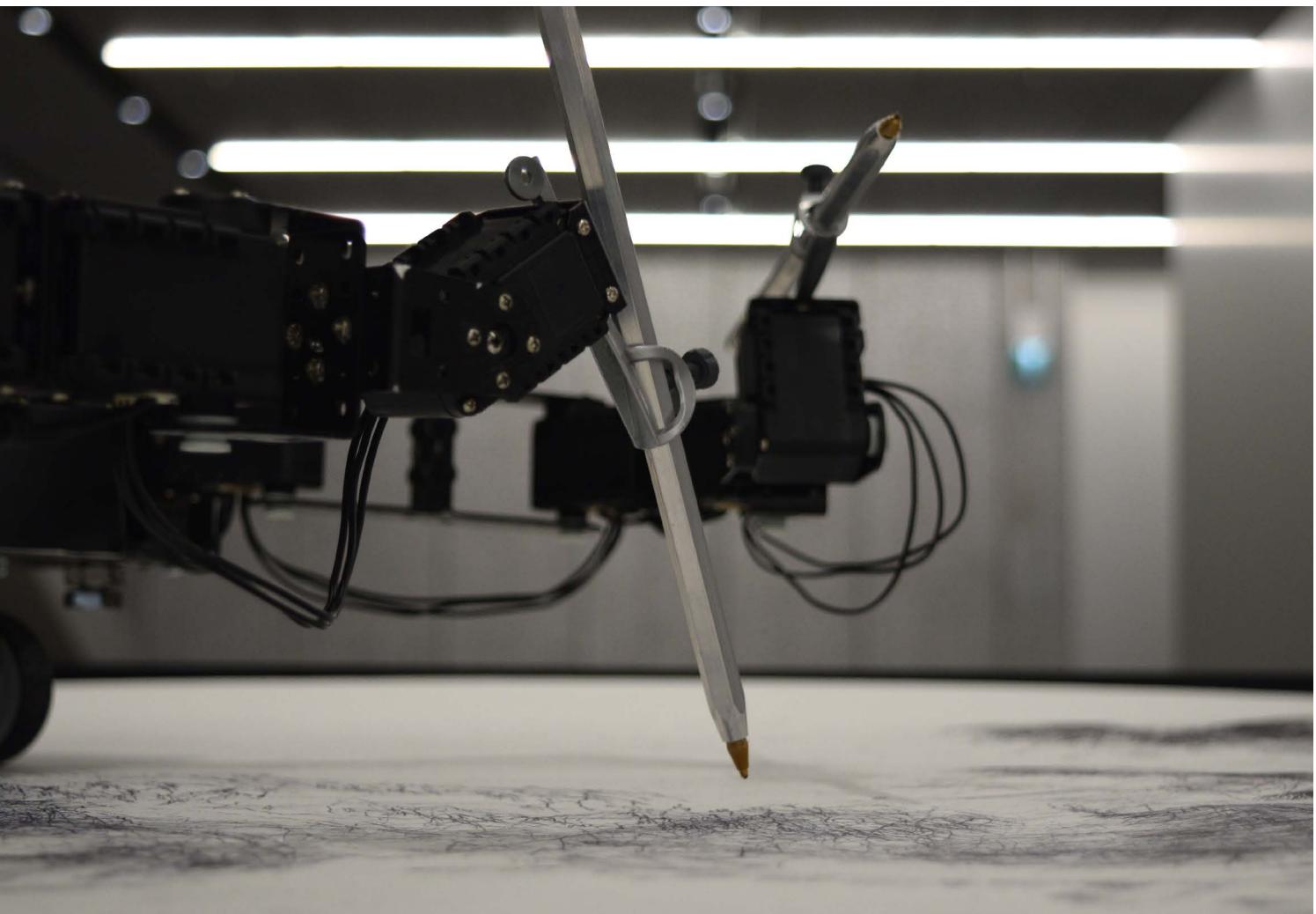
The Cyberspace Administration of China has recently implemented regulations to establish boundaries and restrictions on the misuse of deep synthesis technology, including GenAI algorithms that utilize deep learning to generate content. These restrictions align with existing regulations governing various consumer internet services in China, such as social media, games, and short videos. As an example, the use of generative AI is prohibited for activities that pose a threat to national security, undermine public interest, or are deemed illegal.

## SINGAPORE

The Infocomm Media Development Authority (IMDA) and the Personal Data Protection Commission have jointly created AI Verify, an AI governance testing framework and toolkit aimed at enabling industries to demonstrate responsible AI deployment. Currently available as a minimum viable product (MVP), this framework allows system developers and owners to enhance transparency regarding the performance of their AI systems. It achieves this through a combination of technical tests and process checks. Additionally, the Personal Data Protection Commission has developed the AI Model Framework, providing comprehensive and

actionable guidance to private sector organizations on addressing ethical and governance considerations when implementing AI solutions.

In the financial sector, the Monetary Authority of Singapore has introduced the Principles to Promote Fairness, Ethics, Accountability, and Transparency (FEAT) in the Use of Artificial Intelligence and Data Analytics. This framework of principles serves as a guide for decision-making involving artificial intelligence and data analytics (AIDA) in the provision of financial products and services, promoting fairness and responsible use of these technologies.



# Policy prescriptions for nations deliberating an AI framework

GenAI is a vastly powerful technology with ramifications across a country's general economy, politics, society as well as national security. While it is encouraging to see several countries progressing in the development of comprehensive frameworks related to the use and proliferation and risks of AI, others are still at early stages in their journey with a limited set of measures pertaining to AI ethics and personal data protection, sandbox environments to test localized solutions for product and services advancement, and not enough attention given to national security and cybersecurity concerns.

The rise of AI presents a frontier with which economies can rapidly position itself themselves as leaders, and by formulating comprehensive and empowering holistic AI strategies, help protect their national security interests. To kickstart agendas related to these goals, a national effort

which engages relevant stakeholders across cybersecurity, AI and the broader technology industry, as well as institutions tasked with creating policies, can ensure end-to-end deployment of measures. This effort is to focus on joint initiatives such as:

## Promoting Ethical and Responsible GenAI Development

- **Prioritizing Ethical Considerations.** Ethical considerations must be at the forefront of GenAI development policies. To achieve this, it is recommended that policies explicitly state the prioritization of ethical principles in the creation and deployment of GenAI systems. For instance, ensuring that GenAI systems used in healthcare prioritize patient privacy and safety,

aligning with ethical medical standards. Additionally, establishing stronger governance for GenAI by classifying AI applications and enforcing detailed certifications for high-risk AI systems will help ensure ethical development, similar to prohibitions on unacceptable applications like social scoring.

- **Fostering International Collaboration.** Collaboration on an international scale is crucial in shaping robust GenAI ethical standards. Therefore, it is recommended that nations collaborate actively to harmonize and adopt international ethical GenAI standards. For example, countries can work together to develop a shared framework for addressing ethical concerns in autonomous vehicles, ensuring consistency and safety worldwide. Collaborative alliances can also help in addressing GenAI cybersecurity risks, activating research and development capabilities, and establishing guidelines and standards for the responsible use of generative AI technology.

- **Balancing Innovation and Safeguards.** Striking a balance between encouraging GenAI innovation and safeguarding against misuse is paramount. It is recommended that GenAI policies incorporate mechanisms that adapt to evolving ethical challenges while supporting innovation. For instance, as AI-driven content generation becomes more prevalent in journalism, policies should adapt to ensure accurate and unbiased reporting while promoting innovative storytelling techniques. These policies can cover safeguards that ensure facts are independently verified as well as standards that ensure disclosure and labelling for human vs AI-generated content. An approach worthy of consideration is approving language learning models (LLMs) similar to how the US Food and Drug Administration certifies whether food and medicinal products are fit for consumption. Through regular monitoring, auditing, and the establishment of standards and rules for GenAI use, as well as the development of a dedicated GenAI Toolkit, industry and organizations can be supported in developing and deploying responsible and secure AI.

## Ensuring Data Privacy and Security

- **Robust Data Protection Measures.** To protect user data effectively, it is recommended that GenAI policies mandate stringent data protection measures. These measures should encompass data security protocols, encryption standards, and data access controls to ensure the highest level of privacy protection when deploying GenAI systems. An example includes stringent encryption standards for GenAI-powered financial transactions to safeguard sensitive information. Establishing governing rules for each category of GenAI applications can further strengthen data security and privacy.

- **Privacy-Respecting Practices.** GenAI regulations should encourage the adoption of privacy-respecting practices and technologies. By doing so, GenAI developers can create systems that respect individuals' privacy rights while utilizing AI-generated content. These practices should be embedded in the development process to ensure privacy is upheld at every stage. As an example, social media platforms can use GenAI to personalize content while respecting users' privacy and data. Building GenAI awareness through privacy and digital awareness campaigns is crucial to prevent misuse and enhance data protection.

## Addressing Intellectual Property and Copyright

- **Clarifying Intellectual Property Implications.** It is essential to address the policy implications of GenAI on intellectual property rights. Therefore, it is recommended that policies include a clear assessment of these implications. This will provide guidance on ownership, attribution, and the protection of AI-generated content, ensuring a fair and balanced approach to intellectual property. For instance, policies can clarify that AI-generated art can be protected by copyright when created under certain conditions, similar to human-created art. Monitoring and auditing regularly to detect intellectual property violations is also essential.
- **Standards for Copyright Protection.** To maintain clarity and fairness, it is recommended that GenAI policies set clear standards for copyright protection of AI-generated content. By doing so, we provide content creators, AI developers, and the public with a clear framework for understanding their rights and responsibilities. An example might involve setting standards for attributing AI-generated content in digital marketing materials to ensure transparency and proper credit. Establishing an independent GenAI governance board can oversee the implementation of GenAI regulations, ensuring consistent enforcement and protection of intellectual property rights.

## Ensuring Accountability and Liability

- **Defining Responsibility Clearly.** To address accountability, it is recommended that policies clearly define and allocate responsibilities for GenAI-related harm. This includes specifying the roles and obligations of AI developers, users, and other stakeholders in cases of harm or misuse. Clarity in responsibility ensures fairness and accountability in the GenAI ecosystem. For example, if an autonomous vehicle is involved in an accident, policies can define whether the responsibility lies with the vehicle's manufacturer, the software developer, or the user. Conducting assessments to identify potential high-risk use-cases for GenAI and evaluating strategies to limit exposure to national security threats or cyber-risks can enhance accountability further.

- **Mandatory Insurance and Certification.** To enhance accountability, it is recommended that policies consider the implementation of mandatory insurance or liability coverage for GenAI developers, structured in a way that aligns with the potential risks. Furthermore, encouraging AI developers and users to undergo certification or training can minimize risks and promote responsible use of GenAI systems. For instance, AI-powered medical diagnostics should require certification for practitioners to ensure accurate and safe healthcare outcomes.

## Fostering International Cooperation and Standards

- **Developing Global Norms and Standards.** To create a cohesive framework for GenAI governance, it is recommended that nations actively collaborate to develop and adopt global norms and standards for GenAI. These international guidelines will provide a common foundation for ethical, legal, and technical aspects of GenAI development, fostering consistency and cooperation. An example includes developing global standards for data sharing in climate modeling to address global environmental challenges collectively. De-risking GenAI by conducting assessments and identifying potential high-risk use cases can enhance international cooperation in addressing cybersecurity risks associated with GenAI.
- **Efficient Cross-Border Data Flow Management: Managing cross-border data flows is vital in a global GenAI ecosystem.** Policies should focus on the development of mechanisms that ensure efficient data flow management while respecting diverse regulatory frameworks. This approach will facilitate the exchange of data and knowledge across borders while maintain-

ing compliance with regional regulations. An example might involve cross-border medical data sharing for research and treatment, where data privacy and security standards are upheld across jurisdictions. Collaboration opportunities with other national regulatory entities can help address GenAI security challenges, including data ownership and cybersecurity risks.

## The need of the hour

AI's rapid emergence belies years of innovation and development at the heart of its emergence as technology's latest revolution. With billions around the world grappling with its tremendous potential, the fact is becoming clearer than ever that the age of AI has indeed arrived. But as the last few moments in technology, from the internet to social media, have shown, the promise of potential also brings with it an increased possibility of upheaval.

Fortunately, for policymakers, most of the risks associated with GenAI's use are addressable with proactive and comprehensive governance. In fact, AI-related governance frameworks could help more adequately address the shortfalls in policymaking that slipped through the cracks during social media's emergence as a phenomenon. What nations need is to take a holistic view of GenAI's potential, raise awareness of its opportunities and implications, and work in a whole-of-government collaboratively to develop tools, guidelines, and governance mechanisms that can regulate its use. Through robust frameworks that promote safe development and use, policymakers can help accelerate economic agendas, bolster internal resilience, strengthen national preparedness, and allow AI to be recognized as a positive force.

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