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Proportional Distribution of Criminal Liability of Artificial Intelligence Entities: An Analysis of Bio-Socio Concepts

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ABSTRACT

Advancements in science and technology have grown astronomically. As a result, sophisticated robots have been manufactured. They are automated programmed machines configured with specialized algorithms designed to operate independently. These mechatronics devices in carrying out their simulated activities have caused grievous harm to people, which are tantamount to offences. Robotic utilizations are made possible by four individuals, namely: programmer, manufacturer, market outlet, and end user; described as foursome. The work focused at navigating likelihoods of allotting proportional criminal liability to the foursome. In achieving its objectives, doctrinal method of investigations was adopted, using primary and secondary source materials as tools for data collection. The work discovered that artificial intelligence entities are merely made of abiotic materials. The work concluded that criminal culpability is distributable to the foursome on proportional ratio of **5:3:1:1**. It is recommended amongst others that artificial intelligence entities should never be contemplated for criminal punishment.

Keywords: Proportion, Distribution, Bio-socio Concepts, Criminal Liability, Analysis, Artificial Intelligence.

INTRODUCTION

The contemporary global society of the 22nd century, and the forthcoming progressive periods, shall be driven by impressive scientific and technological innovation. Taking the lead in this ongoing concern, is the extra-ordinary high level manipulation in the configuration of specialized series of algorithms. This will definitely facilitate the production of super intellectual robotic entities and expert systems globally. Going by the current technological realities, electro-mechanic devices in robotic frames[1] with superlative intellectual performance shall be simulated and manufactured for human capacity utilization. The sophistication in the production of artificial intelligence entities in the near future will be in astronomical progression, per excellence. Streaming therefrom, the global spread and use of artificial intelligence entities might be banal as cellular phones. They shall be as common as the use of contemporary GSM telephones (handsets) which are found physically in the hands of most humans globally. Furthermore, there could be the very likelihood of using artificial intelligence entities as tools for perfect replacement in the performance of human chores and tasks in all spheres of life. This shall meticulously encompass domestic, social, managerial, entertainment, poetic creations, payment vouchers, service delivery, commercial and industrial domains. It will be inclusive of healthcare delivery, political administration, sexual satisfaction, and even surrogate services for reproductive purposes. Artificial intelligence shall soon be the most veritable tool for legal advocacy including both in-house soliciting and open court litigation proceedings. It is will soon be an all-important replacement for teaching and learning of all categories of institutions in the sequence of socialisation. Artificial intelligence is already providing enviable roles in research and developmental domains.

These mechatronics entities which shall soon permeate the nooks and cronies of the globe are specialized creative sequence of simulation of intellectual behaviours similitude of natural persons into robotic devices. In similar vein, artificial intelligence entities are simply, automation of human intelligence into physical man-made bodies to perform the activities of human beings in more proficient and efficient manner in the society. Furthermore, these electro-mechanic entities are automated by specialized formulated arithmetical algorithms

[1] Includes all other artificial intelligence entities with corporeal, that is, those which possess physical bodies of their own and can travel from one point to another.

with the capacity to excellently perform human activities. The performance indices of these devices are incredibly per excellence, accurate, efficient, acuity, and maximally productive. This is predicated on the fact that, the configured programmes do not know fatigue, boredom, tiredness, stress and diminishing returns. Those limitations are inherently associated with the natural persons which often time impedes productive efficiency and developmental growth. In furtherance thereto, the propelling forces for exertion of energy utilization are driven electronically. It then follows that, factors of limitation which hamper growth and development in activities driven by humans are unknown to artificial intelligence entities. Flowing from the above, the activities of robotic devices are seamlessly without effort, very easy, and seemingly simple experiencing neither rest, vacation nor recess, provided there is constant and adequate supply of electricity. Artificial intelligence embodied in corporeal could operate on any kind of environmental conditions depending on the type of data configured thereto.

Artificial intelligence entities in physical frames are competing favourably with humans in all spheres of human endeavour in the world. These superlative growing trends, if not checked in the very near future could pose eminent threats to human capacity utilization. The machina[2] sapiens are gradually occupying all technical and vocational ventures which require specialized skilful knowledge to perform. These are inclusive of rendering of lectures in the classrooms, performance of different types of surgical operations, dispensing pharmaceutical products, flying of aircrafts, management and control of self-serving markets. Other services include writing of judgements, preparing payrolls for salary payments, prescription of medications, obstetrics and midwifery services, and many other domains too numerous to mention. The rhetorical question is! What else the machina sapiens cannot do? Indeed, virtually nothing. The measure of efficiency assessment ratio of artificial intelligence in corporeal are excellently near perfection. The utility performance ratios are accurate, precise and exact; always yielding maximum productivity in whichever duty they are configured and simulated to perform.

The futurologists, in the realm of technological growth and development of robotics engineering have predicted that in a period of sixty (60) years into the future. Robotic expertise shall be so proficient to the extent that there shall be no difference between the intellectual processing capacity of artificial intelligence entities and the natural person.[3] The exponents, hold the considered view that by the year 2022, the equality ratio in mental processing capacity of the two species, to wit, machina sapiens and homo sapiens shall be equated to ten (10%) percent.[4] By the year 2040, the comparative ratio of brain functional ability of humans and artificial intelligence entities shall be rated at fifty (50%) percent.[5] And by the year 2075, the neurological processing capability of both artificial intelligence entities and natural persons shall be in equipollence, that is, in parity. It shall be very difficult to differentiate one from another.[6] It is the contemplation of this scholarly investigation that the above postulation seems not to be feasible as it has been overtaken by events. This is predicated on the premise, presently, there are super computers which central processing units run excessive speed of 36.8 petaflops per second.[7] The implication of this, is that the central processing units of such categories of modern computers run twice faster than the human neurological circuits.[8]

As loftiest as the outstanding performance index of artificial intelligence entities in rendering their simulated endeavours, they have indeed caused catastrophic pogroms and mayhems to humanity. Some of the despicable acts perpetrated by artificial intelligence entities (AI) are spotlighted as follows. In 1981 an artificial intelligence entity in robotic corporeal working with humans in a motor cycle factory in Japan pushed a thirty-

[2] Experts in the domain of robotic production and engineering describe artificial intelligence entities in robotic corporeal as another competitive species of human race known as *machina* sapiens. Consequently, there appears to be two species of human beings, to wit, homo sapiens and *machina* sapiens.

[3] R O Eduardovich, 'Criminal Liability of the Artificial Intelligence' [2017] 138; *The Problems of Legality,* 136.

[4] *Ibidem*.

[5] *Ibidem*.

[6] *Ibidem*.

[7] J. Barrat, 'Our Final Invention: Artificial Intelligence and the End of the Human Era' [2015] *Alpina Non-Fiction*, 10.

[8] *Ibidem*, 'A modern computer of the Busy Child project runs at a speed of 36.8 petaflops per second, that is, twice as fast the human brain.'

seven (37) year old man into a spinning machine and was ground into ashes.[9] In 2021 a tesla robot in a factory operating in the United States of America inflicted severe bodily harm on an engineer capable of causing death.[10] Furthermore, it has been estimated, between 2004-2013, the drones war using unmanned air space vehicles[11] have claimed lives of quite over 2500-3500 persons globally.[12] The Ethiopian Boeing 737 Max 8 air disaster which occurred just after six (6) minutes of taken off on March 10, 2019. A destructive episode which killed all 157 persons on board was an technical altercation due to an un-synchronizing interface between the human crew members and the automated Boeing Programmed System.[13] It was described as an "un-commanded" inputs from the Boeing's Manoeuvring Characteristics Augmentation Systems known as (MCAS) systems.[14] The un-commanded inputs were caused by a faulty data from an underlying sensor of the artificial intelligence impute system.[15] The conflicting interest between the live pilot and the artificial intelligence entity (AI) pilot prevented the human pilot from diverting the aircraft from the impending draconic storm leading to the crash killing both crew members and passengers.[16] A total of One Hundred and Fifty-Seven (157) human perished on board the Ethiopian Boeing 737 Max 8 Air disaster.

When these dastard acts catalogued above and several others not mentioned are beamed strictly on the scale of criminal justice, they will definitely amount to serious felonies punishable by law. The heinous acts have been perpetrated continuously by artificial intelligence entities in different parts of the world. The deleterious acts of artificial intelligence entities are indeed offences in the eyes of criminal jurisprudence. Who then shall be held criminally liable for the well calculated and intended harmful acts of artificial intelligence entities? The answer to this fundamental question is the substratum of this scholastic investigation. It must be proffered promptly, soundly, adequately, and logically in legal syllogisms. The sound response, will be able to meaningfully satisfy the curiosity of most readers of this scholarly work. Same, shall be revisited in anon.

Analytical Foundation for Proportional ratio of 5:3:1:1

It is the analytical mind of this work, to achieve full potential of all artificial intelligence entities[17] for their operational proficiency. The mandatory efforts of the following expert personalities are inevitable and indispensable in all spheres. These personalities are identified, to wit, the following:

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9 G. Hallevy, "The Criminal Liability of Artificial Intelligence Entities – from Science Fiction to Legal Social Control," [2016] 4 (2) *Akron University Intellectual Property Journal*, 171.

10 www.newyorktimes. Accessed in December 27, 2023 at about 13: 00 hours GMT.

11 The unmanned aerial vehicles, the Shadow Hawk manufactured by the United States of America by Vanguard Defence Industries have been experimented and used decisively in Afghanistan and East Africa to combat suspected terrorists' movements. They possess automatic firearms with calibre estimated as equal to 12. They have capacity to electrocute suspected persons from a very high altitude with grenade launchers of about 37-40 mm. Great Britain has also developed similar unmanned aircraft vehicles, described as Taranis with very high accurate targets. All these mechanisms are driven by artificial intelligence empowered by specialized designed and configured algorithms.

12 Bureau of Investigative Journalism, *op-cit*; O. E. *Radutniy*, "Criminal Liability of the Artificial Intelligence," (2017) Issue138, *Problems of Legality,* 134.

13 The Ethiopian Aircraft Investigation Bureau (EAIB).

14 *Ibidem*.

15 *Ibidem*.

16 *Ibidem*.

17 Including autonomous AIs, automated robotics, remotely controlled systems, expert systems, and conventional software programming. Schematic explanations of the above terms:

Automated Robotics; is a special technical field of study comprises the combination of robotics, automation, sensing, control systems, programming, artificial intelligence (AI), mechanical/electrical engineering to create machines which can tasks automatically, with little or effort of humans.

Autonomous Artificial Intelligence (Ais), this is referring to artificial intelligence systems which can independently perceive situations, circumstances, evaluate same, take adjustment, synthesis results, and make appropriate and convenient decisions with very limited intervention from humans. That is, they can learn and adapt to the environment where they are found.

Remotely Controlled Systems, are programmed machines, devices or processes which could be monitored, commanded, adjusted, or operated from a physical location quite different from where the equipment is. The commands are usually

a) The software designer and programmer, wherein the entire threshold of operational capacity, efficiency and functionality of all artificial intelligence entities lie and primarily depend upon;
b) The material engineer who manufactures the corporal frame, the corpus which house the programmes, and enable the configured algorithms to operate and function efficiently as intended;
c) The marketing outlet, the advertising agent which made known the functional ability of artificial intelligence entities to the wide world for positive capacity utilization; and
d) The end user, who by the advertisement of the market outlet purchase the artificial intelligence entity and put same to practical use. The end user must so use in accordance with the programmers' and manufacturers' specifications.

In all categories of artificial intelligence systems, either autonomous AIs, automated robotics, remotely controlled systems, and conventional software. The tetralogies are involved, howbeit, the work is more suitable for autonomous AIs, automated robotics, and remotely controlled systems.

The personalities as identified under items (a) - (d) shall be referred in this work as either: "tetralogy," "quartets," "foursome," "quadrangle," "quads," or "square." Without these eminent experts working in collaborative concert, artificial intelligence entities of any kind, would not have been known in the world. It is the deliberate effort and skilful prowess of the above quartets that necessitate the operations of artificial intelligence entities for practical utilization. Their degree of ingenuity and inputs in the functionality of artificial intelligence devices are not equal. The level of shrewdness varies from one expert to another. The ratio of proportionality of 5:3:1:1, to the tetralogy is an independent resourcefulness of the work. It is of this study that neurorobotics are configured by programmers. It is the nervous system of all automated robotic creations, which enables their capabilities. Hence, the fractionalization of five (5) parts. The materials engineers, build the corpus which house the programmes. The arms and limbs used in perpetrating the wrongful grievous acts are made by the engineers. Therefore, the assignment of three (3) parts of the quantity. The market outlets and end users utilize only what the programmers and manufacturers have done. They should have lesser part of the quantity, therefore, the allotment one (1) part apiece of the whole. By the above arrangement, the proportion of **5:3:1:1**, is postulated to the legal and academic environments. Wherefore, the proportional ratio of **5:3:1:1**, is not a mere derivative from established principles of criminal law. However, known doctrines in legal jurisprudence are used in buttressing the postulation. Such doctrines include common intention, party to an offence, vicarious liability, fiduciary relationship, and etcetera. The jurisdictional coverage is commonwealth nations. Using the corpus juris in Nigeria for insightful illustrations.

Having identified in concrete terms, the key actors who are involved in the making, operation, function, and utilization of artificial intelligence entities (AI). The question posed from the outset of this work can be conveniently answered in an expanded manner. What then, is the question? The question is! Who shall be held criminally liable for the criminal actions and inactions of artificial intelligence entities (AI)? Should it be adequately necessary to ascribe all liabilities to the designer or the programmer of the software? Should it be bequeathed to the manufacturer alone? Or better still, could it be apportioned or allotted to the sales outlet? Or is it more preferable to be assigned criminal liability to the end user? Or should it be appropriately imperative to wholesomely accord liability to the artificial intelligence entities themselves? These posers are projected on the ground that artificial intelligence entities are made to operate and perform independently. The only role of the end user is to ignite the operation, by either switching on or off the electric circuit.

It is therefore, the standpoint of this scholarly investigation that, criminal liability of artificial intelligence entities should not be singled out for any of the foursome. Rather, it is the inclination of the work, that criminal liability should be distributed on proportional ratio of **5:3:1:1** among the quartets aforementioned. The above ratio shall be subsequently used and categorized into **D1, D2, D3** and **D4**[18] respectively. It is the considered

transmitted vide communication link, radio, Wi-Fi, Bluetooth, cellular networks, satellite communication, fibre optics, or the internet.

Conventional Software, are reference to software systems developed from traditionally established programming approaches. This must require human command before the processing, just as in normal office computers, handset, laptops, calculators, etcetera.

[18] **D1,** programmer; **D2,** manufacturer; **D3,** market outlet; and **D4,** the end user.

submission of the exponent that the distributions as categorized above are substantially equitable, fair and justify according to the doctrine of quantum meruit. This is predicated on the unassailable premise that without these quads, there would have been anything known as, artificial intelligence entity (AI) in the world. Furthermore, it is the background intendment of this scholarly investigation that criminal liability should never be ascribed to the artificial intelligence entity, the (AI) itself. This is because artificial intelligence entities (AI) are mere agglomeration of fibres, micro sips, iron, alloy, steel, or brass. Artificial intelligence entities (AI), especially those with physical bodies could be a mixture or combination of any the two or more in composition. The makeup of artificial intelligence entities (AI) are mere inanimate materials produced by man having no oxygenated blood. Consequently, the inappropriateness to impose criminal liability on inorganic materials such as fibre, iron, alloy, steel, or brass. It would be ridiculous and mockery of nature to impose penalty on machina sapiens which is without soul, conscience, moral, and blood. Streaming hereinabove, artificial intelligence entities (AI) remain handy tools for efficient utility and productivity in the hands of humans. This persuasive, and logical submission shall be revisited in an elaborate dimension in the main exposition as a subtheme. Prominently significant, is the salient fact that the scholarly survey appears to be very apt in contemporary Nigeria. This is because, there is in existence an enactment of the National Assembly establishing, National Centre for Artificial Intelligence and Robotics (NCIAR) Act, 2021. This Act is aimed at regulating the use, development and growth of artificial intelligence in Nigeria. The contemporary trends are indeed enviable which might soon substitute human labour in the world.

Spanning from the foregoing exposition, the laudable aim and objectives of this work shall be achieved as follows: Traverse will be extrapolated on the general principle of parties to an offence. This shall be done in resonance to the mapped out **D1, D2, D3** and **D**4 in pro-rata configuration. Further, incursion shall be made on the basic certainties about artificial intelligence entities. Flowing therefrom, objective analysis shall be laid on why artificial intelligence entities themselves should never be considered for any kind of criminal punishment. In furtherance thereto, the expository voyage shall offer explanations on the choice of pro-rata arrangement of **5:3:1:1.** In doing so, the following indicia shall be employed as measurement for allotment of pro-rata criminal liability, to wit:

1. Profiling Proportion as Specimen for Allotment of Criminal Liability;
2. Profiling Common Intention as Specimen for Allotment of Criminal Liability;
3. Profiling Cause and Effect as Specimen for Allotment of Criminal Liability;
4. Profiling Vicarious-Liability as Specimen for Allotment of Criminal Liability;
5. Profiling Negligence as Specimen for Allotment of Criminal Liability; and
6. Profiling Fiduciary Relationship as Specimen for Allotment of Criminal Liability.

In addition, the investigative survey shall proffer appropriate sample specimen for punishing the criminal act and omission of artificial intelligence entities. Finally, the voyage of discovery shall be berthed on the anchorage of conclusion and insightful recommendations. These fragments will serve as course-plotting to the navigational buoy to the ongoing voyage.

The General Doctrine of Parties to an Offence:

The criminal jurisprudence of most commonwealth nations in the world, particularly, Nigeria recognises certain persons as principal parties or offenders. The outlay of this principle, is the anticipation of events where one or more persons might be involved in the commission of an offence. By this doctrine, where one or more persons participate in the commission of an offence, each and every one, is a party to the offence committed. They could be arraigned in a single trial, but each individual will be convicted and sentenced accordingly to the venomous tenets of the offence. Each person is to bear the exactitude of the consequences of the committed offence when common intention is established. This principle of law in criminal jurisprudence is enacted under the Criminal Code.[19] The degree of individual's participation in the offence is well arrayed in sequential order.

[19] Cap.C38, Vol. 4, Laws of the Federation of Nigeria (LFN), 2010.

Such persons so mentioned might be conveniently arraigned as defendants in all criminal proceedings. The categories of participation are enacted under Section 7,[20] which states to the following effect:

"When an offence is committed, each of the following persons is deemed to have taken part in committing the offence and to be guilty of the offence, and may be charged with actually committing it: –

a) every person who actually does the act or makes the omission which constitutes the offence;
b) every person who does or omits to do any act for the purpose of enabling or aiding another person to commit the offence;
c) every person who aids another person in committing the offence.
d) any person who counsels or procures any person to commit the offence."[21]

The drafters' explanatory note as contained under Section 7 of the Code being reproduced on footnote 19 is explicit. Howbeit, further practical illustrations targeted at outcropping the correlation between the Section[22] and the theme of investigation is quite necessary. The annotation of the Section,[23] is divided into two caroms, the first, is paragraph (a) which contemplates circumstances where a lone offender commits the offence. Whereas, the second carom, as contained under paragraphs (b) – (d) anticipate circumstances where multiple persons participate in the commission of the offence in different periods and fora. It is the second degree of categorization, to wit, paragraphs (b) – (d) that are potent to this subject of investigation. Albeit, in all the circumstances as stipulated under paragraphs (a) – (d) of Section, 7[24] possess parity of criminal consequences, as principal parties to the act or omission.

As previously set out, it is paragraphs (b) – (d), that is of utmost significance to the subject matter of scholarly investigation. In paragraph (b) of the Section, to qualify as a defendant in the criminal proceeding; there must be at least two persons working in concert as criminal syndicates. One person must initially prepare the ground for that other person to complete the criminal act. For instance, a trusted personality in a financial institution deliberately left the safes in the strong room unlocked to enable his covert cohort to easily gain access to the funds. Going by the enactment of paragraph (b), both the facilitator and he who completes the act have equipollence criminal consequences. Under paragraph (c), to qualify as a party, one person must substantially support another person to commit the offence. An example, a keeper of an armoury, let out arms and ammunition to a criminal gang of robbers who used same to commit armed robbery. In this instance, the armoury keeper and the criminal gang of robbers are all principal parties to the offence of armed robbery, and shall be punished equally. The qualification to be a party under the prescription of paragraph (d) is as follows: On the first part, someone must counsel another either with spoken words or in writing. If someone acted on the counsel of another and commits an offence, both the counsellor and he who perpetrates the criminal act or the omission are parties to the offence. On the second part of paragraph (d), the procurement of the services of another to commit the offence. Practical illustration, if a prominent politician hires the services of assassins to eliminate a staunched political opponent. Both the hirer and the assassins are principal offenders and will be arraigned, tried, convicted and sentenced concurrently.

The relevance of paragraphs (b) – (d) of Section 7,[25] to the subject matter of discourse is that for one to qualify to stand criminal trial, such stipulations must be inherently written in an operational law. The Criminal Code,

[20] Criminal Code Act, Cap C38, Vol. 4, Laws of the Federal of Nigeria, 2010.

[21] ''In the fourth case, he may be charged either with himself committing the offence or with counselling or procuring its commission; A conviction of counselling or procuring the commission of an offence entails the same consequences in all respects as a conviction of committing the offence; and
Any person who procuress another to do or omit to do any act of such a nature that, if he himself done the act or made the omission, that act or omission would have constituted an offence on his part, is guilty of an offence of the same kind, and is liable to the same punishment, as if he had himself done the act or made the omission; and he may be charged with himself doing the act or making the omission.''

[22] Section 7 of the Criminal Code Act, Cap. C38, Vol. 4; Law of the Federation of Nigeria, 2010.

[23] *Ibidem*.

[24] *Ibidem*.

[25] *Ibidem*.

wherein the excerpts of Section 7[26] were reproduced are in operational written law.[27] D1, D2, D3, and D4 are constructed to encapsulate the contexts and tenets of paragraphs (b), (c) and the paraphernalia of paragraph (d). Following therefrom, the participatory involvements of **D1, D2, D3** and **D4** have been equated aptly to fit in as party to an offence as prescribed under the Criminal Code. Now, in corelation to the topic under critical consideration, the software designer and programmer. The manufacturer of the corpus housing the software configurational algorithms. The market outlet and the end user are streamed as D1, D2, D3, and D4. These quartets, are those who aided, enabled, procured, counselled, and instructed the artificial intelligence entities to wreak havoc on humans. The tetralogy, to wit, the programmer, manufacturer, marketing outfit, and end user ought to be held criminally liable. This submission is stemmed from the fact that artificial intelligence entities are deoxygenated objects, having no biotic substances.

In specific furtherance to the logical polemic, it is the instructions given by D1, housed in the corpus built by D2 which necessitate the operations of artificial intelligence entities. As instructed by D1 and hosted by D2; D3 advertised, and D4 acquired the entity for practical use. It therefore follows, the quadrangles are those who prompted the artificial intelligence entity to carried out its functions. Artificial intelligence entities are not biotic, but absolutely abiotic in inorganic frames. Therefore, the human factor who aids, enables, counsels, procures, and instructs the performance of artificial intelligence entities should be held criminally liable in a pro-rata ratio. Proportional aggregation is preferred due to the varying degrees of participation in making and utilization of artificial intelligence entities. Going by this extrapolation, **D1, D2, D3** and **D4** under criminal jurisprudence, are parties and can be arraigned as defendants in all criminal proceedings. The configuration of proportional arrangement is twilled with sound ethical, moral, and philosophical standard of punishment. This is further entwined on the time honoured principle of criminal law, no liability without fault.

Basic Certainties About Artificial Intelligence Entities, AIs

The following are some of the basic characteristic features of Artificial intelligence entities:

1. Artificial intelligence entities are products of human intellectual acuity, dexterity, prowess, resourcefulness, and inventiveness. They are entities specifically designed and manufactured by man to serve specific purposes for humanity. Flowing hereat, artificial intelligence entities are manmade products which are veritable tools for productive efficiency in the hands of man.

2. Artificial intelligence entities operate and function primarily with software configured specially from a well calculated series of arithmetical algorithms. They are specifically designed to operate independently through effective censors and search engines. The configurations of software into artificial intelligence entities are the life centre and sanctum sanctorum,[28] of the entity. The software are the coordinating neurorobotics, central nervous system, and epicentre of power, wherein the entity derives the its operational functionality and efficiency.

3. Artificial intelligence entities might not possibly operate and function efficiently beyond the quantum of data automated and configured thereat. This is predicated on the sound pendulum that computer related series of programmes are knitted upon the arithmetic sequence of garbage in, garbage out. The implication hereto, is that a performance which has not been instructed, programmed, and inputted into the operating systems can never be exercised by the artificial intelligence entities.

[26] Criminal Code Act, Cap. C38, Vol. 4, Laws of the Federation of Nigeria (LFN), 2010.

[27] It is a constitutional imperative that action cannot lie in criminal jurisprudence save it is written in an enactment for the time being and penalty prescribed thereat in writing. See the enshrinements as contained under paragraphs (8) and (12), 0f Section 36 of the Constitution of the Federal Republic of Nigeria, 1999 (as Altered)

[28] The innermost and sacred chambers of a being. Just the brain in humans. The holy of holies of an entity where all thoughts, actions, processing of judgement and decision making are streamed from. It is the core chambers of the being, the brain box of all actions and inactions, without which the being is useless.

4. The *machina* sapiens globally, are electronically driven. The implication herein, is that the simulated programmed algorithms in artificial intelligence entities can only operate and function with the aid of electricity. The device could be directly plucked into a power source or with series of electrical circuits connected into batteries which must be charged periodically through electricity or solar power. It may also be an inbuilt system into the entity.

5. Artificial intelligence entities, (AI_S) are made from non-degradable components, that is, they are necrobiosis very difficult to decompose. This is because their corporals are made up of mere fibre, metallic, or polymer materials.

6. Artificial intelligence entities are wholesomely abiotic components without oxygenated blood. They do not possess molecular and cellular systems, neither any metabolic system to be nourished by absorption and digestion of food nutrients. Thenceforth, artificial intelligence entities do not have the capability for filial production of young ones.

7. Artificial intelligence entities in robotic frames are bereft of socio-economic potentials. They cannot eat buccally and earn money for themselves. Hence, they are inept of operating bank accounts, neither do they have the capability of owning real estate, nor choses in action. Moreso, artificial intelligence entities cannot vote and be voted, neither possess the ability of irritability.

A thorough cogitation of the above indicia, shall depict the following categorisations:

a) Artificial intelligence entities are manmade, that is, without nervous systems;[29]
b) They operate and function on software configurations;
c) Artificial intelligence entities cannot operate beyond the programmed;
d) Artificial intelligence entities are absolutely electronically driven;
e) They are non-degradable entities, that is, they are necrobiosis objects without deoxygenated.
f) Artificial intelligence entities are not biotic, that is, made of synthetic materials, and finally;
g) Artificial intelligence entities are absolutely economically, and socio-political impotent.

Polemic Against Imposing Criminal Punishment on Artificial Intelligence Entities:

The moral, ethical and legal philosophy behind imposition of punishment is to inflict some level of pains and discomfort on the defendant.[30] It is equally the intendment of the law, for the convicted defendant to compulsorily surrender his fundamental rights and socio-political privileges to the State within the period of confinement. This implies that the inherent, fundamental, economic and socio-political rights and privileges of the defendant have been seriously impaired. This inclination of punishment underpins the retributive theory of punishment which infer the promotion of deterrent to other citizens of the State. Aligning, artificial intelligence entities on the above standards will yield no positive impact on the social landscape. The philosophical, ethical and moral foundation of punishment as expounded above can never be achieved with corpus, made up of mere fibre, metallic and polymer materials. Punishment is intended to be imposed on biotic beings and not on abiotic substances having no molecular system. Artificial intelligence entities which corporeal are flex, micro sips, iron, alloy, steel, brass, or polymer materials cannot feel pains nor discomfort. The machina sapiens possess no inherent, economic and socio-political rights and privileges to be forfeited to the State. Stemming from the above, criminal liability should, and ought to be imposed only on biological entities, in this circumstance only humans. This is because, humans have cellular and molecular systems aided by oxygenated blood flowing through their veins and arteries. It is therefore logically imperative that, punishment should be imposed on human beings who are susceptible and sensible to pains. Humans also have the ability to feel pleasure,

[29] Neurorobotics devise which could be equated with the characteristic features of neurotransmitters are mere wires and electrolytes constructed by human ingenuity and prowess fecundity.

[30] O. I Derik-Ferdinand, 'Monogram on Theories of Punishment' [2023] Unpublished Work, Department of Legal Studies, Bayelsa State Polytechnic, *Aleibiri*., Bayelsa State of Nigeria.

discomfort and unfavourable conditions. These are inherent features which artificial intelligence entities do not possess in their simulated bodies.
Beaming from the above stream of consciousness, it is therefore the firmer terra submission that for an entity to qualify for imposition of any quantum et quale of criminal punishment. The being must possess the accumulative attributes of **MR. NIGER.** It is an acronym which exemplified all categories of biotic beings. **MR. NIGER,** graphically spans to all kinds of floras and faunas in their natural biomes. The conformity with **MR. NIGER** is the litmus test which epitomize all living things on planet earth. Wherefore, any entity which does not have the accumulative tenets of **MR. NIGER,** is incapable of imposition of criminal punishment. The adhesive attributes of **MR. NIGER** are as follows:

M: M, stands for movement; every biotic entity moves. The movement is aided by skeletal and muscular systems. It is well coordinated and oiled with internal body fluids. It must not be jerky, and uncoordinated movement trying to mimic different forms of faunas as in animatronics.

R: R, stands for reproduction, all biological beings reproduce young ones. Punishment is of better legal utility, if the entity has the inherent ability to reproduce its filial generation. This is to achieve the virtues of deterrence as direct progenies will feel the impact more than any other.

N: N, stands for nutrition; every living thing has the ability to eat and drink vide the buccal cavity. It is digestion and absorption of food particles that nourishes all floras and faunas.

I: I, stands for irritability. It is the ability to respond to external and internal stimuli. Having the capability to both feel adverse and pleasurable environmental conditions, as well as pains.

G: G, stands for growth. It means the ability to increase in size. It is imbedded in all living things in their developmental stages. Biotic entities grow and develop naturally.

E: E, stands for excretion. Living creatures expire waste product produced via metabolic reactions.

R: R, stands for respiration. Living beings possess the ability to breathe atmospheric gases. Faunas absorb oxygen (O2) and exhale carbon IV oxide (CO2). Whilst floras absorb carbon IV oxide (CO2) and expire oxygen (O2). Respiration is reversable in flora and fauna (plant and animal).

Additionally, all human beings must have molecular, muscular, skeletal and central nervous systems which are coordinated by the brain. From the foregoing analysis, artificial intelligence entities do not have the accumulative characteristic features of **MR. NIGER**. Artificial intelligence entities are incapable of having filial generations of their own, that is, reproduction of young ones. They cannot feed, neither have the ability to increase in size. Artificial intelligence entities have still physical growth and development,[31] that is, incapable of developing external and endogenous organs. The machina sapiens cannot excrete, neither have the ability to inhale atmospheric oxygen. Equally, they do not possess the movement pattern empowered by muscular and skeletal systems in faunas. Furthermore, artificial intelligence entities do not possess irritability consciousness of feeling adverse and conducive environmental conditions. Wherefore, artificial intelligence entities do not have the potential to regulate domestic environmental condition by switching on or off, the fans, heaters or air conditioners.

From the above submission, artificial intelligence entities do not possess the characteristics of **MR. NIGER**. Flowing from this, they do not have the inert ability to feel pains, discomfort, or pleasure. They neither possess the capability to forfeit or surrender their any inherent, economic and socio-political rights and privileges to the State. Spotlighting thereat, artificial intelligence entities are bereft of possession economic, socio-political right, and privilege in the society. Critically following the analysis, artificial intelligence entities in body frames cannot own and maintain bank accounts. Equally significant is the fact that artificial intelligence

[31] Artificial intelligence entities in robotic corpus do not have cartilage which is responsible for growth and development of the skeletal system.

entities (AIs) do not have the mercantile value to buy and sell, neither do they have the right to vote and be voted. Stemming from above, artificial intelligence entities are significantly bankrupt, insolvent, incompetent, and incapable of any economic and socio-political utility in the society. Wherefore, pecuniary sentence and terms of year should never be contemplated for artificial intelligence entities. Hence, an attempt to punish an entity ineptitude of capacity to breathe and operate bank account, is an attempt to compel impossibility.[32]

In furtherance of this polemic, Section 17[33] appears to be very apt and appropriate. The Section, inter-alia stipulates thus:

Subject to the provisions of any other written law, the punishments which may be inflicted under this Code are: death, imprisonment, fine, caning, forfeiture, and [binding over].

Supplementary to the above enactment, is Section 319,[34] which enshrines as follows:

A court may, within the proceedings or while passing judgement, order the defendant or convict to pay sum of money.

Having been initially established that, artificial intelligence entities in robotic frames are mere artistic manipulative and developmental initiative of material engineers. This implies that the bodies of robots are agglomeration of either metallic, polymer, or fibre materials which are absolutely inorganic. Streaming from the above, the most essential poser thrown for expert jurisprudential response! Is, what type of punishment known to law can be inflicted on machines made of fibres, metallic substances, and polymer materials? Could it be death by hanging? Is death sentence appropriate to be imposed on already dead material? The response is not in the affirmative: Are terms of imprisonment more adequate to be inflicted on non-living materials? The answer is absolutely in the negative., Is it apt in law for punishment of canning to be inflicted on non-biotic entities? Could they feel the intended pains or the anticipated discomfort? The response is still not in the affirmative. Better still, should pecuniary sentence be imposed on an entity which does not know the importance of fiscal value to society? Attempting doing so, is to invoke impossibility. Is it necessary in law, to impose forfeiture for lifeless biomes without ability to acquire estate? The answer can never be in the positive. The chain of posers appears endless. Accordingly, the electronically driven device cannot be punished in law as there exist no philosophical, moral, ethical and legal basis to do so. Even the existing corpus juris are not in support of punishing man-made machines.

Therefore, artificial intelligence entities, as abiotic formation cannot be subjected to the same species of punishments similitude nature. Consequently, the projections that artificial intelligence entities themselves should be punished as humans is mockery to natural course of events. Some quarters are the view that death sentence could be imposed on artificial intelligence entities by deleting the software, is fictitious fable tales running contra to nature. Hence, the exponential escapades of that magnitude are mere placebo, mockery and public opprobrium to criminal jurisprudence. Thenceforth, the projections to sentence artificial intelligence entities are mere placebo and fictitious fable tales having no semblance of philosophical, ethical and legal justification.[35] It should be discouraged in all legal and sociological ramifications. Wherein-fore, based on all the reviewed sociocultural, fiscal-political, and bioscientific perspectives, the machina sapiens are impracticable of any kind of punishment. Artificial intelligence entities remain mere tools for labour efficiency and productivity in the hands of humans.

[32] The maxim is a sound principle of law. *Lex non intendit aliquid impossibile:* Meaning the law does not intend anything impossible. A similar maxim has it thus., *Lex non cogit ad impossibilia:* Meaning, the law does not compel to impossible end.

[33] Criminal Code Act, Cap. C38, Vol. 4 of the Laws of the Federation of Nigeria, 2010.

[34] Administration of Criminal Justice Act, 2015.

[35] As suggested by G. *Hallevy*., in his work entitled: "The Criminal Liability of Artificial Intelligence Entities – from Science Fiction to Legal Social Control," [2016] 4 (2) *Akron University Intellectual Property Journal*, 171

Punishment and Compensation:

It is the firm submission of this scholarly survey that punishment for the wrongful act of artificial intelligence entities shall be in pecuniary values. This is to be distributed and paid by the earlier identified foursome in proportion of 5:3:1:1 respectively. It is more desirable to have pro-rata fiscal distributions to be defrayed by the tetralogy, than terms of year. The criminal liability of artificial intelligence entities could be likened to the corporate practice of unveiling the veil of incorporation. Where the veil is uncovered, the principal actors in the production and usage of artificial intelligence entities shall be exposed to stand criminal trial. By this the quartets must be brought to bear the brunt of their own technological prowess.

The standard of proof for the wrongful act of artificial intelligence entities, shall be strict liability. This is because, the facts speak for themselves,[36] the calamitous act has been done. Wherein, it is needless to probe into the *mens rea,* (guilty mind) of the wrongful act. In addition, there are indications of presumptive failure of due diligence to strictly instruct artificial intelligence entities to perform only factory specification. In furtherance of this, any other punishment as may be considered appropriate by the court, shall be an addendum. It is possible to so avowed in that, the criminal jurisprudence of the State of Nigeria, allows pecuniary punishment to be awarded concurrently with other forms of penalty. This is contained under paragraph (a), Subjection (1), of Section 319,[37] where it states as follows:

> 319 (1) "A court may, within the proceedings, or while passing judgement, order the defendant or convict to pay a sum of money.,
>
> (a) As compensation to any person injured by the offence, irrespective of any other fine, or other punishment that may be imposed, or that is imposed on the defendant or convict, where substantial compensation is in the opinion of the court recoverable by civil suit."

Exploring Justification Possibilities for Pro-rata Criminal Liability:

Flowing from the outset of this investigation, it has been identified that four inevitable experts are responsible for the entire operations of artificial intelligence entities. This embraces all categorisations of artificial intelligence entities, to wit, expert systems and robotic creations. Still streaming from the foundational layout, the quadrates have been set out to represent D1, D2, D3, and D4. The chosen symbolism shall be used in a representative capacity to espouse the preference of proportional distribution of liability. The ratio of liability would be strictly based on the quantum of performance of the quartets. This is knitted upon the premise that the making, operation, and usage of an artificial intelligence entity is a collective effort of the foursome as depicted in D1, D2, D3, and D4.

In doing justice to above illustration, logical consideration is made on the presumptive aphorism that artificial intelligence entities are designed and programmed to function independently. It is further the presumptive certainty that the operational systems of artificial intelligence entities are essentially propelled with very little or no effort of another. The only effort of another could be the mere plucking the devise into a source of electric power, either by charging or changing the batteries for their operational performance. The near perfection and independent operations of artificial intelligence entities are made possible by the quantum of developed algorithms configured into the devise. Furthermore, it is an assured certainty that, but for the data configurations, to wit, the software developed and programmed thereto, artificial intelligence entity would have been a mere doll. An entity having the capacity of imperfect obligation, a toothless bulldog, which might fiercely bark without vindictive bite. It is further, an axiom of absolute reality that the independent

[36] Res *ipsa* loquitur, the Latin version of the statement of fact, that the facts and circumstances speak for themselves. Wherefore, there is no need to delve into the mental element (*mens* rea) of the subject.

[37] The Administration of Criminal Justice Act (ACJA), 2015.

performance capability of artificial intelligence entities is driven and controlled solely by the quality of algorithms used during the programmed configurations. Wherefore, the implication is that artificial intelligence entities function wholesomely on the exact amount of data being designed, developed, configured, and programmed thereto, and none other. Flowing from the established stream of consciousness, the designer, developer, and programmer of the software which necessitate the independence of the artificial intelligence entity is well known. He could either be a natural person or an ongoing concern in the corporate world. It is still another aphorism that artificial intelligence entities, either expert systems or robotic simulations cannot operate and function beyond the quantum of data configured by the programmer.

Stemming from above, the mechatronic engineer, to wit, manufacturer who does the construction of articulated arms, limbs and corpora-real that house the software is identifiable biotic creature. This could be a natural or artificial person as the case may be. Stemming further, the advertising agent and the sales outlet which marketed the artificial intelligence entity is also known to all and sundry. Finally, the end user through which the offence is committed is never hidden, he is well visible to all living vessels.

The above presumption will serve as navigational buoy to the distribution and assignment of criminal liability based on proportional ratios of the tetralogy., which shall be followed seriatim:

Profiling Proportion as Justification Specimen for Allotment of Criminal Liability:

The theory of proportional aggregation of wholesome quantity, is universally accepted principle. It is an arithmetical certainty where a quantum whole is shared in parts and distributed based on the degree of participatory involvement. It is a medium of fractionalization of quantities into separate distinct units. The theory of proportion is likened to the legal doctrine of distribution of payments, damages, liabilities and obligations based on quantum meruit. It could also be equated to the pecuniary fiscal policy of payment of charges, taxes, levies, utilities, and dues in accordance with the principle of ad-valorem. Pay according to usage, and how much earn. The degree of involvement in the process of making, marketing and utilization of artificial intelligence entities are never in parity, neither equipollence, nor on same magnitude. From the above semantic expositions, pro-rata aggregation of criminal liability of artificial intelligence entities is feasible. This is further predicated on the solid pendulum, that, it was the creative imputes of the earlier reviewed tetralogy that propelled the operations of artificial intelligence entities.

Having demonstrated the glaring inequality in the production, marketing, and usage of artificial intelligence entities. It is apposite to have a quantification on the degree of involvements, to wit: On the echelon, is the programmer. The operational capability of artificial intelligence entities depends primarily on the quantity and quality of configured algorithms by the programmer. No artificial intelligence entity can operate beyond its available data, to wit, what the programmer configured. It is indeed, the sanctum sartorius of the artificial intelligence entities. Therefore, the designer of the software and the programmer are poised to per-take the ginormous proportion of Five (5%) percent. Penultimate to the programmer, is the manufacturer of the conspicuous corpus. The corporeal of artificial intelligence entities which is the anchorage of the software algorithms are made by material engineers. It is the arms and limbs, that are made by the engineers which are used by artificial intelligence entities to wreak havoc on humans. Wherefore, the material engineer who manufactures the corporal frames harbouring the limbs and arms should embark the second tranche of the pro-rata arrangement in assortment of criminal liability. This is allotted at Three (3%) percent of the assessed criminal liability.

On the triumvirate fixation of pro-rata allotment of guilty acts of artificial intelligence entities, is the market outlet. It does the advertorials, representations, marketing and sales of artificial intelligence entities. It is the wilful mercantile dexterity of the market outlet that enable the larger society to know the existence of artificial intelligence entities. In resonance thereat, the sales outlet will consummate a lone retributive liability, which is pecked at lone (1%) percent. The last, but not the least of proportional punitive sequence, is the end user. The end user, only activate the devise for capacity utilization based on what the marketing agent discloses. This happens after when the artificial intelligence entity must have been made by the engineers and configured by the programmer for operational utility. In consonance of the above, the end user who only utilize maximisation

of the creative prowess of the first troika of the quartets' series will not suffer much. It is therefore, recommend to apportion a lesser aggregation of pro-rata punishment, which is fix at mono (1%) proportional percentage. As it has been set out earlier, the degree of participation of the foursome are not equal, so is assignment of criminal liability. It thus follows that, pro-rata aggregation of criminal liability of artificial intelligence entities is conveniently necessary to be scaled on degree of involvement in the creation of the entities.

Flowing therefrom, the exponent postulates accumulative pro-rata ratio of 5:3:1:1 respectively for the tetralogy. For instance, if One Million (₦ 1.000,000.00) Naira is awarded for assault occasioning harm of artificial intelligence entity: The programmer will bear Five Hundred Thousand (₦ 500,000.00) Naira; the manufacturer will incur Three Hundred Thousand (₦ 300,000.00) Naira. The remaining two of the quartets, the market outlet will suffer payment of One Hundred Thousand (₦ 100,000.00) Naira and the end user will defray the lump sum of One Hundred Thousand (₦ 100,000.00) Naira.

Profiling Common Intention as Justification Specimen for Allotment of Criminal Liability:

The doctrine of common intention is time honoured and sacrosanct in the domain of criminal law and its jurisprudence. It is a doctrine of law which presupposes, that whenever two or more persons are in concert collaboration in prosecution of unlawful purpose, each of the persons who participated in the unlawful act is a party to the offence. All the individuals who involved in the commission of the offence, would be allotted equal punishment. This doctrine of law is enacted by the synergies of the provisions of Sections 7 and 8 of the Criminal Code. Section 7,[38] of the Code provides the extend of participation, which enacts as follows:

> "When an offence is committed, each of the following persons is deemed to have taken part in committing the offence, and to be guilty of the offence, and may be charged with actually committing it [the offence] -
>
> (b) every person who actually does the act, or makes the omission which constitutes the offence;
>
> (c) every person who does or omits to do any act for the purpose of enabling, or aiding another person to commit the offence;
>
> (d) every person who aids another person in committing the offence; and
>
> (e) any person who counsels or procures any other person to commit the offence."

Section 8, stipulates the common collaboration, which enshrines to the following effects:

> "When two or more persons form a common intention to prosecute an unlawful purpose in conjunction with one another, and in the prosecution of such purpose an offence is committed of such a nature that its commission was a probable consequence of the prosecution of such purpose, each of them is deemed to have committed the offence."

Where these two Sections of the Criminal Code are examined jurisprudentially, all those who participated in the course thereof could be arraigned, tried, convicted, and punished accordingly. It is not only the person who actually does the act, or makes the omission should be considered. Other circumstances and conditions leading to the offence must be considered holistically. In further exposition of the doctrine in allotting punishment, the highest in hierarchical order of courts in Nigeria, in Egwumi vs The State, per, Rhodes-Vivour, JSC, held as follows:

> "The long position of the law, is that where two or more persons form a common intention to kill another person and in furtherance of that intention, one or more of them struck the victim with a matchet from which the death results, each one of them is guilty of the offence of murder, punishable with death, and it does not matter who actually struck the deadly blow which led to the death."

[38] Criminal Code Act, Cap C.38, Vl. 4, Laws of the Federation of Nigeria (LFN), 2010.

In correlating the doctrine to the theme under objective review and normative investigation. The foursome in the tetralogy has strong common purpose that the artificial intelligence entity must function according to all factory specifications. It is also the common intention of the quadrigatus that the artificial intelligence entities must function and operate according to the programmed algorithms. The common purpose of functionality of the quartets, is the binding force on the foursome. Now, the artificial intelligence entities have perpetrated a punishable act by law, the quads should bear the full brunt of the law. This is because, artificial intelligence entities in robotic corpus are creatures of deoxygenation, that is, they have no blood, soul, conscience, or sense of moral. Since they are abiotic, the biotic beings which have been identified as the quadrangles should be held criminally liable. Therefore, the principle of common intention in criminal jurisprudence is extremely probable and very credible in justifying allotment of criminal liability for those who propelled the functionality of artificial intelligence entities. The projected proportional ratio of criminal liability for the quartets is equal to 5:3:1:1 respectively.

Wherefore, where the criminal culpability of artificial intelligence entities is assessed as Ten Billion (₦ 10,000,000,000.00) Naira for chopping off the head of Mr. Egum *Eteghenem* in a factory. The programmer is to defray Five Billion (₦ 5,000,000,000.00) Naira representing Five (5%) percent. The metallurgical engineer, the manufacturer is to pay Three Billion (₦ 3.000,000,000.00) Naira depicting Three (3%) percent of the assessment. The market outlet and end user are to bear the payment of One Billion (₦ 1.000,000,000.00) Naira apiece, signifying One (1%) percent each. All totalling the sum ratio of (5+3+1+1) = 10. The calculation is very simple by multiplying the decimal fraction by the accumulative quantity sum of Ten Billion (₦ 10,000,000,000.00) Naira. Example, 0.5 x 10,000,000,000 will give the total sum of Five Billion (₦ 5,000,000,000.00) Naira only. Same shall be used for the remaining decimal fractions.

Profiling Cause and Effect as Justification Specimen for Allotment of Criminal Liability:

The concept of Cause and Effect is the natural law on retributive boomerang or rebound effect on previous actions. This natural law of justice operates on all previous actions, either good or bad. Ecclesiastically, it is revealed that all humans must reap what is consciously sown while on the pilgrimage journey to eternity. It is been described in some quarters as law of catharsis. Some others described it as law of sowing and reaping. In some other comparable climes, it is been understood as law of karma, natural law of give and take. In is called in physical sciences as the law of reversable reactions, equal and opposite reaction. In all the descriptions hereinabove, it explained one fundamental concept of natural justice of rebound effect, refers as the sequence of Cause and Effect. The law of give and take, sowing and reaping. It presupposes a natural law of futuristic justice, underscoring the existence of a paying day for all human actions and inactions. Wherefore, it is a veritable concept for ascribing justification of apportioning the wrongful act of artificial intelligence entities to others. This is possible in that the making, operationality, advertorial and usage of artificial intelligence entities are made practicable by the tetralogy.

Beaming spotlight on the subject matter of scholastic investigation, which identifies four persons who are responsible for the production, marketing and usage of artificial intelligence entities. For instance, as illustrated previously artificial intelligence entity in robotic corpus killed a person in Motor Cycle Industry in China in 2005. Who, should be held criminally liable? Should the machina sapiens be held liable? The machina sapiens is without oxygenated blood, soul, even muscle and skeletal systems, neither have the sense of morality. In thorough consideration of the questions posed hereinabove, the mechatronic devise should never be contemplated for punishment in whichever guise. Any permutation of punishing the machina sapiens which committed the offence, is to make mockery of criminal punishment. This line of submission is made on the pendulum of fairness that, artificial intelligence entities are made up of iron, fibre, steel, alloyed, brass and connected metallic wires without blood and soul. Can mere metallurgical substances be subjected to punishment? The response is not in affirmation! Doing so will not have any utility value to the society. Flowing therein-from, the identified quadrangles should have the full natural consequences of the wrongful act of their intellectual inventiveness. It is the creative ingenuity of the foursome which necessitated the robot to commit the offence.

Consequently, in aligning with the concept of natural justice of reaping and sowing, it was what the quartets

sowed on the robotic frame that killed. The robot, is not human to be punished. It is therefore, the fairness of this scholarship to assort boomerang criminal effect on the identified quartets who are humans. This approach of punishing the quadrangles, especially the programmer might serve as cautionary measure to develop a software to check the excesses of robotic beings. As posited earlier, the pro-rata arrangement is 5:3:1:1 respectively for the foursome. Where a pecuniary value of Two Million (₦ 2.000,000.00) Naira is awarded against the act of artificial intelligence entities. The calculation shall be as follows: 5+3+1+1 = 10:

1. Programmer will be, 5 divided by 10, multiply by 2. 000.000, over 1, is equals to (₦ 1.000.000.00) Naira.
2. Manufacturer will be, 3 divided by 10, multiply by 2.000,000, over 1, is equals to (₦ 600.000.00.
3. The Market Outlet shall be, 1 divided by 10, multiply by 2.000,000, over 1, is equals to (₦ 200.000.00.) Naira.
4. The End User, shall be, 1 divided by 10, multiply by 2.000,000, over 1, is equals to (₦ 200.000.00.) Naira.
   ₦ (1.000,000+600,000+200,000+200,000)
   = ((₦ 2.000,000,00)).

The above proportional ratio is rational due to the resourcefulness of the scientific and technological expertise employed by each the tetralogy.

Profiling Vicarious-Liability as Justification Specimen for Allotment of Criminal Liability;

The principle of vicarious liability, is a doctrine of law which exist between masters and servants, embracing employers and employees' relationships. This principle of law operates where the wrongful and tortious' act of servants are completely borne by the masters. For example, where a registered company's vehicle hit and destroyed an artisan's pony-trekking (hacking) tomatoes on the street of Yenagoa. The obligational liability to pay the destroyed tomatoes shall borne by the management of the company. The only onus of proof in the circumstance is that, the servant must show that he was, in the course of his master's business. Where this is credibly proved, the master assumed full responsibility of the servant's wrongful and tortious act. There is no iota of doubt that artificial intelligence entities are manufactured and made possible for use by foursome experts. Going by this analogy, artificial intelligence entities are the servants, whist the tetralogy are equated as masters. Having established, the existence of masters' servants' relationships between artificial intelligence entities and the quadrigatus of experts. It therefore flows, that the doctrine of vicarious liability can be used as sample specification medium for allotment of pro-rata criminal liability for the wrongful acts of artificial intelligence entities. In resonance thereto, the criminal act of artificial intelligence entities could be assessed and ascertained proportionally on the stated doctrine.

Curiously, an inquisitive mind would query the analogical reasoning that, if the wrongful acts of artificial intelligence entities could be vicariously borne by the identified quartets. It should then be logical for natural persons who are created by God Almighty, to vicariously bore human wrongful and tortious acts. It is the firm submission of this scholarship that this syllogism, might not suite perfectly in the circumstances. This is with the view that, God Almighty in the biblical book of Joshua, gives man choice to choose on what to do. Secondly, God Almighty is invisible, contrary to the tetralogy who are visible. Wherefore, in all circumstances, the principle of vicarious liability is a perfect medium for assortment of pro-rata criminal responsibility for the criminal acts of artificial intelligence entities.

From the analogical explanations, the doctrine of vicarious-liability is apt and credible for use to assess pro-rata criminal liability for those who propelled the simulative operations of the electro-mechanic devise. The projected liability ratio is 5:3:1:1. The programmer of whom his configured algorithms empower the functionality of the entire mechanism of artificial intelligence entities. Fiscal punishment is the firm postulation of the work, and where financial quantity is awarded. It shall be calculated and distributed accordingly. For practical illustrations, if Six Million (₦ 6,000,000.00) Naira is awarded to a victim whose legs was amputated due to assault occasioning harm of artificial intelligence entities. The calculation shall be as follows: 5+3+1+1 = 10.

1. For Programmer will be, 5 divided by 10, multiply by 6. 000.000, over 1, is equals to (₦ 3.000.000.00) Naira.
2. Manufacturer will be, 3 divided by 10, multiply by 6.000,000, over 1, is equals to (₦ 1.800.000.00.
3. The Market Outlet shall be, 1 divided by 10, multiply by 6.000,000, over 1, is equals to (₦ 600.000.00.) Naira.
4. The End User, shall be, 1 divided by 10, multiply by 6.000,000, over 1, is equals to (₦ 600.000.00.) Naira.
   ₦ (3.000,000+1.800,000+600,000+600,000)
   = ((₦ 6.000,000,00)).

The above pro-rata arrangement is ethical and philosophically rooted upon logic by reason of involvement in the making, marketing, and usage of the robotic creature which cause the harm. The scientific and technological acuity of the quadrigatus is not in equal degree, thus, the ratio and distributions.

Profiling Fiduciary Relationship as Justification Specimen for Allotment of Criminal Liability:

Fiduciary is a legal principle which presupposes a legal relationship of persons where one keeps, holds or preserves valuable chattels in trust for the use, benefit or consummation of another person. In this kind of relationship, the trustee who holds the chattels in trust is answerable to the beneficiary. Going by this arrangement, the beneficiary is legally more important than the trustee.[39] Drawing inference to the subject matter under scholarly review, the artificial intelligence entities are the trustees, whereas the quartets are the beneficiaries. This logical polemic, is predicated on the premise that the wholesomeness of the operation and utilization of artificial intelligence entities depend on the identified tetralogy. Another dimension in substantiation of fiduciary relationship is that, all pecuniary and social utility of artificial intelligence entities are accruable to the foursome.[40] Hence, there is the existence of fiduciary relationship of trustees and beneficiaries, amongst the quadrangles and artificial intelligence entities. Having established the existence of fiduciary relationship between the two divides, to wit, artificial intelligence entities and the foursome. By foregoing, the doctrine of fiduciary relation is applicable in the survey for pro-rata distribution of liability into the ratio of 5:3:1:1 respectively.

Therefore, the principle of law can be used as medium of justification for measurement of pro-rata criminal liability for the wrongful acts of artificial intelligence entities. Where the criminal liability is fiscally assessed, the identified quartets, to wit, the programmer, manufacturer, market outlet, and end user will consummate the obligational liability. For practical illustration, if Twenty Billion (₦ 20,000,000,000.00) Naira is awarded for the murder of Dr. *Utobo Aghini* in a science laboratory by artificial intelligence entity. The payment liability shall be borne as follows:

a). The Programmer: shall pay, ₦ (0.5 x 20, 000,000,000) = ₦ 10,000,000,000.00 Naira.

b). The Manufacturer: shall pay, ₦ (0.3 x 20, 000,000,000) = ₦ 6,000,000,000.00 Naira.

c). The Market Outlet: shall pay, ₦ (0.1 x 20, 000,000,000) = ₦ 2,000,000,000.00 Naira.

d). The End User shall pay, ₦ (0.1 x 20, 000,000,000) = ₦ 2,000,000,000.00 Naira.

Grant total is equals to ₦ (10,000,000,000+6,000,000,000+2,000,000,000+2,000,000,000, 000,000) = ((₦ 20,000,000,000.00)).

[39] The trustee is accountable to the beneficiaries. A beneficiary in a trust relationship can sue for account on how the chattels are been used or managed.

[40] Likened to the fiscal principle of insurance and indemnity. Where fiscal investments are made on an insurer who bore all liabilities of the *insuree*. In this case, the artificial intelligence entity is the *insuree* whilst the tetralogy is the insurer.

Profiling Negligence as Justification Specimen for Allotment of Criminal Liability:

The doctrine of professional negligence, is the failure or inadvertence to carefully observe the duty of care in the performance of any skilful act. It could also be referred to adherence of due diligence in the process of doing or making any act which requires professional expertise. Where the principle of due diligence and duty of care are perfectly observed, the outcome ensuing therefrom, shall operate and function maximally. It shall perform according to factory specifications and not otherwise. Artificial intelligence entities are manufactured for labour efficiency and productivity. The operational proficiency and dexterity of artificial intelligence entities, where duty of care is adhered properly ought to promote only efficiency of labour. It might be the inadvertence of the programmer in observing due diligence that leads to catastrophic behaviour of artificial intelligence entities. The programmer ought to have observed strict rules of duty of care while configuring the required algorithms to simulate activities of artificial intelligence entities. There will be inference of presumption of negligence where artificial intelligence entity relinquished its automated role and cause grievous harm. The programmer ought to have taken due diligence in coding special algorithms to instruct the artificial intelligence entity not to perpetrate havoc on humans. The failure to do so has culminated the presumption of negligence on the foursome. Professional negligence is actionable, and ensue liability in law. This polemic is knitted on the fact that the entire neurorobotics[41] of artificial intelligence entities, depend primarily on the amount of data configured thereto by the programmer. By the overview, profiling justification on professional negligence is practicable in the assessment of pro-rata criminal liability of artificial intelligence entities. It is certainly obvious that the quartets have negligently failed to observe due diligence in the process of production, operation and usage of artificial intelligence entities. Wherefore, the tetralogy should be sued to stand trial for professional negligence. Where the quartets are sued, the proposed proportional ratio of 5:3:1:1 is applicable.

It may be quite apposite for one to explore the critical thinking of the fact, if the criminal acts of artificial intelligence entities could be sued against the quadrangles for professional negligence. What then, should happen to manufacturers of automobile devises which have claimed the lives of hundreds of thousands of people annually in Nigeria? Yes, automobile devises have murdered millions of Nigerians when calculated per annum. Automobile engineers could not be possibly sued for professional negligence in that automobile vehicles are not made to operate independently as artificial intelligence entities are. In automobiles, the driver, which is the end user is in full control of the devise. Whereas, the end user in artificial intelligence entities merely activate the process, either by switching on or off the electric socket. The operationality of artificial intelligence entities are driven endogenously. However, action for professional negligence may ensue for automated vehicles, which functions independently.

In all sense of responsibility, the quadrigatus have negligently failed to observe due diligence. Therefore, the experts involved in the making, marketing, and usage of the mechatronic devise be made to face wroth of the law. This submission is further strengthening in that artificial intelligence entities are abiotic. Thus, the payment of aggregate sum of money shall be calculated and shared in accordance with the pro-rata ratio of 5:3:1:1, respectively for the tetralogy. Where for instance, Fifteen Million (₦ 15,000,000.00) Naira is awarded on the criminal act of artificial intelligence entities, the foursome shall defray as follows: The Programmer will defray, Seven Million, Five Hundred (₦7,5000,000.00) Naira. The Manufacturer will defray Four Million, Five Hundred (₦4,5000,000.00) Naira. The Market Outlet and the End User will have to defray One Million, Five Hundred (₦1,5000,000.00) Naira, apiece. This is calculated by multiplying each decimal fraction by the total aggregate of Fifteen Million (₦ 15,000,000.00) Naira. Example, 0.5 x 15,000, 000, will give a total sum of Seven Million, Five Hundred (₦7,5000,000.00) Naira. Same shall be done on the decimal fractions.

CONCLUSION

Flowing from the foregoing stream of consciousness of the expository investigation, and the findings. It is therefore, the conclusion of this scholarly work that criminal liability of artificial intelligence entities is

[41] Comprises all configured algorithms and the metallic wires connected into the robotic entity for its simulated operations.

absolutely feasible and can be distributed proportionally on a ratio of **5:3:1:1.** This is submitted on the firm discovery that the foursomes are responsible for the making, marketing and usage of all robotic devices.

It is the recommendations of the work that artificial intelligence entities themselves should never be considered for any kind of criminal punishment. Contemplating criminal punishment on artificial intelligence entities is mock punishment. The work further recommends that programmers should endeavour to design and develop software programmes which will prevent artificial intelligence entities from causing grievous bodily harm on people. Furthermore, it is recommended that the standard of proof should be strict liability and imposition of punishment be on fiscal values. Pecuniary punishment makes it easier for the postulated 5:3:1:1 gradation on the quartets. Moreso, on no account should economic, sociocultural duty and obligation be imposed on artificial intelligence entities. As doing so is to ridicule and scorn the philosophy behind imposition of criminal punishment. Penalty of any kind is meant for humans who possesses souls, conscience, sense of morality and the ability to feel adverse environmental conditions. Artificial intelligence entities are mere metallurgical materials meant for labour efficiency, productivity, and maximization of profits. The purpose of occupational proficiency is the hallmark of manufacturing and utilization of artificial intelligence entities of all types. It is the careful take of this scholarly articulation. So recommended to be viewed in such perspectives.