Artificial Intelligence

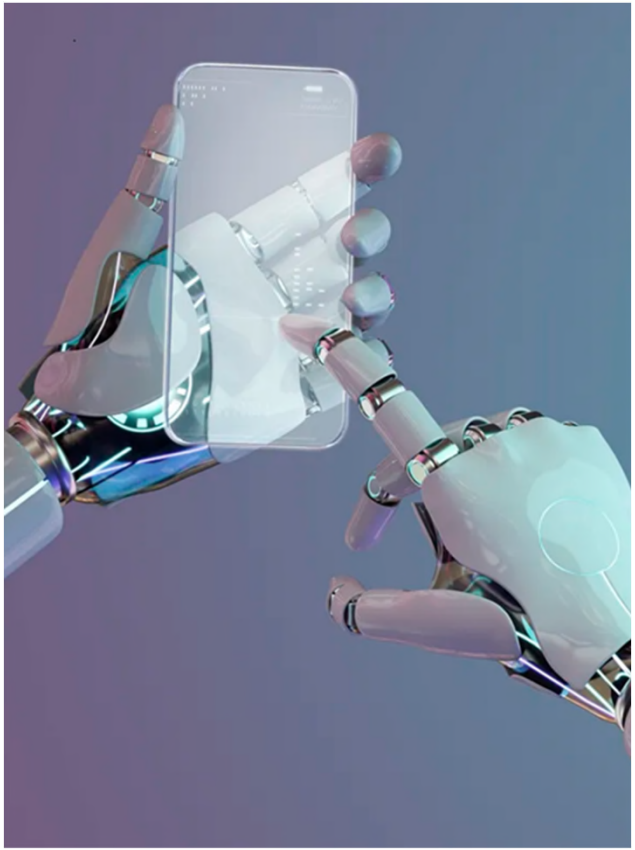
Methods for Enhancing Trust Based Upon Legal Landscape

Awareness Training

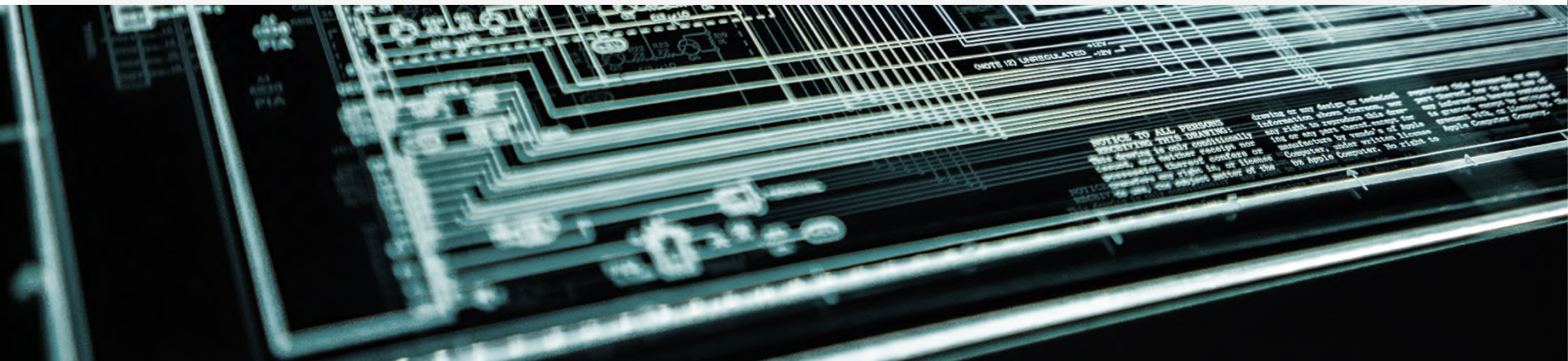
MAYER | BROWN

Agenda

1. Artificial Intelligence and Algorithmic Bias
2. Models of AI / Data Governance
3. US/EU Legal Framework
4. Regulatory Focus on the Board's Duty of Care and Oversight
5. Key Takeaways for Boards Managing AI Risk
6. Questions?

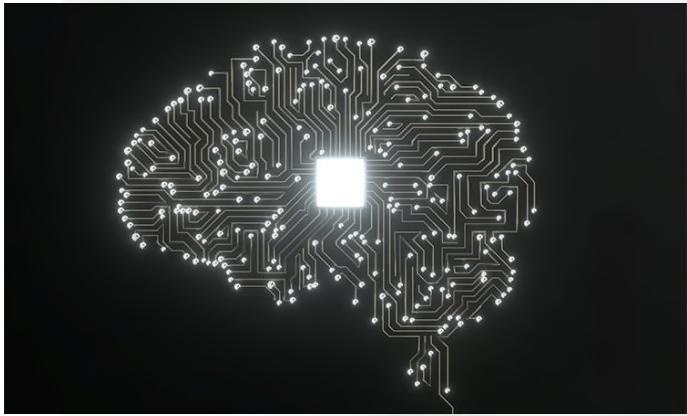


Artificial Intelligence & Algorithmic Bias



What is Artificial Intelligence (AI)?

- Mimics human intelligence processes via creation and application of algorithms built into a dynamic computing environment.
- A field that combines computer science and robust datasets to enable problem-solving.
- Has three key components:
  - Computational systems
  - Data and data management
  - Advanced AI algorithms (code)



AI Bias

- *Machine learning bias* (also known as **algorithm bias** or **artificial intelligence bias**): the tendency of algorithms to reflect human biases.
- Ways AI Bias can play out:
  - Models may be trained on data from human choices or data from social or historical disparities.
  - Data may be biased by the way they are gathered or chosen for use
  - A machine learning system may potentially detect statistical connections that are considered socially inappropriate or unlawful
  - Lack of diversity in AI development teams (*e.g.*, who creates the algorithms also plays a key role)

AI BIAS IS A CONCERN FOR THE BOARD

AI bias in data sets can skew results and lead to inaccurate output predictions

This can impact:

- Ethical issues
- Profit projections
- Useless and wasteful results
- Business credibility and reputation

BOARD TIP:

Have awareness of potential biases and how to reduce them, because the reduction of bias means more accurate models and more accuracy means better business outcomes.

Challenges and Safety Risks with AI

System complexities:

- AI systems are usually cloud-based, and require expansive bandwidth and specialized hardware to access these AI capabilities.
- This often requires a large initial investment.

Cost of training:

- Like any other new technology solution, adoption of AI and its effective use requires personnel training, requiring significant investment of time and money.
- This can impact business efficiency - supply chain partners need to work closely with AI providers to create a training solution that is impactful and at the same time, affordable during the integration phase.

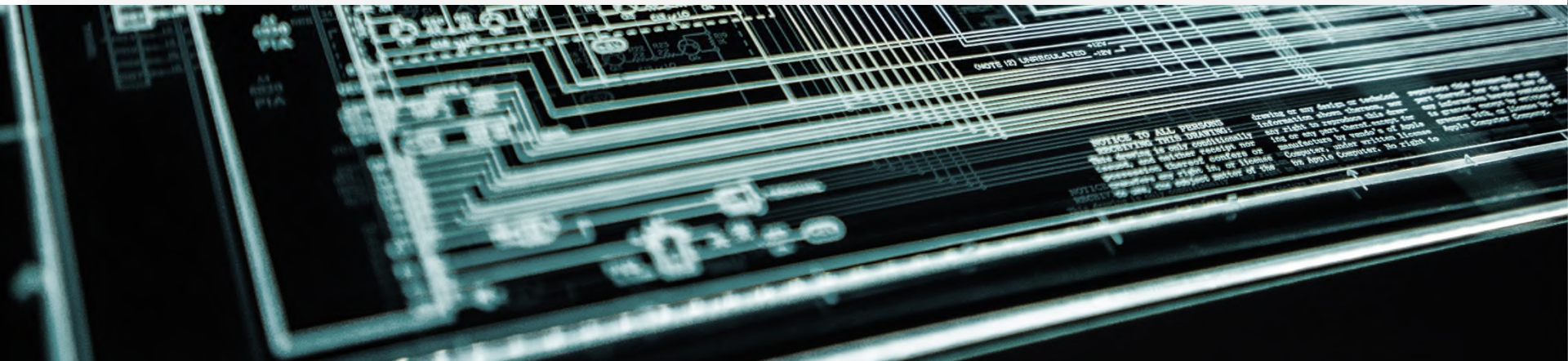
Operational costs involved:

- An AI-operated machine has an exceptional network of individual processors
- Each of these parts need periodic maintenance and replacement
- This can result in high operational investment.

Throughput | Unlocking the Value of AI in Supply Chains and Logistics

US/EU Legal Framework:

WHAT THE BOARD SHOULD KNOW



Frameworks Generally

1. Accountability
2. Transparency and Explainability
3. Fairness and Accuracy
4. Security
5. Human-centric

BOARD TIP:

Accountability of AI use is the foundation of many international AI frameworks. While the Board is not conducting daily AI work, the Board is responsible for its overall oversight.

EU: The EU Digital Services Act (DSA) and Draft Artificial Intelligence (AI) Act

- The DSA contains obligations for online providers regarding algorithmic transparency and accountability, for example:
  - Art. 26: Providers of very large online platforms shall diligently identify, analyze and assess any systemic risks stemming from the design, including algorithmic systems, functioning and use made of their services in the EU
  - Art. 54 (3): The competent authorities may require the provider of very large online platforms and search engines to provide explanations on IT system, and algorithms, data-handling
- The EU's draft AI Act focuses on bias.
- The proposed AI Act aims to complement existing EU law on non-discrimination with **specific requirements** that aim to minimize the risk of algorithmic discrimination.
- In particular, the AI Act targets the design and the quality of data sets used for the development of AI systems
- The AI Act also creates testing, risk management, documentation and human oversight obligations throughout the AI systems' lifecycle.

EU – Draft Artificial Intelligence Act

Data governance and management should be applied to AI

- This involves implementation of data governance and management practices to ensure high quality training, validation and testing data sets are used.
- Training, validation and testing data sets should be relevant, representative, error-free, and complete.

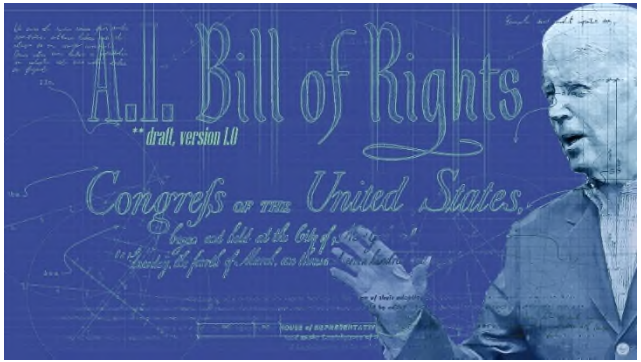
Users of AI systems must also arrange for human oversight.

- Human oversight should be given to natural persons with necessary competence, training and authority.

To mitigate risk, certain mandatory requirements should apply.

- Including a continuous iterative process planned and run throughout the entire lifecycle of a high-risk AI system.
- Process should ensure that the provider identifies and analyses the risks to the health, safety and fundamental rights of the persons who may be affected by the system in light of its intended purpose.
  - This should include possible risks arising from the interaction between the AI system the environment it operates in.
  - The draft legislation accordingly adopts suitable risk management measures in the light of state of the art.

The White House Issued an AI Bill of Rights In October 2022



On October 4, 2022, President Biden issued the Blueprint for an AI Bill of Rights to ground federal principles in "an AI-powered world." The pillars of this framework are are:

- Safe and Effective Systems
- Algorithmic Discrimination Protections
- Data Privacy
- Notice and Explanation
- Human Alternatives, Consideration, and Fallback

- Source

BOARD TIP:

Boards should ensure its AI systems and use mirror White House guidelines.

The U.S. Came Close to Enacting Federal Privacy Legislation With Specific Provisions to Prevent AI Bias

- The U.S. American Data Privacy and Protection Act was drafted to provide Civil Rights protections for U.S. citizens related to algorithms.
- First legislation addressing algorithmic bias to emerge with bipartisan support from a Congressional committee.
- First legislation to address algorithmic bias with support from both Democrats and Republicans.
- Will be enforced by FTC.
- Covered entities include organizations that develop algorithms to collect, process, or transfer covered data or publicly available information.
- Companies need to understand which operations in the organization fit within the definition of a covered entity.
- Especially need to understand whether you might be considered a "large data holder," because that category of entities must conduct extensive impact assessments every two years.

Source

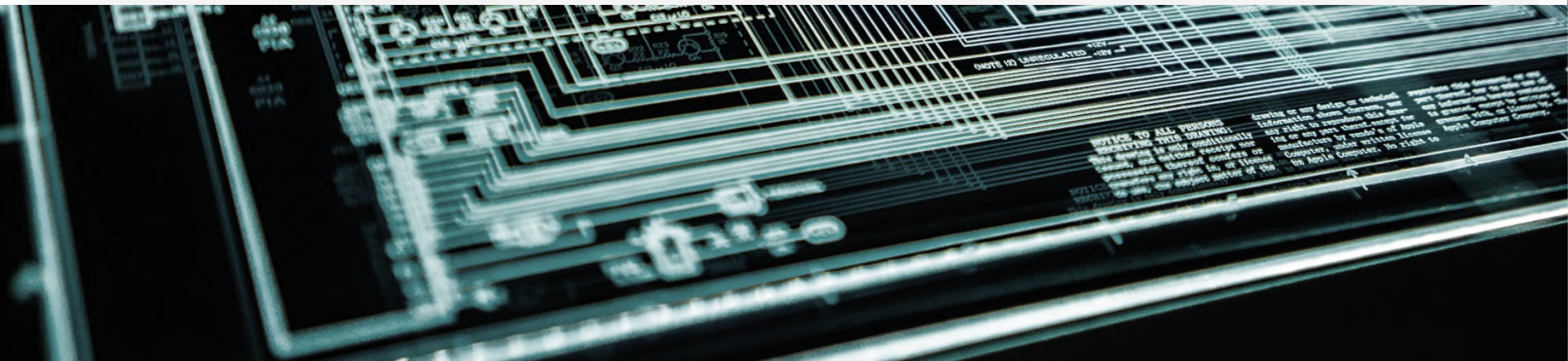
BOARD TIP:

Ensure there is an internal impact assessment process in place for the development of algorithmic products.

US/EU Considerations for the Board

- What are your protections against cyber-attacks on your AI systems?
- What is your board doing to ensure discrimination risks are minimized?
- Does your company have a plan in place to vigorously assess bias and detrimental changes for updates and routine software changes?

Key Takeaways for Boards Managing AI Risk



Board Priorities in the AI Age

1. Always use human oversight.
   - *This is the key to AI success.*

2. Pay attention to the integrity of the data used to train models
   - Accuracy and cybersecurity are important to protect the integrity of data collected for the AI, as well as the algorithms' output.

3. Before algorithms are put into the wild for general consumption, ensure testing and monitoring processes are in place.
   - After they are in place, processes should ensure that unintended consequences do not emerge.

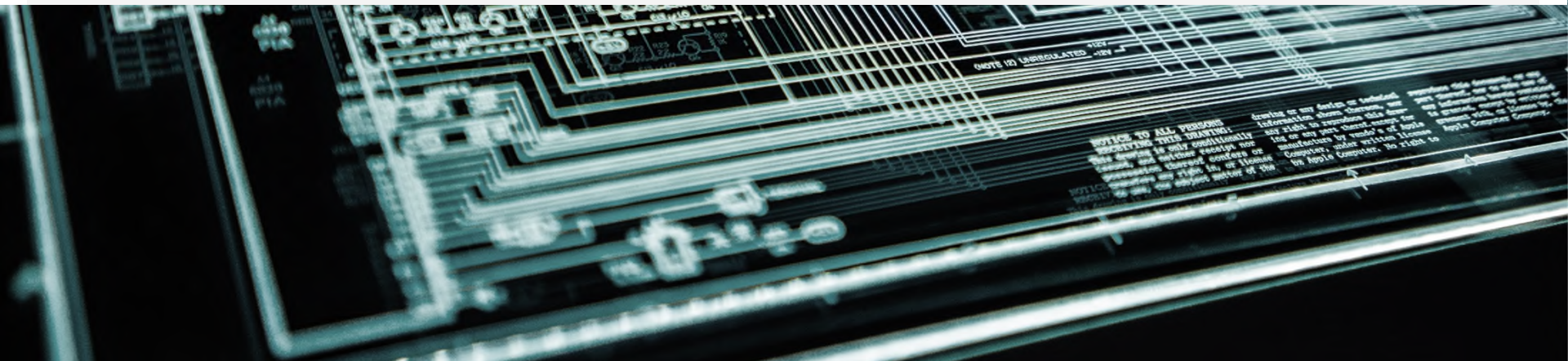
Board Priorities in the AI Age (Cont'd)

4. Update testing and verify accuracy.
   - Update testing even after routine changes are made to systems (e.g. operating system changes; software changes).

5. Use diverse teams to:
   - develop algorithms
   - train the data and decide what data is used to train models
   - protect systems (including both technical controls and governance).

This will help insulate the company from claims that it has not considered and embraced diverse perspectives.

Questions?



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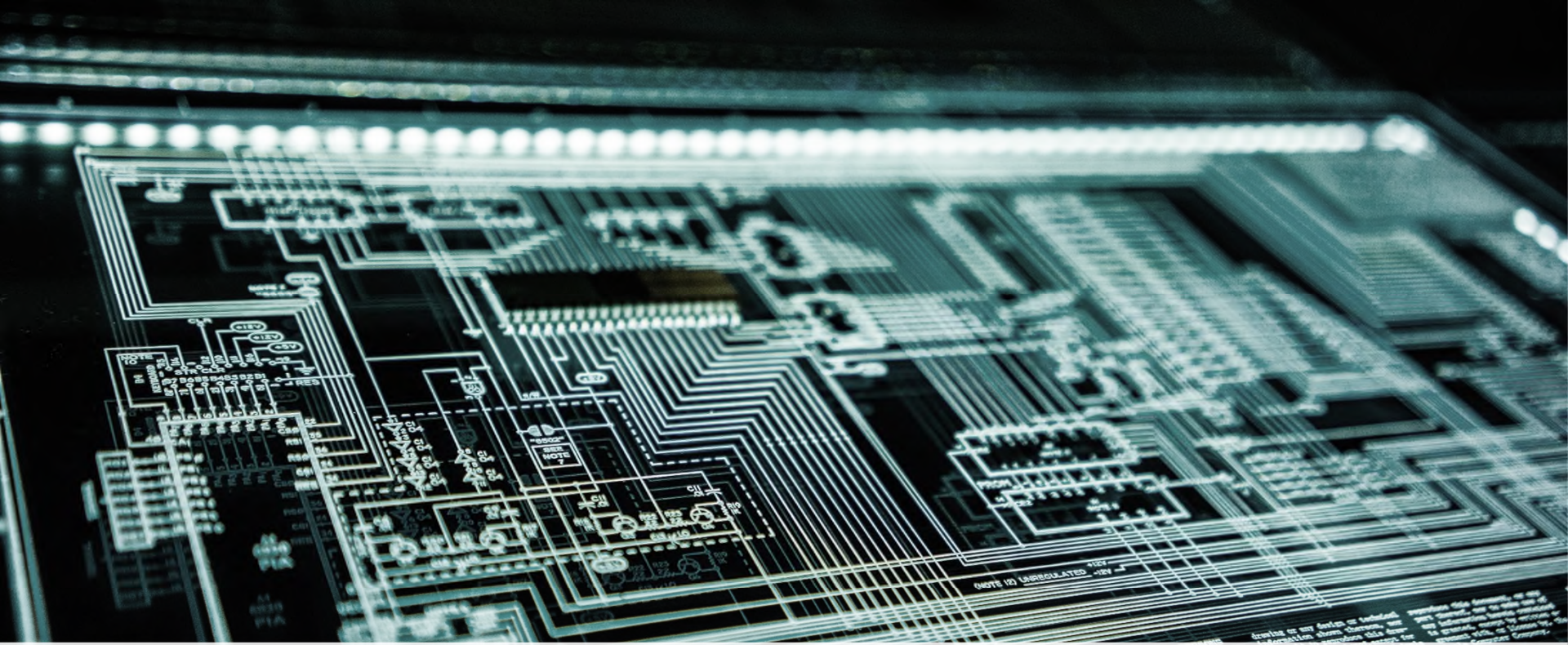
Dominique is the lead for the Global Data Innovation as well as Ad Tech Privacy & Data Management practices. She is one of the country's top privacy and data lawyers, and her considerable experience helps clients navigate the evolving legal compliance issues related to privacy and data security for their digital data initiatives. Among her many accolades, Dominique has been named to the "Top 100 Women Lawyers in California" by The Daily Journal (2021); a "Woman of Influence" by The Los Angeles Business Journal (2021); and an "Incident Response 40" by the Cybersecurity Docket (2019–2022). She is also ranked in both Chambers Global (2021-2022) and Chambers USA (2020-2022) for Privacy & Data Security. Dominique is co-founder and co-CEO of NxtWork and has been appointed to the Nasdaq Center for Board Excellence's Risks and Cybersecurity Insights Council.



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