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Appointment	Research Assistant Professor, Division of Social Science, Hong Kong University of Science and Technology (2023-now)
Education	PhD in Public Policy, Hong Kong University of Science and Technology (2019-2023) Hong Kong PhD Fellowship recipient Master of Public Administration in International Development, Tsinghua University (2016-2018) Chinese Government Scholarship recipient BA in Asian and African Studies (Japan Studies), Higher School of Economics, Russia (2012-2016)
Non-Degree Edu.	The New Normal Program, Strelka Institute for Architecture, Media, and Design (2019) Exchange program, Akita International University, Japan (2015-2016) High school exchange, Dunwoody High School, GA, USA (FLEX Fellowship)
Grants & Awards	Hong Kong PhD Fellowship (1,300,800 HKD) Chinese Government Scholarship (72,000 CNY) Oxford Russia Fellowship 2020-2021 (1,200,000 RUB) Seed Grant from the Hong Kong Design Trust (50,000 HKD) Strelka Institute Fellowship (200,000 RUB)
Teaching Exp.	02/2020 - 05/2020 - Public Administration and Management at HKUST 09/2020 - 01/2021 - Foundation of Public Policy at HKUST 02/2021 - 05/2021 - Public Policy Analysis at HKUST 09/2021 - 12/2021 - Technology, Innovation and Public Policy at HKUST 09/2022 - 12/2022 - Ethics and Public Policy at HKUST 02/2023 - 05/2023 - Local and Regional Development at HKUST
Working Exp.	09/2019 - now: Hong Kong University of Science and Technology (HKUST) – PhD Candidate and TA 09/2021 - now: Interdisciplinary Programs Office at HKUST – Graduate TA and RPG Coordinator 09/2020 - 06/2021: Oxford Russia Fellowship – Researcher 02/2019 - 06/2019: Strelka Institute for Architecture, Media and Design – Researcher 11/2018 - 01/2019: United Nations Industrial Development Organisation – Internship 07/2017 - 09/2017: HNA Group (#170 in 2017 Fortune Global 500) – Internship 02/2017 - 06/2017: KNG Asia - Sino-EU Special Economic Zone Project in Huangdai – Internship
Languages	Russian (Native), English (Fluent), Japanese (Intermediate -JLPT3), Mandarin (Elementary)
Research Interests	AI Policy and Regulation, AI Ethics, Industry Self-Regulation, Corporate Governance, Policy Design

Peer-Reviewed Publications

Journal Papers	Journal Papers under Review	Conference Proceedings	Book Chapters	Work-in-progress Papers
4	1	6	1	4

Peer-Reviewed Journal Papers

Papyshev, Gleb, and Masaru Yarime, "The State's Role in Governing Artificial Intelligence: Development, Control, and Promotion through National Strategies," *Policy Design and Practice* (2023). <https://doi.org/10.1080/25741292.2022.2162252>.

Impact Factor: 7.0. Q1 journal.

Numerous governments worldwide have issued national artificial intelligence (AI) strategies in the last five years to deal with the opportunities and challenges posed by this technology. However, a systematic understanding of the roles and functions that the governments are taking is lacking in the academic literature. Therefore, this research uses qualitative content analysis and Latent Dirichlet Allocation (LDA) topic modeling methodologies to investigate the texts of 31 strategies from across the globe. The findings of the qualitative content analysis highlight thirteen functions of the state, which include human capital, ethics, R&D, regulation, data, private sector support, public sector applications, diffusion and awareness, digital infrastructure, national security, national challenges, international cooperation, and financial support. We combine these functions into three general themes, representing the state's role: Development, Control, and Promotion. LDA topic modeling results are also reflective of these themes. Each general theme is present in every national strategy's text, but the proportion they occupy in the text is different. The combined typology based on two methods reveals that the countries from the post-soviet bloc and East Asia prioritize the theme "Development," highlighting the high level of the state's involvement in AI innovation. The countries from the EU – "Control," which reflects the union's hard stance on AI regulation. While countries like the UK, the US, and Ireland emphasize a more hands-off governance arrangement with the leading role of the private sector by prioritizing "Promotion."

Papyshev, Gleb, and Masaru Yarime, "The Limitation of Ethics-Based Approaches to Regulating Artificial Intelligence: Regulatory Gifting in the Context of Russia," *AI & Society* (2022). <https://doi.org/10.1007/s00146-022-01611-y>.

Impact score: 3.0; Q1 journal.

The effects that AI technologies will have on society in the short- and long-term are inherently uncertain, which is one of the reasons why many governments are trying to avoid strict command and control regulations for this technology and instead rely on softer ethics-based approaches. We analyze the emergence of the regulatory regime for AI in Russia to illustrate the limitations of the latter approach. The article is based on 50 interviews with policymakers, representatives of AI companies, and academics in the country. The Russian approach to regulating AI is characterized by the prevalence of non-enforceable ethical principles implemented via industry self-regulation. This regulatory regime was formed under a strong influence from the Russian big tech companies that saw an opportunity to avoid any regulatory oversight by washing out the concrete regulatory measures from the policy. This approach is a part of a broader protectionist sanction-proofing strategy for the local IT sector, which can be characterized by lifting regulatory barriers for local companies. Non-enforceable ethical industry self-regulation is a regulatory gift from the Russian government to the industry. The gift was intentionally designed because the government thought that prioritizing local innovation over consumer protection benefits the public interest. However, the gift can also unintentionally undermine the public interest by opening an opportunity for ethics washing.

Papyshev, G., & Yarime, M. (2021). Exploring city digital twins as policy tools: A task-based approach to generating synthetic data on urban mobility. *Data & Policy*, 3 doi:<http://dx.doi.org/10.1017/dap.2021.17>

Impact Factor: 2.6.

This article discusses the technology of city digital twins (CDTs) and its potential applications in the policymaking context. The article analyzes the history of the development of the concept of digital twins and how it is now being adopted on a city-scale. One of the most advanced projects in the field—Virtual Singapore—is discussed in detail to determine the scope of its potential domains of application and highlight challenges associated with it. Concerns related to data privacy, availability, and its applicability for predictive simulations are analyzed, and potential usage of synthetic data is proposed as a way to address these challenges. The authors argue that despite the abundance of urban data, the historical data are not always applicable for predictions about the events for which there does not exist any data, as well as discuss the potential privacy challenges of the usage of micro-level individual mobility data in CDTs. A task-based approach to urban mobility data generation is proposed in the last section of the article. This approach suggests that city authorities can establish services responsible for asking people to conduct certain activities in an urban environment in order to create data for possible policy interventions for which there does not exist useful historical data. This approach can help in addressing the challenges associated with the availability of data without raising privacy concerns, as the data generated through this approach will not represent any real individual in society.

Wu, X., Ma, L., Low, D., Sharma, S., **Papyshev, G.** (2023). Beyond Precautionary Principle: Policymaking under Uncertainty and Complexity. *Policy Design and Practice*, 1-16. <https://doi.org/10.1080/25741292.2023.2229090>

Impact Factor: 7.0. Q1 journal.

The precautionary principle is a widely recognized approach in policy-making across various fields, emphasizing preventive action in situations of uncertain potential harm. However, its full potential remains unrealized due to implementation challenges. Our study analyzes policies related to face mask usage during the COVID-19 pandemic, characterized by significant uncertainty, time pressure, and potentially catastrophic consequences. We explore the challenges of balancing urgency against unforeseen negative consequences and determining the appropriate level of caution amid rapidly evolving scientific knowledge. To enhance the precautionary principle's effectiveness, we argue for integrating additional principles: transparency, fairness, and adaptability. Transparency fosters public trust and informed decision-making through clear communication of policy rationales, uncertainties, and tradeoffs. Fairness ensures the equitable distribution of policy intervention benefits and burdens, considering vulnerable populations' needs. Adaptability involves revising policies based on new information or changing circumstances, maintaining effectiveness and relevance. Our examination aims to provide insights and recommendations for improving the precautionary principle's utility in policy-making, particularly where timely, informed action is crucial.

Chan, K., **Papyshev G.**, & Yarime M. (Under review). [Balancing the Tradeoff between Regulation and Innovation for Artificial Intelligence: An Analysis of Top-down Command and Control and Bottom-up Self-Regulatory Approaches](#). *Technological Forecasting and Social Change*.

Impact score: 11.15; Q1 journal.

In response to the rapid development of AI, several governments have established a variety of regulatory interventions for this technology. While some countries prioritize consumer protection through stringent regulation, others promote innovation by adopting a more hands-off approach. However, this tradeoff has not been analyzed systematically. We developed an economic theory on how the welfare-maximizing level of regulatory stringency for AI depends on various institutional parameters. Our game-theoretic model is motivated and built upon the comparison of regulatory documents for AI from the EU, the UK, the US, Russia, and China. The results show that if a government strives to find the right balance between innovation and consumer protection to maximize actual consumer welfare, stringent regulation is optimal when foreign competition is either high or low, whereas light-touch regulation is optimal when foreign competition is intermediate. Meanwhile, minimal regulation is rationalizable only if a government prioritizes other objectives in its agenda, such as maximizing innovation, domestic producer surplus, or perceived consumer welfare.

Papyshev, Gleb, and Yarime, Masaru. (Work in progress to be submitted in *Policy and Society*). Motivational Constraints for Ethical Self-Regulation of Artificial Intelligence Systems: The Case of Russia.

Widespread utilization of artificial intelligence (AI) technologies popularized the idea of ethical industry self-regulation for this technology. However, while most academic attention is concentrated on creating solutions for operationalizing ethical principles in practice, discussions about companies' attitudes toward AI ethics are rare. The lack of motivation to comply with ethical norms can compromise the effectiveness of this regulatory tool. This article explores the practical aspects of implementing ethical principles from the soft law regulatory documents for AI in Russia. It is based on 50 interviews with AI companies, academics, and policymakers in the country. We propose a typology of motivation for voluntary compliance with ethical regulations and associated motivational constraints faced by the companies. These constraints are profit-seeking behavior for economic motivation, ethical ignorance for normative motivation, lack of credible threat for social motivation, and technological infeasibility for technological motivation.

Papyshev, Gleb. (Work in progress to be submitted in *AI and Ethics*). Situated Actions as an Informal Mechanism for AI Regulation.

The lack of established procedures for translating ethical principles into the practice of AI companies does not mean that the space between high-level ethical principles and on-the-ground practices is left empty. While real-life practices are left without any planned regulation, situated actions that take place in highly contextual situations occur in the process of interaction between AI systems and people. The paper discusses six case studies derived from the results of the fieldwork in Russia that show how micro-level regulatory practices emerge in the process of interaction between people and AI systems in domains spanning from the chemical industry to healthcare. Thus, despite the regulatory void that surrounds the application of AI systems in the field, a bottom-up normalization of situated actions creates a foundation for the informal regulatory regime for this technology on the micro-level. As such, situated actions – the unplanned effects that affect the execution of the desired actions – are turned into procedural norms, which are based on the understanding of how human operators of AI systems should interact with them to achieve their goals. While ethical regulatory plans do not have clear enforcement mechanisms beyond establishing high-level ethical values and have no practical effects on the practices in the field, the individuals in the industry self-regulate on a micro-level, where individual experiences of working and interacting with AI systems in an everyday setting cause the occurrence of situated actions, routinization of which then transforms this form of behavior into an informal regulatory norm.

Papyshev, Gleb, and Chan, Keith. (Work in progress to be submitted in Big Data and Society). Fugazi Regulation as a New Mode of Regulation under the Accumulation Regime of Digital Capitalism. .

This paper is based on 50 interviews with AI practitioners conducted in Russia in 2022. Fugazi regulation is the type of regulatory intervention developed to produce no practical effects and preserve the status quo. In the case discussed in this article, fugazi regulation is realized through non-enforceable ethical industry self-regulation that practically means no regulation. However, this particular institutional arrangement is only one form through which fugazi regulation can be realized. Not every self-regulatory regime is a fugazi regulation, nor is every fugazi regulation always self-regulation. What distinguishes fugazi regulation from other types of regulatory interventions is the lack of practical effects and changes that it produces (preservation of the regulatory vacuum/status quo); its intentional design; the lack of cognitive capture; the difference between the seemed and true intentions of the policy; and the ambiguity about how the success or failure of this intervention can be measured.

Papyshev, Gleb. (Work in progress to be submitted in Journal of Asian Public Policy). Situated Usage of Generative AI in Policy Education: Implications for Teaching, Learning, and Research.

This paper will explore the potential implications of using generative AI in policy education. While previous AI technologies were limited to specific purposes, general-purpose models like ChatGPT can now be used in various domains. However, the design of the interaction between people and AI systems is crucial in determining the implementation of AI systems in different sectors, which is also a potential risk factor. Despite the lack of consensus on the use of these technologies in higher education, students and faculty already actively use generative AI. This project aims to describe the situated use cases specific to policy education.

Peer-Reviewed Book Chapters

Papyshev, Gleb, and Masaru Yarime (2022), "The Challenges of Industry Self-Regulation of AI in Emergent Economies: Implications of the Case of Russia," in Mark Findlay, Ong Li Min and Zhang Wenxi, eds., Handbook on Regulating AI and Big Data in Emergent Economies, Edward Elgar, (accepted) forthcoming.

Peer-Reviewed Conference Proceedings

Papyshev, Gleb, Keith Chan, "Fugazi Regulation as a New Mode of Regulation under the Accumulation Regime of Digital Capitalism," Asia-Pacific Public Policy Network (AP-PPN) 2023 Conference: Public Policy in Turbulent World, The Hong Kong University of Science and Technology, Hong Kong, June 1-2 (2023).

Papyshev, Gleb, Keith Chan, and Masaru Yarime, "Balancing the Tradeoff between Regulation and Innovation for Artificial Intelligence: An Analysis of Top-down Command and Control and Bottom-up Self-Regulatory Approaches," [Atlanta Conference on Science and Innovation Policy 2023](#), Georgia Institute of Technology, Atlanta, May 24-26 (2023).

Keith Jin Deng Chan, **Gleb Papyshev,** & Masaru Yarime. (2022, November 1). Balancing the Tradeoff between Regulation and Innovation for Artificial Intelligence: An Analysis of Top-down Command and Control and Bottom-up Self-Regulatory Approaches. Data for Policy 2022 Conference, organized by The Hong Kong University of Science and Technology, Hong Kong, SAR, December 5 (2022). <https://doi.org/10.5281/zenodo.7274328>

Gleb Papyshev, & Masaru Yarime. (2021, August 20). Governance of Disruptive Emerging Technologies: Regulatory Gifting for Artificial Intelligence in Russia. Data for Policy 2021 Conference, organized by University College London, United Kingdom, September 14-16 (2021). <https://doi.org/10.5281/zenodo.5225644>

Gleb Papyshev. (2020, July 30). Exploring Digital Twins as Policy Tools: An Analysis of Emerging Initiatives. Data for Policy 2021 Conference, organized by University College London, United Kingdom, September 15-17 (2020). <https://doi.org/10.5281/zenodo.3967284>

Papyshev, Gleb, and Masaru Yarime, "Human AI Interaction in Public Sector: Literature Review," Sixth Asia-Pacific Public Policy Network (AP-PPN) Annual Conference - Resilient and Inclusive Governance in the Age of Crisis, March 3-5 (2021).

Policy Publications

["The Presidio Recommendations on Responsible Generative AI,"](#) based on Responsible AI Leadership: A Global Summit on Generative AI, World Economic Forum in collaboration with AI Commons, June (2023).

[A Review of the European AI Act - VTimes](#) (2021).

[Nature-like and Convergent Technologies: Driving the Fourth Industrial Revolution](#) (2019). United Nations Industrial Development Organization and Global Forum on Naturally-Based and Convergent Technologies

"Governing Data-driven Innovation for Sustainability: Opportunities and Challenges of Regulatory Sandboxes for Smart Cities," in AI for Social Good, United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Association of Pacific Rim Universities (APRU), and Google, 180-202 (2020).

Papyshev, G. (2017). The Impact of the Concept "Industry 4.0" on Sustainable Development Practices. International Journal of Humanitarian and Natural Sciences.

Design Projects

Venice Biennale of Architecture 2021 - Public Program of the Russian Pavilion - [Project "OPEN!"](#)

Bi-City Shenzhen Biennale of Urbanism/Architecture 2020 - Eyes of the City
[Screening of Presense and Presense Part 2: Shanzhai Sonata](#)

Dutch Design Week 2020

[Screening of Presense and Presense Part 2: Shanzhai Sonata](#)

Public Presentations/ Interviews in Media

"The State's Role in Governing Artificial Intelligence: Development, Control, and Promotion through National Strategies," [Invited Lecture](#), Graduate School of Public Policy, Nazarbayev University. 9 March (2023).

"Regulation of Emerging Technologies: Laws, Ethics, and Hypocrisy," [Podcast](#), Sandbox Podcast. 27 June (2022).

"Data etc.: City Digital Twins in Practice," [Interview](#), ICT Moscow. 11 April (2022).

"Digital Twins as Policy Tools," [Invited Lecture](#), Faculty of Law, Moscow State University. 4 July (2021).

"Speculative Design and Strategic Foresight," [Roundtable on Speculative Design](#), University College London. 8 June (2021).