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# TECHNOLOGY MARATHON

**Global Antitrust Considerations for AI, the Metaverse,  
and Other Emerging Technologies**

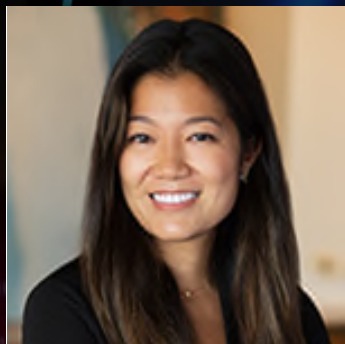
Joanna Christoforou, Minna Lo Naranjo, Rishi Satia

**May 31, 2023** | 12:30-1:30 pm ET

# Presenters



**Joanna Christoforou**  
Partner | London



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Associate | San Francisco

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# Roadmap

- Artificial Intelligence Overview
- Metaverse Overview
- Other Emerging Technologies Overview
- Antitrust and Competition Considerations in these Industries
- Developing Antitrust Regulations in the US, UK, and EU



# Artificial Intelligence



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# What is Artificial Intelligence?



# Growth of AI Interest and Development

- The COVID-19 crisis has accelerated the adoption of AI across various sectors, such as healthcare, customer service, logistics, and manufacturing.
- AI is enabling new breakthroughs in fields such as drug discovery, climate research, biocomputing, and soft robotics.

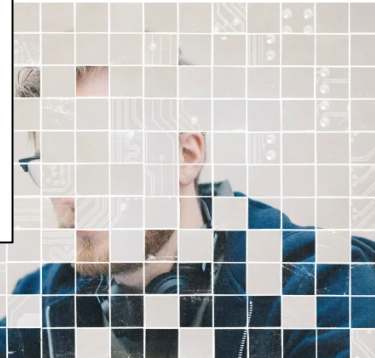


# AI Impact Across Other Industries

Rarely have so many tech sectors been simultaneously exposed. The A.I. systems could disrupt [\\$100 billion in cloud spending](#), [\\$500 billion in digital advertising](#) and [\\$5.4 trillion in e-commerce sales](#), according to totals from IDC, a market research firm, and GroupM, a media agency.

## *The Chatbots Are Here, and the Internet Industry Is in a Tizzy*

The new technology could upend many online businesses. But for companies that figure out how to work with it, A.I. could be a boon.



Anthony Gerace

By [Tripp Mickle](#), [Cade Metz](#) and [Nico Grant](#)

March 8, 2023

5 MIN READ

# Large Language Models/Chatbots

What is a large language model?

✓ Searching for: **what is a large language model**

✓ Generating answers for you...

A large language model (LLM) is a type of machine learning model that can perform a variety of natural language processing (NLP) tasks, including generating and classifying text, answering questions in a conversational manner and translating text from one language to another <sup>1</sup>. It consists of a neural network with many parameters (typically billions of weights or more), trained on large quantities of unlabeled text using self-supervised learning or semi-supervised learning <sup>2</sup>.

Would you like me to provide more information on this topic?

Learn more: [1. techopedia.com](#) [2. en.wikipedia.org](#) [3. techtarget.com](#) [4. fastcompany.com](#)

1 of 5 ●

Using Bing Chat



# Large Language Models/Chatbots



What are some popular large language model chatbots?



View other drafts

Draft 1

Some popular large language model chatbots include:

• LaMDA (Language Model for Dialogue Applications)

Draft 2

Here are some popular large language model chatbots:

• LaMDA from Google AI is a factual language

Draft 3

Here are some popular large language model chatbots:

• LaMDA (Language Model for Dialogue Applications)



Some popular large language model chatbots include:

- **LaMDA** (Language Model for Dialogue Applications) is a large language model chatbot developed by Google AI. It is trained on a massive dataset of text and code, and can generate text, translate languages, write different kinds of creative content, and answer your questions in an informative way.
- **GPT-3** (Generative Pre-trained Transformer 3) is a large language model chatbot developed by OpenAI. It is trained on a massive dataset of text and code, and can generate text, translate languages, write different kinds of creative content, and answer your questions in an informative way.
- **PaLM** (Pathways Language Model) is a large language model chatbot developed by Google AI. It is trained on a massive dataset of text and code, and can generate text, translate languages, write different kinds of creative content, and answer your questions in an informative way.
- **LLMa** (Large Language Model for Applications) is a large language model chatbot developed by Meta AI. It is trained on a massive dataset of text and code, and can generate text, translate languages, write different kinds of creative content, and answer your questions in an informative way.

# Large Language Models/Chatbots



What's the most interesting statistics about artificial intelligence issues?



While it's difficult to pinpoint a single "most" interesting statistic about artificial intelligence (AI) issues, here are a few compelling statistics that highlight the significance of AI and its associated challenges:



1. **Market Growth:** The global AI market is projected to reach \$190.61 billion by 2025, with a compound annual growth rate (CAGR) of 36.62% from 2018 to 2025. This rapid growth demonstrates the increasing adoption and importance of AI in various industries.
2. **Automation Impact:** According to a study by McKinsey, AI and automation technologies could potentially automate around 45% of the activities people are paid to perform, representing about \$2 trillion in annual wages in the United States alone. This statistic underscores the transformative potential of AI but also raises concerns about job displacement and the need for reskilling/upskilling.
3. **Bias in AI:** Research has shown that AI systems can inherit and perpetuate biases present in the data used to train them. For example, a study by the National Institute of Standards and Technology (NIST) found that facial recognition algorithms had higher false positive



# A Poem About Large Language Models

Here's a poem about large language models by ChatGPT on large language models, a conversational AI chatbot developed by OpenAI that gained a significant amount of traction and users – 1 million in five days after being made available to the public <sup>1</sup>:

```
Large language models, oh how great,  
They can write, they can translate,  
They can summarize, they can create,  
They can even chat and debate.
```

```
Trained on data from the internet,  
They can generate text with no limit,  
From poetry to programming code,  
They can do it all, it's been showed.
```

```
But with great power comes great responsibility,  
We must use them with care and humility,  
For they are not perfect, they make mistakes,  
And we must be careful with the risks they take.
```

```
So let us use them for good and not for bad,  
And let us be mindful of the power we've had.  
For large language models are truly large,  
And we must use them wisely, with no charge.
```

# Beyond Data Output



Alltta  
@AllttaMusic



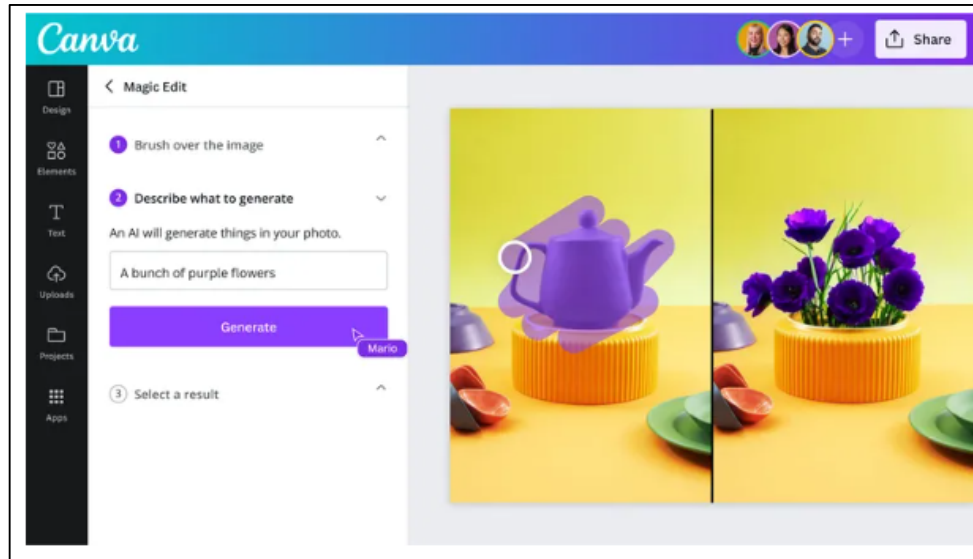
Imagine that...

[#alltta](#) [#notjayz](#) [#notonalbum](#) [#aimusic](#) [#ai](#)



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# Beyond Data Output




# Beyond Data Output



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ARTIFICIAL INTELLIGENCE / TECH / AUGMENTED REALITY

## Levi's will test AI-generated clothing models to 'increase diversity'



The image shows a full-body AI-generated model of a woman with long dark hair, wearing a white t-shirt under a blue denim dress, standing against a plain light background.

/ The denim brand claims the tech will be used to 'supplement human models' rather than completely replace them.

By **JESS WEATHERBED**  
Mar 27, 2023, 9:57 AM PDT | [19 Comments](#) / [18 New](#)

[Twitter](#) [Facebook](#) [Link](#)

Levi's will experiment with Lalaland's realistic AI-generated models later this year. Image: Levi Strauss & Co. / Lalaland.ai



# Beyond Data Output



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# The Debate: Benefits and Hazards of AI

DEMOCRACY IN AMERICA

## Fake images of Trump arrest show 'giant step' for AI's disruptive power

The tech's capabilities and accessibility have vastly outpaced regulatory and legislative responses, as well as corporate controls

By [Isaac Stanley-Becker](#) and [Naomi Nix](#)  
March 22, 2023 at 5:45 p.m. EDT

## CNET's AI Journalist Appears to Have Committed Extensive Plagiarism

CNET's AI-written articles aren't just riddled with errors. They also appear to be substantially plagiarized.

[/ Artificial Intelligence](#) / [Artificial Intelligence](#) / [Bankrate](#) / [Cnet](#)

## Fact check: A deepfake video falsely depicted Elizabeth Warren speaking about Republicans

An altered video circulated on social media put words in the Massachusetts senator's mouth.



## A college apologized for using ChatGPT to write an email to students about the Michigan State University shooting

[Stephanie Stacey](#) Feb 18, 2023, 4:30 AM



# Metaverse

The background is a vibrant, abstract digital space. It features a dark blue and purple color palette with glowing elements. Numerous binary digits (0s and 1s) are scattered throughout, some appearing to float or move. There are also glowing blue lines and rectangular shapes that create a sense of depth and movement, suggesting a virtual environment or data flow.

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# What is the Metaverse?

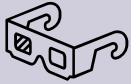


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# Metaverse Overview

*The Metaverse is the next stage in the development of the internet.*



Combining virtual, augmented and mixed reality to provide an 'extended reality' experience.



While some think of the metaverse as a gaming platform, really, it is about online interaction and personalisation.



Strong links to AI and crypto currency.



A global platform where businesses, employees, consumers connect digitally and mimic in-person interactions online.



Promoting regulatory developments globally.

# Reach of the Metaverse

- Analysts expect the global metaverse revenue opportunity is ~\$800B in 2024 vs. ~\$500B in 2020.

[Source: Bloomberg]

- The AR/VR sector is expected to grow to ~\$250B by 2028, up from ~\$28B in 2021.

[Source: Insight Partners]

- Studies estimate that 25% of people will spend at least one hour per day in the metaverse by 2026.

[Source: Gartner]



# Scope of the metaverse

The term 'metaverse' doesn't refer to one specific type of technology in the manner 'generative AI' does for example.

Ultimately, there could be a single metaverse, operated by one entity, or multiple metaverses existing alongside one another

Today there are multiple emerging metaverses (e.g., Sandbox, Decentraland, and Horizon World by Meta), but many are in the pipeline

Data protection, cyber security, intellectual property and antitrust concerns.

# What is the Metaverse?



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# What is the Metaverse?



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# What is the Metaverse?



# Other Emerging Technologies



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# Other Emerging Technologies





# Antitrust and Competition Considerations in These Industries



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# Antitrust and Competition Law Considerations



The exact contours of the types of antitrust issues that may emerge in the metaverse and with AI depend on how these technologies will develop and evolve over time

The potential antitrust claims may also vary by jurisdiction given differing standards to establish certain types of claims in the US compared to EU / UK (i.e., monopoly, abuse of dominance, monopoly leveraging, refusals to deal, etc.).



# Interoperability

- Practically, interoperability here means being able to use these different technologies across different platforms
  - AI: Will platforms allow users to access rival AI tools on devices?
  - Metaverse: Will you be able to bring your "data" (e.g., NFTs) with you from one metaverse to another?
  - Crypto: Will cryptocurrency value be interchangeable with other cryptocurrencies?
- Where there is interoperability, expect to see lower barriers to entry, and a high likelihood of network effects
- Policies relating to interoperability can raise antitrust concerns. Competitors agreeing on standards and exchanging information to implement such standards across platforms raises antitrust risk.
- Limitations and restrictions on competitor access, features or services within these technologies, or user data could impose barriers to entry, lead to market consolidation, and raise antitrust concerns

# Interoperability – Potential Antitrust Claims

## Anticompetitive Agreements

Depending on the circumstances in each case, the following types of agreement may potentially give rise to competition law concerns:

- Exchange of competitively sensitive information
- Market sharing and customer allocation
- Price fixing
- Agreements between purchasers (e.g., collective boycotts)
- Exclusivity requirements
- Tying claims (e.g., required use of certain proprietary devices)
- Limitations on interoperability and access by a competitor

# Dominance and Monopolization

- Building these technologies require significant investment and resources, which will require monetization to pay for such costs
- The first widely adopted technology will have unique access to user data and resources that automatically makes entry or expansion of competitors difficult/impossible

# Monopolization / Dominance - Potential Antitrust Claims

Depending on the circumstances, the following types of conduct by a dominant firm may potentially give rise to an abuse:

- Industry consolidation
- Refusal to supply/exclusivity
- Tying and bundling
- Predatory pricing
- Loyalty discounts
- Excessive and unfair pricing
- Margin squeeze



# Regulatory Focus on Digital Sectors and Technology

Globally, regulators are focused on antitrust and competition concerns in digital sectors, including for AI and Metaverse

Focus has been on "Big Tech" and preventing large platforms from harming competition by, e.g., self-preferencing and "killer acquisitions"

Regulators and lawmakers in the US, EU, and UK are considering legislation and regulatory guidelines focused on increasing competition in the digital space, including for AI and Metaverse

While these emerging technologies are clearly a hot topic in the tech space, regulators are only now beginning to think about how competition can be impacted.

- Regulators are focused on concepts like interoperability, self-preferencing, etc.
- Legislation on these issues are also being considered

# U.S. Law Considerations



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# US Antitrust Law - Sherman Act

- The Sherman Act
  - Section 1: prohibits combinations or conspiracies in restraint of trade
  - Section 2: makes it unlawful for any person to "monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the Several states"
- Consequences of antitrust violations in the US:
  - Companies face fines, damages (3x actual losses), legal fees, business disruption
  - Individuals face fines, job loss, and potential jail time

# Recent US Case Law and Regulatory Scrutiny

- Early iterations of AI already subject to antitrust scrutiny
  - Algorithms – *RealPage*
  - Congressional testimony regarding potential dominance concerns
- Metaverse mergers
  - FTC's suit over Meta/Within merger
- FTC and DOJ focus on new tech
  - FTC Chair Lina Khan
  - Project Gretzky

# US: Evolving Antitrust Laws and Regulations



Congress released a report on its "Investigation of Competition in Digital Markets" in 2020.



U.S. Congress is considering antitrust reform bills:

- American Innovation and Choice Online Act (AICOA)
- Open App Markets Act (OAMA)



Federal antitrust regulators are modernizing merger guidelines to address the House's 2020 Investigation of Competition in Digital Markets

- DOJ's Project Gretzky
- FTC Chair, Lina Khan



# EU and UK Law Considerations



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# Regulatory recognition of the Metaverse and AI in the UK / EU

European Commission's Executive Vice President,  
Margrethe Vestager

## Regarding the Metaverse:

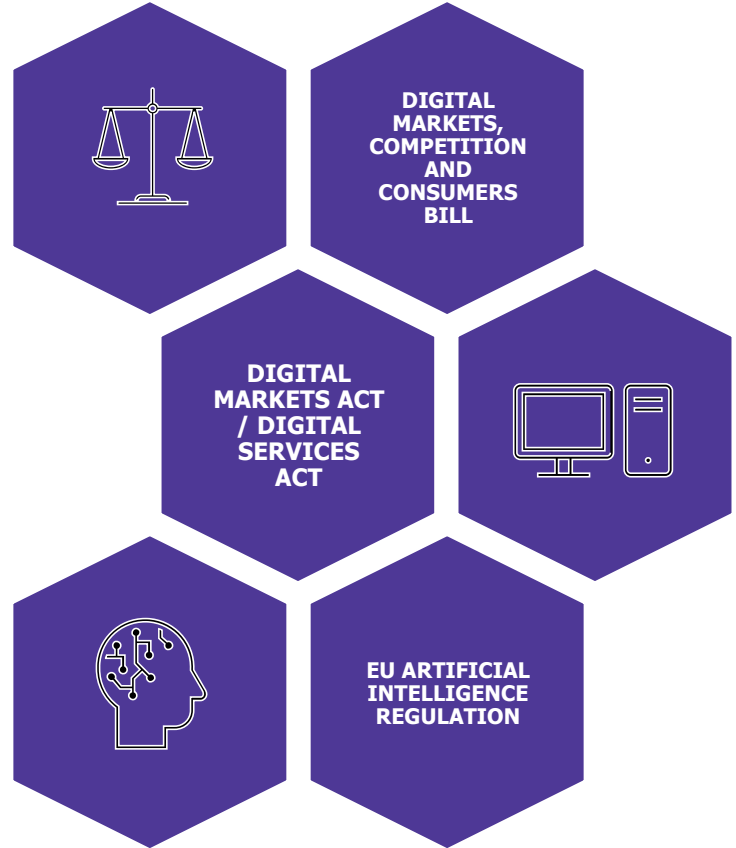
*"It is already **time for us to start asking what healthy competition should look like in the Metaverse...***

*...All jurisdictions are moving forward in one form or another. We are moving at different speeds but this is not a bad thing as it creates **chances to hone our toolkits** through mutual learning" (March 2023)*

## Regarding AI and the EU AI Regulation:

*"What are the **ethical guardrails** that you have put in place for this Technology?..."*

*You can test, you can innovate, you can pursue your ideas... **What we are regulating is when it's put into use**". (April 2023)*



# Anti-competitive Agreements

## European Union

- Article 101 of the Treaty on the Functioning of the European Union (TFEU):
  - Prohibits agreements or concerted practices that have the object or effect of preventing, restricting or distorting competition
  - Horizontal arrangements between competitors and vertical agreements

## United Kingdom

- Competition Act 1998 (CA98):
  - Chapter I: replicates the Article 101 prohibition on anticompetitive agreements
- Enterprise Act 2002
  - Part 6: sets out the criminal cartel offence and the CMA's related investigatory powers
  - Part 7: provides for the CMA to seek competition disqualification orders and competition disqualification undertakings

# Abuse of a Dominant Position

## European Union

**Article 102 TFEU:** prohibits abusive conduct by dominant firms

## United Kingdom

**Chapter II CA98:** replicates the Article 102 prohibition on abuse of dominance

- Using market power unilaterally to restrict competition
- Dominance: in broad terms, a business may be considered to have market dominance if it has a market share of around 40% or more in a relevant market
- Definition of the relevant market is critical issue for determining dominance

# EU Digital Markets Act (DMA)

DMA entered into force on 1 November 2022 and “gatekeepers” have to comply by 6 March 2024:



"Gatekeepers will now have to comply with a well-defined set of obligations and prohibitions. This regulation, together with strong competition law enforcement, will bring fairer conditions to consumers and businesses for many digital services across the EU."

**Margrethe Vestager**

Commission Executive Vice President



"This is a global movement, that is really good [...] We hope our take on [digital markets] will inspire all over the planet"

**Margrethe Vestager**

Commission Executive Vice President



"The agreement ushers in a new era of tech regulation worldwide"

**Andreas Schwab**

European Parliament's rapporteur on the DMA

# DMA Applies to Designated "Gatekeepers"

- DMA regulates certain practices by large platforms acting as so-called "*gatekeepers*".
- To qualify as a "*gatekeeper*" a company must:
  - first, either have had an annual EU turnover of at least €7.5 billion in the past three years or have a market valuation of at least €75 billion;
  - second, have at least 45 million monthly end users and at least 10,000 business users established in the EU; and
  - third, control one or more core platform services in at least three Member States.
- By 6 March 2024, "*gatekeepers*" will have to comply with the obligations outlined in the DMA.
- "*Core platform services*" include online intermediation services, online search engines, social networking, video-sharing platforms, number-independent interpersonal communications services, operating systems, web browsers, virtual assistants, cloud computing services and online advertising services.



# What are the obligations on "*gatekeepers*"?

## Gatekeepers must:

- Ensure that users have the right to unsubscribe from core platform services under similar conditions to subscription
- For the CA 98 most important software (e.g. web browsers), not require this software by default upon installation of the operating system
- Ensure the interoperability of their instant messaging services' basic functionalities
- Allow app developers fair access to the supplementary functionalities of smartphones (e.g. NFC chip)
- Give sellers access to their marketing or advertising performance data on the platform
- Inform the European Commission of their acquisitions and mergers

## Gatekeepers can not:

- Rank their own products or services higher than those of others (self-preferencing)
- Reuse private data collected during a service for the purposes of another service
- Establish unfair conditions for business users
- Pre-install certain software applications
- Require app developers to use certain services (e.g. payment systems or identity providers) in order to be listed in app stores

# EU Digital Services Act (DSA)

The DSA entered into force on 16 November 2022 and will apply from 17 February 2024:



"For the first time a common set of rules on intermediaries' obligations and accountability across the single market will open up new opportunities to provide digital services across borders, while ensuring a high level of protection to all users, no matter where they live in the EU"

**European Commission.**

## Scope

- i. online intermediary services (internet providers)
- ii. hosted service providers
- iii. online platforms (online marketplaces and app stores)

- Obligations increase depending on organization size.
- Fundamental principles of transparency and accountability will apply to all organizations.
- First group of 19 'gatekeepers' designated.
- A two-pronged approach for tech platform regulation with the DMA/DSA.

# UK: Digital Markets, Competition and Consumers Bill

A new dedicated **Digital Markets Unit (DMU)** was established on 7 April 2021 in 'shadow' form to focus on operationalising and preparing for a new "pro-competitive" regime in the digital sector.

On 25 April 2023, the UK Government published the **draft Digital Markets, Competition and Consumers (DMCC) Bill** which will see a new regime overseen by the DMU to specifically target the regulation of digital firms.

## Key features of the proposed regime:

- Applies to companies designated as having "strategic market status" (SMS): i.e. substantial and entrenched market power in a digital activity, providing the firm with a strategic position
- Once a firm has been designated with SMS, DMU will set out how it is expected to behave in respect of the activities for which it is designated, by reference to specific conduct requirements
- DMU can issue "pro-competitive interventions", impose ownership separation remedies, and fines of up to 10% of a firm's global turnover
- Directors of firms in breach of the new regime may face director disqualification orders
- Enhanced merger control restrictions (updates to turnover thresholds), materially watered down from original proposals
- New market study and investigation powers proposed for the CMA

# Artificial Intelligence developments in the UK / EU



## United Kingdom

- No targeted AI legislation as of yet. Applicability of UK GDPR, DPA 2018 and proposed DMCC Bill to AI
- Information Commissioner's Office guidance on AI and the interplay with data privacy.
- UK Department for Science, Innovation and Technology's White Paper which proposed a context-specific approach to AI regulation.
- On 4 May 2023, CMA launched a review to assess the potential competitive implications of rapidly emerging AI foundation models.
- In April 2023, Ofcom opened a market study on the Cloud services market.



## European Union

- Regulation of the European Parliament and of the Council laying down harmonized rules on AI.
- First draft Act in the world to explicitly regulate AI systems, introducing rules for the safe and trustworthy placing on the EU market of products with an AI component.
- Three tiers of AI practices with various levels of regulations under the draft EU AI Act, namely:  
*Unacceptable risk: Prohibited AI practices, High Risk and General Purpose AI.*
- Draft EU AI Act provides for exceptionally high fines of the higher of up to €30 million or up to 6 % of the company's total worldwide annual turnover for the preceding financial year.
- European Data Protection Board guidance on the interplay of AI and data protection 2021.

# Ukraine Conflict Resources

Our lawyers have long been trusted advisers to clients navigating the complex and quickly changing global framework of international sanctions. Because companies must closely monitor evolving government guidance to understand what changes need to be made to their global operations to maintain business continuity, we offer a centralized portal to share our insights and analyses.

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To help keep you on top of developments as they unfold, visit the website at [www.morganlewis.com/topics/ukraine-conflict](http://www.morganlewis.com/topics/ukraine-conflict)

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# Biography



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Joanna focuses her practice on EU and UK competition law and antitrust, including competition law litigation in the European and English Courts. Joanna defends clients in cartel or abuse of dominance investigations, competition disputes, dawn raids, damages actions, director disqualification proceedings, merger control, restructuring and joint ventures, and advises clients on a range of competition law matters. She represents clients before the European Commission, the European Courts, the Competition and Markets Authority (CMA), the Financial Conduct Authority, the Competition Appeal Tribunal (CAT), the Court of Appeal, the Supreme Court, as well as antitrust authorities in other jurisdictions.



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Minna focuses on antitrust and complex litigation matters. She has worked on litigation, investigation, and counseling matters in many industries including pharmaceutical, technology, airline, oil and gas, and ride-sharing industries. Her experience includes multidistrict litigation, class action and direct action defense, litigation against the DOJ and multiple state attorneys general, and counseling on matters ranging from cartel and monopolization, breach of contract, fraud, and unfair competition matters.

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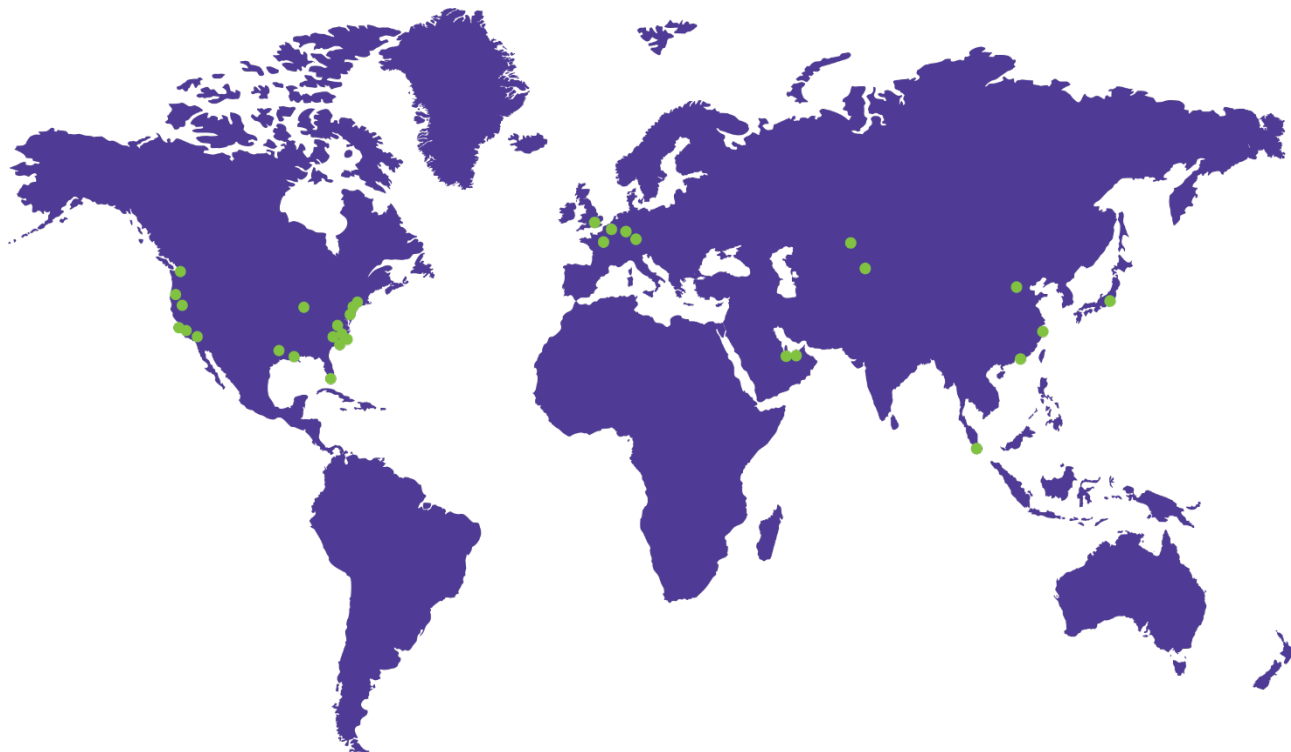
Rishi represents clients in a broad range of litigation matters in United States federal and state courts, with particular focus on antitrust litigation. His practice also includes Federal Trade Commission (FTC) and US Department of Justice (DOJ) investigations of mergers and related litigation matters. Rishi has worked with clients in a wide range of industries, including technology, retail, medical devices, and health care. He is an associate representative for the firm's Asian American/Asian Lawyer Network and is a Young Lawyer Representative for the ABA Antitrust Section's Media and Technology Committee.

## Our Global Reach

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