

WHY IDAHO SHOULD REVISIT ITS PROHIBITION OF PERSONHOOD FOR AI

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ABSTRACT

Currently, Idaho law prohibits assigning personhood to Artificial Intelligence (AI). This prohibition is problematic because it creates a potential conflict with the personhood status of business entities who embed AI into their operations, management processes, or corporate structures. This conflict could be resolved if Idaho legislators revisited the law, drawing on insights gleaned from how other states have approached the issue and from scholars' recommendations. These resources provide a useful taxonomy system and policy framework for AI legislation, which Idaho could use to resolve this conflict in a way that ensures that Idaho businesses are able to draw on the potential of AI, that the Idaho legislature's policy goals are furthered, and that unintended consequences are prevented. Rather than crafting AI legislation based on fear, Idaho should apply a measured approach that combines a survey of existing policies and an application of the recommended framework. This comment explores the potential conflict between Idaho's AI provision and the personhood status of Idaho business entities and argues that Idaho should apply this proposed measured approach to resolve it.

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I. INTRODUCTION

In July 2022, Idaho enacted a law banning personhood rights for Artificial Intelligence (AI).¹ While neither state nor federal law currently recognizes AI as a legal person,² Idaho does recognize corporations as legal persons.³ Indeed, the Idaho statute banning personhood for AI explicitly carves out corporations: “Nothing in this section revokes the status of legal person . . . of any . . . corporation, or other legal or business entity recognized by the laws of . . . Idaho as such prior to July 1, 2022.”⁴ But the Idaho statute leaves open the question of what happens when corporations or other legally recognized business entities use AI to automate managerial and operational processes, or even eliminate layers of management.

So-called autonomous corporations—which embed AI and automation into their operations, management processes, or corporate structures—are a grey area where corporate personhood may serve as a vehicle for AI to be treated as a legal person.⁵ In addressing efforts to develop legislation for AI systems in the context of autonomous corporations, the literature suggests using a systems-based approach.⁶ Lawmakers are encouraged to examine the AI system of concern against a spectrum of autonomous corporations, overlaid by a spectrum of personhood rights.⁷ The hope is that understanding a system in this layered context provides a useful framework for developing legislation concerning AI and personhood.⁸

Not unlike the approach suggested in the literature, other states—such as Wyoming and Tennessee—have addressed the issue of autonomous corporations through legislation supported by committee research and group inquiries on the

1. Idaho Code § 5-346.

2. Russ Pearlman, *Recognizing Artificial Intelligence (AI) as Authors and Inventors Under U.S. Intellectual Property Law*, 24 RICH. J. L. & TECH. 22 (2018), (“[T]he law does not contemplate the idea of legal personhood for an AI system.”), <https://jolt.richmond.edu/recognizing-artificial-intelligence-ai-as-authors-and-inventors-under-u-s-intellectual-property-law/>.

3. IDAHO CODE § 30-21-102.

4. IDAHO CODE § 5-346.

5. See Carla Reyes, *Autonomous Corporate Personhood*, 96 WASH. L. REV. 1453, 1474 (2021) [hereinafter *Autonomous Corporate Personhood*] (“[T]he gap in the current discussion at the intersection of AI, Corporations and personhood becomes clear—the lack of a theory of personhood for AI that uses the corporation as a vehicle to interact with the world . . .”).

6. *Id.* at 1459.

7. *Id.* at 1501 tbl.4.

8. *Id.* at 1502.

subject.⁹ However, the adoption of Idaho’s provision is a sharp contrast to these examples. In a departure from the literature’s recommendations, Idaho’s law banning AI personhood was enacted with no prior study of the issues.¹⁰

In this comment, I argue that the current Idaho law banning personhood for AI conflicts with recognizing some corporations and business entities as legal persons. For example, when AI is used to eliminate a corporation’s management hierarchy—as is done with Decentralized Autonomous Organizations (DAOs)¹¹—the line between the AI system and the business entity blurs. Blending AI with the structure of a business entity that has legal personhood seems to contradict the notion of banning personhood for AI entirely. Even if the AI is treated as property of a corporation, this introduces questions about how much blending between the AI and the corporation’s management decisions or actions must occur before personhood becomes an issue. Further, because this ban was adopted without study and with scant legislative discussion to support its enactment,¹² courts could be in the position of having to answer these types of questions with little legislative guidance.

Given these uncertainties, Idaho legislators should revisit the provision banning AI personhood with a more measured approach. Instead of enacting a complete ban without any prior study, Idaho legislators should consider the systems-based approach suggested in the literature. With a holistic understanding of the AI systems at issue, Idaho legislators could then consider using the suggested framework, which takes a layered approach to applying personhood rights to AI systems and autonomous corporations based on their various contexts and uses.¹³ This approach would likely be beneficial in reconciling the possible conflicts between preserving corporate personhood for autonomous business entities and placing limitations on personhood afforded to AI.

This comment begins with a discussion on the background of AI and how businesses and individuals use it. Next, this comment discusses autonomous corporations and the appropriate taxonomy to classify and describe them. Then,

9. Nate DiCamillo, *State Lawmaker Explains Wyoming’s Newly Passed DAO LLC Law*, COINDESK (Apr. 22, 2022, 12:21 PM), <https://www.coindesk.com/policy/2021/04/22/state-lawmaker-explains-wyomings-newly-passed-dao-llc-law/> [hereinafter *Explaining Wyoming’s DAO LLC Law*]; TENN. CODE ANN. § 48-250-103.

10. Support for the provision in Senate State Affairs Committee Minutes merely note a few examples of a purported trend of granting personhood to non-human articles, with no mention of prior study. S. State Aff. Comm. Minutes, 66th Leg., 1st Sess., at 3 (Idaho Mar. 18, 2022).

11. Andrew Gilbert, *Decentralized Autonomous Organizations: The New LLCs?*, BLOOMBERG LAW (Aug. 2, 2022), <https://news.bloomberglaw.com/securities-law/decentralized-autonomous-organizations-the-new-llcs/>; see also *Autonomous Corporate Personhood*, *supra* note 5, at 1468 (explaining how MakerDAO is an example of a decentralized autonomous organization that uses “technology as the mediating hierarchy.”).

12. See S. State Aff. Comm. Minutes, 66th Leg., 1st Sess., at 3 (Idaho Mar. 18, 2022).

13. *Autonomous Corporate Personhood*, *supra* note 5, at 1498–1502 tbl.4.

this comment examines the liability issues that affect autonomous corporations, as well as providing a brief history and discussion of corporate personhood theories. With this background information in mind, this comment turns to the Idaho provision banning personhood for AI, comparing Idaho's approach to the approach followed by other states that have addressed AI personhood. This discussion demonstrates that Idaho's provision is problematic for the personhood of autonomous corporations. Finally, this comment recommends that Idaho legislators adopt the analytical approach discussed in the autonomous corporation literature.

II. FOUNDATIONAL INFORMATION ABOUT AI SYSTEMS AND THEIR USES

First, this section defines the various types of AI systems. Depending on the type of system, an individual's role and interaction with a system may change over time.¹⁴ Then, this section explains the different ways that businesses use AI systems, providing insight into the spectrum of automation that is often used to solve business problems, as well as any corresponding concerns or responsibilities that may arise. Ultimately, this background information provides a foundation for approaching legal questions related to autonomous corporations and their use of AI systems.

A. Defining AI Systems

Generally, an AI system may be defined as a system or machine that attempts to replicate human intelligence in performing tasks, while also making iterative improvements based on the data it receives.¹⁵ Under this general definition, there are a variety of AI systems that vary in problem-solving capabilities and needs for human guidance and intervention.¹⁶ In its most simple representation, an AI system combines the discipline of computer science with powerful data sets to solve problems.¹⁷ Two recognized and often applied subcategories of AI systems include machine learning and deep learning.¹⁸ Under both of these categories, an AI system uses algorithms to make classifications or predictions from sets of data.¹⁹ But unlike general machine learning systems which require more human involvement and labeled data sets to facilitate learning, deep learning systems are structured to model the way a human brain works, and are able to work with unstructured data sets to learn with less human intervention.²⁰ Beyond basic application and on a more theoretical level, some AI systems aim to replicate intelligence equivalent to

14. *Id.* at 1463; *What is Artificial Intelligence (AI)?*, IBM (June 3, 2020), [hereinafter *IBM Cloud*] <https://www.ibm.com/cloud/learn/what-is-artificial-intelligence>.

15. *IBM Cloud*, *supra* note 14.

16. *Id.*

17. *Id.*

18. *Id.*

19. *Id.*

20. *Id.*; *What is Deep Learning?*, OCI, <https://www.oracle.com/artificial-intelligence/machine-learning/what-is-deep-learning/> (last visited Nov. 1, 2022).

humans along with a sense of self-awareness.²¹ Other systems go further in hopes of achieving intelligence beyond the capability of the human brain.²²

While not considered a type of AI,²³ blockchain is an important protocol technology to consider in the context of business automation and AI systems. Blockchain technology is a type of distributed database²⁴ that allows transactions—such as payments or asset transfers—to be executed through automated rules called “smart contracts.”²⁵ When these transactions are executed, immutable records of them are stored and accessible on a shared ledger.²⁶ Leveraging blockchain technology, a developer could use a series or elaborate system of smart contracts to execute business decisions autonomously.²⁷ Indeed, some organizations have automated their processes this way—some even integrating the use of blockchain automation with AI technology.²⁸

B. How Individuals and Businesses Use AI Systems

In all the varied approaches and applications for AI systems, there are many examples of AI technology that individuals interact with on a regular basis.²⁹ One common example of such a system is an automatic speech recognition application—like Apple’s Siri, which uses human voice input to conduct searches.³⁰ Another example is an online customer service chatbot that answers commonly asked questions.³¹ Computer vision, commonly used in social media photo tagging, and recommendation engines, like those Spotify or Netflix use to recommend media based on a user’s preferences, are other examples of AI that individuals

21. Some theoretical AI systems that are meant to function more like human intelligence include Artificial General Intelligence (AGI)—which aims for human intelligence and self-awareness—and Artificial Super Intelligence (ASI)—which pursues intelligence beyond human capabilities. *IBM Cloud*, *supra* note 14.

22. *Id.*

23. Carla L. Reyes, *Autonomous Business Reality*, 21 NEV. L. J. 437, 445 (2021) [hereinafter *Autonomous Business Reality*] (“Blockchain technology is a protocol technology. . . . As a protocol technology, computer programs can be built on top of, or incorporated into, blockchain technology.”).

24. *Id.* at 444.

25. *What is Blockchain Technology?*, IBM, <https://www.ibm.com/topics/blockchain> (last visited Nov. 2, 2022) [hereinafter *IBM Blockchain Technology*].

26. *Id.*

27. *Autonomous Business Reality*, *supra* note 23, at 447.

28. *Id.* at 452 (“[M]any businesses already automate to some extent using AI, blockchain technology, or both . . .”).

29. *IBM Cloud*, *supra* note 14.

30. *Id.*

31. *Id.*

use.³² While individuals interact with these systems as consumers on one end, they may also interact with AI on the systems and business side—teaching and training AI algorithms with data.³³ Important roles in the business context include teaching AI systems, explaining AI technology to others, and sustaining an AI system over time.³⁴

As for use in business, the adoption of AI systems has generally been helpful in increasing efficiency and productivity.³⁵ Of the different applications that AI systems have in businesses, some common examples include customer experience personalization, business process automation, output manufacturing, and data analysis for predictions and recommendations.³⁶

One business case where AI has been used in process automation can be seen with Amazon—a company who has been driving progress in the use of warehouse robotics and automation for years.³⁷ In the summer of 2022, Amazon announced its development of the Proteus and Cardinal warehouse robots.³⁸ Proteus, a fully autonomous robot who “us[es] advanced safety, perception, and navigation technology developed by Amazon” is designed to navigate around employees while helping with warehouse tasks.³⁹ Cardinal, a robotic arm, uses AI to select, lift, read, and place a package for further processing.⁴⁰ Having these robots perform such tasks is helpful to employees who might otherwise risk injury from handling heavy or large packages.⁴¹ In Amazon’s case, these systems are being used as technical tools to help businesses increase productivity and improve engagement with customers.⁴² Though some employees likely envision worrisome scenarios where AI automation results in eliminating many jobs, adopting AI systems as a technical business tool still requires human support and intervention.⁴³ Thus, when

32. *Id.*; Clark Boyd, *How Spotify Recommends Your New Favorite Artist: A Story of Data, Taste, and a Very Effective Recommender System*, TOWARDS DATA SCI. (Nov. 11, 2019), <https://towardsdatascience.com/how-spotify-recommends-your-new-favorite-artist-8c1850512af0>.

33. H. James Wilson & Paul R. Daugherty, *Collaborative Intelligence: Humans and AI Are Joining Forces*, HARV. BUS. REV. (July-Aug. 2018), <https://hbr.org/2018/07/collaborative-intelligence-humans-and-ai-are-joining-forces>.

34. *Id.*

35. Ashley Watters, *Using AI in Business: Examples of Artificial Intelligence Application in Business*, COMPTIA (June 04, 2021), <https://connect.comptia.org/blog/using-ai-in-business>.

36. *Id.*

37. Brian Heater, *Amazon debuts a fully autonomous warehouse robot*, TECHCRUNCH (June 22, 2022, 10:24 AM), <https://techcrunch.com/2022/06/22/amazon-debuts-a-fully-autonomous-warehouse-robot/>.

38. *Id.*

39. *Id.* (quoting Amazon Staff, *10 years of Amazon robotics: how robots help sort packages, move product, and improve safety*, AMAZON (June 21, 2022), <https://www.aboutamazon.com/news/operations/10-years-of-amazon-robotics-how-robots-help-sort-packages-move-product-and-improve-safety>).

40. Amazon Staff, *supra* note 39.

41. Amazon Staff, *supra* note 39.

42. Watters, *supra* note 35.

43. Watters, *supra* note 35.

businesses use these AI systems as tools, they do not fully replace humans, nor do they render their businesses entirely AI automated.

Alternatively, in recent years, some organizations—such as DAOs—have adopted AI as more than a simple business tool. DAOs have decentralized the traditional corporate management structure by shifting decision-making power to a collective of invested parties, while business transactions are executed using blockchain technology.⁴⁴ This type of AI use raises interesting questions about how automation and AI fit into the corporate structure. As will be discussed later, addressing concerns such as rights, duties, and liabilities may become complicated when technology manages a significant portion of a corporate structure.

III. LIABILITY CONCERNS IN AUTONOMOUS CORPORATIONS

First, this section discusses how autonomous corporations are defined. Next, it explains how they are categorized using a taxonomy system developed in recent literature.

A. Defining Autonomous Corporations

As discussed previously, corporations may use AI systems in a variety of ways employing varying degrees of automation in their business processes. With this understanding, an autonomous corporation may be broadly defined as a corporation that uses AI or technology to automate aspects of its managerial or operational processes.⁴⁵

While some may think of autonomous corporations as futuristic, separate entities run without human intervention, this ignores the many businesses that are already automating aspects of their managerial and operational processes.⁴⁶ As such, a full representation of autonomous corporations would not only include futuristic entirely autonomous corporations, but also corporations employing a variety of automation capabilities that still require human intervention.⁴⁷ For a business, choosing the degree and type of automation is often a product of the design tradeoffs it is willing to make to achieve a business end goal.⁴⁸ Thus, autonomous corporations may vary in the degree and type of automation they employ, and in how this automation affects governance and business structure.⁴⁹

44. Gilbert, *supra* note 11; Bernard Marr, *The Best Examples of DAOs Everyone Should Know About*, FORBES (May 25, 2022), <https://www.forbes.com/sites/bernardmarr/2022/05/25/the-best-examples-of-daos-everyone-should-know-about/?sh=7cdf9ccc40c3>; IBM *Blockchain Technology*, *supra* note 25.

45. See *Autonomous Business Reality*, *supra* note 23, at 462–70.

46. *Id.* at 462.

47. *Id.* at 471.

48. *Id.*

49. *Id.*

B. Categorizing Autonomous Corporations

Recent literature suggests it is helpful to think of autonomous corporations as belonging to one of three overarching categories. In *Autonomous Business Reality*, Carla Reyes posits a taxonomy system that classifies different autonomous corporations into categories based on shared characteristics.⁵⁰ On one end of the spectrum, the “Traditional Plus” category includes autonomous corporations that may have operational automation or some automation of middle management roles.⁵¹ Under this category, entities are then split into two sub-categories. First, there are the businesses who concentrate on automating operational processes—referred to as “Primarily Operationally Automated.”⁵² Second, there are the businesses that automate some managerial processes—labeled “Managerial Automation Light.”⁵³ Though entities belonging to these categories use automation to carry out processes and managerial functions, they generally retain the traditional centralized structure of a corporate management hierarchy.⁵⁴ An example of a “Primarily Operationally Automated” corporation would be Amazon—where many warehouse operations have been automated.⁵⁵ Alternatively, an example of a “Managerial Automation Blight” corporation would be Uber, which uses AI rather than human management to make decisions about pairing drivers with riders.⁵⁶

Falling in the middle of the spectrum is the category labeled “Distributed Business Entities.”⁵⁷ This group stands out as having “high or nearly complete” automation of operational or managerial roles.⁵⁸ Under this category, there are two subcategories with increasing autonomy. The first category labeled “Autonomous Mediating Hierarchy” describes businesses that eliminate all levels of human management besides owners, and achieve almost complete automation of production processes or services.⁵⁹ Alternatively, the second category labeled “Mostly Autonomous” describes businesses that remove the managerial layer of owners but still require some human management or interaction to carry out non-operational functions.⁶⁰ The Autonomous Mediating Hierarchy category includes DAOs, which allow collective groups to be governed and administered using blockchain technology.⁶¹ An example of such an organization is American

50. *Autonomous Business Reality*, *supra* note 23, at 473.

51. *Id.* at 474.

52. *Id.* at 473–74.

53. *Id.*

54. *Id.*

55. *Autonomous Business Reality*, *supra* note 23, at 473; Amazon Staff, *supra* note 37, at 444.

56. *Autonomous Business Reality*, *supra* note 23, at 474.

57. *Id.* at 474–75.

58. *Id.*

59. *Id.* at 474.

60. *Id.* at 474–75.

61. Marr, *supra* note 44; see AUTONOMOUS BUSINESS REALITY, *supra* note 23, at 465 (discussing a DAO using blockchain technology).

CryptoFed DAO, which was also the first organization to obtain legal status as a DAO entity in the United States.⁶²

On the farthest end of the spectrum is the third automated business category labeled “Autonomous Entities.”⁶³ Like the other categories, it is split into two smaller sub-categories. First, there are businesses that are considered “Fully Autonomous.”⁶⁴ These entities are run completely autonomously, but still require some human intervention for maintenance purposes.⁶⁵ In contrast, the second subcategory of “Algorithmic Entities” has no human controllers.⁶⁶ After its initial launch, such an Algorithmic Entity would have no further human intervention.⁶⁷ An example of a Fully Autonomous organization is Metronome—a cryptocurrency “comprised of four fully-autonomous and cooperative smart contracts” that require human interaction for code updates and maintenance.⁶⁸

Because this taxonomy system captures a wide variety of autonomous corporations, it includes businesses with AI systems that are used merely as property, or that run as stand-alone algorithmic entities, and everything else in between. Using this taxonomy is helpful because capturing the spectrum of autonomous corporations provides the foundation for a framework helpful in crafting personhood laws concerning AI.⁶⁹ Namely, the autonomous business spectrum can be analyzed to determine how personhood may be applied to an autonomous corporation or AI system.⁷⁰ This will be discussed later in more detail.

Considering that corporations are viewed as legal persons and distinct entities with rights, duties, and responsibilities,⁷¹ liability becomes an issue of concern. For autonomous corporations and liability issues relating to an AI system, various complications can arise depending on the nature of the AI system and how it is used.⁷² To gain an understanding of how liability may be treated in the context of

62. Marr, *supra* note 44.

63. AUTONOMOUS BUSINESS REALITY, *supra* note 23, at 474–75.

64. *Id.* at 473 tbl.1.

65. *Id.* at 475.

66. *Id.*; Lynn M. LoPucki, *Algorithmic Entities*, 95 WASH. UNIV. L. REV. 887, 887 (2018).

67. *Autonomous Business Reality*, *supra* note 23, at 475; LoPucki, *supra* note 66, at 887.

68. *Metronome* FAQ, GITHUB, <https://github.com/autonomousoftware/documentation/blob/master/FAQ.md#what-is-metronome> (last visited Dec. 8, 2022); *Autonomous Business Reality*, *supra* note 23, at 475.

69. *Autonomous Corporate Personhood*, *supra* note 5, at 1475–76 (explaining that the taxonomy provides an “analytical framework” to examine corporate personhood and AI personhood to determine “which rights to grant artificial persons.”).

70. *Id.*

71. 18 C.J.S. *Corporations* §§ 2, 6.

72. See Cary Silverman, ET AL., *Torts of the Future II: Addressing the Liab. and Regul. Implications of Emerging Techs.*, U.S. CHAMBER INST. FOR LEGAL REFORM, 1, (2018), <https://instituteforlegalreform.com/research/torts-of-the-future-ii-addressing-the-liability-and->

an autonomous corporation, it is worth discussing the legal risks and theories that may apply to some of these organizations.

C. Addressing Liability in Autonomous Corporations

In light of the different ways that automation and AI may be applied to a corporation's structure and operations, complex issues arise surrounding liability and fiduciary duties. For example, who should be held liable for an AI decision gone awry or for an injury caused by an automated machine or device?⁷³ This section first discusses the unique liability concerns implicated by the three categories of autonomous corporations: Traditional Plus Entities, Distributed Business Entities, and Autonomous Entities. Then this section analyzes how fiduciary duties are observed within Traditional First and Distributed Business Entities.

i. Liability in Traditional Plus

In Traditional Plus corporations, liability arising from AI automation tends to be approached in traditional ways. For example, if an automated process prevents employees from accessing crucial services, this could result in a lawsuit against the company.⁷⁴ Put another way, the business is accountable for the actions or inactions of its AI system.

In one instance, difficulties with an automated managerial system had the effect of increasing litigation between employees and the company.⁷⁵ During the Covid-19 pandemic, Amazon saw an increase in employment litigation where workers seeking answers related to disability leave and other workplace issues were dissatisfied with Amazon's "highly automated" HR system.⁷⁶ One employee claimed the system derailed his efforts to return to work and caused him to be terminated after he took "medical leave for a seizure disorder."⁷⁷ Because the system relied on automated messages to communicate, this made it difficult to address complex questions and severely hampered the ability for employees to have a dialogue with Amazon's HR management.⁷⁸

regulatory-implications-of-emerging-technologies/ [hereinafter *Torts of the Future II*] (discussing potential liability theories in AI-related scenarios); Charles Toutant, 'Harsh' and 'Heartless': Amazon's Automation is Causing a Spike in Emp. Lawsuits, N. J. L. J. (Oct. 16, 2020), <https://plus.lexis.com/api/permalink/e02dc1dc-3c4a-4e81-b9c3-36c57840e24b/?context=1530671> [hereinafter *Amazon Automation*] (discussing workplace lawsuits involving Amazon's automated HR system); Jessica Mach, 'Don't Blindly Rely on the Algorithms': How Firms Can Limit Liab. Amid AI Explosion, CORP. COUNS. (Mar. 30, 2022), <https://plus.lexis.com/api/permalink/757b3eb2-1c3a-42bd-b39f-bdce3e9dc969/?context=1530671/> [hereinafter *Algorithms and Limiting Liab.*] (discussing liability related to AI bias).

73. See *Torts of the Future II*, *supra* note 72, at 7–19.

74. See *Amazon Automation*, *supra* note 72.

75. *Id.*

76. *Id.*

77. *Id.*

78. *Amazon Automation*, *supra* note 72.

While internal complexity resulting from light managerial automation could give rise to disputes, decision-making AI systems can introduce liability to a corporation in other ways. One potential concern about decision-making systems is bias. For example, if a company uses an AI system to process applications for job candidates, the AI sorting criteria may appear to be neutral.⁷⁹ However, results could later show that the sorting criteria had the unintended effect of disfavoring a protected group.⁸⁰ In this scenario, liability will likely gravitate toward the corporation,⁸¹ but the appropriate target of liability may become less clear as the automated system becomes more capable of making its own decisions.

As an AI system becomes more autonomous, apportioning liability may not be straightforward. If the decision causing harm was solely the result of the AI's closed decision-making, then assigning liability to the AI system or tool may be the path that makes the most sense.⁸² But, if an employee is involved in the decision-making, then the corporation could potentially face vicarious liability—for example, through a theory of *respondeat superior*.⁸³ Thus, with Traditional Plus autonomous corporations who use AI as a tool to automate managerial or operational systems, there are two notable roads to liability. First is an internal risk that liability may arise among employees who use these systems to communicate with their employers. Second is an external risk, through vicarious theories of liability like *respondeat superior*, when an employee's decisions and interactions with AI are intertwined with the AI's decision-making.

Addressing liability for an injury suffered from a robot or other autonomous device is another concern that may arise. While this is not a well-developed area of law, it has been posited that as robots develop substantial abilities to make autonomous decisions, courts may consider agency law to determine liability, perhaps treating the robot as an employee.⁸⁴ Alternatively, liability principles associated with injuries from pets may be a valid approach toward harm caused by robots.⁸⁵ In this scenario the liable party would have some culpability in the consequences of the injury, though they do not have full control over the robot's actions.⁸⁶ Yet another approach would be to assign legal status to the robot or device, resulting in the robot being held responsible for its own acts.⁸⁷ Currently,

79. *Algorithms and Limiting Liability*, *supra* note 72.

80. *Id.*

81. *See id.*

82. *Id.* (discussing an example where a medical provider relies on the closed decision-making of an AI tool).

83. *Id.*

84. *Torts of the Future II*, *supra* note 72, at 2; *see also*, PAUL D. RHEINGOLD, WHO ARE YOU GOING TO SUE WHEN A ROBOT GOES BERSERK? (2018), WL 2465139 (discussing the potential approaches toward robot liability in future lawsuits).

85. *Torts of the Future II*, *supra* note 72, at 2.

86. *Id.*

87. *Id.*

deaths and injuries that have resulted from or involved robots—and it should be noted that this is a rare occurrence—generally invoke traditional workplace injury legal theories, such as “manufacturing defects; breach of implied warranty; failure to warn; and negligence, in addition to workers’ compensation claims.”⁸⁸ Thus, for Traditional Plus autonomous corporations, injuries resulting from a robot or automated device could add liability risks both internally—for employees who interact with the robots—and externally—through vicarious liability theories when third parties are injured.

ii. Liability in Distributed Business Entities

For Distributed Business Entities, there are different challenges concerning liability. For example, DAOs—a type of Distributed Business Entity—face interesting challenges based on their unrecognized legal status in most states. Because only a few states recognize DAOs as a formal business entity,⁸⁹ DAOs that are not organized as a registered legal entities may be treated as general partnerships by default.⁹⁰ This would have the effect of shifting joint and several liability to the organization’s owners.⁹¹ In the case of hacking, fraud, or an accident, individuals within the DAO may risk losing their own personal assets should a lawsuit arise.⁹² Additionally, because individuals in a general partnership are responsible for paying taxes on the organization’s earnings, individuals within a DAO may have tax liability on a percentage of the organization’s profits.⁹³

iii. Liability in Autonomous Entities

Under the Autonomous Entities category, liability for a system’s choices and actions may theoretically be completely shifted to the autonomous corporation itself, relieving any humans entirely of liability incurred by the corporation’s algorithms.⁹⁴ Because of the unpredictable nature of such autonomous systems, there could be a substantial group of cases where the original creator or initiators may not be held culpable for the system’s actions.⁹⁵ This so-called “accountability gap” has raised many questions about whether some version of legal personhood could be assigned to an autonomous AI system to solve this problem.⁹⁶

88. *Id.* at 8.

89. See WYO. STAT. ANN. § 17-31-101 (West 2018); TENN. CODE ANN. § 48-250-102 (West 2018) (recognizing DAOs as a type of limited liability company); VT. STAT. ANN. tit. 11, § 4171 (West 2018) (recognizing blockchain-based limited liability companies as a business entity).

90. Adam Miller, *2023: The Year DAOs Follow the Law?*, YAHOO NEWS (Dec. 16, 2022), <https://news.yahoo.com/2023-daos-law-175128632.html>.

91. *Id.*

92. *Id.*

93. *Id.*

94. LoPucki, *supra* note 66, at 901.

95. *Id.*

96. *Id.* (citing Bert-Jaap Koops et al., *Bridging the Accountability Gap: Rights for New Entities in the Information Society?*, 11 MINN. J. L. SCI. & TECH. (2010) (discussing the literature analyzing the

D. Fiduciary Duties in an Autonomous Corporation

Apportioning liability may prove to be an important and complex problem, but it is also important to consider the role fiduciary duties play in creating liabilities for autonomous corporations. This section first discusses how fiduciary duties are generally treated in Traditional Plus Entities. Next, several examples of statutes governing fiduciary duties for Distributed Business Entities are explored.

i. Fiduciary Duties in Traditional Plus Entities

For Traditional Plus Entities, rules concerning fiduciary duties would likely be the same as those observed by traditional corporate entities. This is because the implementation of AI and automation in a Traditional Plus Entity does not require a significant change in corporate structure.⁹⁷ It is notable that over 60% of Fortune 500 companies are incorporated in Delaware,⁹⁸ thus Delaware law concerning fiduciary duties should be considered.

Two examples of Traditional Plus corporations discussed earlier—Amazon and Uber—are incorporated in Delaware, and thus subject to Delaware’s rules.⁹⁹ As an example, under Delaware corporate law, fiduciary duties for these two companies, and others who are similarly situated, would be applicable to the extent of any valid limitations set in their certificates of incorporation.¹⁰⁰ However, the implementation of AI brings the importance of ensuring proper oversight to the forefront. Duties of oversight—otherwise known as *Caremark* duties—may be of particular importance when considering the effects of AI and automation.¹⁰¹

“accountability gap” in the context of trusts and contracts and how varied approaches toward personhood rights may bridge this gap)).

97. *Autonomous Corporate Personhood*, *supra* note 5, at 1502.

98. *Why Businesses Choose Delaware*, DELAWARE.GOV, <https://corplaw.delaware.gov/why-businesses-choose-delaware/> (last visited Dec. 19, 2022).

99. *Uber Technologies, Inc.*, EDGAR COMPANY SEARCH RESULTS, <https://www.sec.gov/edgar/browse/?CIK=1543151&owner=exclude> (last visited Dec. 19, 2022) (SEC company search results); *Amazon Com Inc.*, EDGAR COMPANY SEARCH RESULTS, <https://www.sec.gov/edgar/browse/?CIK=1018724&owner=exclude> (last visited Dec. 19, 2022) (SEC company search results).

100. DEL. CODE ANN. tit. 8, § 102(b)(7) (2022).

101. Shani R. Else & Francis G.X. Pileggi, *Corporate Directors Must Consider Impact of Artificial Intelligence for Effective Corporate Governance*, A.B.A. (Feb. 12, 2019), <https://businesslawtoday.org/2019/02/corporate-directors-must-consider-impact-artificial-intelligence-effective-corporate-governance/> [hereinafter *Effective Corporate Governance*]; see also *In re Caremark Int’l*, 698 A.2d 959, 967 (Del. Ch. 1996) (Establishing the duty to actively monitor a corporation’s performance, where breach is purported to be “possibly the most difficult theory in corporation law upon which a plaintiff might hope to win a judgment.”).

Because AI systems involve the use of data, proper management of that data should be a key consideration for corporate boards.¹⁰² To meet oversight duty requirements, board members should understand how data is collected and maintained, in addition to how data should be stored and protected from hackers.¹⁰³ Thus, while fiduciary duties are largely unchanged, it is important for Traditional Plus entities to place special focus on oversight.

Relating to oversight, it is interesting to note that—though not recognized under Delaware law—some international corporations have explored appointing AI to their board of directors.¹⁰⁴ While only “natural persons” may legally serve as a board member in Delaware,¹⁰⁵ a venture capital firm in Hong Kong appointed an AI algorithm called “Vital” to be a non-voting member of their board of directors.¹⁰⁶ As an algorithm, Vital’s role is to assist the firm in evaluating biotechnology investment decisions.¹⁰⁷ According to the board, Vital has been helpful in corroborating positive investment choices.¹⁰⁸ This example shows that AI may be able to play a useful role in corporate governance. However, current recommendations suggest boards should remain cautious about delegating critical management functions to AI and relying solely on the guidance of AI to make corporate decisions.¹⁰⁹

ii. Fiduciary Duties in Distributed Business Entities

Unlike Traditional Plus autonomous corporations, the few legally recognized Distributed Business Entities have notable differences in the way fiduciary duties are treated. Because only a few states legally recognize DAOs as organized entities,¹¹⁰ the statutes governing fiduciary duties for these organizations could be a preview of how other states may approach this issue. To note how these businesses may be treated differently, is worth examining the statutes governing DAOs and their fiduciary duties.

Under Wyoming’s Decentralized Autonomous Organization Supplement, DAOs are treated as a variant of LLCs.¹¹¹ However, in contrast to the Traditional Plus corporations examined under Delaware law, members of Wyoming DAOs owe no fiduciary duties to each other or the organization beyond the “contractual covenant of good faith and fair dealing.”¹¹² While a DAO’s operating agreement may

102. *Effective Corporate Governance*, *supra* note 101.

103. *Id.*

104. *Id.*

105. *Id.*; DEL. CODE ANN. tit. 8, § 141(b) (West 2020).

106. Nicky Burrige, *Artificial Intelligence Gets a Seat in the Boardroom*, NIKKEI ASIA (May 10, 2017), <https://asia.nikkei.com/Business/Artificial-intelligence-gets-a-seat-in-the-boardroom>.

107. *Id.*

108. *Id.*

109. *Effective Corporate Governance*, *supra* note 101.

110. See *Autonomous Corporate Personhood*, *supra* note 5, at 1453; WYO. STAT. ANN. § 17-31-110 (West 2021); TENN. CODE ANN. § 48-250-102 (West 2022); VT. STAT. ANN. tit. 11, §§ 4171–4176 (West 2017).

111. WYO. STAT. ANN. § 17-31-103 (West 2022).

112. WYO. STAT. ANN. § 17-31-110 (West 2021).

otherwise add fiduciary duties, the default rule eliminates them entirely.¹¹³ Tennessee’s Decentralized Organization statute is virtually the same in its treatment of DAOs. Much like Wyoming, Tennessee treats DAOs as a type of LLC.¹¹⁴ Indeed, fiduciary duties of Tennessee DAOs are eliminated by default, leaving only the “implied contractual covenant of good faith and fair dealing.”¹¹⁵

In contrast to Wyoming and Tennessee, Vermont’s Blockchain-Based Limited Liability Companies (BBLLC) statutes take a different approach. Rather than defining fiduciary duties in the BBLLC statutes, Vermont law subjects BBLLCs to the same fiduciary duties already defined in its LLC statutes.¹¹⁶ In further contrast, Vermont’s LLC statutes set out fiduciary duties of loyalty and care that apply to a BBLLC by default.¹¹⁷ Unlike Wyoming and Tennessee where fiduciary duties are generally eliminated entirely, duties under Vermont law may be restricted only if doing so is not unreasonable.¹¹⁸ Thus, under the existing state laws that recognize DAOs as an organized entity, fiduciary duties may be eliminated entirely by default in some cases, or merely restricted in others. In states where duties may be eliminated by default, this would likely offer less exposure to liability for DAO members.

The differences in how fiduciary duties and liability apportionment may be approached among Traditional Plus and Distributed Business Entities further highlights distinctions in how these organizations use AI, and how they and their members may be held accountable. As discussed earlier, when AI is autonomous in the decision-making process and harm occurs, some suggest that legal status for the AI may be appropriate for liability purposes.¹¹⁹ Taking this further, when AI is involved in decision-making and governance of a corporation, approaches toward assigning the appropriate legal status and personhood vary.¹²⁰ As a result, it is suggested that applying different theories of personhood according to the level of automation present in an autonomous corporation may help justify its corporate personhood status while protecting the rights of its participants.¹²¹ A discussion of the history and modern theories of corporate personhood is useful in understanding how different personhood theories may apply to autonomous corporations.

113. *Id.*

114. TENN. CODE ANN. § 48-250-102 (West 2022).

115. TENN. CODE ANN. § 48-250-109 (West 2022).

116. VT. STAT. ANN. tit. 11, § 4176 (West 2018).

117. VT. STAT. ANN. tit. 11, §§ 4003, 4059 (2015).

118. *Id.*

119. *See Algorithms and Limiting Liability, supra note 72; Torts of the Future II, supra note 72, at 2.*

120. *Autonomous Corporate Personhood, supra note 5, at 1499–1505.*

121. *Id.*

IV. A BRIEF HISTORY AND GENERAL MODERN THEORIES OF CORPORATE PERSONHOOD

This section provides a brief history of corporations and an overview of the modern theories of corporate personhood. Historically, corporations were formed by grant of a legislative charter, where the corporation was required to serve the public in some way.¹²² But this approach fell out of favor after perceptions of cronyism became rampant in the system.¹²³ Once corporate charters were widely accessible without a legislative grant, strict incorporation statutes emerged over concerns that corporations were no longer required to serve a public purpose.¹²⁴

While debates still existed about the social purpose of corporations, in 1819, the Supreme Court considered one theory of corporate personhood—the artificial entity theory—in *Trustees of Dartmouth College v. Woodward*. In *Trustees of Dartmouth College*, the Court acknowledges “[a] corporation is an artificial being” whose properties are only those given by its charter or by its legal nature.¹²⁵ In 1886, the Supreme Court took this further, formally recognizing the concept of corporate personhood.¹²⁶ In *Santa Clara County v. Southern Pacific Railroad Co.*, the Court held that equal protection under the law guaranteed to persons under the Fourteenth Amendment also applies to corporations.¹²⁷ As industry advanced, the separation between those who provided capital to the corporate form and those who provided managerial expertise became more apparent, and the introduction of limited liability only added to this divide.¹²⁸ As a result, academics began debating different theories of corporate personhood, primarily concerning whether a corporation should be viewed as an entity that is legally separate from the individuals who comprise it, or as an aggregate of individuals who make up the organization.¹²⁹

Today, there are three main theories of corporate personhood.¹³⁰ First, the artificial entity theory, which was initially expressed by the Supreme Court in *Trustees of Dartmouth College*, is a theory that views corporations as entities that exist “at the pleasure of the state,” and any rights they hold are granted by and completely subject to state authority.¹³¹ This theory is most concerned with

122. Lyman Johnson, *Law and Legal Theory in the History of Corporate Responsibility: Corporate Personhood*, 35 SEATTLE L. REV. 1135, 1145 (2012).

123. *Id.* at 1146.

124. *Id.*

125. *Id.* at 1446–47; Carliss N. Chatman, *The Corporate Personhood Two-Step*, 18 NEV. L. J. 811, 820 (2018) (citing *Trs. of Dartmouth Coll. v. Woodward*, 17 U.S. 518, 636 (1819)); see *Trs. of Dartmouth Coll. v. Woodward*, 17 U.S. 518, 636 (1819) (“A corporation is an artificial being, invisible, intangible, and existing only in contemplation of law. Being the mere creature of law, it possesses only those properties which the charter of its creation confers upon it, either expressly, or as incidental to its very existence.”).

126. Lyman, *supra* note 122, at 1140, 1155 (citing *Santa Clara Cnty. v. S. Pac. R. Co.*, 118 U.S. 394 (1886)).

127. *Id.*; *Santa Clara Cnty. v. S. Pac. R. Co.*, 118 U.S. 394, 409 (1886).

128. Lyman, *supra* note 122 at 1153–54.

129. *Id.* at 1154.

130. Chatman, *supra* note 125, at 820.

131. *Id.* at 820–22 (citing *Trs. of Dartmouth College v. Woodward*, 17 U.S. 518 (1819)).

acknowledging corporate rights that states grant, as opposed to expanding corporate rights.¹³²

In contrast, under aggregate theory, a corporation's rights are identical to the rights of the individuals who own and comprise the corporation.¹³³ This theory was first introduced in the Supreme Court decision *Bank of United States v. Deveaux*, where the Court held a corporation's right to sue flows from the individuals who are represented by the corporation.¹³⁴ Under an aggregate personhood theory, corporations are dependent on the individuals who comprise them, and the corporation's entire existence is based on the reality of those individuals' existence.¹³⁵ In contrast to artificial entity theory, aggregate theory expands the rights of corporations to those that are human rights.¹³⁶

The third theory of corporate personhood is the real entity theory. Under the real entity theory, a corporation is viewed as a real person, completely distinct and separate from both the state, and its own shareholders.¹³⁷ Because the corporation is viewed as a real person, it has real rights, but it must also comply with laws just like a real person is obliged to do.¹³⁸ The state may choose not to recognize the corporation.¹³⁹ But if it does, then it must also recognize that the corporation has constitutional protections.¹⁴⁰ Additionally, because the corporation is a completely distinct entity, individuals who are associated with it do not define it.¹⁴¹

In recent years, the Supreme Court has touched on whether corporate personhood guarantees a corporation certain constitutional rights.¹⁴² In *Citizens United v. Federal Election Commission*, the Court held that corporate political speech is entitled to First Amendment protection, thus equating the political speech of corporations to that of individuals.¹⁴³ It has been suggested that the Court's reasoning in this decision was based on a combination of the real entity and aggregate theories of corporate personhood.¹⁴⁴ If viewed in the context of autonomous corporations, it is conceivable that this reasoning could be used to

132. *Id.* at 821–22.

133. *Id.*, at 822.

134. *Id.* (citing *Bank of United States v. Deveaux*, 9 U.S. 61 (1809)).

135. *Id.*

136. Chatman, *supra* note 125, at 822.

137. *Id.* at 823.

138. *Id.*

139. *Id.*

140. *Id.*

141. *Id.*

142. See *Citizens United v. Fed. Election Comm'n*, 558 U.S. 310 (2010); Martin Petrin, *Reconceptualizing the Theory of the Firm— From Nature to Function*, 118 DICK. L. REV. 17 (2013).

143. *Citizens United*, 558 U.S. at 365 (“[T]he government may not suppress political speech on the basis of the speaker’s corporate identity.”); Petrin, *supra* note 142, at 17 (“[T]he majority held . . . that there was no difference between individuals and corporations in this respect.”).

144. Petrin, *supra* note 142, at 17.

apply constitutional rights to a corporation that has AI embedded in its management, processes, or corporate structure. While the right to protected political speech has been acknowledged for corporations, questions remain whether other business entities that are considered legal persons—like a general partnership¹⁴⁵—would be entitled to similar constitutional rights.

Defining the rights and responsibilities of an autonomous corporation within the confines of any corporate personhood theory may be challenging. However, the literature proposes a framework that can help solve this problem.¹⁴⁶ If the law denies all personhood to AI—as Idaho’s provision does¹⁴⁷—then this complicates the question of how an autonomous corporation fits into personhood theory even further. The next section discusses a framework that explains how the social and legal needs of an autonomous corporation may be matched with a complementary theory of corporate personhood.

V. THE INTERSECTION AMONG CORPORATE PERSONHOOD, AI, AND AUTONOMOUS CORPORATIONS

Up to this point, the discussion has covered foundational information about AI, autonomous corporations, liability issues that may arise for autonomous corporations, and the general theories of corporate personhood. As demonstrated in the literature discussed above, these topics may be analyzed together for use in a framework where personhood may be applied to AI or an autonomous corporation.¹⁴⁸

While neither state nor federal law recognize AI as a legal person,¹⁴⁹ it could be argued that the legal status afforded to autonomous corporations could become a conduit for establishing personhood status for AI.¹⁵⁰ This may be particularly true for Distributed Business Entities that use AI to replace the management hierarchy or complete business transactions without human intervention.¹⁵¹ This is because these organizations integrate AI into the very nature and structure of the organization.¹⁵² Additionally, while the AI systems of Traditional Plus organizations

145. IDAHO CODE § 30-21-102 (including partnerships in the definition of “person”).

146. See *Autonomous Corporate Personhood*, *supra* note 5 (presenting the autonomous corporation-personhood framework).

147. IDAHO CODE § 5-346.

148. *Autonomous Corporate Personhood*, *supra* note 5, at 1498–1505 (discussing the framework for applying theories of personhood to AI systems and autonomous corporations based on social, legal, and technical concerns).

149. Pearlman, *supra* note 2.

150. See *Autonomous Corporate Personhood*, *supra* note 5, at 1459 (“[T]he increasingly automated nature of corporate operations and management offers a vehicle through which to advance the discussion of corporate rights, and, inversely, the long history of granting artificial rights to corporations holds lessons for outlining the contours of artificial rights in the AI context.”).

151. *Id.* at 1503 (discussing Distributed Business Entities and how they may “be linked to both an AI personhood view of AI systems as conduits for collective human activity, and to corporate personhood theories of corporations as both aggregations of natural persons and real entities in their own right.”).

152. *Id.*

may generally be viewed as property rather than a replacement for human management,¹⁵³ it could be argued that human management's reliance on AI for decision-making is a replacement for human judgment, and thus a replacement of the management hierarchy to some extent. If management relies heavily or predominantly on AI for decision-making, some Traditional Plus corporations could be walking a line that separates them from Distributed Business entities, while still maintaining the traditional corporate form. These variations underscore the complexity involved in the personhood issue.

Endorsing a holistic view of AI and autonomous corporations, recent literature provides a framework for analyzing how to approach personhood rights for these systems and organizations. In *Autonomous Corporate Personhood*, Carla Reyes uses the taxonomy she developed in *Autonomous Business Reality* as the foundation for a framework that matches theories of personhood to categories of autonomous corporations.¹⁵⁴ In this framework, personhood theories are applied based on the extent to which an autonomous corporation's use of AI replaces or emulates humans.¹⁵⁵

For Traditional Plus corporations that treat AI systems as property or efficiency enhancements, the framework suggests applying artificial entity and real entity theories of personhood.¹⁵⁶ These theories are a good fit because state law allows such an organization to form and exercise given rights, but the organization may also be viewed as a real separate entity with its own persona and the ability to wield power.¹⁵⁷ Under these personhood theories, with the traditional corporate structure remaining in place, Supreme Court rulings and statutes currently convey a type of "Restricted Personhood" to Traditional Plus corporations.¹⁵⁸ As a result, the nature of a Traditional Plus organization's corporate personhood would likely not need to be changed.¹⁵⁹

In contrast, the framework suggests that Distributed Business entities are best analogized to the aggregate and real entity personhood theories.¹⁶⁰ Because of the distributed nature and flattened management structure of these organizations, there is more direct individual participation in managing the business than there would be in a traditional corporate structure.¹⁶¹ Consequently, there is a need to protect the rights of individual members, while also imposing responsibilities on "the collective when it acts as a collective."¹⁶² Thus, an approach toward corporate

153. *Id.*

154. *Autonomous Corporate Personhood*, *supra* note 5, at 1499–1505.

155. *Id.*

156. *Id.* at 1498.

157. *Id.* at 1494–95 (using Amazon as an example).

158. *Id.* at 1502–03.

159. *Id.* at 1503.

160. *Autonomous Corporate Personhood*, *supra* note 5, at 1503.

161. *Id.*

162. *Id.*

personhood that is closer to human personhood may be more applicable to a Distributed Business Entity.¹⁶³ Consequently, “Full Personhood” is recommended for these organizations.¹⁶⁴ This approach is justified by the notion that the AI systems of a Distributed Business Entity are “merely [] a conduit for . . . collective human activity.”¹⁶⁵

For corporations in the Autonomous Entities category, the framework points toward a “Limited Personhood” approach.¹⁶⁶ Because these organizations are best analogized by personhood theories least connected to natural persons, it follows that the rights enjoyed by natural persons would not be necessary for such entities.¹⁶⁷ Limited Personhood might be providing enough legal status to the entity to protect other individuals from the entity, or to establish a liability structure for accountability.¹⁶⁸ Under a Limited Personhood theory, the entity itself may be sued, or developers of the entity may be sued if it fails to follow corporate law requirements.¹⁶⁹ This approach touches on some of the liability apportionment issues discussed earlier, and the so-called “accountability gap.”¹⁷⁰ Harkening back to that discussion, questions of creating a personhood construct for accountability purposes are implicated when the AI system (or in this case, an autonomous corporation) has more freedom in decision-making without human interaction.¹⁷¹

Overall, this framework aims to combine technical and legal considerations to guide legislators who are crafting laws about autonomous corporations and AI systems. Further, its integrated spectrum of autonomous corporations, personhood theories, and social and legal uses of AI technology make it clear that no particular theory of personhood is a perfect fit for all applications of AI.¹⁷² To use this framework effectively, the literature urges that legislators gain an understanding of both the AI technology at issue and the “legal demands of the social context” where the technology will be applied.¹⁷³ In doing so, the goal is to avoid making laws that perpetuate generalizations and myths about AI that may harm consumers and industry or hamper innovation.¹⁷⁴

Turning to Idaho’s provision banning personhood for AI, it is clear the law was motivated at least in part by fears associated with AI technology.¹⁷⁵ Consequently,

163. *Id.* at 1503–04.

164. *Id.*

165. *Id.* at 1504.

166. *Autonomous Corporate Personhood*, *supra* note 5, at 1504.

167. *Id.*

168. *Id.*

169. *Id.*

170. LoPucki, *supra* note 66, at 901.

171. *Id.*

172. *See Autonomous Corporate Personhood*, *supra* note 5, at 1505–06 (“The first lesson, simply put, is that there may not always be one theory to rule them all.”).

173. *Autonomous Corporate Personhood*, *supra* note 5, at 1506.

174. *Id.*

175. *See* Rebecca Boone (AP), *Bill Would Bar Idaho’s Lands and Animals from ‘Personhood’*, KTVB7 (Feb. 15, 2022) [hereinafter *Nichols Statement*] (quoting Representative Tammy Nichols, “We don’t want our children to be inferior to artificial intelligences.”),

it implicates the pitfalls legislators are urged to guard against, such as creating laws that perpetuate harmful generalizations and myths.¹⁷⁶ As such, this approach is contrary to the goals of the framework above. If the framework were used to craft a law addressing Idaho’s concerns, Idaho legislators would ideally consider not just the AI technology they are seeking to regulate, but also its social and legal context.¹⁷⁷ Thus, in questioning whether Idaho’s provision banning AI personhood is good policy, it is helpful to examine whether Idaho legislators attempted to account for any of these factors and to compare Idaho’s approach to the approaches used by other states that have considered AI and autonomous corporation issues.

VI. IDAHO’S PROVISION AND VARYING APPROACHES TOWARD AI LEGISLATION

This section begins with a discussion of Idaho’s provision banning personhood for AI. Next, it compares Idaho’s legislative approach with the approaches taken by other states to address autonomous corporations.

A. Idaho’s Provision Banning Personhood for AI

In 2022, Idaho enacted a provision banning assignment of personhood status to AI, inanimate objects, environmental elements, and nonhuman animals.¹⁷⁸ In a statement made by Republican Representative Tammy Nichols, the purpose behind this law was to address a “growing trend” of applying personhood status to non-human articles.¹⁷⁹ Purportedly, the goal of this trend was to restrict access to natural resources.¹⁸⁰ Discussing AI specifically, Nichols stated, “[w]e don’t want our children to be inferior to artificial intelligences.”¹⁸¹ While legislative history of the provision shows that some legislators worried it might contradict the legal fiction of corporate personhood, the bill was nevertheless passed, becoming official law in July of 2022.¹⁸²

While limiting restrictions on access to natural resources seems to be a motivation behind Idaho’s provision, the reason for including AI in its purview appears to be primarily fear-based. This is not surprising, as the idea of AI and robots taking over is recognized fear for many. Common worries associated with

<https://www.ktvb.com/article/news/local/capitol-watch/bill-would-bar-idahos-land-and-animals-from-personhood/277-3e16731a-7588-4407-a026-e540d7c62942>.

176. See *Autonomous Corporate Personhood*, *supra* note 5, at 1506.

177. See *Id.* at 1505–06.

178. IDAHO CODE § 5-346 (2022).

179. *Nichols Statement*, *supra* note 175.

180. *Id.*

181. *Id.*

182. S. State Aff. Comm. Minutes, H. 720, 66th Leg. 180–84 (Idaho 2022).; IDAHO CODE § 5-346 (2022).

the advancement of AI usage include unemployment, income inequality, and a breakdown of social order.¹⁸³ On the other hand, there are others who are more optimistic about the use of AI, believing that economic calamity at the hands of robots is not a foregone conclusion.¹⁸⁴ In any case, the legislative history does not indicate any attempts to explore these issues. In short, a few examples of attempts to grant personhood to non-human entities were mentioned, and a caution was given that this approach was gaining momentum.¹⁸⁵ Based on the limited consideration of the provision and the statement from Representative Nichols, the provision's purpose appears to be: (1) to maintain ease of access to natural resources; and (2) to maintain control and dominance over non-human entities.

B. Comparing Idaho's Approach Toward AI Legislation with Wyoming and Tennessee's Approaches Toward DAO Legislation

At this point, neither federal nor state law assigns legal status to AI.¹⁸⁶ But, as mentioned previously, states such as Wyoming and Tennessee have taken a tangential approach by formally recognizing DAOs as business entities.¹⁸⁷ As a result, these states have assigned personhood to some autonomous corporations falling under the Distributed Business Entities category.¹⁸⁸

In recognizing DAOs as formal business entities and legal persons with rights enforceable in court, Wyoming has addressed some of the legal ambiguity inherent in the decentralized nature of these organizations.¹⁸⁹ The Wyoming State Select Committee on Blockchain and Financial Technology sponsored the legislation authorizing recognition of DAOs,¹⁹⁰ indicating at least some efforts were made to understand the application of AI and blockchain technology in a corporate setting. Wyoming State Senator Chris Rothfuss has also noted there is more to be done in addressing the needs of DAOs.¹⁹¹ Consequently, there will be continued efforts to evaluate where regulatory guidance is needed and whether additional legislation

183. Aaron Smith & Janna Anderson, *AI, Robotics, and the Future of Jobs*, PEW RSCH. CTR. (Aug. 6, 2014), <https://www.pewresearch.org/internet/2014/08/06/future-of-jobs/>.

184. *Id.*

185. S. State Aff. Comm. Minutes, H. 720, 66th Leg. 3–4 (Idaho Mar. 18, 2022).

186. Lance Eliot, *AI Legal Personhood Distresses AI Ethicists Since People Could Deviously Scapegoat Machines to Avoid Apt Human Responsibility, Including in the Case of AI-Based Self-Driving Cars*, FORBES (Mar. 4, 2022 11:30 AM), <https://www.forbes.com/sites/lanceeliot/2022/03/04/ai-legal-personhood-distresses-ai-ethicists-since-people-could-deviously-scapegoat-machines-to-avoid-apt-human-responsibility-including-in-the-case-of-ai-based-self-driving-cars/> (“[T]he AI of today does not have legal personhood.”).

187. Carla L. Reyes, *Personhood for AI—Coming to a Jurisdiction Near You?*, ECGI (Sep. 13, 2022), <https://ecgi.global/blog/personhood-ai%E2%80%94coming-jurisdiction-near-you>; *see also* WYO. STAT. ANN. § 17-31-103 (2022); TENN. CODE ANN. § 48-250-102 (2022).

188. Reyes, *supra* note 187; *see also* WYO. STAT. ANN. § 17-31-103; TENN. CODE ANN. § 48-250-102.

189. Nate DiCamillo, *State Lawmaker Explains Wyoming's Newly Passed DAO LLC Law*, COINDESK (Apr. 22, 2022 12:21 PM), <https://www.coindesk.com/policy/2021/04/22/state-lawmaker-explains-wyomings-newly-passed-dao-llc-law/>.

190. *Id.*

191. *Id.*

or alternative business entities will be considered.¹⁹² Thus, the approach Wyoming has adopted appears to be flexible, while acknowledging that changes may need to be made to accommodate issues that arise.

Idaho's approach toward AI legislation differs from Wyoming's approach to DAOs in two key ways. First, Idaho did not have a committee with special focus in an area of relevant technology sponsoring its legislation. Rather, legislative history reflects Idaho's provision was introduced by Idaho House Representative Nichols to the Idaho Senate State Affairs Committee with no reference to any prior study.¹⁹³ Additionally, beyond a few brief questions at the time of introduction, the legislative history reveals no discussion of plans to conduct a formal analysis of possible consequences down the line.¹⁹⁴ This contrasts with Wyoming's approach, which indicates ongoing efforts to evaluate whether the law is working as needed and make changes if necessary.

In the case of Tennessee's DAO legislation, legislative history shows the senate made efforts to study existing blockchain-focused laws to identify which laws encouraged a "positive economic environment" for the use of blockchain technology.¹⁹⁵ Unlike the adoption of Idaho's provision, which was largely based on vague fears of a purported trend,¹⁹⁶ Tennessee made efforts to survey the landscape of existing laws closely related to blockchain technology before adopting its own legislation. Overall, Idaho's lack of preliminary consideration and quick adoption of its own provision contrasts with Tennessee's approach.

In general, by foregoing preliminary research on how prohibiting personhood for AI might affect economic or corporate interests, Idaho's approach is in stark contrast to the approaches taken by Wyoming and Tennessee.¹⁹⁷ Additionally, Idaho's approach is inconsistent with the literature.¹⁹⁸ The academic recommendation suggests using the layered framework discussed earlier, while gaining a holistic understanding of the technology at issue.¹⁹⁹ Noting this departure, the question remains whether Idaho's provision banning personhood for AI is a good policy choice. Because this prohibition may pose conflicts with the personhood of autonomous corporations, perhaps even at the Traditional Plus level, I argue it is not.

192. *Id.*

193. Relating to Personhood: Hearing on H.720 before S. State Affairs Comm., 66th Leg. (Idaho Mar. 18, 2022).

194. *Id.*

195. SENATE JOURNAL, Tenn. S. 112, 63d Legislative Day at 31 (2022).

196. Relating to Personhood: Hearing on H.720 before S. State Affairs Comm., 66th Leg. (Idaho Mar. 18, 2022).

197. SENATE JOURNAL, Tenn. S. 112, 63d Legislative Day at 31 (2022); DiCamillo, *supra* note 189.

198. *Id.*

199. See *Autonomous Corporate Personhood*, *supra* note 5, at 1499–1505.

VII. ADDRESSING THE PROBLEMS WITH IDAHO'S PROHIBITION OF PERSONHOOD FOR AI

This section begins with a discussion of how Idaho's provision conflicts with the notion of preserving personhood for legally recognized entities that fall on the autonomous corporation spectrum. This is followed by a recommendation of how Idaho could resolve the conflict follow.

A. Potential Conflicts with Corporate Personhood for Business Entities on the Autonomous Corporation Spectrum

Because the literature recommends a holistic understanding of an AI system prior to crafting laws that affect it,²⁰⁰ Idaho's provision banning personhood for AI should be reconsidered. First, Idaho's implementation of the provision is problematic because it conflicts with corporate personhood in the context of autonomous corporations. As discussed earlier, autonomous corporations include a range of entities from traditionally structured corporations that use AI as an enhancement tool, to futuristic algorithmic entities that are entirely independent from humans.²⁰¹ A provision that bans personhood for AI may cause conflicts with even the least autonomous of these entities.

While Traditional Plus corporations generally treat AI as property,²⁰² a corporation whose management has come to rely heavily on AI to make decisions or to execute transactions has invited the technology into the corporation's structure to some extent. While management has not been physically replaced, such reliance treats technology as a substitute for human judgment and action. If AI becomes a substitute for human judgment and action, the line between management and AI blurs despite the presence of a traditional human corporate hierarchy. While the literature does not recommend adding new personhood rights to address the needs of Traditional Plus organizations,²⁰³ an absolute prohibition on personhood for AI introduces a potential conflict. It is difficult to reconcile this prohibition with the idea that a legally recognized entity can embed AI in its management or processes and still enjoy personhood.²⁰⁴

In addition, Idaho's provision likely conflicts with the personhood of entities falling under the Distributed Business Entities category. DAOs serve as an example to illustrate this problem. Because DAOs replace what would normally be the traditional management hierarchy with automation,²⁰⁵ a provision banning

200. *Id.* at 1509 ("The legal community must take the time necessary to understand the relevant technologies for which they craft law . . .").

201. See *Autonomous Business Reality*, *supra* note 23 at 462–70; *Autonomous Corporate Personhood*, *supra* note 5, at 1467–70.

202. *Autonomous Corporate Personhood*, *supra* note 55, at 1502.

203. *Id.* ("[F]or Traditional Plus corporations, not much needs to change in the way the law determines the nature and scope of corporate personhood.").

204. While there was no mention of autonomous corporations, there was some concern that this prohibition would conflict with granting personhood to corporations. *Hearing on H. 720 Before the S. State Affairs Comm.*, 66th Leg. (Idaho Mar. 18, 2022).

205. *Autonomous Business Reality*, *supra* note 23, at 474.

personhood for AI would likely conflict with the legal personhood of an organization where AI essentially is the management structure. Consequently, if Idaho were to follow the lead of states like Wyoming, Tennessee, and Vermont by recognizing distinct legal status for decentralized blockchain-run organizations,²⁰⁶ it would be difficult to do so against the backdrop of a prohibition on AI personhood. Even without recognizing DAOs as distinct entities, a DAO formed in Idaho as an LLC or general partnership still creates a conflict. Because LLCs and general partnerships are endowed with personhood under Idaho law, the same issue remains.²⁰⁷ Overall, one might see how this uncertainty could dissuade DAOs from forming in Idaho in the first place. The effect may be that Idaho would be excluded from the economic growth associated with the emergence of DAOs.²⁰⁸

The possible conflict between prohibiting AI personhood and preserving corporate personhood exposes another reason why Idaho's provision should be revisited. Namely, litigation could lead to challenges against an organization's legal rights. While it is highly unlikely that an organization's corporate personhood would be entirely invalidated,²⁰⁹ the possibility of such a challenge places interpretation of this conflict in the courts' hands. When faced with these arguments, courts may be reluctantly put in a position where they must determine how to reconcile a provision banning personhood for AI with the existence of an entity with legal personhood that is partially composed of AI.²¹⁰ For those who are concerned about judicial activism, this unresolved conflict should be troubling.

B. Revisiting the Provision with the Systems-Based Approach and Framework Proposed in Recent Literature

To resolve the possible personhood conflict, Idaho lawmakers should consider the literature's recommendations. First, a systems-based approach should be used

206. WYO. STAT. ANN. § 17-31-103 (West year); TENN. CODE ANN. § 48-250-109 (West year); VT. STAT. ANN. tit. 11, § 4171 (West 2018).

207. IDAHO CODE § 30-21-102 (2022) (granting personhood rights to LLC entities and partnerships).

208. Ben Knaus, *The Power of DAOs*, FORBES (Oct. 26, 2022, 6:30 AM), <https://www.forbes.com/sites/forbestechcouncil/2022/10/26/the-power-of-daos/> ("Research shows as of January 2022, the total market capitalization of all DAO tokens stands at roughly 21 billion.").

209. It is clear the legislature intended to preserve corporate personhood for legally recognized entities. IDAHO CODE § 5-346 (2022) ("Nothing in this section revokes the status of legal person . . . of any . . . corporation, or other legal business entity recognized by the laws of the state of Idaho as such prior to July 1, 2022.").

210. Courts may not want to be placed in the position of having to resolve this conflict. Justice Robert E. Bakes, *The First Amendment—Second to None in the Constitution*, 12 ADVOCATE 1988, at 1, 14 ("Not all judicial activism, is the result of judges knowingly imposing their will irrespective of the will expressed in the more democratically elected branches of government. Often the courts are left with little choice.").

as a basis for writing legislation concerning AI and autonomous corporations.²¹¹ To apply this approach, lawmakers are urged to gain an understanding of not just the technical aspects of relevant AI systems, but also their social and legal implications.²¹² This could be accomplished by taking an approach similar to Wyoming and Tennessee. For example, Idaho legislators could form a committee or other workgroup to gather data about systems of concern.²¹³ This would support a thorough understanding of relevant AI systems and their legal, social, and economic attributes.²¹⁴ Additionally, Idaho legislators need not approach this issue from a position of fear and suspicion. After gaining a thorough understanding of relevant systems and how they are used, lawmakers could then make informed strategies to address concerns about AI based on the technological, social, legal, and economic needs identified.²¹⁵ Applying this measured and multifaceted approach is also beneficial in analyzing the personhood question because it helps lawmakers understand the business context of an AI system, and thus what type of rights and duties might be appropriate.²¹⁶ With this understanding, legislators could craft laws that harmonize the need to provide governance over AI with the need to preserve corporate personhood.

Next, once lawmakers have a holistic understanding of relevant AI systems, they should consider the autonomous corporation framework presented in the literature to examine the relationship between AI and personhood. Under this framework, legislators should take a layered approach to the relevant AI system and determine: (1) the extent of its use and to what degree it may be embedded into a corporate structure; (2) whether the system is mainly treated as property, a conduit for humans, or as a hybrid social person; and (3) which theory of personhood best matches the social treatment of the system.²¹⁷ After performing this inquiry, lawmakers could then decide how to define personhood rights for the system in the context of its use and overall function.²¹⁸ From there, the law may be crafted or adjusted to extend or limit personhood in a way that does not conflict with corporate personhood, and does not grant more than is needed to an AI system.²¹⁹ This approach would afford lawmakers the flexibility to approach AI systems in different ways, without having to search for a one-size-fits-all solution.

For example, if the legislature is concerned about autonomous entities exerting superiority over individuals, then a system-based approach coupled with the autonomous corporation framework can be used to focus solely on systems with these capabilities. Because legislative history and comments indicate that

211. *Autonomous Corporate Personhood*, *supra* note 5, at 1459.

212. *Id.* at 1506–09.

213. DiCamillo, *supra* note 189; Tenn. S. J. 112, 63d Sess. (2022).

214. DiCamillo, *supra* note 189; Tenn. S. J. 112, 63d Sess. (2022).

215. *Autonomous Corporate Personhood*, *supra* note 5, at 1509–10.

216. *Id.* at 1506 (“[W]hen considering the nature and scope of legal rules for AI systems, context should play a significant role in defining the appropriate bundles of rights and duties that attach.”).

217. *See id.* at 1501 tbl.4.

218. *Id.* at 1501–05.

219. *See id.*

Idaho's provision was adopted to address fears of AI superiority,²²⁰ the framework could be used to focus on systems and autonomous corporations that are entirely separate entities completely automated by AI with no human control.²²¹ In other words, legislators could craft a law only restricting personhood for AI systems and autonomous corporations that truly belong to the Autonomous Entities category,²²² thus avoiding unintended personhood conflicts with autonomous corporations and forms of AI that are not seen as a threat.

IX. CONCLUSION

While its language indicates the intent to preserve corporate personhood,²²³ Idaho's provision banning personhood for AI may create a conflict for corporations and other legally recognized business entities falling on the autonomous corporation spectrum. For autonomous corporations that have embedded AI into their operational or managerial processes, or replaced their management hierarchies entirely with automation, it could be difficult for courts to determine where the line between corporate personhood and AI personhood is drawn.

Professor Reyes's article sets out the relationship between artificial rights in both the corporate and AI contexts, and how corporate personhood may be viewed as an analogue in applying personhood to AI systems.²²⁴ Consequently, to properly address AI personhood issues, legislators should take a measured approach. When considering questions of personhood for AI systems, legislators should take time to realize "the varied socio-technical contexts in which these systems arise."²²⁵ While some states have taken measured approaches to address AI-related issues through committee research about relevant systems and their various applications, Idaho's approach toward AI legislation was swift and motivated by fear.²²⁶ Indeed, the decision to ban personhood for AI did not involve committee research to evaluate the complexities of AI systems or their various uses.²²⁷

220. *S. State Affairs Comm. Minutes*, 2022 leg., 66th Sess. (Idaho Mar. 18, 2022); *Nichols Statement*, *supra* note 175.

221. *See id.* at 1505 tbl.4 (displaying qualities of Autonomous Entities).

222. *See id.*

223. IDAHO CODE § 5-346 (2022) ("Nothing in this section revokes the status of legal person . . . of any . . . corporation, or other legal business entity . . .").

224. *Autonomous Corporate Personhood*, *supra* note 5, at 1459 ("Indeed, the increasingly automated nature of corporate operations and management offers a vehicle through which to advance the discussion of corporate rights, and, inversely, the long history of granting artificial rights to corporations holds lessons outlining the contours of artificial rights in the AI context.").

225. *Id.*

226. DiCamillo, *supra* note 189; Tenn. S. J. 112, 63d Sess. (2022); *S. State Affairs Comm. Minutes*, 66th Leg. (Idaho Mar. 18, 2022); *Nichols Statement*, *supra* note 175.

227. *S. State Affairs Comm. Minutes*, 66th Leg. (Idaho Mar. 18, 2022) (demonstrating the rushed nature of the provision's adoption with no reference to prior study).

To address possible conflicts between Idaho's provision and business entities falling on the autonomous corporation spectrum, Idaho lawmakers should revisit the provision using the systems-based approach and layered framework recommended in the literature. If lawmakers were to analyze the technical, social, and legal factors tied to the systems they are concerned about, then this would provide a foundation to decide if and how to apply artificial rights to an AI system.²²⁸ With this foundation, crafting a personhood law by applying the layered framework that incorporates categories of autonomous corporations, personhood theories, and the treatment of AI systems²²⁹ would likely allow for a properly nuanced approach. While I cannot answer with certainty whether the concerns the legislature has about AI superiority are founded,²³⁰ I do recommend that the issue be revisited and approached in the way the literature recommends. The hope is that such an approach would avoid future unintended conflicts between legislation concerning AI personhood and other areas of law.

228. See *Autonomous Corporate Personhood*, *supra* note 5, at 1459 (introducing the need for an interdisciplinary systems-based approach needed to properly analyze the question of applying artificial rights).

229. See *Autonomous Corporate Personhood*, *supra* note 5, at 1501 tbl.4, 1505 tbl.5.

230. *Nichols Statement*, *supra* note 175 (quoting Representative Nichols about AI fears).