CRIMINAL LIABILITY IN THE AGE OF ARTIFICIAL INTELLIGENCE: RETHINKING MENS REA AND ACTUS REUS UNDER THE BHARATIYA NYAYA SANHITA, 2023

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ABSTRACT

The accelerated adoption of artificial intelligence in colourful sectors of social activity challenges traditional felonious legal order particularly in India with the newly nominated Bharatiya Nyaya Sanhita, 2023. The composition dwells on the fundamental elements of felonious liability mens rea (shamefaced mind) and actus reus (shamefaced act), and their interaction to make by those who emplace AI. Developing global comparisons, through an Indian prism, and acknowledging that India lives in a legal world (the transformation of the Indian Penal Code, 1860 by the introduction of the BNS), this piece of writing shows how it is failing to react to the independent application of AI, such as the inexistence of intent when machines are acting and the proliferation/ loss of felonious responsibility between the inventors, druggies or deployers. Having conducted a critical analysis, this composition outlines nonsupervisory changes that suggest the adaptation of mens rea and actus reus to an action taken that is AI led, such as the creation of systems of strict liability, systems of commercial guilt, and nonsupervisory fabrics. It finally suggests that in an AI-dominated era, there is a need to redefine visionary to guarantee justice, balancing the invention with the accountability.

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INTRODUCTION

The introduction of artificial intelligence is a major milestone in mortal elaboration that is changing all aspects of health care to transportation among others. Even though crucial AI systems are becoming more capable of independently-forming opinions without any direct mortal intervention, they are putting our previous sundries of legal accountability and duty to trial. Common law Liability in the felonious context is typically based on the two traditional rudiments actus reus also known as the unlawful act of the offense or omission and mens rea also known as the shamefacedness of the mind. The principles are founded upon many centuries of legal tradition, and both generalities are based upon the assumption that a wrongdoing is done by a mortal person, one that has knowledge and will. But what about the case when AI algorithms commit the crime? And can there be a machine to carry about something like a shamefaced mind? And who is to blame its" conduct? Bharatiya Nyaya Sanhita, 2023 (BNS) substituted the social Indian Penal Code on July 1, 2024, in India.

The BNS is a modification to our felonious law, so as to accommodate the needs of the modern society, such as adding more protection to address the ramifications of cybercrimes and organized crime. nevertheless, there was no indication with any felonious offense executed by means of AI. This disparity is particularly alarming since India intends to become a forefront in AI and some estimates project that by 2035, the AI could deliver an impressive $ 957 billion to the frugality. Since AI is able to grease or commit crime, just like in the case of as' tone- driving' buses leading to fatal accidents or deepfake technology used in a fraudulent way, it should be once again discussed in terms of mens rea (internal state) and actus reus (physical acts). This essay gives a detailed explanation on these problems.

It explains the Indian law of mens rea and actus reus by referring to literal and abstract approach, starting with a summary of the BNS. It proceeds to discuss the compass of the challenges to mens rea and actus reus presented by AI and puts this in the context of the examples of the comprehension of these challenges presented throughout the world. It finally provides some recommendations on reforms based on the dilemma peculiar to India and proposes a need to have immediate changes in innovative legislation to allow a gap in liability. The purpose of this work is to add to the current debate concerning how to balance AI advances and the generalities of the core of felonious law, by promoting more insightful knowledge.

THE TRADITIONAL MODEL OF CRIMINAL LIABILITY: MENS REA AND ACTUS REUS

Background and History Philosophy

Responsible for crimes. The felonious liability states that both an act and internal state should live together at the same moment to impress on the felonious guilt. Mens rea is a principle which includes knowledge, recklessness, negligence and intention, which have internal duration, deliberation, and moral logic. Mens Rea presupposes that the defendant can be only liable to his actions in case they do not lose the ability to reflect the character and the result of their actions, freedom of choice, and ability to meditate choice and make a distinction between good and bad.

Similarly, actus reus requires that a crime should have a voluntary act or an elision or state of affairs. The orthodox interpretation of actus reus is that the defendant had to act freely, that his/her actions were mortal and that there was no fruitful causality between the actions of the defendant and dangerous effects of the actions of the defendant. These pre-requisites draw the hypotheticals of law that are fundamental to felony and, hence, that entails the existence of a mortal, whom the law might credibly implicate in the offense.

Use of Bharatiya Nyaya Sanhita, 2023

The Bharatiya Nyaya Sanhita 2023, preserving these key principles intact, transposes their necessary conservatism to the ultramodern era. Section 2 of the BNS has definitions of key words such as act, elision, and intention which are defined in terms that are highly mortal nature. Section 2 (26) of the definition of the meaning of person in the Sanhita is such that artificial legal entities may be persons under the liability of felony but does not regard the possibility of the felonious nature of the actions of the algorithmic or AI. The BNS includes all requisite vitals' which deal with mens rea under strict liability to crimes persona non grata. however, all affirmations deal with mortal agency and knowledge as a foundation on which guilt of felonious offences are inferred. By way of illustration, to freely beget hurt or to commit a felonious breach of trust there must be mortal action, mindfulness and intention which lead to felonious guilt, but which makes the latter a mortal construct only.

THE ARTIFICIAL INTELLIGENCE DILEMMA: AUTONOMOUS SYSTEMS AND THE CRISIS OF CONVENTIONAL LIABILITY.

The Nature of AI Autonomy

The modern AI systems, particularly those that incorporate machine learning and/or neural networks, possess features that pose a challenge to the traditional concept of agency and responsibility. Unlike the old-fashioned machines that adhere to the fixed programming, AI systems are able to learn and perform the functions based on their learning process, rather than as they have been originally programmed. It has an autonomy gap, or independence of the decision-making and operation of an AI system, which makes it not subject to normal legal accountability. Combined with the issues of emergent behaviour, any AI system becomes more difficult to study as they process large quantities of data in an unprecedented manner, creating interaction, and participating in complex entity recognition that can create capabilities and behaviours previously beyond the scope of operation. The non-predictability of an AI system brings about independence in at least two senses: it is difficult to expect a system to act and behave in certain ways since human beings can only predict, and they may restrict behaviour.

Mens Rea Problem of AI Systems

The attribution of mens rea to Artificial Intelligence (AI) systems can potentially introduce possibly the most significant challenge to the conventional liability paradigms. Advanced AI systems, as all other AI, lack state of consciousness, a set of emotions, or the ability to morally reason. They do not intend such things, in the colloquial meaning or in a more generalized meaning, working rather in a manner governed by a sequence of calculations to be carried out by a computer. Such calculations usually come down to the method of finding efficient means to accomplish the pre-conceived goals, or prevent errors through a prescribed model.

As an example, we could take a self-driving car that does not stop to a pedestrian, and causes a death. In the case of the human driver, who is in the same situation we would consider blaming knowledge regarding the pedestrian and the agency to either follow up on the rules of the road, or act in a cautious manner. Nevertheless, the malfunctioning of the AI system in this case was the result of computational choice relying on a sensor, which the algorithms, possibilities, and potential depending on its programming have taken into account, and perhaps what it already determined a priority. The AI system is not designed to cause harm; it is what its process makes it do since there is no exploited data, an intending program, and/or even the nature of the surrounding causes it to cause harm.

This brings the question of whether or not requirements of mens rea can be effectively discussed at all in regard to AI systems. Is it possible to attribute negligence to a system that does not even have care or concern? Is it recklessness on the part of an algorithm that judges risk as a mathematical and quantitative concept? These inquiries suggest how anthropocentric the traditional criminal law is and how inappropriate it becomes when it is utilized in relation to non-human decision-makers.

The Actus Reus Challenge

As physical aspect of crime involving AI may seem an even straightforward part of the problem as compared to the mens rea, the concept of actus reus presents significant challenges when it comes to AI. The traditional actus reus is a voluntary act of man, the AI systems are mechanically running processes that do not even necessarily fall in categories of voluntary action and omission.

The element of actus reus of causation is a far more complex issue when it comes to AI. In many cases, contemporary AI is executed by many-layered mechanisms, in which the designers might not even be aware of the route of input to output; hence, the causal pathway is opaque at most. The issue of the black box problem also adds more problems in determining the definite causal relationships that would be needed to apply criminal liability under the traditional law.

Moreover, actus reus which is voluntary presupposes human agency and choice. In the human world, AI systems are not self-operating and act as a programmed process, which reacts to data inputs. Even the voluntariness requirement might be completely invalidated in the AI context and such guidelines might require to be redefined, or at least rewritten in new frameworks of automation.

RECENT LEGAL REGULATIONS: BHARATIYA NYAYA SANHITA, 2023 AND AI

Provisions that are Applicable to AI-Related Offenses

Though the Bharatiya Nyaya Sanhita, 2023 does not mention AI systems, it contains some provisions which can be relevant to AI violation or crimes. Section 3(5) contains that the Sanhita applies to an offense committed outside of India in relation to computer resource(s) located in India which may involve harmful AI operation executed in a different jurisdiction.

Section 111 of the BNS deals with the organized crime that, in turn, might be applicable to some of the most advanced crimes that may be helped by AI and, thus, are the criminal enterprises relying on AI opportunities. Although shared might have been perceived as the criminal groups

of human beings, the subtleties of the criminal organizations might not go far enough to deal with the lurking criminality of AI facilitated crimes.

Section 353 of BNS criminalizes and punishes misinformation and/or disinformation of false or misleading statements that are alleged to be true and bring about mischief in the people or fear of the people. This was provided in the context of AI-generated deep fakes and synthetic media, yet human actors are the targets of the provisions and not the AI systems.

Weaknesses of the Existing Model

The BNS has major weaknesses when it comes to addressing AI-related crimes despite these possible provisions that should be applicable despite it. The definitions and ideas of Sanhita are so deeply entrenched in the essence of human agency that it becomes extremely challenging, possibly, even unfeasible to apply the principles of a well-known criminal law to the autonomous AI systems.

The majority of scholars admit that BNS has accountability gaps where malicious behaviour is not sufficiently punished through the current system of accountability legislation of AI. Such gaps are intensified by the fact that the AI can become autonomous and that the fact that a person is not able to control or predict their behaviour causes harm.

Besides, the BNS fails to increase the difficulties of evidence that AI systems present such as the black box problem, algorithmic bias, or failure to recreate decision making through a complex neural network. These challenges are enormous technical challenges that present a major implication to any potential AI-related crime in terms of fulfilling the aspects of the offence.

THEORETICAL APPROACHES TO AI CRIMINAL LIABILITY

Direct Liability Models

To criminalize AI, one of the proposed models is to consider complex AI systems as potential targets of criminal law. This can involve being able to afford some form of legal personality, such as corporations, to higher-level AI systems. Advocates of this model suggest that there are numerous advanced AI systems which, even at some point of reaching some standard of strong AI or artificial general intelligence, can comply with modified mens rea standards.

This would need new models of defining AI intention or knowledge as a computational and statistical phenomenon, rather than a human mental phenomenon. In the case of an example, the goals of an AI system may serve as an intent; and the information-processing capabilities of an AI system may serve as knowledge.

This is also a significant challenge both philosophically and practically. AI systems lack consciousness, consciousness, feeling or moral reasoning and they find it hard to determine genuine culpability as opposed to simple responsibility of causation. Moreover, the consequences of the conceptualization of AI systems as criminal actors, punishment, deterrence and rehabilitation, are still mostly unsettled in practice.

Liability Indirectly, via Human Beings

Another school of thought attributes the criminal responsibility of AI-related crime to human beings involved in the production and use of AI. It would put the liability on programmers, manufacturers, operators or users based on their position and control over the AI and any damages resulting.

It would also contain within this model theories of criminal liability depending on:

o **Negligent Design or Implementation:** In case, developers or manufacturers of an AI failed to take reasonable care to ensure that the AI was safe, performed reasonable testing or removed known dangers in the AI, they may face criminal liability.

o **Negligent Supervision:** In case the AI systems under the owner or control of the user or operator are not supervised, fixed and managed adequately, they may be liable as well.

o **Reckless Deployment:** Companies implementing artificial intelligence systems in the context in which the safety of the population might be at risk, and in which sufficient measures (such as an AI code of conduct) have not been established, may be accused of being recklessly negligent towards the population.

The updated paradigm is compatible with the foundational principles of criminal law; and can escape certain philosophical difficulties in the allocation of conduct to AI that is not conscious action. It is however, not necessarily enough to deal with the AI systems which are capable of autonomous behaviour which takes place without human control or supervision.

Strict Liability Regimes

The third alternative is to establish strict liability crimes that concern identified types of AI-related injuries. According to this model, acts involving AI would still be regarded as criminal acts despite there being no mens rea, and it would look at the occurrence of the illegal outcomes instead of the intentions of the people.

Risk-based AI-related applications where there are risk factors such as with autonomous vehicles, where AI systems are being used in health care delivery systems, or where there is the

risk relating to the development or maintenance of critical infrastructure all would be potential areas of the strict liability would be effective. Strict liability would fully cover the mens rea problem and guarantee that severe harm involving AI be met by a criminal liability.

The greatest drawback is that strict liability within the criminal law is a controversial concept, as it compromises moral culpability principles. Any criminal law based on strict liability will always require us to be careful in its formulation and we would have to be careful in making sure that there is proportionality and we do not accidentally criminalise positive AI-related uses (such as development activities) which in some cases causes unintended negative harms.

COMPARISON ANALYSIS: INTERNATIONAL STRATEGIES

European Union Framework

The idea of holistic regulation of AI has been executed by the European Union with strong measures in an attempt to regulate AI via the AI Act, which eventually developed a risk-based structure of AI regulation. Although, the main aim of the EU AI Act is administrative regulation and not criminal law, it does provide an idea of how legal systems can identify AI systems and classify and regulate these systems based on the risk profile.

The EU framework has a big emphasis on the human oversight requirements of the high-risk AI systems, with clearly defined and legally established duties of the AI developers and deployers. The criminal law approaches may find this legislative framework useful by developing the standards of care, which may create criminal liability in case of violation.

SUGGESTED REFORMS AND RECOMMENDATIONS.

Legislation: Development of a legislative framework: There is no specific law in place that regulates maritime piracy activities, yet the exploration of the international law of law of the sea prevails.

To respond to the challenges that AI systems present to criminal law in a way befitting the challenges, India should pursue large-scale revisions of its legislation, beyond what the Bharatiya Nyaya Sanhita, 2023 provides. The reforms must consist of:

(1)   **AI criminal offences -** New or updated criminal offences against AI-specific harms such as the deployment of AI negligently, failure to provide AI safety checks or measures in the development or use of a product and careless AI automation.

(2)   **Hybrid liability frameworks -** A number of autonomous AI systems will be and will be more than the actual liability of human beings, and will have hybrid liability frameworks

that mirror this, and it is critical to increase the human liability to practice proper oversight and control of AI systems.

(3)   **Risk-based classifications -** Risk-based criminal liability grounded on the potential damage and autonomy of the AI systems.

United States Approach

The United States has been relying mostly on the current legal systems in an effort to deal with AI-related problems, and numerous federal agencies have given out guidelines on the application of AI with reference to the field. Self-regulation of industries and voluntary requirements has been stressed on in the American approach, and matters of legal structures have gained greater prominence over the last few months.

In the United States, latest trends are proposed bills on algorithmic accountability, and AI transparency, concerning industry standards on how developers, users and consumers of the platform use the platform. Possibly, proposed legislation has a chance to impact criminal law application by setting standards of behaviour among developers and users of AI.

The Singapore Model of AI Governance

Singapore has established a full system of AI governance, which demands voluntary uptake of ethical AI, but keeps it open to innovation. The Singapore model gives precedence to the sectoral applications and risk-based approaches providing a practical model of how the criminal law could respond to AI systems in vertical applications.

PROCEDURAL AND EVIDENTIAL REFORM

The unique characteristics of AI systems necessitate a different reform of the criminal procedure and evidence law:

o   **Technical Expertise:** New Judicial or courts to handle criminal cases that involve AI and need some technical expertise.

o   **Algorithmic Audit:** Legal reform should be provided to support the application of algorithmic audit and forensic analysis of AI systems when it is applied to criminal justice.

o   **Transparency requirements:** It should be provided in the law that the transparency and explanations of AI systems should be made in cases where criminal liability can be incurred.

Regulatory Integration

The criminal law reform measures must be aligned to overall AI regulation measures:

- o **Cross-Sectoral Collaboration:** Cooperation between criminal law and administration regulation to ensure coherence in AI regulation.
- o **International Coordination:** International collaboration on AI-related cross border offences is required.
- o **Industry Standards:** Use industry standards and best practices to include in the criminal law.

CHALLENGES IN PRACTICAL IMPLEMENTATION

Technical Complexities

The implementation of AI-centred criminal law has significant technical problems:

- o **Black Box Issue:** The black-box problem is associated with the majority of AI systems, so it is difficult to replicate the process of decision-making in a criminal investigation.
- o **Quickly-Changing Technology:** The rapidity in technological change in the field of AI frequently outsmarts the law that operates at a much slower rate.
- o **Jurisdiction:** The universal nature of AI as an area of development poses a problem of jurisdiction to the criminal enforcement.

Legal System Adaptation

Introducing the issues of artificial intelligence into criminal law entails massive adaptation of the majority of legal institutions:

- o **Judge Knowledge:** Judge and legal practitioners need to be trained to handle AI technologies in a criminal case.
- o **Expert Witness Paradigm**: Prepare the potential of expert witness theme on artificial intelligence systems in a criminal trial.
- o **Precedents:** Establish case laws and law precedents to continue criminal cases that are AI-oriented.

ETHICAL AND POLICY ISSUES

Striking a balance between accountability and Innovation

It is important to balance innovation and responsibility, in every criminal law reformation to control AI systems. The existence of strong criminal liability regimes might also discourage the advancement of AI innovation and restrict the unavoidable benefits that AI may have on society, and weak accountability regimes might put the population at risk of unacceptable levels.

Human Rights and Due Process

The criminal laws unique to AI should maintain basic human rights and human rights to due process that are present in common law in Canada as well as in the United Kingdom. This would involve the ability to have trustworthy admissible AI-generated evidence, the ability that the defendant should be able to object to AI-generated evidence accordingly, and the fact that the damage caused by AI-generated perpetrators should be reflective of morally culpable actions.

Social Justice and Equality

The social justice and equality will have to be considered in the development of AI-specific criminal law. The AI criminal law has to take into account the existing literature, analysing the issues of algorithmic bias and discriminatory effects of these systems. Preferably, the criminal law must make sure that AI systems do not benefit but instead propagate, and indeed, make worse, the existing disparities in the society, and structures will also make sure that the plaintiffs are regarded as equal before the law.

FUTURE PROJECTIONS AND NEW PROBLEMS

Artificial General Intelligence

With the future development of the AI system into more sophisticated and closer to the artificial general intelligence, the questions regarding the vexing issues of criminal liability will become much more complex. The future law systems will need to grapple with the reality where AI systems have consciousness-like behaviour or they are capable of knowing the final effects of their actions.

Weapons and Infrastructure Relying on Autonomous Weapons

The problem of using AI in military use and critical infrastructure creates especially problematic issues with regard to criminal law. Potential dangers of the mass harms as caused by the AI systems in these settings might require the introduction of legal provisions that operate alongside, or even above, the status quo familiar criminal law alternatives.

Global Governance

Creation and implementation of AI systems will be influenced at an international level and the related liability regimes will require the organization of the criminal law across the borders. This would perhaps require formulation of international treaties or agreements on AI criminal liability, where treaties have been made in the past in regard to cybercrime.

CONCLUSION

The advent of artificial intelligence poses the primordial issue to the basis of criminal law as laid in the Bharatiya Nyaya Sanhita, 2023. The conventional mens rea-actus reus model is not well applicable to autonomous AI systems that do not act based on awareness or even moral judgment. The BNS and the law, in general, are based on anthropocentric assumptions and fail to consider the lack of responsibility in autonomous AI systems and associated circumstances.

The liability of AI cannot be dealt with in a fragmented manner but through hybrid accountability systems, risk oriented and tailored process of addressing the technical side of AI cases. The policies should strike a balance between technological innovation and responsibility and the rights based on human dignity. As one of the key AI players, India requires systemic legal and institutional changes and cooperation on the global level. They require pluralistic, situational solutions, which are needed because AI applications are diverse and, therefore, require different approaches. The BNS is a progressive move, although only radical changes and social discourse can help the legislation to protect the justice in the era of AI to the fullest.