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Computational Antitrust: Evidence From 25 Antitrust Agencies

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Abstract. This paper explores patterns from the Stanford Computational Antitrust project’s fourth annual report, which includes contributions from 25 agencies worldwide. The findings reveal that most agencies are converging around similar technological solutions, particularly large language models and machine learning tools, and face common challenges related to explainability, data security, and organizational adaptation. The analysis suggests that the post-2020 period has witnessed an unprecedented acceleration in digital adoption which is fundamentally reshaping how antitrust agencies detect and investigate anticompetitive behavior.

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1. Introduction

Antitrust agencies are undergoing a profound digital transformation driven by the increasing digitalization of markets and the growing sophistication of anticompetitive practices. This paper presents a first analysis of how agencies are adapting to these challenges through technological innovation, infrastructure development, and institutional reform.

The analysis draws from the Stanford Computational Antitrust project’s fourth annual report, which features contributions from 25 agencies across the globe.¹ The report offers a comprehensive dataset we used to identify patterns and emerging best practices in relation to the digital transformation of antitrust agencies within varied regulatory environments. By doing so, the fourth annual report furthers the project’s practical mission to make computational antitrust a reality. It also

¹ Thibault Schrepel & Teodora Groza (eds.), *Computational Antitrust Worldwide: Fourth Cross-Agency Report*, 5 Stanford Computational Antitrust 1, 97 (2025)

complements the project’s theoretical ambition to investigate the challenges of computational antitrust through systematic scholarly inquiry.²

One clear lesson emerges from our findings: the digital transformation of antitrust enforcement is not merely a technical upgrade but represents a fundamental shift in how agencies detect, investigate, and prosecute anticompetitive behavior. From bid-rigging screens to sophisticated graph neural networks, agencies are deploying an unprecedented digital arsenal that is now ubiquitous to antitrust enforcement. This is a revolution.

2. Key Findings

Our analysis of contributions from 25 agencies reveals three key developments in computational antitrust over the past twelve months: the deployment of AI tools as intelligence multipliers (2.1), substantial infrastructure investments creating enforcement ecosystems (2.2), and rapid institutional evolution reshaping agency capabilities (2.3). These changes demonstrate that computational antitrust extends far beyond technological adoption to profoundly alter how infringements are detected and enforcement priorities defined.

2.1. Tools

Findings

The deployment of advanced analytics tools represents the most visible aspect of computational antitrust. Our analysis of the 4th annual report reveals three dominant use cases.

Bid-rigging detection. This emerges as the most common specific application, with countries including Australia, Spain, Japan, Lithuania, Pakistan, and Slovenia developing specialized tools. These systems employ various technical approaches, from statistical indicators like coefficient of variance and relative distance of bid prices, to sophisticated machine learning models trained on historical cases. Spain’s BRAVA (Bid-Rigging Algorithm for Vigilance in Antitrust) exemplifies the state-of-the-art as it uses supervised machine learning with LIME/SHAP explainability features and incorporate graph analytics to map relationships between firms, bids, and individuals. Canada has developed a proactive bid-rigging screen that integrates public procurement data with other open sources, while Pakistan’s BRAD (Bid-Rigging Analysis and Detection) tool uses AI-powered web scraping and analysis to identify collusive patterns in public procurement. Finally, Australia’s cartel screening workflow in public procurement involves sequential steps from data

² The Stanford Computational Antitrust project also contributes critical scholarly literature that explores the subject comprehensively, thereby fostering nuanced and constructive perspectives on the field.

acquisition to investigation, while Japan's Economic Analysis Office employs regression discontinuity design and other econometric methods for bid-rigging detection.

The convergence around procurement data reflects both the accessibility of bidding data (despite some agencies still lacking access) and the substantial economic stakes involved, with agencies increasingly moving from reactive complaint-based enforcement to proactive algorithmic detection of suspicious bidding patterns.

Document analysis and processing. Nearly every agency is developing AI capabilities for analyzing vast amounts of text. Brazil's Cerebro uses unsupervised machine learning to analyze procurement documents for collusion signs, while France's RAG (Retrieval Augmented Generation) system allows natural language queries of case databases using large language models. Canada's COMPASS (Competition AI Secure System) platform provides advanced document analysis features for streamlined review of large case materials, including automated summarization and code analysis capabilities. Luxembourg is developing AI agents for document classification and labeling, while Greece has created specialized systems for detecting direct email exchanges between companies during dawn raids using metadata analysis and business intelligence processing. The system employs Python-based data extraction from MSG files, PostgreSQL database storage, and SQL-based business logic to associate emails with investigated companies. It provides certainty scores to indicate the likelihood of inter-company communication.

Exploring another path, Austria employs AI language models to facilitate processing of foreign-language evidence and is investigating similar tools for reviewing seized data files, with computational antitrust now representing the third-largest spending category at the agency. Italy's Data Science Unit has engaged in reverse-engineering ranking algorithms of hotel and e-commerce platforms to understand competitive dynamics. As for Taiwan, the agency has relied on R and Python for data visualization, used isochrone mapping to define geographic markets in cinema mergers and employed interrupted time series models to analyze pricing patterns in carbonated beverages cases. Taken together, these use cases reflect the document-heavy nature of antitrust investigations and the need to process evidence at scale, with agencies increasingly leveraging natural language processing and machine learning to transform unstructured textual evidence into actionable intelligence for enforcement proceedings.

News monitoring and market intelligence. Agencies are moving toward more proactive enforcement through systematic market monitoring. Chile's system processes over 360,000 news articles from over fifteen digital media platforms and will soon be upgraded with machine learning algorithms trained to flag cartel-related news, while Colombia's BÚHO system uses NLP techniques to scrape headlines from

digital media outlets such as Las2orillas, La W, and RCN News, sending weekly notifications to antitrust officials. Colombia’s INSPECTOR tool monitors regulatory projects from 64 public entities that may impact competition. It filters documents through keywords and generating daily email alerts. Pakistan’s Market Intelligence Unit has identified over 162 potential cases through systematic surveillance, while Chile’s second tool focuses on gathering news from local media nationwide to help investigators stay updated on regional developments. This shift toward proactive detection represents a drastic change in enforcement strategy, a move from reactive complaint-based investigations to anticipatory market surveillance that can identify antitrust issues before they mature into irreversible violations. Specifically, the heavy investment in anomaly detection across essential sectors, from basic commodities to domestic flights, suggests agencies are leveraging technology to address pricing issues that have been underplayed in traditional enforcement.

Reflection

Intelligence multiplier. The technology stack shows remarkable convergence around large language models, with multiple agencies mentioning GPT-4 (Poland, Singapore) and others developing custom LLMs (Austria, Italy, Luxembourg). The widespread adoption of RAG systems in both France and Singapore suggests emerging best practices in combining generative AI with institutional knowledge. Noticeably, all agencies contributing to our report have indicated they are already using AI.

Generally, the convergence around advanced analytics tools represents a critical enhancement in enforcement intelligence that extends far beyond simple automation. The deployment of sophisticated systems like Spain’s BRAVA and Brazil’s Cerebro demonstrates how AI can serve as an intelligence multiplier that enables agencies to detect patterns and relationships that would not be possible for human analysts to identify at scale.

This intelligence augmentation operates across multiple dimensions. First, it dramatically expands the scope of enforceable behavior by making previously undetectable violations algorithmically visible. Bid-rigging schemes that might have required years of traditional investigation can now be flagged within weeks through statistical analysis of procurement patterns. Second, it enables agencies to process evidence at unprecedented scale. France’s RAG system allows investigators to query decades of case law and documentation using natural language, effectively democratizing access to institutional knowledge. The most significant advantage likely lies in the technology’s ability to identify emergent patterns rather than simply detecting known violation types, as evidenced by Colombia’s BÚHO system.

Democratic efficiency. The relationship between advanced analytics tools and democratic legitimacy in antitrust enforcement presents a complex paradox that defies simple characterization. While these tools can enhance accountability through systematic decision-making processes, they simultaneously introduce new forms of opacity that may undermine traditional democratic oversight mechanisms.

Spain's integration of LIME/SHAP explainability features into BRAVA illustrates both the promise and limitations of algorithmic transparency to date. These tools force agencies to articulate logical bases for enforcement decisions in unprecedented technical detail, yet the explainability they provide may be performative as they offer post-hoc rationalizations rather than genuine causal explanations that legal practitioners can meaningfully evaluate. Spain is actively working toward providing a solution to this issue.

The contrast with traditional enforcement reveals this tension more clearly. While prosecutorial intuition, informal networks, and institutional experience were indeed difficult to scrutinize, they operated within established legal frameworks with well-understood accountability mechanisms. Algorithmic tools create auditable decision trails, but these trails may be comprehensible only to technical specialists and potentially exclude broader democratic participation. When Lithuania's bid-rigging tools encounter data quality issues, these problems become visible to data scientists but may remain opaque to legal practitioners, policymakers, and the public.

The standardization promised by AI-driven enforcement presents a similar duality. The overwhelming focus on bid-rigging detection across agencies, for example, reveals a pattern of enforcement specialization that may inadvertently create blind spots in antitrust policy. While bid-rigging offers clear algorithmic signatures and measurable outcomes, this concentration of resources raises structural questions about enforcement priorities. The technological path dependence toward algorithmically amenable violations of the law may be steering agencies away from less easily quantifiable but equally harmful anticompetitive behaviors that resist computational detection. This risks creating a form of 'algorithmic capture' where enforcement capabilities shape enforcement priorities rather than the reverse. However, some agencies appear to be anticipating this limitation by deploying strategies such as news article screening and external dataset analysis to break the traditional enforcement cycle and identify overlooked practices.

2.2. Infrastructure

Findings

The infrastructure layer reveals substantial investments in data collection, storage, and processing capabilities.

Systematic data collection. Agencies are building data collection pipelines. Chile monitors over 80,000 products for price anomalies using automated web-based data collection tools that have processed and stored daily price information, while Colombia tracks supermarket and flight prices through its SABUESO system, which scrapes data from major chains including Éxito, Carulla, Metro, Olímpica, and Jumbo using Python microservices and PostgreSQL databases. Pakistan maintains a Regional Price Dashboard employing R packages for anomaly detection and using GETS indicators to identify structural breaks in pricing data. Pakistan also monitors brand pricing to detect misleading discount offers under deceptive marketing practices. Austria’s cartel screening framework includes multiple mobile forensic tools for extracting and analyzing mobile and cloud data from a wide range of devices, with usage of more than one tool enabling IT professionals to extract information from broader device ranges. Greece’s approach to dawn raid data collection demonstrates similar sophistication. The agency employs Python-based extraction and PostgreSQL storage systems to transform unstructured email communications into structured investigative intelligence.

Data storage and processing. The scale of data handling has increased dramatically. France’s integrated database system contains over 6,200 documents dating back to 1988, updated monthly and made available on both data.gouv.fr and Hugging Face platforms under the Etalab 2.0 Open Licence, while Malaysia’s Knowledge Management System centralizes datasets from over 10 years of research, investigations, and capacity-building engagements, including published reports, internal notes, and meeting minutes. Italy leverages the Italian Cloud for Public Administration (PSN) as a national and secure environment ensuring confidentiality and data protection, while Canada is developing COMPASS as a secure generative AI platform specifically designed to handle sensitive information and overcome limitations of third-party Large Language Models. Malawi’s implementation of the Integrated Management Information System (IMIS) also demonstrates how smaller agencies can achieve digital transformation through focused infrastructure investments, replacing fragmented manual processes with centralized digital workflows that have processed 63 matters since the April 2025 launch.

Architectural patterns. Common patterns include modular architecture with interchangeable components, emphasis on API integration for interoperability, multiple security layers for authentication and access control, audit trails for legal

compliance, and scalability designs to handle increasing data volumes. Spain's multi-agent system leverages specialized modules including Graph Neural Networks, Convolutional Neural Networks, and zero-shot learning that each contribute detection signals integrated through explainable reasoning. The shift from batch to real-time processing is exemplified by Colombia's tools using Microsoft Azure and Kubernetes for cloud deployment, while the adoption of open-data mindsets sees agencies like France releasing decisions as machine-readable corpora on platforms designed for machine learning community collaboration. This practice reflects a trend toward transparency and reusability in computational antitrust.

Reflection

Regulatory network effects. The substantial infrastructure investments documented across agencies create positive network effects that amplify enforcement effectiveness beyond individual jurisdictions. Chile's monitoring of 80,000 products and Colombia's price tracking systems generate datasets that become more valuable as they grow, creating self-reinforcing cycles of enforcement improvement.

These infrastructure investments enable what economists recognize as increasing returns to scale, but in enforcement. Each additional dataset, monitoring system, or analytical tool increases the marginal value of existing investments. France's integrated database system containing over 6,200 historical documents becomes more powerful when combined with natural language processing capabilities, creating synergies that exceed the sum of individual components.

Interoperable enforcement. The architectural patterns emerging across agencies (modular design, API integration, audit trails) suggest the development of interoperable enforcement ecosystems. As these systems mature, they enable cross-jurisdictional cooperation and knowledge sharing that transform antitrust enforcement from a collection of national efforts into a coordinated global system. The EU's Technical Support Instrument and DATACROS initiative exemplify how shared infrastructure can amplify individual agency capabilities.

Yet these substantial infrastructure investments also reveal an emerging enforcement inequality. The scale economics of computational antitrust create a new form of regulatory divide where agencies with substantial resources can deploy monitoring systems while smaller jurisdictions may lack the technical infrastructure to eventually detect increasingly sophisticated violations. Chile's monitoring of 80,000 products and France's decade-spanning databases represent investments that may be prohibitive for smaller agencies, potentially creating systematic gaps in global enforcement coverage. Fortunately, data-sharing agreements and exchange of computational tools between agencies could address this issue. Such arrangements

could drive convergence of substantive antitrust rules, even if initially motivated merely by the practical need to maintain effective enforcement capabilities across jurisdictions of varying resource levels.

Bidirectional dynamics. Computational antitrust creates bidirectional influence, not only does substance shape technique, but technique increasingly shapes substance. Antitrust law violations and enforcement needs drive the development of specific computational tools. For example, the prevalence of bid-rigging in public procurement led agencies to develop specialized detection algorithms, while the document-heavy nature of antitrust investigations motivated investment in AI-powered document analysis systems. Specific legal requirements, such as explainability for court proceedings, shaped how tools like Spain’s BRAVA were designed with LIME/SHAP features to ensure transparency and judicial acceptance.

We also see an emerging phenomenon where the capabilities and limitations of computational tools begin to influence what cases agencies pursue and how they define violations. Agencies may prioritize investigations where they have strong analytical tools, such as procurement markets with datasets, over areas where computational analysis is more challenging. The types of patterns algorithms can detect influence how agencies conceptualize and categorize anticompetitive behavior, while data availability becomes a determining factor in enforcement priorities.

More fundamentally perhaps, new enforcement categories emerge around practices that can only be detected through advanced technology. Poland’s investigation of dark patterns exemplifies this shift, using neuromarketing experiments including eye tracking, facial recognition, and electroencephalography to measure visual attention, emotional responses, and neural activity; evidence types that would have been inconceivable in traditional antitrust analysis. This bidirectional dynamic means that legal doctrine and enforcement practice co-evolve with technological capabilities and create a feedback loop where successful computational approaches in one jurisdiction influence both the technical methods and substantive enforcement priorities adopted by others.

2.3. Institutions

Findings

Perhaps the most significant finding is the depth of institutional change occurring within antitrust agencies.

Dedicated digital units. The creation of specialized units has accelerated dramatically post-2020. Canada’s Digital Enforcement and Intelligence Branch, created in 2021, has grown 60% year-over-year to 55 members, complemented by a

Behavioral Insights Unit with 7 psychologists that has delivered support to 25 enforcement cases in its first year. Pakistan's Market Intelligence Unit, established in October 2023, has already identified 162 potential cases and achieved a 92% operational efficiency rate. Austria expanded its existing Forensics Department into a unit for forensics, data analytics, and AI, currently comprising four ICT experts with plans to add two data science specialists. Common skill sets across these units include data scientists, economists with coding skills, forensic IT specialists, and behavioral psychologists, reflecting the interdisciplinary nature of modern antitrust challenges.

Cross-agency collaboration. International cooperation has intensified through initiatives like the EU's Technical Support Instrument (TSI) used by multiple countries including Hungary, Czechia, and Italy for digital transformation projects, the DATACROS initiative for cross-border financial investigations involving 23 organizations, and regional centers like Peru's OECD Regional Centre for Latin America facilitating knowledge dissemination. Knowledge exchange is exemplified by Austria hosting AI workshops with 80+ experts from participating antitrust agencies, Catalonia's ERICCA neural network trained on international cartel datasets from Switzerland, Italy, and Japan, and Canada co-founding the OECD Working Group on Behavioral Science and Competition to facilitate international knowledge sharing. Czechia participates in the DATACROS III project for cross-border financial investigations and is collaborating with the Ministry of Regional Development on public procurement data strategies, while Hungary has signed cooperation agreements with data protection authorities and uses the anonymous Cartel Chat reporting platform for intelligence gathering.

Rapid institutional evolution. The timeline of unit creation reveals an acceleration post-2020: Chile's Intelligence Unit (September 2020), France's Digital Economy Unit (2020), Canada's units (2021), Japan's Economic Analysis Office leading bid-rigging efforts (2022), Italy's Data Science Unit established within the Chief Economist Directorate, Singapore's Data and Digital Division (2023), and ongoing expansions in 2024-2025 with Austria's department reorganization and Czechia's new Chief Economist appointment. This compressed timeline suggests agencies are responding to urgent enforcement needs. A couple of years ago, one would have hardly imagined such a rapid shift in antitrust agencies' institutional design.

Reflection

Knowledge transfer. The rapid creation of specialized digital units translates accelerated organizational learning in response to genuine enforcement challenges. Canada's Digital Enforcement and Intelligence Branch growth demonstrates how

agencies can (are, and should...) scale human capital while maintaining institutional coherence through careful attention to skill development and organizational culture.

The compressed timeline of institutional change reflects agencies' ability to learn from each other's experiences and avoid redundant experimentation. Rather than each agency independently developing digital capabilities through trial and error, the post-2020 acceleration represents efficient knowledge transfer and institutional innovation. Pakistan's Market Intelligence Unit, established in October 2023, could immediately benefit from lessons learned by earlier adopters and, as a result, achieve a 92% operational efficiency rate within its first year. If anything, Austria's hosting of AI workshops with 80+ experts from participating antitrust agencies and Catalonia's training of neural networks on international cartel datasets from third countries illustrate how technical knowledge is being systematically shared across jurisdictions. This rapid transformation in institutional arrangements is both surprising and highly encouraging.

Importantly, knowledge transfer also occurs from agencies to companies. Serbia's focus on micro, small, and medium enterprises (which comprise over 99% of active companies) illustrates how agencies are adapting computational approaches to develop specialized compliance programs and educational content that make competition law accessible to resource-constrained businesses that may lack dedicated legal departments. Similarly, Colombia's Compliance Directorate undertakes dissemination, promotion, and training activities to foster a culture of compliance in free competition regulations while supporting companies in adopting effective compliance programs. Austria has too organized seminars and compliance programs in cooperation with the Chamber of Commerce to promote understanding and implementation of competition rules among businesses. And just in May 2025, Singapore has finished co-developing the AI Markets Toolkit as part of its voluntary compliance program, where adoption may be considered a mitigating factor if businesses run afoul of competition law. All in all, this type of knowledge transfer helps shift the perception of an antitrust policy that tampers with innovation cycles to one that demonstrates agencies are fostering collaborative compliance cultures.

Institutional velocity. Generally, the diversity of specialized roles emerging within these units (data scientists, economists with coding skills, forensic IT specialists, behavioral psychologists) also suggests that agencies recognize the multifaceted skill requirements of contemporary antitrust enforcement. Poland's deployment of neuroscientists for dark patterns research exemplifies this trend, while Austria's expansion into a Department for Forensics, Data Analytics and AI with plans to add specialized data engineers, and Italy's Data Science Unit combining expertise in engineering, astrophysics, statistics, and AI demonstrate how agencies are building new capabilities. This human capital development represents a

permanent enhancement to enforcement capabilities that will continue generating returns long after initial technology investments are depreciated.

That being said, the compressed timeline of institutional change still raises critical sustainability questions. The post-2020 acceleration is creating what organizational theorists recognize as “institutional velocity” problems, when organizations change faster than they can develop appropriate governance structures and operational procedures. This sudden transformation may create a risk of “surface-level digitalization,” which suggests that current changes may need consolidation before proving durably effective.

3. Challenges and Future Directions

Despite remarkable progress in computational antitrust, agencies face structural impediments across three key areas: technical challenges including secure cloud computing and AI explainability (3.1), organizational challenges spanning recruitment and budget constraints (3.2), and accountability challenges arising from algorithmic enforcement and democratic oversight (3.3). Rather than fundamental barriers, these challenges represent transitional hurdles that are driving institutional innovation and may ultimately strengthen enforcement capabilities.

Mapping challenges

Our fourth annual report highlights at least three categories of structural impediments that require careful consideration.

Technical challenges. Agencies face a fundamental tension between computational power and data security requirements when moving to cloud computing systems. The need for highly-restricted hosting environments that meet evidence-security standards and GDPR constraints significantly complicates implementation of advanced analytics platforms. Courts also require explainable AI decisions, which drives agencies to invest in technical solutions like SHAP/LIME interpretability layers alongside narrative storytelling capabilities that can translate complex algorithmic outputs into legal evidence. Additionally, the design of effective human-machine interaction systems requires careful calibration to maintain appropriate human oversight while fully leveraging AI capabilities. Greece’s system exemplifies the need for effective human-machine collaboration by allowing investigators to input expert knowledge when automated email-to-company matching fails. This example shows that agencies can design systems that augment rather than replace human judgment.

These technical challenges identified by agencies represent normal growing pains in institutional innovation rather than long-lasting obstacles to progress. In fact, the first solutions emerging across jurisdictions demonstrate the resilience and

adaptability of antitrust agencies. The explainability challenge is currently driving innovation in algorithmic transparency. Spain’s BRAVA system with LIME/SHAP features represents first-generation solutions that will evolve into more sophisticated approaches combining technical transparency with legal argumentation. These developments create positive spillovers for other regulatory domains facing similar challenges. As for security concerns around cloud computing, they are generating innovative approaches to data protection that enhance rather than constrain enforcement capabilities. Italy’s use of the national cloud for public administration (PSN) and Canada’s development of COMPASS demonstrate how security requirements can drive architectural improvements that create more robust and scalable enforcement platforms.

Organizational challenges. Recruitment and retention issues plague many agencies, with Brazil’s Cerebro project struggling with seconded staff from other agencies who frequently depart for better opportunities, and Peru identifying the need for a dedicated unit with highly specialized personnel while currently having only one professional exclusively dedicated to computational projects. Austria notes that technology alone is insufficient without highly skilled and continuously trained expert staff, while Italy emphasizes the challenge of securing professionals with both advanced technical skills and nuanced understanding of antitrust objectives. And as management shift from reactive complaints to predictive analytics, it requires new KPIs and risk-based triage systems that fundamentally alter institutional culture and workflows.

These organizational challenges lie at the heart of computational antitrust. As Spain noted, “even the most sophisticated algorithms are only as effective as the workflows and human oversight surrounding them.” This insight highlights a broader concern, i.e., how legal education and professional training must evolve to keep pace with a computationally enhanced legal practice, both in public authorities and private firms.

Accountability challenges. The shift toward algorithmic enforcement creates new forms of democratic accountability that extend beyond traditional regulatory oversight. When algorithms identify potential violations, enforcement discretion shifts to technical parameters that may remain opaque even to the agencies deploying them. This ‘algorithmic delegation’ of enforcement decisions raises fundamental questions about preserving democratic legitimacy in competition policy, as critical judgments about market behavior become embedded in code.

However, judicial demands for transparent reasoning are driving agencies to develop stronger integration between technical analysis and legal argumentation. Courts’ insistence on explainable decisions forces agencies to articulate enforcement logic more clearly than traditional approaches required. Typically, when algorithms

flag potential violations, agencies must explain both what the algorithm detected and why those patterns indicate anticompetitive behavior. This creates a dual accountability framework where agencies must satisfy both algorithmic rigor and legal reasoning standards, potentially strengthening rather than weakening democratic oversight. As a result, the institutional pressure to bridge technical and legal domains is generating new forms of expertise that combine economic analysis, computational sophistication, and legal reasoning in ways that can enhance overall enforcement quality.

4. Conclusion

The digital transformation of antitrust enforcement represents a rapid paradigm shift in how agencies detect and prosecute anticompetitive behavior. The convergence around common technological solutions, coupled with deep institutional changes, suggests a new model of antitrust enforcement is emerging, one that is proactive, data-driven, and technologically sophisticated.

The post-2020 acceleration in digital adoption appears to be a watershed moment driven by the COVID-19 pandemic's digitalization push and the emergence of accessible AI technologies. As agencies continue to innovate, several trends are likely to shape the future: increased automation of routine tasks, enhanced international cooperation through shared platforms and standards, growing emphasis on behavioral insights and predictive analytics, and continued challenges with explainability and legal integration.

The success of computational antitrust will ultimately be measured not just by improved detection rates or processing efficiency, but by its ability to enhance public trust in market governance while effectively addressing the competitive challenges of the digital economy. As competition increasingly occurs in digital markets, the digitalization of enforcement capabilities is not optional but essential for effective market oversight. We, the Stanford Computational Antitrust team, are proud to accompany the movement toward antitrust 3.0, one that is computationally augmented while remaining sound.