Global artificial intelligence trends guide
Introduction

The rise of AI has taken the world by storm. From medical devices, to chatbots, to global supply chain impact and more, AI has the power to transform every industry.

As innovation surges, the legal and regulatory landscape is evolving rapidly. In some instances, existing frameworks are being applied or adapted to account for AI. For others, complex new paradigms are being developed.

We are pleased to share this AI Trends Guide highlighting some of the key market-moving areas on which our teams are actively focused, and how we can help. With our global reach, deep industry sector knowledge, and commercial-focused approach, we have the capabilities and strategic leadership to partner with your business on all of your AI legal needs.

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AI development and use often relies on substantial processing of personal data, making it essential for developers and users to find effective, yet practical, ways to address myriad privacy issues. Existing global laws, and the regulators enforcing those laws, already dictate privacy compliance obligations, so understanding how to address unique compliance challenges in the AI context—such as fairness, transparency, data minimization and accuracy—is increasingly becoming a business priority. In practical terms, this requires product teams to work together with privacy legal counsel in order to embed the necessary practices in the way AI is developed and used.

At the outset, organizations should conduct formal assessments, such as a data protection impact assessment, to identify potential risks (such as bias or inaccuracy) and take appropriate risk mitigation measures, including data minimization techniques and mechanisms for individuals to exercise available rights.

The key to navigating these challenges is to adopt effective practices that do not impede AI innovation, but rather support its business objectives in a viable and privacy-conscious way.

Additional resources
Watch: AI & Data Regulation: What privacy professionals need to know about the EU, UK, and U.S. approaches
Read: California’s second phase of CPRA rulemaking sets automated tools in the crosshairs

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Developing a global approach to AI governance

As the existing and future risks of AI technologies become ever more apparent, regulators and policymakers around the world are paying close attention, with many seeking to introduce AI-specific legislation.

The European Union has for many years led the way with digital regulations in fields such as privacy and online harms and is now looking to do the same with artificial intelligence through the AI Act. This is a ground-breaking piece of legislation, which seeks to establish the world’s first comprehensive cross-sector framework for regulating artificial intelligence. Other jurisdictions are considering following the EU’s lead or developing their own approach, including the U.S., UK, and China.

One of the main challenges for organizations that are developing or using AI will therefore be to develop a consistent and sustainable global approach to AI governance framework which adequately manages the AI risks and satisfies diverging regulatory standards.

Standards for AI governance

A focus on Europe

The EU’s AI Act is arguably the most ambitious proposal to regulate AI currently and requires a high standard of compliance. The previous versions of the AI Act from the European Commission and Council have predominantly focused on introducing obligations in relation to ‘high-risk’ use cases of AI, including having comprehensive governance and risk management controls in place. However, the most-recent amendments proposed by the European Parliament seek to significantly widen the scope of the AI Act, by introducing specific rules for generative AI and a set of general principles for the development and use of all AI systems, irrespective of the risks that they may pose.

The UK has taken a very different approach to regulating AI, with the focus on introducing a set of basic principles which will be supplemented by sector-specific guidance from existing sector and domain-specific regulators. The proposal seeks to strike a balance between the primary policy objective of creating a ‘pro-innovation’ environment for business and developing trustworthy AI that addresses the most significant risks to individuals and society.

A focus on China

Lacking a unified AI legislative regulation, China takes a bespoke approach and creates rules for the specific types of algorithmic applications and AI services, e.g., recommendation algorithms, deep synthesis technology, and generative AI. On top of the global AI governance compliance framework, market players in China should also consider China-special challenges: one important issue is content moderation – companies should filter illegal and inappropriate content to follow “socialist core values” and not endanger national security.

Another consideration is the requirements concerning international data transfers under Chinese law, which may limit the cross-border use of AI systems globally.

Additional resources

Read: EU Lawmaker proposes to regulate generative AI – among other significant changes to the forthcoming AI Act
Read: NIST publishes Artificial Intelligence Risk Management Framework and resources
Read: UK government announces its competing vision for AI regulation in Europe

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AI use-cases in platform businesses: Brussels steps up regulation

As AI systems develop at a rapid pace, the EU is stepping up regulation and consumer protection measures.

The digital landscape, and consumer protection in general, specifically in relation to AI systems, focuses strongly on all forms of online platform businesses. Social media platforms, online marketplaces, search engines, and other online businesses have been newly regulated under the Digital Services Act (DSA). The Act imposes new obligations with respect to use of AI systems in content moderation, advertising and recommender systems of online platforms. And beyond the DSA, Brussels is propelling the legislative process for both the AI Act and the Data Act forward with renewed vigor.

AI is reshaping consumer engagement and supply chains

Consumer engagement is a key to profitability. AI-powered research tools and chatbots can help consumer-facing businesses learn what consumers are looking for and communicate with consumers round the clock in meaningful ways.

With the growing focus on how products are made and delivered, AI tools are becoming essential to monitoring supply chains. AI can help businesses confirm that products are sourced appropriately and identify potential enhancements to product development and delivery.

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AI-enabled technologies have demonstrated enormous potential for health care, fueling advances in areas across nearly every medical specialty area and as varied as drug development, software-as-a-service, and autonomous and assistive algorithmic analysis of medical images. Importantly, AI systems can address pressing issues such as health care workforce shortages and access challenges for underserved communities. However, these technologies also raise vexing questions, including:

**Data**: Where does it come from and is it of sufficient quality to be of use for AI algorithms? Who owns and / or controls the data, who has permission to use or exchange it, and for what purpose? And most importantly, how will sensitive patient health information be protected in view of escalating privacy and cybersecurity risks?

**Regulatory**: Should the AI-enabled product or service be regulated as a medical device (whether or not the implicated algorithm is iterative / self-updating), under which approval scheme(s) and in which jurisdiction(s)? What complexities will arise in view of additional industry-agnostic frameworks?

**Coverage and reimbursement**: Which government and / or private payers will partner with innovators and under what valuation models? Are there non-traditional payment or other incentive models which may ensure appropriate coverage and reimbursement by, for example, by permitting temporary transitional coverage or prioritizing preventive care?

Stakeholders with AI-enabled systems and tools currently under development must stay on the alert across jurisdictions in this rapidly developing area.
As AI technologies, particularly generative ones, continue to advance and reshape the digital landscape, the critical impact of intellectual property law for businesses utilizing AI-driven solutions is in clear evidence – from two main perspectives: How can I protect my rights in an AI system? And what comes out of it?

First, how to build a viable IP protection strategy for an AI model, as well as for individual components of an AI system, which constitute essential value factors? Which IP right – patent, copyright, database right, trade secrets – is best suited to protect which AI component – training data, AI model, algorithms?

And second, can the output of an AI system be the subject of IP protection? Even if blanket protection of AI creations is generally denied, specific pieces of AI output may arguably enjoy IP protection. Where AI is employed creatively, and in particular in instances where it is used as a tool – such as in a camera or steering a paintbrush – it is not convincing that copyright protection should be ruled out in each and every case.
Whether training ingestion of copyrighted content is permissible fair use to the arguably derivative nature of generative AI’s output to nuanced – and internationally variable – registrability requirements for works created utilizing generative AI, there can be no question that generative AI is transforming the landscape of copyright law. What are the issues at the forefront of AI copyright law? And what should companies bear in mind as they navigate this evolving landscape?

One headline issue surrounds whether the ingestion of copyrighted material, absent permission, for the purposes of training generative AI tools is an impermissible use under copyright law that infringes the copyrights held in the underlying material. Several lawsuits including class actions have been filed on these grounds, with fair use defenses being asserted in response. These issues are live before the courts and yet to be decided, but should be closely followed by companies developing and deploying generative AI.

A second issue concerns whether, because of the way generative AI models are trained, their output is an infringing derivative of the copyrighted works they ingest. While any risk will be circumstance specific, including with respect to the particular content ingested, commands used and output generated, both generative AI developers and users should be aware of the potential liabilities – including direct and vicarious – associated with arguably infringing generative AI output.

Third, copyright registrants and litigants are well-advised to stay abreast of the nuanced and evolving registrability requirements for works involving generative AI, which are likely to implicate copyright litigation more broadly. In March 2023, the U.S. Copyright Office issued a statement of policy applying a human authorship requirement for copyrightability in setting forth a case-by-case approach as to whether AI-generated content is eligible for copyright protection, concluding that works created by generative AI in response to human prompting do not. That policy statement also requires that AI-generated material be disclosed when applying for copyright registration, that previously filed applications which do not disclose the use of AI be corrected, and that supplemental registrations identifying and disclaiming any AI-generated material contained within previously-registered works be filed. These human authorship and registration requirements, combined with varying registrability policies in other Berne Convention jurisdictions, are likely to give rise to significant avenues for discovery and attacks on validity in copyright litigation moving forward.

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The rapid growth of AI and its ramifications for nearly all aspects of society and the economy is placing increasing pressure on the U.S. and European governments to proactively set regulations and guardrails for this nascent technological revolution. While AI regulation is only in its infancy, we are already seeing divergent regulatory approaches on either side of the Atlantic. What is clear, however, is that AI policy will be a hotly debated issue in the halls of government for years to come.

**U.S.**

Even in a bitterly divided Washington, Congress and the Biden Administration are keenly focused on the growth of AI. Over the coming months and years, we expect this focus to grow and AI policymaking efforts to intensify.

**Europe**

The explosion in the use and application of generative AI since late 2022 has put its regulation firmly at the center of the policy agenda across Europe. Much has been said about the vast potential for AI to change every facet of ordinary life, but some have also expressed concerns about potential harms, including bias, inaccuracy, and infringement of rights.

Read our full breakdown [here](#).
The future of AI regulation and the cyber threat landscape are evolving in tandem. To add to this complexity, as with many new technologies, AI can serve dual purposes. It can aid bad actors in the execution of larger, more frequent, and more effective cyberattacks, while at the same time acting as a tool employed by organizations for enhanced detection strategies and risk management. In addition, there are new cyber threats connected to use of AI technologies, such as ways that bad actors could seek to manipulate AI inputs (poisoning training data sets) or outputs (via maliciously crafted inputs).

In response to rapid developments, regulators across the globe have released frameworks, announced requirements, and proposed new rules calling for stricter security practices and controls for AI. In the U.S., the Biden Administration has taken steps to address consumer concerns regarding the reliability and security of AI services, developing a Blueprint for an AI Bill of Rights and an AI Risk Management Framework. The UK and EU continue to lead with ambitious proposals, including the UK National AI Strategy, EU AI Act and EU Cyber Resilience Act, the latter of which will introduce specific security obligations. The Cyberspace Administration of China now requires security reviews of generative AI systems before they are introduced to the Chinese market.
The availability of Big Data, cloud-based hosting services, open-source AI software, and enhanced infrastructure, such as the graphic processing units (GPUs), to train and develop more sophisticated AI systems all have contributed to the rising adoption of AI in the financial services sector. Financial institutions and FinTech are either developing their own AI technology or relying on AI third party vendors for AI solutions.

AI has started to transform business models of financial institutions. Service providers have started to offer AI as a Service (AIaaS), which is a cloud-based service AI outsourcing offering, and financial institutions are integrating AI and ML solutions into their supply chain. More financial institutions are structuring their business models as not just simply B2B or B2C, but to B2B2C or B2B2B, frequently acting as an intermediary that procures AI solutions from third parties and offering them to their clients as part of a bundled product package.

Some common uses of AI/ML technology by financial institutions include: Chatbots, robo-advisors, fraud and money laundering detection for the purpose of AML and KYC checks, assessing creditworthiness and affordability, and evaluating insurance risk. These services facilitated through AI and machine learning allow financial institutions to offer tailored and diverse products to their customers at a cost-efficient manner.
AI/ML algorithms possess the ability to make and inform significant decisions that may impact individual lives, business, and societies at large. And the benefits of AI/ML come hand in hand with potential risks of a type not previously fully explored by business or society. The public and regulators alike have been quick to scrutinize the predictive processes of this innovative technology. Businesses and organizations who address and implement ethical considerations when developing and using AI systems will be best placed as the legal and regulatory landscape evolves.

To succeed, these governance programs need to create a strong foundation for future development. There needs to be a careful approach to enabling innovation and mitigating risks. Companies will likely need to take into account their environmental, social, and governance (ESG) initiatives when building out data ethics programs. Strong and ethical leadership from the top of a company will have a significant impact on the company’s culture when it comes to the use of AI/ML, and ethical future uptake. Clear lines of reporting, management structures, and ensuring that no aspect of the organization operates in a silo when it comes to the use of AI/ML is key, as are transparency and a critical evaluation of internal practices. As ever, companies will need to monitor developing legal requirements and codes of conduct and will – for some time – likely need to make determinations on AI/ML compliance structures even in circumstances where there are gaps in legislation and regulation.
Export controls as it relates to AI are focused on the sale of advanced semiconductors to the U.S., China, Russia, and other countries. In October 2022, the U.S. Commerce Department’s Bureau of Industry and Security (BIS) issued an interim final rule to deny China’s access to certain semiconductor and advanced computing technology and to inhibit China’s ability to manufacture those items domestically. Additionally, on 7 March 2023, U.S. Senators Mark Warner and John Thune introduced the Restricting the Emergence of Security Threats that Risk Information and Communications Technology (RESTRICT) Act, sweeping legislation aimed at restricting or prohibiting the use of Chinese and other specified foreign adversaries’ technologies in the U.S. with information and communications technology products and services integral to AI and ML being among a number of areas to be prioritized.

BIS’s October 2022 rule does not solely target AI platforms and capabilities. The rule places restrictions on certain high-performance integrated circuits and related computers, servers and electronic assemblies that are used in advanced computing platforms which in turn enable advanced AI capabilities. It also imposes end-use and end-user-based restrictions on exports, reexports, and in-country transfers of items intended for use in certain semiconductor fabrication “facilities” in China and “supercomputers” located in or destined for China. Additionally, the RESTRICT Act legislation poses additional potential restrictions on the use and supply of information, communication and technology (ICT) products and services, which could include the targeting of AI-related products or services, to or from certain countries, including China, and would grant the Commerce Department express authority to target assets outside the U.S. that are used to support or enable the use of certain adversary country ICT products and services in the U.S.
The Automotive and Mobility industry is making a once in a century transition of its core technologies. The shift from the internal combustion engine (ICE) toward electric vehicles (EVs) gets the most attention in the press. AI is enabling a transition that is just as profound.

Connectivity, sensors, and software deploying AI is enabling a fundamental shift in the driving experience, adding new sources of revenue for companies while also changing the culture of the automotive industry into a mobility outlook.

Some envisioned a rapid transition to fully autonomous vehicles (AVs) with mobility services provided by “robo-taxis.” This extreme optimism has, in many circles, shifted to extreme pessimism.

AV technology is advancing in off-road applications. This capacity will further transform as sensors and AI increase capacity. Driver assistance technology continues to advance and its applications are increasingly both more robust and more widespread within new on-road vehicles.

We advise clients globally on a wide range of related issues including certification and testing requirements for AI-driven technology in autonomous and connected vehicles, how to mitigate risk and identify liability as AI plays a larger role in automated driving systems, and how to manage and protect the increasing amounts of private data being generated by AI capacity in connected and autonomous vehicles.
Space – A natural field of use for AI

A substantial number of AI applications are being deployed in the space and satellite industry. This is a natural field to use AI, given the very limited current ability to maintain human presence in space and the need for autonomous operations, as well as the space domain being a source of extensive raw data. Many terrestrial AI applications required AI to manage matters that humans cannot address effectively.

In space, many of the operations that are in need of automation are done without any direct human presence or even human involvement.

Exciting new applications are occurring in numerous areas, including:

- Space robotics, particularly for In-Space Servicing, Assembly, and Manufacturing (ISAM)
- Avoiding collisions and monitoring of space debris
- Satellites connecting in space (rendezvous, proximity operations, and docking, or RPOD)
- Space exploration including moon and Mars rovers
- Many analytics applications, as huge amounts of data are being gathered from space

Data sensed from space (from visual to radar-based) is a seemingly endless source of new data, and machine learning algorithms are being used to process satellite imagery, detecting and classifying Earth’s features for geographical information systems, classifying various land cover types in imagery, crop monitoring and predicting, wildlife conservation, disaster response, and in connection with many other use cases.

As with terrestrial AI, the technical challenges to creating and deploying space-based AI are considerable. However, every year more progress is made at being able to control space activities both from the ground and in space itself, at collecting data in space that cannot be obtained from the ground and in furthering space exploration. Having privately-owned, manned stations in space seems within reach, and productive trips to Mars or even asteroids could well happen in the next decade.

Read more of our analysis here.
Communications networks building the foundations for AI deployment

AI use cases across sectors will rely on communications networks to support the transmission of high quantities of data at lightning fast speeds, as well as for current and emerging mobile and aerial systems and their related safety applications, particularly in a 5G and IoT environment. Telecommunications regulators in the U.S. and around the globe are and will be considering how to make more radio frequency spectrum available to meet this surging demand—whether by repurposing existing spectrum or enabling greater spectrum sharing through use of innovative methods, including the use of AI. On the network side, providers will be facing the challenges associated with network densification, optimization, and maintenance as well as deploying software-defined networks and AI computing at the network edge. Providers will also be confronting how to ensure that these networks are reliable and resilient, protected from cybersecurity threats, network outages, and environmentally friendly to achieve ESG goals. In addition, providers are exploring how AI can improve the customer relationship and experience, while equipment manufacturers are looking to introduce AI in the products and services they provide to carriers and end users.

Evaluating AI and the public interest

Telecom regulators are also evaluating how AI can advance various public interest objectives. For example, in the U.S., the Federal Communications Commission (FCC) has explored how AI can aid in the development of more accurate broadband data maps, which could be used to support the FCC’s goal of “closing the digital divide.” In the same vein, in its role as advisor to the President on telecom and information policy issues, the National Telecommunications and Information Administration has sought stakeholder feedback on AI and human rights and civil rights and accountability mechanisms for promoting responsible use of AI. These trends are occurring throughout the globe as well. Interest from telecom regulators on the technical and societal issues related to AI are only expected to increase as this technology gains maturity.

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Being an innovative business—especially involving AI—comes with its challenges and legal risks. As AI applications continue to advance and become integrated into various business models and industries, businesses’ exposure to litigation is likely to increase. Companies and organizations can safeguard and mitigate against such risk by:

- Ensuring that the AI application was programmed correctly;
- Maintaining documentation to show that the AI input was correct, appropriate, and not corrupted;
- Sufficiently supervising the AI application and its output; and
- Establishing guardrails against users misusing the AI application.

Our team explores possible allegations and how to navigate civil disputes revolving around AI here.

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Our mergers and acquisitions team is ranked among the Elite law firms for Corporate M&A by Chambers USA and our lawyers have acted as M&A counsel to many of the largest and most sophisticated players in the technology sector, advising them on some of their most cutting-edge M&A transactions. Our team advises public and private companies of all sizes, from start-ups to publicly traded, whether buy-side or sell-side, U.S. domestic or cross-border. Collaborating with our intellectual property lawyers, we help clients assess IP risks and value. Our regulatory and policy lawyers help clients navigate the filing and review process for public transactions, cooperating with competition authorities to secure antitrust approval, and liaising with regulatory authorities to obtain required approvals and consents. These collaborations will be critical for AI transactions.

As with other industry-changing technology innovations, we expect that AI development will continue to generate M&A activity as established players seek to develop their technologies and product lines, successful emerging companies seek bigger platforms for their innovations, and early-stage investors seek exits.

M&A deals involving AI technology and companies that develop and commercialize that technology will pose many of the same issues as M&A involving other technology businesses – including IP, employee retention, and commercial issues. These deals will also require parties to focus on issues particular to AI – including provenance and use of training data and export control, data privacy and security, and other regulatory concerns.

AI-related issues will also arise in deals involving technology businesses that are users of AI technologies, even if they are not developing or commercializing AI themselves. These will include questions about trade secret protection, data privacy, and protectability of innovations made with the assistance of AI.

Our team is distinctively positioned to provide sophisticated support as M&A transactions related to the evolution of AI technologies begin to generate activity.