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SELF-DRIVING CARS AND TROLLEY PROBLEMS: ALGORITHM DECISION-MAKING IN LIFE/DEATH SITUATIONS: A NIGERIAN THEOLOGICAL REFLECTION

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Abstract

Artificial intelligence should be aligned with human values, but does this mean AI will need to enforce those values outside its own systems? Recent years have seen rapid advances in AI, including self-driving cars and AI systems that can master chess in a matter of hours. This essay examines self-driving cars and the trolley problem, focusing on ethical issues in life-and-death decisions from a Nigerian perspective and considering theological implications. It provides an overview of self-driving cars, explores ethical dilemmas, examines the Nigerian context, presents case studies, offers theological reflections, and offers recommendations. While much attention is given to the Trolley Problem, this focus can overshadow other important ethical challenges. The paper suggests that technology should be evaluated both in terms of its rules and its broader worldview. Understanding how these vehicles learn reveals many other morally significant design choices. The essay also considers the unique dilemmas self-driving cars may pose in Nigeria, a country with diverse cultures and religions, and uses Kant's theory of Humanity to guide theological reflection. The research relies on library sources to support its qualitative approach, as self-driving cars are not yet widely available in Nigeria.

Keywords: *AI, Emmanuel Kant, Self-Driving Car, Algorithm, Theology*

Introduction

Scientific inventions and innovations have shaped societies around the world. Embracing and using new technologies is important. Self-driving cars, or autonomous vehicles, are becoming more common as companies like Tesla, Google, and Uber invest in them. These vehicles could make transportation safer and reduce traffic, but they also raise tough ethical questions, especially in life-or-death situations. One well-known dilemma is the trolley problem, which asks how autonomous vehicles should choose between protecting passengers or others on the road. This problem often involves choosing between two harmful outcomes, such as saving

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several lives at the cost of one, or sacrificing one person to prevent greater harm. Most philosophers agree that diverting the trolley can be justified, but they usually do not support directly causing harm to someone. While self-driving cars are not yet common in Nigeria, it is important for the country to consider these technologies as they spread globally. Bringing self-driving cars to Nigeria offers both benefits and challenges, including better road safety and less congestion, but also raises concerns about how algorithms make decisions when harm cannot be avoided.

In the Nigerian setting, where rapid urbanization, poor road infrastructure, and various driving conditions present significant challenges, the discussion of self-driving cars and trolley problems takes on added significance. Nigeria's cultural norms, societal values, and regulatory background influence the ethical considerations surrounding autonomous vehicles, making it essential to explore how algorithm decision-making in life-and-death situations applies in this context. This article aims to explore the ethical dilemmas surrounding self-driving cars and the trolley problem from a Nigerian theological perspective, drawing on Emmanuel Kant's theory of Humanity. By examining the intersection of technology, ethics, and culture, this article seeks to shed light on the implications of algorithm decision-making in life-and-death situations in the context of Nigeria and offer insights into how policymakers, manufacturers, and stakeholders can navigate these complex ethical challenges through the lens of Christian theology.

Objective of The Article

The objective of this article is to examine the ethical dilemmas surrounding self-driving cars and trolley problems from a Nigerian Theological reflection, considering the intersection of technology, ethics, and culture (Goodall, 2014; Lin, 2016; Onyesiku, 2021). By examining how algorithmic decision-making in life-and-death situations applies in the Nigerian Christian

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context, this piece aims to provide insights into the implications of autonomous vehicles in Nigeria and offer recommendations associated with autonomous vehicles through a Christian reflective worldview.

Methodology

This work adopts a qualitative research methodology based primarily on library research. Data and insights are drawn from scholarly articles, books, policy reports, and relevant case studies on autonomous vehicles, ethics, and theology. The approach is interpretive and analytical, enabling a deep exploration of ethical frameworks, Nigerian cultural perspectives, and theological reflections as they relate to self-driving cars and trolley problems. Given that self-driving cars are not yet prevalent in Nigeria, this methodology allows for a robust theoretical and contextual analysis using secondary sources, ensuring the findings are relevant to both academic discourse and practical policymaking.

Theoretical Framework

This study is anchored on a multi-theoretical ethical framework, combining utilitarianism, deontological ethics, and ethical naturalism. Utilitarianism focuses on maximizing overall good and minimizing harm, guiding the programming of self-driving cars to make decisions that benefit the greatest number. Deontological ethics, rooted in Kantian philosophy, emphasizes adherence to moral rules and the intrinsic dignity of every individual, ensuring that algorithmic decisions respect human rights and moral duties. Ethical naturalism, meanwhile, considers the socio-cultural context in which moral decisions are made, allowing for adaptation to Nigeria's unique values, communal priorities, and evolving societal norms. By integrating these perspectives, the framework provides a comprehensive basis for analyzing the ethical dilemmas posed by self-driving cars in life-and-death situations. This approach enables a nuanced reflection that takes into account both universal moral principles and the specific

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realities of the Nigerian environment, particularly through a theological lens informed by Christian thought and Kant's theory of humanity.

Self-Driving Cars: An Overview

Self-driving cars, or autonomous vehicles, are a major step forward in the automotive industry and could change how we travel. Some people welcome these changes, while others prefer to keep things as they are. These vehicles use technologies like sensors, cameras, GPS, lidar, and artificial intelligence to drive, avoid obstacles, and make decisions without human help. To understand self-driving cars, we need to look at their parts, how independent they are, how they have developed, and the benefits and challenges they bring.

1. ***Key Components of Self-Driving Cars:***

a. Sensors: Self-driving cars are equipped with a variety of sensors, including cameras, radar, lidar (light detection and ranging), and ultrasonic sensors, to perceive their surrounding environment. These sensors provide real-time data about the vehicle's surroundings, including other vehicles, pedestrians, road signs, and traffic signals.

b. Artificial Intelligence (AI): The core of autonomous driving technology lies in sophisticated AI algorithms that process sensor data, interpret the environment, and make driving decisions. AI enables self-driving cars to analyze complex scenarios, predict potential hazards, and navigate routes efficiently.

c. Control Systems: Self-driving cars are equipped with advanced control systems that manage steering, acceleration, and braking functions based on the input from sensors and AI algorithms. These systems ensure smooth and safe operation of the vehicle in various driving conditions.

2. ***Levels of Autonomy:***

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The Society of Automotive Engineers (SAE) has established a classification system for levels of vehicle autonomy, ranging from Level 0 (no automation) to Level 5 (full automation). Self-driving cars typically fall within Levels 3 to 5, where the vehicle can perform most or all driving tasks without human intervention. The most recent type of self-driving car, Level 4, still requires a human driver to take control of the vehicle in sporadic emergency cases. Waymo, a Google self-driving car, is a Level 4 Autonomous Vehicle capable of traveling over 32 million kilometers under various weather conditions (Waymo, 2018, 2020). Of course, safety issues and technical problems are the main concerns of today's testing.

3. *The Evolution of Autonomous Vehicles*

Self-driving vehicles have undergone significant development over time, driven by technological advancements and a growing focus on safety and efficiency within the automotive industry. The evolution of autonomous vehicles can be traced through several key milestones and innovations that have shaped this technology:

1. Initial Growths: - The concept of autonomous vehicles dates back to the early 20th century, with early research in driverless technology steered by researchers and engineers. In the 1920s, radio-controlled cars were verified as precursors to self-governing vehicles, showcasing the probable for remote control and mechanization in transportation (Bosch, 2019).

2. The NHTSA asserts that; "The continuing evolution of automotive technology aims to deliver even greater safety benefits than earlier technologies. One day, automated driving systems, which some refer to as automated vehicles, may be able to handle the whole task of driving when we don't want to or can't do it ourselves." This estimated monitoring aspiration is a motivation that only time could tell. However, it keeps humanity ready and expectant and gaze pointing.

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3. Forthcoming Predictions: The evolution of autonomous vehicles continues to unfold, with ongoing research and development focused on improving the capabilities and safety of self-driving cars. Advancements in areas such as artificial intelligence, sensor fusion, and vehicle-to-everything (V2X) communication hold the potential to further enhance the performance and reliability of autonomous vehicles in the future (IEEE, 2019, p. 40).

Through innovation and teamwork, self-driving vehicles have moved from an idea to real-world use. As more of these technologies are adopted, transportation is likely to become more automated, efficient, and safe.

4. Benefits and Challenges of Self-Driving Cars

As self-driving cars join our transportation system, they offer both advantages and challenges. Policymakers, manufacturers, and the public need to understand these issues to manage the complexities of this technology.

a. Benefits:

Improved Road Safety: Thanks to innovation and collaboration, self-driving vehicles have gone from a concept to real-world use. As these technologies become more widespread, transportation is likely to become more automated, efficient, and safer.s, potentially minimizing the impact of human error, which is a leading cause of traffic accidents (Fagnant & Kockelman, 2015:170).

Arfini et al., 2019:395), which raises moral questions about how self-driving cars should prioritize safety in situations where harm is unavoidable. To clarify this point, let us focus on how the trolley problem applies to autonomous cars and briefly discuss relevant philosophical theories from a comparative perspective.

b. Trolley Problems in Autonomous Vehicles

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The trolley problem is a classic ethical dilemma that presents a scenario where a runaway trolley is heading towards a group of people, and the decision-maker must choose whether to divert the trolley to a different track, potentially saving some lives but causing harm to others. In the context of autonomous vehicles, the trolley problem raises questions about how self-driving cars should make decisions in scenarios where accidents are inevitable, and there are conflicting priorities between the safety of passengers and others on the road (Nyholm & Smids, 2016, p. 1280). It is essential to note that we have conducted research and found that there is currently no international public regulation governing autonomous vehicles, and no behavioral emergency patterns have been publicly accepted by both communities and Original Equipment Manufacturers (OEMs). The following discourse after this attest to how much things are improving from an ethical perspective: the German ethics commission report (BMVI 2017), the Dutch White Paper on Ethics of Self-driving Cars (Santoni de Sio, 2016), and, more recently, the Horizon 2020 Commission Expert Group (2020:80), which provides 20 recommendations concerning road safety, privacy, fairness, explainability, and responsibility related to autonomous vehicles. Still, suppose an OEM manages to build self-driving cars. In that case, it will not know in advance how to specifically set them up for extreme circumstances such as the no-win scenarios (inevitable crashes) or more common traffic-related situations, thus risking legal problems and public image damages. Instead, we propose involving all stakeholders in the ethical discussion, providing OEMs with a means to set autonomous vehicles in advance, legislators with the opportunity to enforce limitations, and buyers with the chance to participate in the deliberation process.

Utilitarian vs. Deontological Perspectives

Applied ethics deals with the pragmatic effects of using moral reasoning, theories, and considerations into real-life contexts. Autonomous cars delimit falls within the terrain of practical ethical issues. In fact, when we face a problem that pertains to applied ethics we often

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refer to both theories of normative ethics –which aims at establishing normative standards and values, and metaethics –which studies the nature and justification of ethical languages and theories. Let's understand this from an instance, the discussion regarding the commercialization of autonomous vehicles is a paradigmatic topic of applied ethics, which in the last few years prompted extensive debates about: (1) which ethical theory should be adopted to answer a wide range of predictable moral dilemmas; (2) which metaethical tools and judgments should be used to choose a sole or dominant ethical theory; and (3) which pragmatic implications in adopting one theory or another should be held important enough to change the dominant ethical theory (Selene et.al, 2022:720).

Two main ethical frameworks that are often applied to algorithm decision-making in autonomous vehicles are utilitarianism and deontology. Utilitarianism emphasizes the extreme good for the greatest number of people, suggesting that self-driving cars should prioritize minimizing harm and maximizing overall well-being, even if it means sacrificing the safety of the vehicle's occupants in certain situations (Goodall, 2014:7). Navigating the ethical dilemmas in algorithm decision-making in autonomous vehicles necessitates a nuanced consideration of the trolley problem and the application of ethical frameworks such as utilitarianism and deontology to guide decision-making processes in challenging situations. If the sole utilitarian approach is used, autonomous vehicles would need to behave in such a way as to maximize social benefits for the greatest number of people and, perhaps, to minimize global harm or damage. This approach would lead the autonomous vehicles in the no-win scenario of our previous example to hit the motorcyclist with the helmet: this is the only decision which could save a life, since in any of the other two options a person would very likely die. Such choice might not seem problematic if we focus on the here and now of the accident (indeed, in that situation it would possibly mean that no one is killed by it), but it would become a problem if all independent vehicles always chose to hit the most endangered person on the road in any

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type of inevitable accident. Indeed, even if that would happen only in rare emergency situations, this setting (if universally adopted) would result, over time, in penalizing responsible people who invest money in their own safety, since they would be more easily targeted. Hence, adopting this approach for all self-governing cars may encourage people not to use safety measures in order to avoid becoming targets of other autonomous vehicles (Lin, 2014b, 2016:70). Besides, if an exclusively utilitarian tactic is used, different situations may arise in which the finest choice autonomous vehicles can yield involves the sacrifice of their commuters.

On the other hand, deontology theory focuses on moral duties and principles, suggesting that autonomous vehicles should prioritize the safety and well-being of their passengers above all else. This perspective raises questions about the moral responsibility of autonomous vehicle manufacturers and the implications of prioritizing the safety of one group of individuals over another in algorithm decision-making (Lin, 2016:online). A solely deontological approach adopted would set autonomous vehicles to always protect their passengers, like some brands such as Mercedes already stated (Taylor, 2016:online). Unfortunately, that would have other unwanted pragmatic consequences: first and foremost, the fact that in no-win scenarios autonomous vehicles would systematically target other vehicles and people, no matter how many victims they would take, to protect their passengers. This would possibly create a NIMBY –Not in My Back Yard, effect (Tamburrini, 2020:55) leading to communities –if not regions, would refuse to let self-governing vehicles in their streets and that, in turn, would result in delaying innovation in the field (Davenport, 2020:38).

A Critique of Utilitarianism and Deontology to Have More Theories in Handling Dilemmas Created by Algorithm Decision-Making

Since every theory is subject to criticism, this page attempt not to deeply critiquing them but to shade light where algorithm and humanity is complex on its own because one created the

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other to do the work from an artificial strength. To respond to these fundamental problems of classical normative theories in dealing with the implications of autonomous vehicles' ethics, descriptive approaches have remained progressive in current years, which study human behavioral features, discernments, and arrogances related to self-governing cars (Nastjuk et al., 2020:161) in order to redesign the ethical and normative investigation according to them. One of them, the "Moral Machine Experiment" has been recently proposed by an interdisciplinary assembly of academics (Awad et al., 2018:60; Noothigattu et al., 2018) and represents a paradigmatic case of descriptive approach towards realistic scenarios.

In the Moral Machine Experiment (henceforth MME) community choices made in online settings involving autonomous vehicles have been expressed by collecting 40 million votes. However, this approach –as well as other solutions based on the analysis of human behaviour (Goodall, 2014a, b) –shows many critical aspects. Given all these problematic issues, it is not easy to provide a descriptive framework that is both ethically sound and pragmatically feasible to be implemented in autonomous vehicles. In a naturalized perspective on ethics as well as on a pragmatic take on responsibility in case of accidents, it remains uncertain. As we argued, solely adopting either one of the two key theories of normative ethics –utilitarianism and deontology – would not solve many of the problems that ethically setting self-governing cars brings to the forefront. Moreover, we have shown that a descriptive approach toward autonomous vehicles ethics can also face many problems, even if it may convey some realistic facets.

That is why in the literature another category of perspectives has begun to emerge in the last decade, which mixes together different normatively oriented approaches without imposing a deontological or consequentialist view to solve moral dilemmas. These new perspectives offer metaethical methodologies to approach applied ethics issues, not always landing in a need for a case-by-case scenario. Just to mention a few of these perspectives: the

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method applied in the context of autonomous vehicles by Dubljevic et al. (2021:2-6) based on the multi-criteria decision analysis, which is a way to study potential harms and risks of a given technology by considering "the multi-faceted impacts of technological change;" the function-based working approach, developed by Fossa et al. (2022:1-2), which aims at developing methodological tools to support "the exercise of moral judgment aimed at aligning autonomous vehicles design to the EU normative framework"; the theoretical approach defended by Tamburrini (2020:28) and Fossa & Tamburrini (2022:81), which view moral dilemmas as "pointers to the need of striking trade-offs between values at stake."

Justifying this theories philosophically is to admit that utilitarianism and deontology theories can solve part of the solutions to ethical dilemmas presented by autonomous vehicles, we argue here that there must be a mixed ethical approach because losing less people or more can solve part of the challenge, how about the effort of years put together to produce the product and the nature through which the algorithm that the product is supposedly programmed to function? To justify our mixed ethical approach from a metaethical point of view, we can consider a naturalistic perspective on morality. Such perspective on ethics implies that the moral choices and norms that a particular community adopts emerge from social utility, contextual necessities, and pragmatic adjustments between possibilities and goals of the agents who are immerse in changing socio-cultural environments (Casabeer 2003:33; Magnani 2011:10; Fitzpatrick, 2016). In adding this theory to the existing ones, we admit that, ethical naturalism does not amount to relativism since it is based on results from different scientific theories and perspectives such as the ones that inform evolutionary biology, psychology, and cognitive science, on the origins, nature, and development of morality. Hence, the ontological presuppositions of ethical naturalism change when or as soon as new scientific ideas arise and are proven in the scientific community, it basically changes and is updated with the emergence of new evidence and insight. In the naturalistic perspective, the socio-cultural environment in

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which human agents are rooted shape them morally, while the normative ethics adopted by a community always result from a compromise between the ethical and pragmatic goals, possibilities, and constraints of its agents. We rest our case by combining utilitarian, deontology and naturalism in handling dilemmas created by algorithm and decision-making.

The Nigerian Context

In Nigeria, discussing self-driving cars and trolley problems in life-and-death situations brings unique challenges. Theories like utilitarianism, deontology, and naturalism can still help guide decisions. As Nigeria faces rapid urbanization and more traffic, there is a growing need for safer and more efficient transportation. Self-driving cars could improve road safety, reduce congestion, and make transport more accessible. However, ethical issues around algorithmic decisions may look different in Nigeria than in other countries. Poor road infrastructure, unpredictable driving, and weak enforcement of traffic laws make it harder for self-driving cars to operate safely and raise important questions about how these vehicles should handle Nigeria's specific road conditions (Oyesiku, 2021:130).

In addition, the cultural and societal norms in Nigeria may influence the ethical considerations surrounding self-driving cars and trolley problems. For example, the prioritization of the safety of passengers over others on the road may conflict with the communal values of many Nigerian communities, where the well-being of the collective is often prioritized over individual interests. This raises questions about how self-driving cars should be programmed to navigate these cultural differences in ethical decision-making. Furthermore, the regulatory and legal framework surrounding the deployment of self-driving cars in Nigeria is still evolving, which adds another layer of complexity to the ethical considerations of algorithm decision-making in life-and-death situations. Issues such as liability, accountability, and the role of government oversight in regulating autonomous

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vehicles will need to be addressed in order to ensure the safe and responsible integration of self-driving cars in the Nigerian transportation system. The discussion of self-driving cars and trolley problems in algorithm decision-making in life-and-death situations in the Nigerian context highlights the need for a nuanced and culturally sensitive approach to the ethical considerations surrounding autonomous vehicles. By addressing the unique challenges and considerations specific to Nigeria, policymakers, manufacturers, and stakeholders can work towards harnessing the potential benefits of self-driving cars while ensuring the safety and well-being of all individuals on the road.

Case Studies and Examples

i. *Ethical Challenges in Self-Driving Cars in Nigeria*

Bringing self-driving cars to Nigeria creates unique ethical challenges that need careful thought. A key issue is how these vehicles can safely handle Nigeria's complex roads while protecting everyone involved. Sometimes, local cultural values may not match the way self-driving cars make decisions (Oyesiku, 2021:125). Poor road conditions across most states and other factors, such as traditional practices, add to the difficulty and may make self-driving cars seem unrealistic for now.

ii. *Cultural Considerations in Algorithm Decision-Making*

Cultural reflections play a noteworthy role in algorithm decision-making for self-driving cars, especially in a country like Nigeria with diverse cultural customs and morals (Smith, 2020:217). The cultural context may influence how self-governing vehicles prioritize the safety of individuals and navigate ethical dilemmas in challenging situations. Understanding and incorporating cultural considerations into the programming and design of self-driving cars is

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essential to ensure ethical decision-making aligns with the values and beliefs of Nigerian society (Okonkwo,2019:504).

In Nigeria, where communal morals and collective good are often prioritized, self-driving cars must circumnavigate ethical dilemmas while respecting cultural norms and societal expectations. Case studies and examples of ethical challenges in self-driving cars in Nigeria can provide valuable insights into how autonomous vehicles can address cultural considerations in algorithm decision-making and ensure responsible and ethical decision-making processes.

Theological Reflection

In a theological reflection on the topic of self-driving cars and trolley problems, incorporating Kant's theory of human dignity can provide a philosophical framework for considering the ethical implications of algorithm decision-making in life-or-death situations. Immanuel Kant, a prominent philosopher, emphasized the inherent worth and dignity of every human being as rational agent capable of moral reasoning. His Christian theological worldview begins from the book of Genesis 1:27 - "So God created mankind in his own image, in the image of God he created them; male and female he created them." This verse speaks to the inherent value and dignity of humanity, which Kant's theory of humanity emphasizes. Self-driving cars should be developed and used in a way that respects and upholds this intrinsic worth of human beings.

The issue of self-driving cars and algorithm decision-making in life-or-death situations raises moral questions about the value of human life, the role of technology in ethical decision-making, and the responsibility of individuals and societies to uphold ethical principles within Christian thoughts. One way to approach this issue from a Christian perspective is to consider the grounding discussions in Kantian ethics. Immanuel Kant, a German philosopher who greatly influenced Christian ethics, argued that morality is based on reason and the inherent

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worth of each individual. According to Kant, individuals have a duty to act in accordance with universal moral principles, such as the categorical imperative, which states that one should act only according to maxims that can be consistently applied to all rational beings. This is popularly known as the golden rule and it is validated in the Bible. It is a principle of ethical conduct that suggest individuals should others as they would like to be treated.

Applying Kantian ethics to the scenario of self-driving cars facing trolley problems, we can see that the algorithm decision-making process must be guided by principles that prioritize the protection of human life and the respect for individual dignity. In a Nigerian theological reflection, this means that the developers and programmers of self-driving cars must ensure that their algorithms are programmed to prioritize saving the lives of passengers and pedestrians, regardless of any other factors. Moreover, from a Christian perspective, the ethical dilemmas posed by self-driving cars and trolley problems highlight the importance of human agency and moral responsibility. While technology can provide solutions to complex ethical dilemmas, it is ultimately up to individuals and societies to ensure that these solutions align with moral principles and uphold the inherent value of human life. Here are some theological reflections on this topic in conversation with Kant's theory of human dignity:

1. ***Human Dignity and Moral Agency***

Kant's theory of human dignity underscores the importance of recognizing and respecting the intrinsic value of each individual based on their rationality and capacity for moral autonomy (Kant, 1998:46). In the context of self-driving cars and trolley problems, Christians can reflect on how the decision-making algorithms should prioritize the preservation of human life and dignity, in alignment with Kant's emphasis on treating individuals as ends in themselves rather than as means to an end. This can only happen when self-driving cars are created as part of service to God –Col. 3:17. “And whatsoever ye do in word or deed, do all in the name of the

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Lord Jesus, giving thanks to God and the Father by him." And specifically, in Psalm 8:4-6 - "What is mankind that you are mindful of them, human beings that you care for them? You have made them a little lower than the angels and crowned them with glory and honor. You made them rulers over the works of your hands; you put everything under their feet." This passage highlights the unique abilities and responsibilities given to humanity by God. When considering the implications of self-driving cars, we must reflect on how they impact our role as stewards of creation and our ability to exercise moral judgment.

2. ***Ethical Duty and Universalizability***

Kant's moral philosophy also emphasizes the concept of ethical duty and the categorical imperative, which requires individuals to act according to principles that could be universally applied without contradiction (Kant, 1997:67). When considering the ethical dilemmas posed by self-driving cars and trolley problems, Christians may reflect on how decision-making algorithms should uphold principles of justice, fairness, and human dignity that can be universally accepted and applied in similar situations –Matthew 7:12 "Therefore all things whatsoever ye would that men should do to you, do ye even so to them: for this is the law and the prophets." And specifically in Romans 14:12 - "So then, each of us will give an account of ourselves to God." Kant's theory of humanity emphasizes individual autonomy and moral responsibility. When discussing self-driving cars, we must consider how they affect our ability to make ethical decisions and be held accountable for our actions.

3. ***Moral Responsibility and Accountability***

Kant's theory of human dignity places a significant emphasis on moral responsibility and accountability for one's actions (Kant, 1998:85). In the context of autonomous vehicles, Christians can consider how designers, programmers, and users of these technologies bear responsibility for the ethical implications of algorithmic decision-making in life-or-death scenarios. Upholding human dignity and moral principles in the development and deployment

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of self-driving cars reflects a commitment to ethical decision-making and accountability. 1Corinthians 3:16-17 - "Do you not know that you are God's temple and that God's Spirit dwells in you? If anyone destroys God's temple, God will destroy that person. For God's temple is holy, and you are that temple." This verse underscores the sacredness of human life and the importance of valuing and protecting it. When thinking about self-driving cars, we must reflect on how they can uphold the sanctity of human life and prioritize the well-being of individuals over technological advancement.

By integrating Kant's theory of human dignity into theological reflections on self-driving cars and trolley problems, Christians can engage with the ethical complexities of technology and decision-making from a perspective that values the inherent worth and moral agency of every individual. The Christian theological reflection on self-driving cars and algorithm decision-making in life-or-death situations calls for a careful consideration of ethical principles, such as those found in Kantian ethics, to guide the development and implementation of technology in ways that promote the common good and uphold the sanctity of human life.

Implications and Recommendations

a. Addressing Ethical Dilemmas in Autonomous Vehicles

As self-driving cars become more prevalent in society, addressing ethical dilemmas in algorithm decision-making is crucial to ensure the safe and responsible incorporation of autonomous vehicles. Ethical deliberations such as the arrangement of safety, the management of moral conflicts, and the consequences of algorithmic decision-making in life-and-death situations must be carefully navigated to uphold ethical standards and societal values (Goodall, 2014:9).

b. Policy and Regulatory Recommendations for Nigeria

In Nigeria, the deployment of autonomous vehicles requires a robust policy and regulatory framework to discourse the unique challenges and reflections specific to the

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country. Policy recommendations should concentrate on establishing strategies for the safe operation of self-driving cars, addressing liability and accountability in accidents, and ensuring compliance with existing traffic laws and regulations. Regulatory measures should aim to protect consumer rights, promote transparency in algorithm decision-making, and uphold ethical standards in the development and deployment of autonomous vehicles (Oyesiku, 2021:131). By addressing ethical predicaments and applying policy and regulatory recommendations, stakeholders in Nigeria can foster a safe and ethical environment for the integration of self-driving cars into the transportation system, ensuring that autonomous vehicles contribute to better road safety, competence, and convenience for all individuals. The ethical deliberations and regulatory challenges surrounding self-driving cars in Nigeria highpoint the need for a comprehensive and culturally sensitive approach to the integration of autonomous vehicles into the transportation system. Addressing ethical dilemmas in algorithm decision-making, sideways with employing policy and regulatory recommendations, is essential to ensure the safe and responsible deployment of self-driving cars in Nigeria.

Conclusion and Summary Key Points

Throughout this discussion, we have explored the ethical dilemmas in algorithm decision-making for self-driving cars, with a focus on the trolley problems and the utilitarian versus deontological perspectives. We have also examined the implications of cultural considerations in algorithm decision-making, particularly in the context of Nigeria's diverse cultural norms and societal values. Furthermore, we have discussed the policy and regulatory recommendations necessary to navigate the challenges of integrating autonomous vehicles into the Nigerian transportation system.

Future Prospects for Self-Driving Cars in Nigeria

Self-driving cars could greatly improve transportation in Nigeria by making roads safer, easing congestion, and increasing access. As technology advances, Nigeria has a chance to use these vehicles to solve traffic problems and support sustainable transport. To make this possible, it is important to address ethical, cultural, and regulatory challenges. Working together, policymakers, manufacturers, and other stakeholders can help ensure self-driving cars are introduced responsibly and bring real benefits to the country.

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