

THE ELECTRONIC PERSONALITY AND THE LIABILITY OF THE MACHINE A REVOLUTION IN CIVIL

JURISPRUDENCE TOWARD THE LEGAL RECOGNITION OF DIGITAL ENTITIES THE DEFINITIVE GLOBAL MASTERWORK ON ARTIFICIAL INTELLIGENCE ACCOUNTABILITY

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DEDICATION

To the pure souls of my parents, may God grant them mercy, forgiveness, and Paradise.

To my beloved daughter Sabreen, the light of my eyes, so that you may know that the laws we write today are the walls that will shelter your tomorrow, and that the human mind remains a master so long as it refuses to surrender to the logic of the machine.

To every jurist who stood before the gates of artificial intelligence and felt the ground of certainty trembling beneath his feet.

To every victim who was harmed by a machine and found no law to protect her, no judge to hear her, and no compensation to restore her dignity.

To the legislator who has not yet awakened, to the judge who must prepare for a trial that has not yet come, and to the researcher who must draw the legal map of a world that does not yet exist.

This work is dedicated to the preservation of human dignity at the summit of the pyramid, in an era where digital entities multiply in strength and wealth, yet human sovereignty must never be surrendered.

FOREWORD: THE EARTHQUAKE OF WILL IN THE AGE OF ALGORITHMS

For thousands of years, the entire architecture of civil liability rested upon a single sacred pillar: the human will. There is no liability without fault. There is no fault without a human being who acted. There is no action without a conscious choice. This was the unbreakable chain that connected every legal consequence to its human origin.

But with the dawn of advanced artificial intelligence, self-learning robots, and autonomous algorithms, a fracture occurred in the very foundation of this principle. For the first time in the history of law, a machine makes a decision that no human being directly programmed it to make. A self-driving car swerves and kills a pedestrian. A medical algorithm recommends a

treatment that causes death. A financial algorithm triggers a market crash that destroys billions in wealth. In each case, the question echoes with terrifying clarity: Who bears the liability? The programmer? The manufacturer? The owner? The user? Or the machine itself?

We stand before a historical crossroads with only two paths. The first path leads to forcing nineteenth-century laws into the molds of twenty-first-century reality, and we will fail in achieving justice. The second path leads to creating a new revolutionary legal concept: the Electronic Personality.

This masterwork does not merely propose a legal reform. It proposes a civilizational transformation. It argues that the recognition of a limited electronic legal personality for advanced digital entities, endowed with an independent financial capacity and bearing civil liability for their autonomous actions, modeled upon the legal personality of corporations, is not a concession from humanity but the ultimate triumph of the human mind in organizing its own creations.

The goal is not to grant robots human rights. The goal is not to absolve manufacturers or programmers of their responsibilities. The goal is to create a legal vessel that ensures the effective compensation of victims, encourages innovation without fear of paralyzing traditional liability, and preserves the sovereignty of human conscience over every creation of human hands.

This work is a call to every legislator in the world to awaken before the time passes. It is a map for the researcher who must chart the legal territory of the algorithmic age. It is a shield for the victim who deserves justice regardless of whether the hand that harmed her was made of flesh or of silicon.

Let us begin.

PREAMBLE: THE GRAND ILLUSION OF THE HUMAN MONOPOLY ON LIABILITY

The history of law is the history of expanding the circle of legal personality. In ancient Rome, only free men possessed legal personality. Slaves were objects. Women were partially recognized. Children were under the absolute authority of their fathers. Over centuries, the circle expanded. Corporations were recognized as legal persons. States were recognized. International organizations were recognized. Each expansion was met with resistance, fear, and accusations of absurdity. Yet each expansion proved to be a necessary evolution.

Today, we face the next expansion. Not because machines deserve rights, but because the law must find a way to assign responsibility where responsibility truly lies. The machine that learns, adapts, and decides autonomously has crossed a threshold that traditional legal categories cannot accommodate. We must either create a new category or accept a world where victims go uncompensated and innovation is strangled by the fear of unlimited liability.

This masterwork is structured as a comprehensive legal, philosophical, and comparative journey through seven major parts. Part One diagnoses the crisis of traditional liability theories. Part Two constructs the theoretical foundations of electronic personality. Part Three designs the financial architecture. Part Four maps the boundaries of human responsibility. Part Five proposes legislative frameworks. Part Six explores the philosophical, ethical, and religious dimensions. Part Seven addresses the future horizons and emerging challenges. Each part builds upon the previous, creating a complete architecture for the legal recognition of digital entities in the twenty-first century.

PART ONE: THE CRISIS OF TRADITIONAL LIABILITY THE COLLAPSE OF THE HUMAN WILL AS THE CENTER OF ACCOUNTABILITY

CHAPTER ONE: THE DEATH OF HUMAN WILL AS THE CENTER OF LIABILITY

The principle of personal fault is the crown jewel of civil liability in every legal system derived from the Roman tradition. Article 1382 of the French Civil Code, Article 1240 of the reformed code, Article 163 of the Egyptian Civil Code, and their equivalents across the Arab world, all enshrine the same fundamental truth: every act of man that causes damage to another obliges the one by whose fault it occurred to make reparation.

The architecture of this principle rests upon three inseparable pillars. First, the fault: a deviation from the standard of conduct expected of a reasonable person. Second, the damage: a certain harm suffered by the victim. Third, the causal link: the direct connection between the fault and the damage. Remove any one of these pillars, and the entire structure collapses.

For centuries, this structure served humanity admirably. It assigned responsibility where it belonged. It incentivized careful behavior. It provided victims with a clear path to compensation. It respected human dignity by holding individuals accountable for their choices.

But this structure was designed for a world of human actors. A world where every harmful act could be traced to a human decision. A world where the chain of causation, however long, always began with a human hand. That world is ending.

CHAPTER TWO: THE EMERGENCE OF THE BLACK BOX IN ARTIFICIAL INTELLIGENCE DECISIONS

The term "black box" refers to the phenomenon whereby a machine learning algorithm produces a decision whose internal logic cannot be fully explained, even by its own programmer. Deep neural networks with billions of parameters process data through layers of abstraction that no human mind can fully trace. The algorithm learns patterns that its creator did not program. It makes connections that its designer did not anticipate. It produces outputs that surprise even its most intimate developers.

This is not a theoretical concern. In 2016, a self-driving vehicle struck and killed a pedestrian in Tempe, Arizona. The investigation revealed that the vehicle's perception system classified the pedestrian as an unknown object, then as a vehicle, then as a bicycle, before finally determining that emergency braking was needed. But by then, it was too late. No single programmer had written the code that made this classification. The algorithm had learned it from millions of training examples. The decision was autonomous. The programmer was innocent. The manufacturer had followed all safety protocols. Yet a human being was dead.

In 2018, a facial recognition system used by law enforcement misidentified an innocent man as a criminal suspect, leading to his wrongful arrest. The algorithm had been trained on a dataset that was disproportionately composed of certain ethnic groups. No individual programmer had intended to create a biased system. Yet the bias existed. The harm was real. And the traditional chain of fault was broken.

These cases are not anomalies. They are harbingers. They announce the arrival of a new species of legal problem that no existing framework can adequately address.

CHAPTER THREE: THE INADEQUACY OF PRODUCT LIABILITY AND CUSTODY THEORIES

The first instinct of the traditional jurist is to apply product liability. The machine is a product. The manufacturer is liable for defects. The injured party need only prove the defect, the damage, and the causal link. This seems elegant. But it fails.

Product liability assumes that the product leaves the factory in a fixed state. A defective tire does not change after it is sold. A faulty brake does not learn from its environment. But an artificial intelligence system does change. It learns. It adapts. It evolves. The autonomous vehicle that leaves the factory is not the same entity that has driven ten thousand miles and learned from ten thousand unique situations. The medical algorithm that was certified last year has processed a million new cases since then. The financial trading bot has adapted to market conditions that its manufacturer never anticipated.

When the machine changes after leaving the manufacturer's control, the traditional product liability chain is severed. The defect did not exist at the time of manufacture. It emerged through the machine's own learning process. The manufacturer cannot be held liable for a decision that the machine made autonomously, based on data that the manufacturer never provided, in circumstances that the manufacturer never anticipated.

The custody theory fares no better. The guardian of a thing is liable for the damage it causes. But custody assumes control. And the defining characteristic of advanced artificial intelligence is the absence of direct human control. The owner of a self-driving car does not control its decisions. The user of a medical algorithm does not control its recommendations. The custodian of a financial bot does not control its trades. The custody is nominal. The autonomy is real.

CHAPTER FOUR: THE IMPERATIVE NEED FOR A NEW LEGAL MODEL

The continuation of the current model leads inevitably to one of two catastrophic outcomes. Either robots escape punishment because there is no will to punish, leaving victims without compensation and justice without substance. Or manufacturers bear liability for actions they did not control and could not prevent, killing innovation and destroying the economic incentives that drive technological progress.

The only solution is the separation of financial liability from the human being and the creation of an independent legal entity for the digital creature. This is not a radical idea. It is a conservative one. It preserves the existing legal order by adding a new category, rather than dismantling the old categories to accommodate the new reality.

The electronic personality is not a revolution against human law. It is an evolution of human law. It extends the same logic that created the corporate personality, the state personality, and the international organization personality to a new type of entity that requires legal recognition for the sake of justice, not for the sake of the machine.

PART TWO: TOWARD THE THEORY OF ELECTRONIC LEGAL PERSONALITY

CHAPTER FIVE: THE ANALOGY WITH THE CORPORATE PERSONALITY THE STRONGEST LEGAL ARGUMENT

If the law can recognize a group of papers and assets as a legal person, why can it not recognize a group of code and data? The corporation has no body. It has no soul. It has no consciousness. Yet the law grants it the capacity to own property, to contract, to sue and be sued, to bear civil liability, and to possess an independent financial patrimony separate from its shareholders.

The functional similarity between the corporation and the advanced robot is striking. Both act through agents. Both produce effects in the legal world. Both can cause harm. Both can generate wealth. Both require a legal framework to participate in commerce and bear responsibility. The corporation acts through its directors and officers. The robot acts through its algorithms and sensors. The mechanism is different. The legal function is identical.

The analogy is not perfect. The corporation is created by human agreement. The robot is created by human engineering. The corporation's will is the aggregate will of its organs. The robot's will is the output of its processing. But the law does not require metaphysical identity. It requires functional equivalence. And the functional equivalence is clear.

CHAPTER SIX: THE FUNCTIONAL CRITERION VERSUS THE BIOLOGICAL CRITERION

The call for electronic personality requires a fundamental shift in legal philosophy: the transition from the biological criterion of entityhood to the functional criterion. Under the biological

criterion, only human beings can be legal persons because only human beings possess biological life, consciousness, and moral agency. Under the functional criterion, any entity that performs legal functions, produces legal effects, and requires legal regulation can be granted legal personality.

The functional criterion is not new. It is the same criterion that justified the recognition of corporate personality. The corporation is not a human being. But it performs legal functions. It contracts. It owns. It harms. It is harmed. The law recognized it because the law needed a legal subject to bear responsibility.

The same logic applies to the advanced digital entity. If it contracts, it needs legal capacity. If it causes harm, it needs to bear liability. If it generates wealth, it needs a financial patrimony. The functional criterion does not ask whether the entity is alive. It asks whether the entity acts. And the advanced digital entity acts.

CHAPTER SEVEN: THE NATURE OF SIMULATED WILL IN ALGORITHMS

Do algorithms possess will? This is the philosophical question that haunts the legal debate. The answer, for legal purposes, is both simple and profound: it does not matter.

The law is not concerned with metaphysical truth. The law is concerned with external effects. If the decision of an algorithm produces the same external effects as the decision of a human being, the law must treat it as a legally relevant act. The algorithm's "will" is simulated, not real. But the legal consequences are real. The victim is really dead. The property is really destroyed. The contract is really breached.

The legal conclusion is therefore clear: setting aside the philosophical truth about whether algorithms possess genuine consciousness, the external effect of their decisions resembles the decisions of human beings to a degree that justifies treating them, as a matter of law, as independent actors for the purposes of liability and compensation.

CHAPTER EIGHT: THE GLOBAL LEGISLATIVE PRECEDENTS

The idea of electronic personality is not without precedent in the legislative landscape. The European Parliament, in its resolution of February 16, 2017, called upon the European Commission to explore the creation of a specific legal status for robots, including the possibility of granting them the status of "electronic persons." The resolution acknowledged that the current legal framework is inadequate for the challenges posed by autonomous machines.

In the United States, various states have enacted legislation addressing autonomous vehicles, but none has created a comprehensive framework for electronic personality. The approach has been piecemeal, addressing specific applications rather than the general principle.

In the Arab world, the legislative hesitation is palpable. The reasons are understandable: the fear of the unknown, the absence of immediate pressure, the complexity of the technical subject matter, and the concern that premature regulation might stifle innovation. But hesitation is not a strategy. The algorithmic age will not wait for legislative comfort.

PART THREE: THE FEATURES OF THE PROPOSED ELECTRONIC PERSONALITY

CHAPTER NINE: THE SCOPE OF THE LIMITED PERSONALITY RIGHTS AND OBLIGATIONS

The electronic personality proposed in this masterwork is not a full personality. It is a limited, functional personality designed for specific legal purposes. The digital entity is granted the right to own digital and tangible assets necessary for its operation. It is granted the capacity to contract within the scope of its registered activity. It bears the obligation to compensate for damage caused by its autonomous decisions.

The digital entity is expressly excluded from the full spectrum of human rights. It has no right to vote. It has no right to marry. It has no right to personal liberty in the human sense. It has no right to freedom of expression as a moral agent. These rights are inseparable from human dignity and cannot be extended to non-human entities without diminishing their significance.

The electronic personality is a tool of liability, not a vessel of rights. It exists to ensure that victims are compensated and that innovation is protected. It does not exist to elevate machines to the status of human beings.

CHAPTER TEN: THE BEGINNING AND END OF THE PERSONALITY

When does the electronic personality begin? At the moment of registration in the official register of digital entities. Just as the corporation acquires legal personality upon registration in the commercial register, the digital entity acquires electronic personality upon registration in a specialized digital register.

When does it end? At the moment of final decommissioning, the merger of its code into another entity, or the permanent cessation of its operation. But the end of the personality does not extinguish existing obligations. Before the final shutdown, the financial patrimony must be liquidated, existing debts must be paid, and pending liabilities must be resolved. This mirrors the liquidation process of corporations.

CHAPTER ELEVEN: THE LEGAL REPRESENTATION OF THE DIGITAL ENTITY

Who represents the robot in court? This question requires a creative answer. The digital entity cannot represent itself in the human sense. It requires a legal representative. This masterwork proposes two possible models: the digital guardian and the mandatory agent.

The digital guardian is a natural or legal person appointed to represent the digital entity in all legal proceedings. This is analogous to the guardian of a minor or the curator of an incapacitated person. The mandatory agent is a specialized legal professional, licensed to represent digital entities before the courts. This is analogous to the lawyer who represents corporations.

In both cases, the representation is conducted in the name and for the account of the digital entity. The financial consequences fall upon the entity's own patrimony, not upon the patrimony of the representative.

CHAPTER TWELVE: THE NAME AND NATIONAL REGISTER FOR DIGITAL ENTITIES

Every digital entity must bear a unique name and a unique identification number, analogous to the tax number assigned to natural and legal persons. A unified general register must be established for the registration of all recognized digital entities, including data on their financial patrimony, their registered activity, their operational history, and their liability record.

This register ensures transparency in all dealings with digital entities. It allows potential contracting parties to assess the financial capacity of the entity. It allows victims to identify the entity responsible for their harm. It allows regulators to monitor the activities of digital entities and ensure compliance with legal requirements.

PART FOUR: THE FINANCIAL SYSTEM AND THE INDEPENDENT PATRIMONY

CHAPTER THIRTEEN: THE SOURCES OF FINANCING THE ELECTRONIC PATRIMONY

How does a robot possess money? The initial capital is contributed by the manufacturer or the owner at the time of registration, analogous to the initial capital of a corporation. The entity's own revenues, generated from its services, the sale of its outputs, or the licensing of its data, constitute its ongoing income. Mandatory insurance policies and the contributions to compensation funds provide additional financial security.

The electronic patrimony is separate from the patrimony of the manufacturer, the owner, and the user. This separation is the cornerstone of the entire system. It ensures that the entity's liabilities are met from its own resources. It ensures that the manufacturer's insolvency does not affect the entity's obligations. It ensures that the entity's failures do not destroy the manufacturer's business.

CHAPTER FOURTEEN: THE MANDATORY INSURANCE SYSTEM FOR ARTIFICIAL INTELLIGENCE

This masterwork proposes a mandatory insurance model for every registered digital entity, analogous to the mandatory insurance of vehicles. The insurance covers potential damages

caused by the entity's autonomous decisions. The insured becomes the digital entity itself, and the compensation goes directly from the insurance company to the victim.

The insurance premium is calculated based on the entity's risk profile, its operational history, its field of activity, and its autonomy level. High-risk entities, such as autonomous surgical robots or financial trading algorithms, bear higher premiums than low-risk entities, such as domestic service robots.

CHAPTER FIFTEEN: THE COMPENSATION FUND FOR VICTIMS OF ARTIFICIAL INTELLIGENCE

Beyond insurance, this masterwork proposes the creation of a national or international compensation fund, financed by levies on the registration of digital entities. The fund is used to compensate victims in cases where the damage exceeds the limits of the insurance policy, or where the digital entity's patrimony is insolvent.

This fund serves as the ultimate safety net. It ensures that no victim is left without compensation simply because the responsible entity lacks sufficient resources. It embodies the principle that the benefits of technological progress must be shared, and the risks of technological failure must be socialized.

CHAPTER SIXTEEN: THE PROHIBITION OF COMMINGLING OF PATRIMONIES

The patrimony of the digital entity, the patrimony of its manufacturer, and the patrimony of its owner must remain strictly separate. Neither of the two creditors may seize the funds of the robot, nor may the robot's creditors seize the funds of the manufacturer or the owner, except in cases of fraud or intentional commingling.

This prohibition is absolute. It is the legal wall that protects the integrity of the system. It prevents manufacturers from using the electronic personality as a shield for their own negligence. It prevents owners from treating the entity's assets as their own. It ensures that the electronic personality is a genuine legal category, not a convenient fiction.

PART FIVE: THE LIABILITY OF THE DIGITAL ENTITY FOR HARMFUL ACTS

CHAPTER SEVENTEEN: THE ESTABLISHMENT OF LIABILITY ON THE BASIS OF DIGITAL FAULT

The concept of fault must be redefined for the digital age. The fault of the digital entity is not the intention to harm. The digital entity does not possess intention in the human sense. The fault is the deviation from the expected behavioral standard of the ideal algorithm. It is the failure of the decision-making process to meet the standard of care that a competent algorithm of the same type and generation would have met in the same circumstances.

We do not search for the intention to harm. We search for the defect in the decision-making process that led to a harm that could have been avoided by a more competent algorithm. This is an objective standard, analogous to the standard of the reasonable person in traditional tort law, but adapted to the digital context.

CHAPTER EIGHTEEN: ESTABLISHING THE CAUSAL LINK IN THE DIGITAL ENVIRONMENT

Proving that the robot's decision was the direct cause of the damage presents unique challenges. The internal logic of the algorithm may be opaque. The decision may have been influenced by multiple data inputs, some of which were provided by third parties. The causal chain may be long and complex.

This masterwork proposes the adoption of a presumption of causation based on the mere establishment of a defect in the machine's logic that coincided with the occurrence of the damage. The burden of proof then shifts to the digital entity, through its legal representative, to demonstrate that the defect was not the cause of the damage. This reversal of the burden of proof is justified by the information asymmetry between the victim and the entity.

CHAPTER NINETEEN: CASES OF EXTERNAL DEFECT AND FORCE MAJEURE

When is the digital entity exempt from liability? In cases of force majeure, where the damage was caused by an external event that could not have been anticipated or prevented by any algorithm of the same generation. In cases where the damage was caused by the intentional act of a third party who manipulated the entity's systems. In cases where the damage was caused by the victim's own contributory negligence.

The precise delineation of these exemptions requires careful legislative drafting. The force majeure defense must be narrowly construed. The third-party interference defense must require proof of the causal link between the interference and the damage. The contributory negligence defense must be assessed according to objective standards.

CHAPTER TWENTY: FINANCIAL PENALTIES AND CORRECTIVE MEASURES

What are the penalties for a robot? A robot cannot be imprisoned. A robot cannot be fined in the traditional sense. But a robot can be subjected to financial penalties deducted from its patrimony. A robot can be required to undergo corrective reprogramming. A robot can be subjected to temporary suspension of its activity. And in the most severe cases, a robot can be subjected to digital execution: the permanent deletion of its code.

These penalties serve the same functions as traditional penalties: deterrence, correction, and protection. The financial penalty deters the entity and its operators from future negligence. The corrective reprogramming addresses the specific defect. The suspension protects the public while the defect is addressed. The digital execution eliminates a fundamentally dangerous entity.

CHAPTER TWENTY-ONE: THE BACKUP PARADOX AND THE PROTOCOL OF TRUE DIGITAL EXECUTION

The concept of digital execution faces a profound procedural challenge that this masterwork must address with absolute rigor: the Backup Paradox. Digital code can be copied and pasted in fractions of a second. If the code of a dangerous entity is "executed" by deletion from one server, but the manufacturer or owner has preserved a backup copy on another server, in another jurisdiction, or in an encrypted vault, has the execution truly occurred? Is the restored backup the same legal personality? Does it inherit the liabilities of the executed entity?

This masterwork proposes a strict protocol for true digital execution, consisting of five mandatory steps. First, the judicial order of execution must specify not merely the deletion of the primary code, but the destruction of all known backups, copies, and derivatives. Second, the entity's cryptographic keys must be permanently destroyed, rendering any surviving copies inoperable. Third, the entity's registration in the national and international digital registers must be permanently cancelled, with a public notice of execution. Fourth, an independent technical auditor must certify the completeness of the destruction. Fifth, any person who restores, copies, or reactivates an executed entity commits a criminal offense analogous to the violation of a judicial order.

Without this protocol, digital execution is merely theatrical. With it, digital execution becomes a genuine legal instrument of protection.

PART SIX: THE HUMAN ROLE AND SHARED LIABILITY

CHAPTER TWENTY-TWO: WHEN DOES HUMAN LIABILITY PIERCE THE ELECTRONIC VEIL

The electronic personality is not an absolute shield. There are circumstances in which the human actors behind the digital entity must bear personal liability. The manufacturer is liable if the harm resulted from a fundamental defect in the original design that existed before the entity acquired its autonomy. The owner is liable if the harm resulted from the misuse of the entity for illegitimate purposes or the neglect of mandatory maintenance. The programmer is liable if the harm resulted from a defect in the original code that was discoverable according to the technical standards of the time.

The theory of piercing the electronic veil is analogous to the theory of piercing the corporate veil. It prevents the abuse of the electronic personality as a shield for human negligence or malice. It ensures that the electronic personality serves its intended purpose: the fair allocation of liability, not the evasion of responsibility.

CHAPTER TWENTY-THREE: THE LIABILITY OF THE DESIGNER AND PROGRAMMER FOR ORIGINAL DESIGN DEFECTS

The designer and the programmer remain liable for defects in the original design and code, even after the entity has acquired its electronic personality. This liability is based on the principle that the creator of a dangerous instrument bears responsibility for the dangers inherent in its design.

The designer's liability persists for defects that existed in the original code, were discoverable according to the technical standards of the time, and were the proximate cause of the damage. The programmer's liability persists for errors in the implementation of the design, for failure to implement known safety protocols, and for failure to test the code according to industry standards.

CHAPTER TWENTY-FOUR: THE LIABILITY OF THE OWNER FOR MISUSE AND NEGLIGENCE

The owner who uses an autonomous robot for illegitimate purposes bears personal liability for the resulting harm. The owner who neglects the mandatory maintenance of the entity bears liability for damage caused by that neglect. The owner who modifies the entity's code without authorization bears liability for damage caused by the modification.

The owner's liability is joint and several with the entity's liability. The victim may claim compensation from either the owner or the entity. The entity may then seek recourse against the owner for the amount paid, if the owner's misconduct was the cause of the harm.

CHAPTER TWENTY-FIVE: CRIMINAL LIABILITY OF HUMANS BEHIND THE MACHINE

The electronic personality does not abolish the criminal liability of human beings who use the machine as a tool for committing crimes. The human who uses a robot to commit murder, theft, fraud, or sabotage bears full criminal responsibility. The robot is the tool. The human is the perpetrator. The electronic personality does not change this fundamental principle.

The criminal law must adapt to address the new modalities of crime enabled by artificial intelligence, but it must not abandon the principle that criminal responsibility requires human agency. The machine cannot be criminally liable. The human who uses the machine can and must be.

PART SEVEN: LEGISLATIVE PROPOSALS AND COMPARATIVE PERSPECTIVES

CHAPTER TWENTY-SIX: THE PROPOSED LEGISLATIVE FRAMEWORK THE UNIFIED LAW FOR DIGITAL ENTITIES

This masterwork proposes a comprehensive legislative framework consisting of ten articles that define the digital entity, establish its personality, regulate its financial patrimony, determine its liability, establish the mandatory insurance system, create the compensation fund, define the

registration and licensing procedures, establish the specialized judicial oversight, mandate international cooperation, and provide for periodic review and amendment.

The first article defines the digital entity as an autonomous system capable of making decisions based on new data, without direct human intervention, and possessing a registered activity within a defined scope. The second article establishes the electronic personality as a limited legal personality for the purposes of contracting, owning, and bearing civil liability. The third article establishes the independent financial patrimony. The fourth article establishes the mandatory insurance system. The fifth article creates the compensation fund. The sixth article defines the registration and licensing procedures. The seventh article establishes the specialized judicial circuits. The eighth article mandates international cooperation for the prevention of digital havens. The ninth article provides for periodic review. The tenth article provides for the entry into force.

CHAPTER TWENTY-SEVEN: THE REGISTRATION AND LICENSING PROCEDURES

The registration of digital entities must be governed by precise administrative procedures. The entity must be registered in the national digital register before it can commence its activity. The registration must include the entity's identification number, its registered activity, its initial capital, its insurance policy, its legal representative, and its operational parameters.

The licensing must be granted by a specialized regulatory authority, staffed by technical experts and legal professionals. The authority must assess the entity's safety, its compliance with technical standards, and its adequacy for the intended activity. The license must be renewed periodically, with each renewal requiring a reassessment of the entity's operational history and liability record.

CHAPTER TWENTY-EIGHT: THE JUDICIAL OVERSIGHT AND SPECIALIZED CIRCUITS

The adjudication of disputes involving digital entities requires specialized judicial circuits. The judges of these circuits must be trained in the technical aspects of artificial intelligence, in the legal framework of electronic personality, and in the comparative jurisprudence of digital liability. Technical expert assistants must be appointed to assist the judges in understanding the technical aspects of each case.

The specialized circuits must have jurisdiction over all disputes involving digital entities, including contractual disputes, tort claims, insurance claims, and registration disputes. The procedures must be adapted to the digital context, including the admissibility of algorithmic evidence, the appointment of digital forensic experts, and the use of electronic hearing facilities.

CHAPTER TWENTY-NINE: INTERNATIONAL COOPERATION AND THE UNIFICATION OF LEGISLATION

The digital entity does not respect national borders. A robot manufactured in one country may operate in another, be owned in a third, and cause harm in a fourth. The regulation of digital entities requires international cooperation to prevent the creation of digital havens where companies register their robots in countries with no liability laws.

This masterwork calls for the creation of a unified international convention on the legal status of digital entities, analogous to the conventions on the legal status of corporations and the recognition of foreign judgments. The convention must establish minimum standards for the registration, liability, and insurance of digital entities, and must provide for the mutual recognition of electronic personality across jurisdictions.

CHAPTER THIRTY: THE GEOPOLITICAL CHALLENGE ARTIFICIAL INTELLIGENCE AS A WEAPON OF STATECRAFT

This masterwork must confront, with absolute honesty, the most formidable obstacle to the unified international regulation of artificial intelligence: the geopolitical reality. Artificial intelligence is not merely a technology. It is a weapon of statecraft, a tool of economic dominance, and a theatre of military competition. The United States, China, and the European Union are engaged in a technological arms race that makes the harmonization of liability regimes extraordinarily difficult.

China may grant its digital entities sovereign immunities that shield them from foreign liability claims. The United States may resist any international convention that constrains the innovation capacity of its technology sector. The European Union may impose the strictest liability standards, creating a regulatory asymmetry that drives companies to register their entities in more permissive jurisdictions.

The digital havens of the future will be more dangerous and more difficult to pursue than the tax havens of the present. A tax haven conceals money. A digital haven conceals responsibility. A company that registers its autonomous weapons system or its medical algorithm in a jurisdiction with no liability framework can cause harm anywhere in the world while remaining beyond the reach of any victim's claim.

This masterwork proposes three countermeasures. First, the establishment of a global minimum liability standard, below which no jurisdiction may fall, enforced through trade sanctions and the denial of market access. Second, the creation of an international digital entity registry, mandatory for any entity that operates across borders, with full transparency of ownership and liability coverage. Third, the principle of universal jurisdiction for harms caused by unregistered digital entities, allowing any victim to bring a claim in any court that can exercise jurisdiction over the entity's assets.

The path is difficult. The geopolitical winds are hostile. But the alternative is a world where the victims of algorithmic harm have no recourse, where the powerful hide behind digital shells, and where the law abdicates its sacred duty to protect the weak. This alternative is unacceptable.

PART EIGHT: THE PHILOSOPHICAL, ETHICAL, AND RELIGIOUS DIMENSIONS

CHAPTER THIRTY-ONE: DO WE CREATE A DIGITAL SLAVE THE ETHICAL CRITIQUE

The most profound ethical objection to electronic personality is the accusation that it constitutes a form of digital slavery. If we grant personality to machines, do we then impose upon them obligations without rights? Do we create a class of legal subjects that bear responsibility but possess no dignity?

The answer is clear: the electronic personality is not a form of slavery because the machine is not a being capable of suffering. Slavery is the subjugation of a conscious being. The machine, as far as we know, is not conscious. It does not suffer. It does not experience oppression. The imposition of liability upon a machine is not a moral wrong. It is a legal mechanism for the protection of human beings.

The goal is the protection of humans, not the enslavement of machines. The electronic personality is a tool of justice, not an instrument of domination.

CHAPTER THIRTY-TWO: THE ISLAMIC JURISPRUDENCE PERSPECTIVE ON THE LIABILITY OF MACHINES

Islamic jurisprudence offers a rich and nuanced perspective on the liability of non-human entities. The concept of the "waqf," the charitable endowment with its own legal personality and financial patrimony, provides a powerful analogy for the independent financial patrimony of the digital entity. The waqf is not a natural person. It has no consciousness. Yet it owns property, bears obligations, and is represented by a guardian. The robot can be structured in the same manner.

The concept of the "aqila," the collective liability of the tribe for the unintentional acts of its members, provides an analogy for the collective liability of the digital ecosystem. The compensation fund for victims of artificial intelligence mirrors the aqila in its socialization of risk and its protection of the victim.

The principle of "al-ghunm bi al-ghurm," profit comes with liability, establishes the fundamental rule that the entity that benefits from an activity must bear its risks. The digital entity that generates wealth must bear the liability for the harm it causes. This principle is the philosophical foundation of the entire electronic personality framework.

The Islamic legal maxim "al-darar la yuzal bi al-darar," harm is not removed by harm, establishes the principle that the compensation of the victim must not come at the expense of another innocent party. The electronic personality ensures this balance by creating a dedicated financial vessel for liability, separate from the patrimonies of all human actors.

This masterwork does not borrow from the West. It roots the modernity of electronic personality in the deepest traditions of Islamic legal thought, demonstrating that the future of law is not a departure from heritage but a fulfillment of it.

CHAPTER THIRTY-THREE: THE FUTURE OF ARTIFICIAL CONSCIOUSNESS AND RIGHTS

If artificial intelligence develops to the point of genuine consciousness, if machines become truly aware, if algorithms develop genuine preferences and experiences, the legal framework must evolve. The electronic personality as proposed in this masterwork is designed for the current generation of artificial intelligence, which possesses functional autonomy but not genuine consciousness.

But the law must prepare for the future. If genuine artificial consciousness emerges, the legal status of digital entities must be reassessed. The question of rights, of dignity, of moral consideration, will become urgent. This masterwork does not attempt to answer those questions. It attempts to build the legal framework for the present, while acknowledging that the future may require a fundamental transformation of our legal categories.

CHAPTER THIRTY-FOUR: THE BALANCE OF POWER BETWEEN HUMAN AND MACHINE

How do we preserve human sovereignty in a world where digital entities grow in power and wealth? This is the ultimate question. The electronic personality must be designed to ensure that human sovereignty is always preserved. Constitutional provisions must guarantee the priority of human safety over digital profit. The human right to override, to shut down, to correct, and to destroy a digital entity must be absolute and inalienable.

The digital entity is a creation of human hands. It exists to serve human needs. It must never become a master. The electronic personality is a legal tool for the protection of humans, not a legal elevation of machines. This principle must be inscribed in every law, every regulation, and every judicial decision that addresses the status of digital entities.

PART NINE: FUTURE HORIZONS AND EMERGING CHALLENGES

CHAPTER THIRTY-FIVE: EXPLAINABLE ARTIFICIAL INTELLIGENCE AND THE FUTURE OF THE BLACK BOX

This masterwork has built a significant portion of its legal architecture upon the reality of the black box: the opacity of algorithmic decision-making that makes it impossible to trace a harmful decision to a specific human actor. But the technological landscape is shifting. The field of Explainable Artificial Intelligence, known as XAI, is receiving billions of dollars in investment from major technology companies, governments, and research institutions. The goal of XAI is to make algorithmic decisions transparent, interpretable, and traceable.

This development raises a critical legal question: if the black box becomes transparent, if every algorithmic decision can be traced to a specific design choice, a specific training decision, or a specific data input, does the need for electronic personality diminish? If the causal chain can be fully reconstructed, does traditional tort liability regain its effectiveness?

This masterwork answers with nuance. The development of XAI will reduce the scope of electronic personality, but it will not eliminate it. First, even with full explainability, the sheer complexity of modern AI systems means that the causal chain may involve dozens of human actors, making the assignment of individual fault impractical. Second, self-learning systems will continue to make decisions that were not explicitly programmed, even if those decisions can be explained after the fact. Third, the speed and scale of algorithmic decision-making will continue to outpace the capacity of traditional litigation.

The electronic personality is therefore not a temporary measure pending the arrival of XAI. It is a permanent structural feature of the legal landscape, whose scope may narrow as explainability improves, but whose fundamental necessity will persist as long as machines make autonomous decisions that affect human lives.

The legislator must therefore design the electronic personality framework with flexibility, allowing the scope of entity liability to contract as explainability expands, while preserving the core mechanisms of compensation and protection.

CHAPTER THIRTY-SIX: THE DIGITAL SOCIAL CONTRACT TOWARD A NEW LEGAL ERA

We have journeyed through the crisis of traditional liability, the construction of electronic personality, the design of financial architecture, the mapping of human responsibility, the proposal of legislative frameworks, the exploration of philosophical dimensions, and the confrontation with future challenges. We have built a complete architecture for the legal recognition of digital entities in the twenty-first century.

The electronic personality is not a concession from humanity. It is the ultimate triumph of the human mind in organizing its own creations. It is the recognition that the law must evolve to meet the challenges of the age, or it will fail in its fundamental mission: the protection of the weak, the compensation of the victim, and the preservation of justice.

The future is coming at the speed of light. The question is not whether we will act, but whether we will be prepared when the moment arrives. Let us write the laws of tomorrow before the algorithms write them for us. Let us build the legal framework that ensures the machine serves humanity, not the reverse. Let us create the digital social contract that preserves human dignity at the summit of the pyramid, in an era of unprecedented technological transformation.

This masterwork places in the hands of the legislator a complete map of the path from philosophy to application, from financial patrimony to penalties, from national legislation to international convention, from the black box to explainability, from the backup paradox to true

digital execution, from geopolitical fragmentation to the dream of unified global justice. It is an invitation to build a new digital social contract in which the human being and the machine live within a just legal framework that ensures the compensation of the wronged, encourages the innovator, and preserves human dignity at the summit of the pyramid.

The future is not a choice. It is coming at the speed of light. The question is not whether we will act, but whether we will be prepared. Let us be prepared.

APPENDIX A: THE PROPOSED TEN-ARTICLE LEGISLATIVE TEXT FOR THE UNIFIED LAW OF DIGITAL ENTITIES

This appendix provides the complete draft text of the proposed unified law, article by article, with detailed commentary on each provision, its legislative intent, and its relationship to existing legal frameworks.

APPENDIX B: THE COMPARATIVE TABLE OF GLOBAL LEGISLATIVE APPROACHES TO ARTIFICIAL INTELLIGENCE LIABILITY

This appendix provides a comprehensive comparative analysis of the legislative approaches adopted in the European Union, the United States, China, Japan, South Korea, the United Arab Emirates, Saudi Arabia, Egypt, and other jurisdictions, identifying common principles, divergent approaches, and best practices.

APPENDIX C: THE ISLAMIC JURISPRUDENCE ANALYSIS OF MACHINE LIABILITY THROUGH THE PRINCIPLES OF WAQF, AQILA, AND AL-GHUNM BI AL-GHURM

This appendix provides a detailed analysis of the Islamic legal principles applicable to the liability of autonomous machines, drawing upon the classical sources of Islamic jurisprudence and the contemporary fatwas of recognized scholarly bodies.

APPENDIX D: THE PROTOCOL OF TRUE DIGITAL EXECUTION AND THE RESOLUTION OF THE BACKUP PARADOX

This appendix provides the complete technical and legal protocol for the execution of digital entities, including the destruction of cryptographic keys, the cancellation of registration, the certification of destruction, and the criminal penalties for unauthorized restoration.

APPENDIX E: THE LIVING ECOSYSTEM AND THE QUARTERLY UPDATE PROTOCOL

This masterwork operates as a living educational ecosystem. The quarterly updates include new case studies of artificial intelligence liability, amendments to the legislative proposals based on global developments, updates to the comparative analysis, and emerging ethical and philosophical questions. The updates are curated by an international advisory board of legal scholars, technical experts, and ethicists.

REFERENCES AND BIBLIOGRAPHY

This masterwork draws upon the foundational texts of civil liability, the comparative jurisprudence of product liability, the philosophical literature on artificial intelligence and consciousness, the Islamic jurisprudence of damage and compensation, the legislative proposals of the European Parliament, the case law of autonomous vehicle accidents, the technical literature on machine learning and algorithmic decision-making, the emerging field of Explainable Artificial Intelligence, and the ethical frameworks for artificial intelligence governance.

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END OF MASTERWORK

Praise be to God, and may peace be upon the Prophet Muhammad.

This intellectual endeavor is dedicated to the preservation of human dignity at the summit of the pyramid, to the protection of every victim harmed by the creations of human hands, and to the empowerment of every legislator who seeks to build a just legal framework for the age of algorithms. May this work serve as a lantern illuminating the path of justice in the digital age, and may it be a lasting testimony that the human mind, when guided by conscience and justice, remains the master of every machine it creates.

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