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## Digital Regulations in the Metaverse Era

# UNITED STATES

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# Introduction

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In general, the United States' failure to regulate the crypto and digital currency market has led to a surge of litigation, the outcomes of which have begun to serve as the regulatory framework for digital currency, digital assets and the use of blockchain technology.

It is necessary for lawyers, firms, legal organisations and the judiciary to learn and understand emerging technologies, as they are having a growing impact on the law and practice of law. From digital assets, cryptocurrency and blockchain to Web3 and the metaverse, lawyers and judges are handling matters dealing with emerging technologies with increasing frequency.

Emerging technologies including digital assets, crypto and other digital currencies have captured the imagination of the financial world, as well as many other industries, by offering a new way to conduct transactions and store data securely. At the core of these innovations lies the blockchain, a decentralised digital ledger that records transactions across many computers, so that any involved record cannot be altered retroactively, without the alteration of all subsequent blocks. Web3 is the latest form of the World Wide Web, which incorporates decentralisation based on blockchain technology.

Blockchain is essentially a distributed database that maintains a continuously growing list of records, called blocks, which are linked and secured using cryptographic principles. Each block contains a cryptographic hash of the previous block, a timestamp and transaction data. This design allows for secure and transparent transactions that attempt to be resistant to fraud and tampering.

Digital currencies, also known as cryptocurrencies, are the most renowned application of blockchain technology. Bitcoin, introduced in 2009, was the first and is the most well-known cryptocurrency. Unlike traditional currencies, cryptocurrencies are not controlled by a central authority, such as a government or financial institution. Instead, they rely on a decentralised network of computers to manage and record transactions. This ensures that the currency is completely digital, and its creation and transactions are governed by cryptography.

The decentralised and global nature of digital currency and the increased potential for cross-border transactions has inspired the need for regulation, legislation, lawsuits and prosecutions. Initially, most of these cases focused on identifying where these currencies fit into our current financial and regulatory structure, with questions regarding ownership and the legality of their use.

# Analysis of the US litigation shaping the current oversight

Initially, Canada, Mexico and the US began by following a civil law approach, which attempted to adapt the existing legal framework to this convergence of technologies. Litigation surrounding the metaverse in the US has begun to broach questions concerning the service of process, the crossover of claims from civil to criminal, the classification of digital assets as securities and what restrictions govern such assets. While not an exhaustive list, some of the most impactful cases are *Hermès International, et al v Mason Rothschild* 1:22-cv-00384 (SDNY), *Alexandru Bittner v United States* No 21-1195 and *SEC v Ripple Labs Inc* No 20-cv-10832.

Many of the cases grapple with the question of how existing laws can be extended to govern the realm of the metaverse. In *Bittner*, the US Supreme Court issued a significant opinion with regard to reporting requirements and cryptocurrency exchanges. The Bank Secrecy Act (BSA) requires individuals with financial interests in foreign accounts to file an annual Report of Foreign Bank and Financial Accounts, and the statute imposes a maximum US\$10,000 penalty for wilful violations.<sup>1</sup> A critical limit to this penalty was introduced by *Bittner*, which caps the penalty per each report, rather than per each account.<sup>2</sup> As with other notable cases, the effects of this decision hold significant implications on the evolving technology underlying the metaverse and for exchanges of cryptocurrency.

In certain circumstances, litigation related to the metaverse has involved both civil and criminal aspects of the law. Notably, FTX founder Sam Bankman-Fried was found guilty on charges of fraud and money laundering stemming from the collapse and bankruptcy of his cryptocurrency exchange, and he now faces decades of imprisonment. Shortly after the bankruptcy of FTX, which was once the world's largest cryptocurrency exchange, it was found that roughly US\$8bn of customer funds were missing, leading to Bankman-Fried's arrest. Despite maintaining his innocence and asserting he had acted in good faith, Bankman-Fried was found guilty on all seven counts, following a jury trial in November 2023.

Navigating notice requirements in cases has also seen changes in the context of blockchain and the metaverse. In *LCX AG v John Doe* Nos 1-25, a New York court was receptive to a creative attempt to effectuate service on the defendants.<sup>3</sup> European cryptocurrency exchange LCX had roughly US\$8m stolen from one of its crypto wallets and transferred to another wallet. The only known data point was the unique blockchain address of the defendants' wallet. Ultimately, the New York State Supreme Court granted permission for the plaintiff to 'serve' court documents to the crypto wallet via its blockchain address.<sup>4</sup>

Another legal principle being tested by the emergence of new technology is the US Supreme Court's 'Howey Test', which was established in 1946 and has long been a key means of classifying securities and determining whether an asset constitutes an investment contract.<sup>5</sup> For decades, US courts have applied the test in discerning the line between securities and non-investments; however, the adaptability of the Howey Test and similar legal standards has been scrutinised in its application to cryptocurrencies.

Under *Howey* and subsequent case law, an 'investment contract' exists when there is the investment: (1) of money; (2) in a common enterprise; (3) with a reasonable expectation of profits; and (4) to be derived from the efforts of others.<sup>6</sup> The four-part Howey Test was intended to apply to any contract, scheme or transaction, regardless of whether it has any of the characteristics of typical securities.<sup>7</sup> Additional guidance from the Securities and Exchange Commission (SEC) has suggested additional relevant considerations in applying the Howey Test to digital assets.<sup>8</sup>

The boundaries of the existing laws in this context have continued to be stretched with the proliferation of the metaverse and the use of cryptocurrency. Following a jury trial in 2023, a defendant was found liable on three counts of trademark

1 *Bittner v United States* No 21-1195, 598 US \_\_\_\_ (2023).

2 *Ibid.*

3 *LCX AG v John Doe* Nos 1-25 (Dkt No 154644/2022) (NY Supreme, Ct, NY County).

4 *Ibid.*

5 *SEC v W J Howey Co*, 328 US 293 (1946).

6 *Howey*. Also see *United Housing Found Inc v Forman* 421 US 837 (1975); *Tcherepnin v Knight*, 389 US 332 (1967); *SEC v C M Joiner Leasing Corp*, 320 US 344 (1943).

7 Under the Howey Test, 'form [is] disregarded for substance and the emphasis [is] on economic reality.' *Ibid* at 298. The Court further explained that that the term security 'embodies a flexible rather than a static principle' in order to meet the 'variable schemes devised by those who seek the use of the money of others on the promise of profits.' *Ibid* at 299.

8 US Securities and Exchange Commission, 'Framework for "Investment Contract" Analysis of Digital Assets', [www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets](https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets) accessed on 16 July 2024.

violations against Hermès International for the use of the Birkin mark in ‘MetaBirkin’ non-fungible tokens (NFTs).<sup>9</sup> Ultimately, the district court granted Hermès’ request for a permanent injunction, finding that the continued marketing of the NFTs would be likely to confuse consumers and irreparably harm the company.<sup>10</sup> The Hermès case and other emerging cases have begun to lay the groundwork for how intellectual property (IP) rights will be treated in connection with the creation, purchase and sale of NFTs, including the extent to which NFTs of physical assets are distinct from the physical assets to which they correspond.<sup>11</sup>

A common theme across cases in the US concerns the legal principles of fairness and due process. In cases brought by the SEC, defendants have asserted a fair notice defence arguing that the laws surrounding the use of metaverse technology fail to comport with due process when they fail to ‘provide a person of ordinary intelligence fair notice of what is prohibited’, or when they are so lacking in standards that they authorise or encourage ‘seriously discriminatory enforcement’.<sup>12</sup> Despite the lack of success in raising this due process defence in these cases, its frequent use by defendants emphasises the need for a more comprehensive regulatory and legal framework in the US that can adapt to metaverse technology.

With legislative and executive agencies in the US still working to enact laws and regulations that address these novel legal issues, the judiciary has continued in its role to check the power of such agencies. In a significant victory, the US-based blockchain payment network XRP (Ripple) first succeeded in blocking an interlocutory appeal by the SEC.<sup>13</sup> Ultimately, in a partial victory for the company, the court found that Ripple had not violated existing securities laws by selling XRP to exchanges and giving retail buyers a chance to invest, but it did break the law when selling tokens directly to institutional investors.<sup>14</sup> Decisions, such as that by Judge Analisa Torres in *Ripple*, have the potential to create a precedent in the cryptocurrency industry by drawing a critical distinction between direct contractual efforts between issuers/promoters and purchasers, and market purchasing in the token space. As cases continue to push the boundaries of existing legal standards, there is greater demand for a more comprehensive legal framework, particularly regulatory and legislative action aimed at cryptocurrency and other metaverse technology.

## ***The current US regulatory framework***

There is no doubt that the US is moving closer to some form of federal regulation. The current state of the House of Representatives seems that it will likely pass a crypto bill in the coming session. ‘As other jurisdictions like the UK, the [European Union], Singapore and Australia have moved forward with clear regulatory frameworks for digital assets, the United States is at risk of falling behind. We intend to change that today,’ said Representative Patrick McHenry, the Republican Chair of the House Financial Services Committee, at the markup of the crypto bill, the Blockchain Regulatory Clarity Act, on 26 July 2023.<sup>15</sup> The markup stage is where legislation in the US is debated and brought to a vote. While the bill passed the House Financial Services Committee, it did not make it to the floor in 2023.

Over the past year, many pieces of legislation have been proposed in this area in response to the outcomes to litigation, which have created mixed messages for the crypto/digital asset industry. Congressman Ritchie Torres, a Democrat from New York, shared his opinion after the issuance of the decision on the motion for summary judgment by Judge Analisa Torres in *SEC v Ripple Labs*,<sup>16</sup> that a combination of the *Ripple* case and a market structure bill will bring the US to where it needs to be in regard to crypto regulation. However, both houses of Congress need to pass the bill for it to get to the president’s desk for signature.

In 2022, the Stablecoin Transparency Act was introduced into the US Senate as S.3970.<sup>17</sup> The bill’s purpose was to require stablecoin issuers to hold all reserves associated with each fiat currency-backed stablecoin they issue.<sup>18</sup> It defined fiat currency-backed stablecoins as ‘a digital asset backed by a non-digital currency and redeemable on a one-to-one basis in

9 *Hermès International, et al v Mason Rothschild*, 1:22-cv-00384 (SDNY).

10 *Ibid.*

11 *Nike Inc v Stockx LLC* 22-cv-00983.

12 *SEC v Ripple Labs Inc et al* 20-cv-10832-AT-SN (SDNY 22 December 2020), (internal citations omitted) [www.nysd.uscourts.gov/sites/default/files/2023-07/SEC%20vs%20Ripple%207-13-23.pdf](https://www.nysd.uscourts.gov/sites/default/files/2023-07/SEC%20vs%20Ripple%207-13-23.pdf) accessed 16 July 2024.

13 *Ibid.*

14 *Ibid.*

15 Hannah Lang, ‘Crypto bill passes congressional committee in victory for industry’, *Reuters*, 27 July 2023 <https://www.reuters.com/technology/us-congressional-committee-set-weigh-crypto-bills-2023-07-26> accessed on 16 July 2024.

16 See footnote 12, above.

17 US Congress, S.3970 - Stablecoin Transparency Act <https://www.congress.gov/bill/117th-congress/senate-bill/3970> accessed 16 July 2024.

18 *Ibid.*

that currency.<sup>19</sup> Hearings were held by the Committee on Banking, Housing and Urban Affairs and it was then referred back to the Committee by the Senate.

The Market Structure Proposal was introduced to the US Congress in June 2023 by Patrick McHenry of North Carolina, Chair of the House Financial Services Committee, and Glenn 'GT' Thompson Jr of Pennsylvania, Chair of the House Committee on Agriculture. The focus of this proposed bill is to provide a statutory framework for digital assets. It was drafted with the intent to 'provide clarity, fill regulatory gaps and foster innovation' and consumer protection.<sup>20</sup>

A host of crypto and digital asset bills were introduced on 26 and 27 July 2023, including Senators Cynthia Lummis, a Republican from Wyoming, Kirsten Gillibrand, a Democrat from New York, and Roger Marshall, a Republican from Kansas, adding two parts of Senate Amendment 712 to the National Defense Authorization Act (NDAA) for Fiscal Year 2024.<sup>21</sup> If enacted into law, these amendments would require the Treasury's Office of Foreign Assets Control (OFAC) to begin risk-focused examinations of businesses with respect to cryptocurrency and also add a reporting requirement for anonymity-enhanced cryptocurrencies and tools. The amendment to the NDAA passed the Senate on 28 July 2023. Several other bills were also introduced, including the Blockchain Regulatory Certainty Act, the Financial Technology Protection Act of 2023, the Financial Innovation and Technology for the 21st Century Act, the Clarity for Payment Stablecoins Act of 2023 and the Keep Your Coins Act of 2023. Then, on 28 July 2023, the Digital Asset Anti-Money Laundering Act of 2023 was also reintroduced.<sup>22</sup> These and other bills have been moving around the US legislature for some time, but still seem to be unable to get past the finish line and be signed into law.

Senator Kristen Gillibrand and Senator Cynthia Lummis have continued to work as a team introducing legislation to regulate the US crypto industry, introducing their first bill in June 2023 and their most recent bill at the beginning of 2024. The 2024 bill is known as the Lummis–Gillibrand Responsible Financial Innovation Act.<sup>23</sup> After the fall of FTX and other big litigation, the newest version of the bill places the focus on consumer protection. The first section of the proposed bill is titled 'Putting Consumer Protection First'.<sup>24</sup> The bill has eight additional substantive sections, which includes the handling of illicit finance, commodities regulation, securities regulation, 'Customer Protection and Market Integrity Authority', taxation, interagency coordination and 'Equipping Agencies to Protect Consumers and Promote Responsible Innovation'.<sup>25</sup> Certain specific parts of the bill tend to receive the most attention, including the requirement that companies segregate client assets and the imposition of a third-party custody requirement, requiring companies to show that their reserves can cover the customer balance, the creation of new advertising standards for marketing cryptocurrency, and the first attempt to define a 'decentralised crypto-asset exchange'. By requiring mandatory registration with the Commodity Futures Trading Commission (CFTC) for crypto-asset exchanges, it would give the CFTC primacy over the SEC when it comes to the crypto spot market. Algorithmic stablecoins would be regulated by the CFTC. If the bill passes, it will require that payment-related stablecoins can only be issued by a bank or credit union.

Currently, the Lummis–Gillibrand bill has not been adopted. However, it seems to have a promising future. Representative French Hill, Vice-Chair of the House Financial Services Committee and Chair of the Subcommittee on Digital Assets, stated:

'I am glad to see Senators Lummis and Gillibrand reintroduce their bipartisan legislation to establish a regulatory framework for digital assets. Their work demonstrates that protecting consumers, providing legal clarity, and spurring innovation was never a partisan effort. I look forward to our continued work with our Senate colleagues on common sense legislation.'

The ongoing debate that seems to be delaying much of this regulation is whether the federal government should be the primary regulatory body for crypto and digital asset regulation or whether there should be some combination thereof with state officials. A similar issue exists between the SEC and CFTC. As it currently stands, it appears that the two bills that seem to be moving in the House are a Stablecoin Bill and the Market Structure Bill. In the Senate, the Lummis–Gillibrand bill is certainly sparking discussion.<sup>26</sup>

<sup>19</sup> *Ibid.*

<sup>20</sup> SEC, 'McHenry, Thompson, Hill, Johnson Release Digital Asset Market Structure Proposal', press release, 2 June 2023 <https://financialservices.house.gov/news/documentsingle.aspx?DocumentID=408838> accessed on 16 July 2024.

<sup>21</sup> US Congress, S.Amdt.712 to S.2226 <https://www.congress.gov/amendment/118th-congress/senate-amendment/712/text> accessed on 16 July 2024.

<sup>22</sup> Jason Brett, 'Congress Creates A Storm Of Crypto Legislation', Forbes, 3 August 2023 <https://www.forbes.com/sites/jasonbrett/2023/08/03/congress-creates-a-storm-of-crypto-legislation> accessed on 16 July 2024.

<sup>23</sup> Lummis–Gillibrand Responsible Financial Innovation Act <https://www.lummis.senate.gov/wp-content/uploads/Lummis-Gillibrand-2023.pdf> accessed on 16 July 2024.

<sup>24</sup> *Ibid.*

<sup>25</sup> *Ibid.*

<sup>26</sup> Kirsten Gillibrand, 'Lummis, Gillibrand Reintroduce Comprehensive Legislation To Create Regulatory Framework For Crypto Assets', press release, 12 July 2023 <https://www.gillibrand.senate.gov/news/press/release/lummis-gillibrand-reintroduce-compre>



At the beginning of 2024, the SEC took a new position on spot Bitcoin exchange-traded funds (ETFs), which has altered the state of the metaverse market and laid a foundation for an emerging regulatory framework. In his statement on 10 January 2024, explaining why the SEC has finally agreed to authorise spot Bitcoin ETFs to be traded in the US, SEC Chair Gary Gensler clearly states that it took the decisions by the US Court of Appeals of the District of Columbia to force its acceptance of such activities because of its failure to provide adequate notice and regulation.<sup>27</sup> Ten US spot Bitcoin ETFs began trading on 11 January 2024, serving as the first investment of that type to be cleared by the SEC. While the SEC had blocked such funds for years, the official approval of certain spot Bitcoin shares 'mark[s] a milestone for the fund and crypto industries.'<sup>28</sup> These regulatory changes will only enable the continued exponential growth of the metaverse market, which has been driven by growth in the US in recent years.<sup>29</sup>

The above discussion provides a brief overview of the framework and legal principles governing issues surrounding the metaverse in the US. This provides a basis for understanding the more pointed issues addressed in the subsequent chapters that will explore country-specific policies, laws and regulations.

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27 [hensive-legislation-to-create-regulatory-framework-for-crypto-assets](https://www.sec.gov/news/statement/gensler-statement-spot-bitcoin-011023#.ZaSR6EEHGFM.mailto) accessed on 16 July 2024.  
SEC, 'Statement on the Approval of Spot Bitcoin Exchange-Traded Products' <https://www.sec.gov/news/statement/gensler-statement-spot-bitcoin-011023#.ZaSR6EEHGFM.mailto> accessed on 16 July 2024.

28 Ben Strack and Katherine Ross, 'SEC officially approves spot bitcoin ETFs in landmark decision', *Blockworks*, 10 January 2024 <https://www.blockworks.co/news/sec-approves-bitcoin-etf> accessed on 16 July 2024.

29 The US metaverse market is projected to reach a value of US\$23bn in 2024. By 2030, the market is projected to have a total of 197.1 million users and US\$159.2bn in terms of market volume, see <https://www.statista.com/outlook/amo/metaverse/unit-ed-states> accessed on 16 July 2024.



# AI on the metaverse

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## 1. Are there any policies, strategies or regulations applicable to artificial intelligence (AI) or the use of AI on the metaverse in your jurisdiction?

As of 2024, there are no federal regulations applicable to AI or the use of AI in the metaverse in the United States. However, the US government has issued multiple executive orders addressing the use of AI, from as early as 2019. Executive Order 13,859 issued on 11 February 2019 was issued as a national strategy for Maintaining American Leadership in Artificial Intelligence.<sup>30</sup> This initiative focuses on the resources of the federal government in support of AI innovation by investing in AI research, development and training, and directing federal agencies to identify new opportunities and implement principles that advance innovation within their agencies. Executive Order 13,859 also established the National Artificial Intelligence Initiative Office and 12 AI and quantum information science research and development (R&D) institutes nationwide. On 3 December 2020, then President Donald Trump issued a second Executive Order 13,960 on Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government.<sup>31</sup> This second Executive Order focused on establishing guidelines and principles for federal agencies to use and adopt AI. Following the issuance of this order, the White House Office of Science and Technology Policy issued a set of guidelines, called the Blueprint for an AI Bill of Rights, consisting of five broad principles to guide the development, use and deployment of AI systems.<sup>32</sup> These principles are intended to make AI less discriminatory and more transparent.

The most recent executive order related to AI was issued on 30 October 2023, by President Biden, as Executive Order 14,110 on the Safe, Secure and Trustworthy Development and Use of Artificial Intelligence, introducing a comprehensive strategy for ‘responsible innovation’.<sup>33</sup> This latest executive order intends to manage the risk of AI and also directs multiple federal agencies to develop specific guidelines and provide information about the use of AI, such as the benefits, risks and implications.

Despite the White House initiatives to promote AI and protect the general public, there is an absence of federal legislation on AI. Due to this absence, many states have now proposed and implemented their own regulatory frameworks at the local level. As of 12 February 2024, there are 15 states that have enacted legislation and another 15 states that have proposed legislation related to AI issues.<sup>34</sup> Most of the legislation proposed and enacted involves privacy issues and consumer protection.

California introduced the Bolstering Online Transparency Act, described in the next section of this chapter, and the California Consumer Privacy Act, giving consumers the right to opt-out with respect to businesses using ‘automated-decision making technology’. Colorado has enacted laws protecting consumers from insurance practices that use automated mechanisms to rate insurers based no discriminatory consumer data. Similar to California, Colorado has enacted the Colorado Privacy Act granting consumers the right to opt-out of the use of their personal data for ‘profiling in furtherance of decisions that produce legal or similarly significant effects’. Connecticut has enacted a Privacy Act that is

30 Executive Order on Maintaining American Leadership in Artificial Intelligence (11 February 2019), the National Archives and Records Administration <https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence> accessed 27 February 2024.

31 Executive Order on Maintaining American Leadership in Artificial Intelligence (3 December 2020), the National Archives and Records Administration <https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence> accessed 27 February 2024.

32 Blueprint for an AI Bill of Rights (2023), the White House [www.whitehouse.gov/ostp/ai-bill-of-rights](http://www.whitehouse.gov/ostp/ai-bill-of-rights) accessed 28 February 2024.

33 Fact sheet: President Biden issues executive order on safe, secure, and trustworthy artificial intelligence (2023), the White House [www.whitehouse.gov/briefing-room/statements-releases/2023/10/30/fact-sheet-president-biden-issues-executive-order-on-safe-secure-and-trustworthy-artificial-intelligence](http://www.whitehouse.gov/briefing-room/statements-releases/2023/10/30/fact-sheet-president-biden-issues-executive-order-on-safe-secure-and-trustworthy-artificial-intelligence) accessed 27 February 2024.

34 ‘US state-by-state AI legislation snapshot’, BCLP [www.bclplaw.com/en-US/events-insights-news/2023-state-by-state-artificial-intelligence-legislation-snapshot.html#:~:text=In%20the%20absence%20of%20comprehensive,at%20an%20all%20time%20high](http://www.bclplaw.com/en-US/events-insights-news/2023-state-by-state-artificial-intelligence-legislation-snapshot.html#:~:text=In%20the%20absence%20of%20comprehensive,at%20an%20all%20time%20high) accessed on 28 February 2024.

very similar to Colorado's Privacy Act. Another example is Illinois, one of the first states to enact restrictions on the use of AI within hiring practices in 2019 and which went into effect in 2022.<sup>35</sup>

It is also worth noting that certain states have also introduced legislation that creates criminal penalties, not just civil liabilities. For example, South Dakota has enacted revisions to existing child pornography criminal statutes to include computer-generated child pornography.<sup>36</sup> In New Hampshire, HB 1432 was introduced in 2023 to would make the use of AI to fraudulently create deepfakes a crime.<sup>37</sup>

On 21 March 2024, Tennessee became the first state to pass a law protecting music industry professionals by updating Tennessee's Protection of Personal Rights law to add sound and voice.<sup>38</sup> The new statute, set to come into effect in July 2024, provides for civil and/or criminal action for use of 'new, personalised generative AI cloning models and services that enable human impersonation and allow users to make unauthorised fake works in the image and voice of others.'<sup>39</sup>

We foresee more states enacting similar legislation to Tennessee.



## 2. How is transparency and accountability related to AI ensured in your jurisdiction?

There is currently no federal regulation on the transparency and accountability of AI in regard to non-governmental entities. Executive Order 13,960 only applies to federal agencies and requires them to disclose how officials are using AI. Further, there have been legislative proposals put forward in recent years that address the need for transparency and accountability for the safety of the general public. The most recent proposal was introduced in December 2023, in the Senate, as the 'The AI Foundation Model Transparency Act', directing the Federal Trade Commission (FTC) and the National Institute of Standards and Technology (NIST) to establish standards for data sharing by foundation model deployers.<sup>40</sup>

In the absence of federal regulation, certain states have also enacted regulations to ensure transparency and accountability of AI locally. For example, California enacted the Bolstering Online Transparency Act (BOT) in July 2019, making it unlawful for a person or entity to use a bot to communicate or interact online with a person in California in order to incentivise a sale or transaction for goods or services or to influence a vote in an election without disclosing that the communication is via a bot, but only applying to communications with persons in California.<sup>41</sup>

The FTC has also taken an active stance on enforcing existing laws involving AI and algorithms. The FTC has the authority to ban unfair and deceptive practices to address consumer injury arising from the use of AI and automated decision-making.<sup>42</sup> For example, the FTC has required algorithmic disgorgement as a remedy in five separate instances. Algorithmic disgorgement is the enforced deletion of illegally obtained data and its removal from an AI model, and the destruction of any models or algorithms created using such data. This remedy was first used in the *Cambridge Analytica* case in 2019, where the company Cambridge Analytica, its chief executive officer (CEO) and its app developer were accused of employing misleading techniques to obtain personal data from Facebook users for the purpose of voter profiling and political campaign targeting.<sup>43</sup>

35 Illinois Statute: Artificial Intelligence Video Interview Act, IL Stat 820 ILCS 42 (2019).

36 South Dakota Bill: An Act to revise provisions related to the possession, distribution and manufacture of child pornography, SD S 79 s22-24A-2 (2024).

37 New Hampshire Bill: An Act relative to prohibiting certain uses of deepfakes and creating a private claim of action, NH H 1432 (2023).

38 Charisma Madarang, 'Elvis Act Signed Into Tennessee Law to Protect Musicians From AI Deepfakes', *Rolling Stone*, 21 March 2024 <https://www.rollingstone.com/music/music-news/elvis-act-tennessee-signed-ai-impersonation-1234992395> accessed on 28 March 2024.

39 *Ibid.*

40 AI Foundation Model Transparency Act of 2023 <https://www.congress.gov/bill/118th-congress/house-bill/6881/text> accessed on 28 February 2024.

41 SB-1001 Bots: disclosure, Act (July 2019) California Legislature, [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=201720180SB1001](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB1001) accessed 28 February 2024.

42 Federal Trade Commission, 'Using artificial intelligence and algorithms' <https://www.ftc.gov/business-guidance/blog/2020/04/using-artificial-intelligence-algorithms> accessed 28 February 2024.

43 Final order of the Commission in the Matter of Cambridge Analytica LLC (25 November 2019) USFTC, [https://www.ftc.gov/system/files/documents/cases/d09389\\_comm\\_final\\_orderpublic.pdf](https://www.ftc.gov/system/files/documents/cases/d09389_comm_final_orderpublic.pdf) accessed 28 February 2024.



### 3. How is algorithmic bias mitigated in your jurisdiction? Are there any policies, strategies or regulations aiming to promote fairness and non-discrimination?

Algorithmic bias was first defined in the White House's AI Bill of Rights as discrimination that occurs 'when automated systems contribute to unjustified different treatment or impacts disfavoring people based on their race, colour, ethnicity, sex (including pregnancy, childbirth and related medical conditions, gender identity, intersex status and sexual orientation), religion, age, national origin, disability, veteran status, genetic information or any other classification protected by law.'<sup>44</sup> As of February 2024, there is no federal regulation on algorithmic bias. The AI Bill of Rights describes current initiatives by different agencies aimed at combatting and mitigating algorithmic bias. However, there is no official federal regulation that addresses this issue. States, such as New York, have enacted their own regulations requiring employers to audit their systems for AI bias independently and publish the findings on their company websites or face fines.<sup>45</sup> To date, there are nine states (California, Connecticut, Vermont, Hawaii, Illinois, New York, Oklahoma, Rhode Island and Washington) that are considering bills to ensure technologies do not result in discriminatory outcomes in employment contexts and for consumer protection purposes.<sup>46</sup>

Further, in August 2023, iTutorGroup Inc settled its first AI-based hiring discrimination case with the Equal Employment Opportunity Commission (EEOC). The company allegedly programmed its recruitment software to automatically reject older applicants. However, the EEOC's AI guidance interpreting federal anti-discrimination laws, such as Title VII, already applies to all employment decisions, regardless of the technology used.<sup>47</sup> It is worth noting that this settlement was not in response to any new regulation.

### 4. What is the intellectual property law treatment of AI-generated content used in the metaverse in your region/country? Who are the rightsholders of that content?

The treatment of intellectual property (IP) law regarding AI-generated content in the US is a complicated and evolving area. Existing IP laws may apply to certain aspects of AI-generated content, particularly in relation to copyright and patent law.

Copyright law protecting AI-generated content can be challenging. Generally, if a human creates the AI program that generates the content, they may own the copyright to the program, but if the content is entirely generated by the AI without significant human input, it may not be eligible for copyright protection in the US because copyright law typically requires human authorship. However, if the AI-generated content involves selections, arrangements or other creative choices made by a human, those elements may be eligible for copyright protection.

On 16 March 2023, the US Copyright Office released a policy statement to clarify its stance on AI-generated works and their eligibility for copyright protection.<sup>48</sup> The statement specifies that the Copyright Office shall not register works whose traditional elements of authorship are produced solely by an AI machine. This applies to AI programs that receive prompts from humans and generate complex written, visual or musical works in response. In such cases, the AI technology determines the expressive aspects of the work, rendering the generated content ineligible for copyright protection.

44 Algorithmic Discrimination Protections (2022), the White House <https://www.whitehouse.gov/ostp/ai-bill-of-rights/algorithmic-discrimination-protections-2> accessed on 28 February 2024.

45 Automated Employment Decision Tools: Frequently Asked Questions, New York Consumer and Worker Protection <https://www.nyc.gov/assets/dca/downloads/pdf/about/DCWP-AEDT-FAQ.pdf> accessed on 28 February 2024.

46 Owen Davis, DS (2024a) 'A look at proposed US state private sector AI legislation' <https://iapp.org/news/a/a-look-at-proposed-u-s-state-private-sector-ai-legislation> accessed 28 March 2024.

47 'iTutorGroup to pay \$365,000 to settle EEOC discriminatory hiring suit', US Equal Employment Opportunity Commission, 11 September 2023 <https://www.eeoc.gov/newsroom/itutorgroup-pay-365000-settle-eeoc-discriminatory-hiring-suit> accessed on 28 February 2024.

48 Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence, 88 Fed Reg 16,190 (16 March 2023) <https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence> accessed 16 July 2024.



The policy statement also highlights the requirement of copyright applicants to disclose any AI-generated content in works submitted for registration. It requires a description of the human author's contributions to the work, apart from the AI model's input.

In August 2023, the US District Court for the District of Columbia ruled that AI-generated work cannot be copyrighted as it lacks human authorship.<sup>49</sup> The case was brought by Stephen Thaler, who attempted to register the output of his generative AI system with the Copyright Office, listing the system as the author and himself as the assignee. The Court upheld that the Copyright Act and the US Constitution only provide for copyright to be granted to humans, who are considered the authors of a work.

During 2023, several copyright infringement lawsuits were filed in US federal courts regarding generative AI tools and platforms and the data used to train them. For instance, a group of authors initiated a class action lawsuit, alleging that a major technology company used copyrighted books to train its large language models.<sup>50</sup> However, on 20 November 2023, the District Court for the Northern District of California dismissed the copyright infringement claim, stating that an allegation that the model was trained on copyrighted materials is insufficient to prove that all the models' outputs are infringing. These lawsuits are still being litigated and no rulings have been issued yet.

On 13 February 2024, the US Patent and Trademark Office (USPTO) issued a statement on the patentability of AI-assisted inventions.<sup>51</sup> In this guidance, the USPTO states that the threshold question is whether a human has made a significant contribution to the invention sought to be patented. For example, engineering a prompt to a specific problem for a particular solution may, in certain instances, meet the level of significant contribution. The guidance also stated that applicants should not list AI systems as joint inventors and that applicants have a duty to disclose all the information that is material to patentability.

The human authorship requirement was enforced in the Court of Appeals for the Federal Circuit's finding in the case of Stephen Thaler's AI system, known as the Device for the Autonomous Bootstrapping of Unified Science (DABUS).<sup>52</sup> On 5 August 2022, the US District Court for the Eastern District of Virginia affirmed the USPTO's decision to reject the registration of Thaler's patent applications, listing DABUS as the inventor, for lacking a valid inventor. The decision concluded that DABUS could not be considered an 'inventor' under the Patent Act. On 23 April 2023, the US Supreme Court denied a petition for *certiorari* filed by Thaler appealing the Federal Circuit's decision.



## 5. Which stakeholders are liable for any damages caused to third parties due to the use of AI in the metaverse? What sanctions (civil, criminal, administrative) may apply in case of infringement?

Third-party liability for damages due to the use of AI in the metaverse will vary depending on the metaverse definition. Most metaverse platforms will have their own set of terms of use dictating the liability of third parties. In addition, determining the stakeholder responsible for damages will have to start with ownership of the AI content or objects that have caused harm. For example, in case of damages to third parties for use of an AI model which resulted in copyright infringement, there is potential liability for the developers of the models to the entities that gathered the datasets used to train these models. There are currently no cases involving the metaverse and the use of AI.



## 6. Are there any upcoming policies, strategies or regulations that will impact AI in your jurisdiction?

President Joe Biden's 2023 Executive Order 14,110 requested input from various agencies in order to draft comprehensive federal legislation on the use of AI. It is expected that in the summer of 2024, there will be reports issued by multiple agencies and a comprehensive policy drafted and passed soon after.

49 *Thaler v Perlmutter et al* No 1:22-cv-1564, 2023 WL 5333236 (DDC 18 August 2023).

50 *Kadrey v Meta Platforms Inc* No 3:23-cv-03417-VC, 2023 WL 8039640 (N.D. Cal 20 November 2023).

51 Inventorship Guidance for AI-Assisted Inventions, US Patent and Trademark Office [Docket No. PTO-P-2023-0043]. 89 Federal Register 10,043 (13 February 2024) at 10045.

52 *Thaler v Vidal* No. 21-2347 (Fed. Cir. judgment entered 5 August 2022).