

REGULATING GENERATIVE AI

THE SIX STORYLINES OF 2023 ■

December 2023 eBook



REGULATING GENERATIVE AI

■ THE SIX STORYLINES OF 2023

TABLE OF CONTENTS

INTRODUCTION 04

PART I:

The Value in Treading Carefully When Regulating AI 06

PART II:

Unpacking the Implications of AI's Right to Create 10

PART III:

Regulating AI Is Like Regulating Air or Water 14

PART IV:

EU's AI Act Raises Questions: Who Will Watch the Watchers? 18

PART V:

The Global Challenge of Regulating AI as It Evolves
(and Balancing Bias with Progress) 22

PART VI:

Redefining Copyright in an Era of Generative Technologies 26

INTRODUCTION

The widespread emergence of OpenAI’s large language model (LLM)–based ChatGPT platform in late 2022 has prompted a considerable amount of public attention and private capital to be showered on generative artificial intelligence (AI) over the past year. The technology has spawned no end of human speculation about AI’s potential, including around the provenance of its various verbal and visual outputs.

REGULATING
GENERATIVE
AI

By now, exchanges with AI-powered language models have become common on social media, and it is easy enough to “ask” AI and get a plausible-sounding answer about anything, even AI:

PYMNTS Do you think that you or I have IP rights to the content that you help me to generate?



ChatGPT As an AI developed by OpenAI, I don’t hold any intellectual property rights to the content I generate. However, it’s important to note that intellectual property laws can vary significantly by jurisdiction... it’s advisable to consult with a legal expert familiar with intellectual property law.

ChatGPT is hardly wrong here, and just as the technology has evolved rapidly in recent years, laws are likely to adapt and follow. PYMNTS has interviewed leading experts in the field — human ones — to learn more about this technology and how it should be regulated, if at all.

This eBook, produced by CPI, a PYMNTS Company, highlights some of the most interesting stories of the year about the regulatory landscape of Generative AI.

PART I

THE VALUE IN TREADING CAREFULLY WHEN REGULATING AI

“ If there is going to be any kind of AI regulation, there should at least be some kind of formal delegation and some guardrails from Congress; given the wide range of applications there, you could see several different agencies trying to rush to claim authority over these new ideas. ”

Jennifer Huddleston

Technology Policy Research Fellow



CATO
INSTITUTE®

The AI policy landscape is always shifting and demands a careful balance between innovation and regulation. The European Union, known for its stringent approach to technology governance — as seen in its General Data Protection Regulation — contrasts with the historically permissive stance of the United States, which favors more market-driven innovation. This difference is critical in the global discourse on AI regulation, particularly as the EU’s AI Act may set precedents that affect international data flows and technology adoption.

AI’s diverse applications, which can range from everyday retail interactions to specialized medical or transportation uses, necessitate nuance in regulation, as an overgeneralized approach risks stifling beneficial innovations while not adequately addressing specific harms. The role of legislative bodies such as the U.S. Congress in these moments is to provide clear directives and frameworks for AI regulation to prevent ad hoc approaches from being adopted by various administrative agencies.

Privacy and misinformation are top of mind for regulators across the AI arena. Likewise, regulators are monitoring the potential for AI to

exhibit bias based on the data it has been trained on, which raises significant issues as well. However, the obvious regulatory solution — namely, to use more inclusive data sets to reduce bias — introduces privacy concerns, particularly regarding the use of personal data without consent. Finally, regulators are mindful of throwing the proverbial baby out with the bathwater, as AI also holds the potential to enhance privacy and security through its ability to detect unusual patterns and behaviors.

Existing legal frameworks around discrimination and privacy might already address many AI-related concerns, suggesting that these current laws may be extendable to govern AI-induced issues. This approach underscores the importance of adaptable, well-informed regulatory strategies that consider AI’s multifaceted impacts and the rapidly evolving technological landscape.

Overall, the discussion of how best to regulate AI underlines the need for a balanced, informed approach, one that recognizes the technology’s potential benefits and its risks and fits regulatory measures to address specific areas of concern without impeding innovation and progress.

PART II

UNPACKING THE
IMPLICATIONS
OF AI'S
**RIGHT TO
CREATE**

“ In the context of generative AI, where there’s the possibility of recreating a [known style] on an industrial scale, it raises the question whether we ought to be talking about expanding some sort of digital moral rights in our stylistic characteristics. ”

Christian Mammen

Partner and Chair
Intellectual Property Litigation Group



Central to the discourse around AI and intellectual property law are two distinct concepts: the use of copyrighted material as training data for AI systems (inputs), and the legal status of AI-generated content (outputs). Copyright infringement issues can arise when AI systems are trained on human-generated content without explicit consent, prompting a reevaluation of whether that consent is needed or if this serves as a case of “fair use” and is thus permissible. At the same time, a growing debate has formed around the copyrightability of AI-produced outputs as seen in recent legal updates and cases.

Notable instances like the “fake Drake” case, where AI was used to create music mimicking the style of one of the world’s most popular artists, illustrate the complexity of these issues. This raises broader concerns about name, image and likeness rights, especially when AI-generated outputs closely resemble the styles of well-known figures. The potential for AI to create works in the style of famous artists or writers further complicates the discussion, drawing parallels to mimicry, parody, satire and fanfiction in popular culture.

The technology’s potential to create passable imitations suggests that regulators should consider expanding digital moral rights to protect unique stylistic characteristics created by AI. Current legal

doctrines, including fair use, are being challenged for their applicability and flexibility in adjudicating such cases. There is ongoing debate about whether existing laws require minor modifications or a more substantial overhaul to accommodate the unique challenges AI poses.

In the broader context of regulation, the U.S. has adopted a relatively light-touch approach compared to the more proactive — some would say “overreaching” — measures seen in the EU. This divergence of approach raises questions about the efficacy of local legislative processes in regulating rapidly evolving AI technologies that are effectively global in application. The involvement of standard-setting organizations and private entities in rulemaking and auditing of AI applications is seen by leading industry experts as increasingly inevitable, highlighting the need for public oversight and a robust societal dialogue on these transformative technologies.

The AI and IP law landscape is marked by rapid technological advancements, necessitating careful consideration of both the legal and ethical dimensions. The need for thoughtful, informed and adaptable regulatory approaches is paramount as AI continues to reshape various aspects of creative and intellectual endeavors.

PART III

REGULATING AI IS LIKE REGULATING AIR OR WATER

“Regulatory sandboxes provide an opportunity for the government to really provide vigilant oversight and focus on a new technology, on a new AI tool, and understand better what it’s doing, what it’s not doing, how it’s operating [and] what some of its potential harms or side effects might be.”

Cary Coglianese

Founding Director of the Penn Program on Regulation,
Edward B. Shils Professor of Law,
Professor of Political Science



 **Penn Carey Law**
UNIVERSITY of PENNSYLVANIA

Artificial intelligence is not a singular phenomenon, but encompasses a variety of algorithms and applications, making any uniform regulation of its diverse uses across various sectors a challenge. Deep down, AI is far more like a basic input to larger production processes than the discrete verbal or visual outputs for which generative AI platforms like ChatGPT or Midjourney became famous over the past year. This diversity in AI uses and the rapid evolution of the technology require regulators to be agile, flexible and vigilant.

AI's varied applications, ranging from self-driving cars to medical devices and social media, require domain-specific knowledge, suggesting that multiple regulatory bodies with that domain-specific knowledge, rather than a standalone institution, should oversee its governance. After all, each domain already under the purview of existing regulators has its unique challenges and contexts. For example, the National Highway Traffic Safety Administration would be more suited to regulate autonomous vehicle technology than a newly established AI regulator. This approach leverages existing expertise while addressing the specificities of AI applications in various sectors.

There are concerns that regulatory agencies could become dominated by the industries they are supposed to regulate, of course, especially with the concentration of AI development in a few large

tech firms — a risk that exists both in a singular and a multi-regulator model. But the idea of a central coordinating body or center of excellence — which could facilitate knowledge sharing, develop best practices and provide resources across regulatory domains — has its appeal. Such an institution could function like existing bodies, such as the National Transportation Safety Board, offering recommendations and guidance across various fields.

Regulation itself is analogous to an algorithm, with limited types of “regulatory algorithms” available. The complexity lies in the inability to specify one-size-fits-all actions or outcomes due to AI's diverse applications and associated risks. An approach focusing on the process of AI development and deployment that emphasizes management of safety risks, transparency and fairness is a commendable one, which could involve algorithmic impact assessments or audits, requiring firms to responsibly manage AI developments and respond to identified harms.

Regulatory sandboxes, or pilot programs, are highlighted as vital tools for governments to gain understanding and oversight of new AI technologies. These programs allow for focused observation and analysis of AI tools, helping to bridge the knowledge gap between private and regulatory bodies. Overall, a collaborative, multi-faceted approach involving continuous learning and adaptation is essential for the effective regulation of AI.

PART IV

EU'S AI ACT RAISES QUESTIONS: WHO WILL WATCH THE WATCHERS?

“ The AI Act is really special because, first of all, it relies on technical standards that will have to be developed to implement it. If you want to audit AI systems, we need an audit industry to emerge. ”



Johann Laux

Emerging Tech Governance,
Oxford Internet Institute



UNIVERSITY OF
OXFORD

As lawmakers around the world intensify their focus on regulating AI, the EU has taken a notable step with its AI Act, which adopts a horizontal, risk-based approach to AI regulation across various sectors. Stemming from industrial-era product regulation strategies, this approach contrasts with the more laissez-faire attitudes of the United Kingdom and the United States. The AI Act categorizes AI systems based on risk levels, adjusting regulatory requirements accordingly.

Significant industry influence has been evident in the drafting of the AI Act, with major tech companies such as Meta, Google and Microsoft actively lobbying. OpenAI, the creator of ChatGPT, successfully lobbied for changes to the EU's AI Act, reducing the regulatory burdens the organization would face as it continues to develop ChatGPT and other AI platforms. This influence raises concerns about the extent to which industry interests might shape the AI Act's implementation, however, especially as money pours into the space.

The AI Act's global impact means that AI developers using data from the EU to train their algorithms will be subject to EU regula-

tory constraints, even outside the EU. This situation underscores the importance of industry expertise in shaping technical standards for AI systems, leading to concerns about regulators potentially prioritizing industry interests over those of the public.

With its reliance on technical standards yet to be developed, the EU's AI Act complicates an already complex regulatory environment. The systematic evaluation of AI systems to ensure their accuracy, fairness, transparency and compliance with ethical and regulatory standards requires the emergence of an audit industry, raising questions about the potential for "audit capture," where auditors prioritize the interests of those they audit. This could grant AI developers considerable discretion in defining benchmarks of fairness and other standards.

To mitigate these risks, measures like auditor rotation and preventing revolving doors between industry and regulatory bodies is one approach for regulators to consider. As the AI Act progresses, balancing the need for technical expertise with the protection of fundamental rights is essential.

PART V

THE GLOBAL
CHALLENGE OF
REGULATING AI
AS IT EVOLVES
(AND BALANCING
BIAS WITH
PROGRESS)

“ I think all reasonable solutions should be on the table in terms of how to engage in the dialogue on these very complicated technologies. And I would add that with AI, it’s particularly complicated because, by definition, AI systems learn and adapt their behavior as they get more data. Even the creators of AI systems won’t necessarily know all the details of exactly what sort of computations are going on inside the code after the AI has evolved. ”

John Villasenor

Professor of Electrical Engineering, Law,
Public Policy and Management; Faculty Co-Director



Generative AI is quickly commercializing across various sectors, integrating into workflows across a wide variety of professions and posing risks of conflict with existing technology laws as its use continues to evolve with every application. This dynamic has prompted nations worldwide to develop legal frameworks with twin goals: to harness AI’s potential while managing its challenges.

The distinction between human-generated and AI-generated content remains a key issue in AI regulation. While extremes are easily classifiable, complexities arise in more nuanced cases, such as AI-assisted grammar suggestions in academic papers. At what percentage of authorship should regulators draw the line? This subtlety challenges even defining what legally constitutes AI-generated content, an aspect the EU aims to address with its AI Act.

At its core, regulating AI involves navigating the dynamic nature of disruptive technologies. For instance, the AI Act’s prohibition of emotional recognition in educational settings could just as easily do more harm than good in the case of tutoring systems that adapt to students’ confusion or understanding. The adaptability of AI systems, which learn and evolve as data sets grow, adds to the regulatory complexity, as even AI developers may not fully grasp the computations occurring within their evolving code.

Another significant concern is the potential bias in AI, particularly in areas like financial services, where the decision to make or not make a loan, for example, could hinge on inscrutable decision-making by the AI system. Developers are increasingly aware of the importance of addressing biases, and challenges remain pronounced but not intractable here. Regulatory sandboxes have been proposed as collaborative environments for regulators and companies to develop effective AI regulations. These sandboxes represent frameworks that allows businesses to test innovative products or services in a controlled environment under regulatory oversight without immediately incurring all the normal regulatory consequences of engaging in the activity.

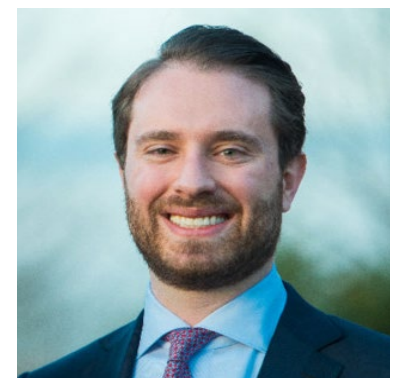
However, regulatory sandboxes may not fully address the diverse concerns of all regulators, companies and consumers, each motivated by different incentives in AI development. Concerns about regulatory capture, where powerful entities unduly influence AI regulations, add another layer of complexity.

While the potential of AI to transform industries and society is vast, creating robust and adaptable regulatory frameworks is essential for its responsible and equitable use. The path to achieving effective regulation in the AI landscape remains a challenging endeavor.

PART VI

REDEFINING COPYRIGHT IN THE ERA OF GENERATIVE TECHNOLOGIES

“ There’s an awful lot of issues, but one broad question is: If we have AI generating content, is that content protectable by intellectual property rights? This is a complicated question that spans different types of intellectual property rights, copyrights, patents, designs and also a wide variety of ways in which people are using AI. ”



Ryan Abbott

Professor of Law and Health Sciences



Generative AI is rapidly evolving, raising complex questions about the application of intellectual property rights to AI-generated content. As AI’s capabilities expand from basic tasks like spelling and grammar corrections to more creative outputs like art, music and literature — and extend even further to finance, medicine and policy — determining the extent to which this content is protectable by IP rights becomes more and more difficult.

One of the central debates in this area is whether AI-generated content qualifies for copyright protection at all. Different jurisdictions have taken varying approaches to this issue. For instance, in the United Kingdom, the Copyright, Designs and Patents Act of 1988 recognizes computer-generated works — those without a human author — as eligible for copyright. In contrast, the U.S. lacks similar clarity, with ongoing legal cases grappling with the copyrightability of AI-generated outputs. These differences have significant financial implications for both AI companies and content creators.

Another key issue is how AI challenges existing legal standards, such as the criteria for originality and the protection of style. AI systems often require large data sets and machine learning to operate effectively, leading to complex legal questions around using copyrighted material for training AI algorithms.

Furthermore, AI is reshaping traditional concepts of authorship and inventiveness. This evolution poses challenges to established legal

frameworks governing patents and copyright. For example, last year, the U.S. Copyright Office rejected the registration of AI-created visual art over the necessity of human authorship for copyright. This judgment was initially appealed before the courts upheld the ruling last August that human authorship is vital for valid copyright, citing the need for human creative incentive. Policymakers must consider the intended purpose of existing laws, especially how copyright laws are designed to promote the creation and dissemination of creative works.

Global considerations and potential regulatory arbitrage also play a role, as the international nature of AI and varying interpretations of regulations across countries complicate the legal landscape. Indeed, the most important thing about AI to consider in the near term could be: Can AI development remain international in focus? Can AI avoid the walling off that social media has experienced, in which a platform like Facebook is not available to millions of potential users in a place like China?

After all, companies may relocate their operations or modify their practices to align with jurisdictions offering favorable regulatory environments. As AI advances, creating clear legal frameworks that balance innovation, consumer protection and ethical concerns will be crucial to harnessing AI’s potential while safeguarding individual rights and interests.

ABOUT

DISCLAIMER ■

PYMNTS INTELLIGENCE

PYMNTS Intelligence is a leading global data and analytics platform that uses proprietary data and methods to provide actionable insights on what's now and what's next in payments, commerce and the digital economy. Its team of data scientists include leading economists, econometricians, survey experts, financial analysts and marketing scientists with deep experience in the application of data to the issues that define the future of the digital transformation of the global economy. This multi-lingual team has conducted original data collection and analysis in more than three dozen global markets for some of the world's leading publicly traded and privately held firms.



Competition Policy International (CPI) provides comprehensive resources and continuing education for the global antitrust and competition policy community. Created and managed by leaders in the competition policy community, CPI delivers timely commentary and analysis on antitrust and global competition policy matters through a variety of media and applications.

We are interested in your feedback on this report. If you have questions, comments or would like to subscribe, please email us at feedback@pymnts.com.

Regulating Generative AI: The Six Storylines of 2023 may be updated periodically. While reasonable efforts are made to keep the content accurate and up to date, PYMNTS MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, REGARDING THE CORRECTNESS, ACCURACY, COMPLETENESS, ADEQUACY, OR RELIABILITY OF OR THE USE OF OR RESULTS THAT MAY BE GENERATED FROM THE USE OF THE INFORMATION OR THAT THE CONTENT WILL SATISFY YOUR REQUIREMENTS OR EXPECTATIONS. THE CONTENT IS PROVIDED "AS IS" AND ON AN "AS AVAILABLE" BASIS. YOU EXPRESSLY AGREE THAT YOUR USE OF THE CONTENT IS AT YOUR SOLE RISK. PYMNTS SHALL HAVE NO LIABILITY FOR ANY INTERRUPTIONS IN THE CONTENT THAT IS PROVIDED AND DISCLAIMS ALL WARRANTIES WITH REGARD TO THE CONTENT, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT AND TITLE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF CERTAIN WARRANTIES, AND, IN SUCH CASES, THE STATED EXCLUSIONS DO NOT APPLY. PYMNTS RESERVES THE RIGHT AND SHOULD NOT BE LIABLE SHOULD IT EXERCISE ITS RIGHT TO MODIFY, INTERRUPT, OR DISCONTINUE THE AVAILABILITY OF THE CONTENT OR ANY COMPONENT OF IT WITH OR WITHOUT NOTICE.

PYMNTS SHALL NOT BE LIABLE FOR ANY DAMAGES WHATSOEVER, AND, IN PARTICULAR, SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, OR DAMAGES FOR LOST PROFITS, LOSS OF REVENUE, OR LOSS OF USE, ARISING OUT OF OR RELATED TO THE CONTENT, WHETHER SUCH DAMAGES ARISE IN CONTRACT, NEGLIGENCE, TORT, UNDER STATUTE, IN EQUITY, AT LAW, OR OTHERWISE, EVEN IF PYMNTS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

SOME JURISDICTIONS DO NOT ALLOW FOR THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, AND IN SUCH CASES SOME OF THE ABOVE LIMITATIONS DO NOT APPLY. THE ABOVE DISCLAIMERS AND LIMITATIONS ARE PROVIDED BY PYMNTS AND ITS PARENTS, AFFILIATED AND RELATED COMPANIES, CONTRACTORS, AND SPONSORS, AND EACH OF ITS RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, EMPLOYEES, AGENTS, CONTENT COMPONENT PROVIDERS, LICENSORS, AND ADVISERS.

Components of the content original to and the compilation produced by PYMNTS is the property of PYMNTS and cannot be reproduced without its prior written permission.