

Contemporary Applied Ethics

Matthew N. O. Sadiku¹, Chandra M. M. Kotteti², and Janet O. Sadiku³

¹Department of Electrical & Computer Engineering

Prairie View A&M University

Prairie View, TX USA

²School of Computer Science and Information Systems

Northwest Missouri State University

Maryville, MO 64468

³Juliana King University

Houston , TX, USA

ABSTRACT

In essence, ethics is the study of right and wrong. It is the philosophical study of moral phenomena. It represents the moral code that guides a person's choices and behaviors throughout their life. Ethical issues, particularly concerning emerging technologies such as Internet of things, cloud computing, big data, artificial intelligence, and robotics, are now major concerns for businesses, organizations, and governments. This paper is on applied ethics in contemporary areas and it includes cybersecurity ethics, computer ethics, food ethics, business ethics, big data ethics, and research ethics.

Key Words: Applied ethics, Contemporary ethics, Ethics, Modern ethics.

1. INTRODUCTION

Ethics can look descriptively at moral behaviour and judgements and give practical advice. It investigates normative questions about what people ought to do or which behavior is morally right. Ethics is concerned with rights, responsibilities, use of language, what it means to live an ethical life, and how people make moral decisions. Leading a good life is one of the central questions of ethics.

How should we live? How should an individual act? Is it right to be dishonest in a good cause? Is going to war justified in any case? Is it wrong to clone a human being? These and similar questions are dealt with in ethics. Most ethical systems look a lot like the Ten Commandments. They are sets of basic prohibitions that seem universal. We often hear child cry: "That's not fair!" This shows that even children seem to have an innate sense of justice and fairness [1].

Ethics came into existence only when human beings started to reflect on the best way to live. It is concerned with what is morally good and bad and morally right and wrong. It deals with the justification of moral principles. Humans are ethical and moral regardless of religion and God. We used to think that people are born with a blank slate, but research has shown that people have an innate sense of morality. Those who are regarded as morally good are said to be virtuous, while those viewed as morally bad are thought of as wicked, sinful, or even criminal. The seven deadly sins were first enumerated in the sixth century by Pope Gregory I. They are vanity, jealousy, anger, laziness, greed, gluttony, and lust. People who demonstrate these immoral behaviors are often said to be flawed in character [2].

As social animals, we choose to live together, subjugating our egoistic desires in order to secure the advantages of co-operation. Moral action comes from avoiding courses of action that would be irresponsible, feckless, lazy, inconsiderate, uncooperative, harsh, intolerant, selfish, mercenary, indiscreet, tactless, arrogant, unsympathetic, cold,

incautious, unenterprising, pusillanimous, feeble, presumptuous, rude, hypocritical, self-indulgent, materialistic, grasping, short-sighted, vindictive, calculating, ungrateful, grudging, brutal, profligate, disloyal, etc. [3].

2. OVERVIEW ON ETHICS

Ethics is a branch of philosophy and investigates the principles that govern the moral evaluation of conduct and character traits. It is all-embracing discipline that links it with many other areas of study, such as anthropology, biology, economics, history, politics, sociology, and theology. The terms "ethics" and "morality" are often used interchangeably but some philosophers draw a distinction between the two. The domain of morality is a normative field governing what people ought to do rather than what they actually do. Morality is restricted to the question of what moral obligations people have, while ethics is a wider term that takes considerations into account, such as what is good or how to lead a meaningful life. Figure 1 shows the components of ethics [4].

As a philosophical discipline, ethics is often divided into normative ethics, applied ethics, and metaethics [5].

- **Normative Ethics:** This finds and justifies universal principles that govern moral conduct or how people should act in a given situation. It investigates the fundamental principles of morality. An act is considered right if it leads to the best consequences. This means that an act is morally right if it produces "the greatest good for the greatest number" by increasing happiness and reducing suffering. The manifestation of virtues, like courage and compassion, is regarded as the fundamental principle of morality. Normative ethics has a central place in most religions. For example, Jewish ethics follows the 613 commandments of God found in the Torah. Christian ethics teaches the practice of self-less love, such as the Gold Rule "love your neighbor as yourself." Islam focuses on five pillars: the practice of faith, prayer, charity, fasting during Ramadan, and pilgrimage to Mecca.
- **Applied Ethics:** Also known as practical ethics, applied ethics applies the ethical principles in specific domains of practical life. It examines concrete moral problems encountered in real-life situations. It studies how ethical principles can be applied to specific domains of practical life such as medical procedures. Typical examples of applied ethics are bioethics, animal ethics, environmental ethics, computer ethics, food ethics, business ethics, professional ethics, nuclear ethics, information ethics, communication ethics, ethics of care, ethics of war, military ethics, and research ethics. Some of these will be discussed later.
- **Metaethics:** This is a metatheory that operates on a higher level of abstraction than normative ethics by investigating its underlying background assumptions. It examines basic ethical concepts and their relations. It studies the nature, foundations, and scope of moral judgments, concepts, and values. It focuses on what it means for an action to be right or wrong and whether moral judgments are objective. It covers how moral judgments motivate people to act and how to explain cross-cultural differences in moral assessments. From psychology viewpoint, metaethics is interested in how moral beliefs and experiences affect behavior. Rather than discuss which particular actions are right or wrong, meta-ethical investigation asks questions about the justification of ethical norms. It is one thing to ask if smoking is wrong; this is a discussion of normative ethics. Metaethics goes beyond the question of the justification for specific ethical norms. It tries to identify an approach to thinking about why we have moral norms in the first place. Metaethics attempts to identify the various ways moral norms are justified.

3. TRADITIONAL AND MODERN ETHICS

It is expedient to distinguish between traditional ethical thinking and modern ethical thinking. Both traditional and modern ethical thinking may be used to justify the same set of ethical norms. Traditional ethics are mainly concerned about what kind of person one is becoming through one's habitual activity. It is solely based on our emotional response to the world, based on reason. In traditional ethics, the idea that behaviors help a person to be the best they can be and allow them to live a good life is the ultimate justification for a moral norm. A more traditional approach might see smoking as harmful to one's health. Smoking is wrong because it limits one's potential to live a good and full life. Many contemporary people still live by traditional justifications for ethical norms [1].

The modern period roughly began in the 17th century. Humans began to look within themselves for the answers to important questions. The authority of God is no longer an adequate answer to the problems which confront the human race. Modern ethics is only concerned with whether or not an individual act violates a specific ethical norm. Since modern ideas really achieved cultural dominance in the 17th century, most people over the last three hundred years

have been influenced by modern ethics. If one uses reason appropriately, one will see these universal norms as authoritative. Some people think that traditional ethics is black and white, while modern ethics recognize shades of gray [1].

Figure 2 shows modern human beings and their ethics [4].

4. CONTEMPORARY ETHICS

Contemporary applied ethics consists of bioethics, animal ethics, environmental ethics, computer ethics, food ethics, business ethics, professional ethics, nuclear ethics, information ethics, and research ethics. Some of these will be covered here.

- **Computer Ethics:** Computers have become an integral part of all aspects of the society. The use and misuse of computers have increased dramatically. As a special technology, computers presents some social and ethical issues Computer ethics has emerged with the birth of computers. It is essentially a new discipline that addresses ethical issues in the use and management of computer technology. It simply consists of a set of moral principles that regulate the use of computers. It is part of the legal framework of our society [6].
- **Big Data Ethics:** Since the dawn of the Internet, the quantity of data has exponentially increased. Data have become so readily available that the battle to protect individual liberties seems increasingly challenging accepted social and ethical norms. It is time for academics and researchers to reflect on the ethical, legal, social, and political implications of big data. The ethics of big data requires urgent regulatory and policy responses. The rapid growth of big data necessitates that all parties involved in research should understand the legal, ethical, and cultural challenges facing us [7].
- **Food Ethics:** Food is important for human survival. It is a basic biological necessity of life. Ethical issues are inherent in modern agriculture, food technologies, and global food systems. Today, consumers increasingly express their concerns about whether or not food is ethical and sustainable. From discouraging cooking and increasing reliance on fast foods, avoiding tobacco, purchasing high-nutrition branded products, watching calorie consumption and weight gain, and watching food marketed to children, we make regular ethical decisions about food. Taking food ethics seriously may require that we take into account all the different values involved in our food choices and weigh in all the consequences. Our decision should incorporate justice in relation to people, animals, and the environment [8].
- **Cybersecurity Ethics:** Since the inception of the Internet, hackers have labored to exploit it for everything from cyberattacks to theft and espionage. As technology advances, so does the potential for data breaches, security threats, and cyber attacks. Cybersecurity refers to a set of technologies and practices designed to protect networks and information from damage or unauthorized access. Figure 3 shows that cybersecurity involves multiple issues related to people, process, and technology [9]. It is vital because governments, companies, and military organizations collect, process, and store a lot of data. When applied to cybersecurity, ethics provides an understanding of the rules of ethical behavior that can help practitioners figure out what is expected of them. In the world of cybersecurity, ethical practices are essential for protecting data and maintaining trust [10].
- **Research Ethics:** There are several ethical issues raised by use of technology and conducting research. Ethical issues also confront your intellectual work such as writing, publishing, and patenting. Ethical considerations in research are a set of principles that guide your research designs and practices. Research ethics deals with how we conduct ourselves when doing research. It consists of a set of ethical guidelines that guides us on how scientific research should be conducted and disseminated. It is an area concerned with the protection of humans participating in research projects, which may include experiment, surveys, questionnaires, interviews, focus groups, etc. Ethics should be applied at ever stage of your research, from performing experiments, administering survey questionnaire to writing and publishing [11].

- **Business Ethics:** This consists of the principles and standards that establish acceptable conduct in business organizations. Acceptable behavior in business is determined by customers, competitors, government regulators, interest groups, and the public. Figure 4 shows different areas in business [12]. There are generally 12 business ethics principles [13]:
 - **Leadership:** The conscious effort to adopt, integrate, and emulate the other 11 principles to guide decisions and behavior in all aspects of professional and personal life.
 - **Accountability:** Holding yourself and others responsible for their actions.
 - **Integrity:** Someone with integrity consistently does the right thing and strives to hold themselves to a higher standard.
 - **Respect for Others:** Everyone deserves dignity, privacy, equality, opportunity, compassion, and empathy.
 - **Honesty:** Truth in all matters is key to fostering an ethical climate. Partial truths, omissions, and under or overstating do not help a business improve its performance.
 - **Respect for Laws:** Ethical leadership should include enforcing all local, state, and federal laws.
 - **Responsibility:** Allow employees to be responsible for their work, and be accountable for yours.
 - **Transparency:** Without divulging trade secrets, companies should ensure information about their financials, price changes, hiring and firing practices, wages and salaries, and promotions are available to those interested in the business's success.
 - **Compassion:** Employees, the community surrounding a business, business partners, and customers should all be treated with concern for their well-being.
 - **Fairness:** Everyone should have the same opportunities and be treated the same.
 - **Loyalty:** Inspiring loyalty in employees and management ensures that they are committed to best practices.
 - **Environmental Concern:** In a world where resources are limited, ecosystems have been damaged by past practices, and the climate is changing. It is of utmost importance to be aware of and concerned about the environmental impacts a business has.

5. CONCLUSION

Ethics are moral principles that govern a person's behavior. Ethical issues, particularly concerning emerging technologies such as Internet of things, cloud computing, artificial intelligence, and robotics, are now major concerns for businesses, organizations, and governments. More information about contemporary applied ethics can be found in the books in [14-25].

REFERENCES

- [1] "Differences between modern and traditional ethical thinking," November 2023, <https://owlcation.com/humanities/The-Difference-Between-Modern-and-Traditional-Ethical-Thinking>
- [2] "Ethics and morality, "
<https://www.psychologytoday.com/us/basics/ethics-and-morality>
- [3] "Virtue Ethics," in *Stanford Encyclopedia of Philosophy*, 2022.
<https://plato.stanford.edu/entries/ethics-virtue/>
- [4] R. Cliché, "Modern human beings and their ethics," October 2017,
<https://thomodernvedic.com/logical-atheist/religion-ethics-modern-human/>
- [5] "Ethics," *Wikipedia*, the free encyclopedia
<https://en.wikipedia.org/wiki/Ethics> Ethics are moral principles that govern a person's behavior.
- [6] M. N. O. Sadiku, P. O. Adebo, and S.M. Musa, "Computer ethics: A primer," *International Journals of Advanced Research in Computer Science and Software Engineering*, vol. 8, no. 12, December 2018, pp. 8-11.
- [7] M. N. O. Sadiku, C. M. Kotteti, and S. M. Musa, "Big data ethics," *International Journals of Advanced Research in Computer Science and Software Engineering*, vol. 8, no. 12, December 2018, pp. 15-17.
- [8] M. N. O. Sadiku, T. J. Ashaolu, S. M. Musa, "Food ethics," *International Journal of Research Technology in Engineering and Management*, vol. 2, no. 12, Dec. 2018, pp. 34-36.

- [9] P. Singh, "A layered approach to cybersecurity: People, processes, and technology- explored & explained," July 2021,
<https://www.linkedin.com/pulse/layered-approach-cybersecurity-people-processes-singh-casp-cisc-ces>
- [10] M. N. O. Sadiku, U. C. Chukwu, and J. O. Sadiku, "Cybersecurity ethics 101," *Horizon: Journal of Humanity and Artificial Intelligence*, vol. 2, no. 8, 2023, pp. 21-30
- [11] M. N. O. Sadiku, *Secrets of Conducting Research: In Engineering, Science, Humanities, and Social Sciences*. Ebookscrafter, 2023, pp. 67-79.
- [12] "What is business ethics," February 2014, Unknown Source.
- [13] A. Twin, "What is business ethics? definition, principles, and importance," January 2024,
<https://www.investopedia.com/terms/b/business-ethics.asp>
- [14] E. N. Zalta and U. Nodelman(eds.), *Stanford Encyclopedia of Philosophy*. The Metaphysics Research Lab, 2022.
- [15] J. A. Symonds, *A Problem in Modern Ethics*. BoD–Books on Demand, 2020.
- [16] R. B. Miller, *Casistry and Modern Ethics: A Poetics of Practical Reasoning*. University of Chicago Press, 1996.
- [17] C. Gill (ed.), *Virtue, Norms, and Objectivity: Issues in Ancient and Modern Ethics*. Clarendon Press, 2005.
- [18] S. T. Newmyer, *Animals, Rights and Reason in Plutarch and Modern Ethics*. Routledge, 2013.
- [19] R. B. Miller, *Children, Ethics, and Modern Medicine*. Indiana University Press, 2003.
- [20] C. Guthrie and M. Quinlan, *Just War: The Just War Tradition: Ethics in Modern Warfare*. Bloomsbury Publishing USA, 2007.
- [21] E. Brady, *The Sublime in Modern Philosophy: Aesthetics, Ethics, and Nature*. Cambridge University Press, 2013.
- [22] D. Markovits, *A Modern Legal Ethics: Adversary Advocacy in A Democratic Age*. Princeton University Press, 2010.
- [23] R. A. P. Rogers, *A Short History of Ethics, Greek and Modern*. Macmillan, 1921.
- [24] S. Zinaich, *A Contemporary Introduction to Professional Ethics*. Kendall Hunt Publishing, 2019.
- [25] J. A. Symonds, *A Problem in Modern Ethics*. London, UK: Palgrave Macmillan, 2012.

ABOUT THE AUTHORS

Matthew N.O. Sadiku is a professor emeritus in the Department of Electrical and Computer Engineering at Prairie View A&M University, Prairie View, Texas. He is the author of several books and papers. His areas of research interest include computational electromagnetics, computer networks, and marriage counseling. He is a life fellow of IEEE.

Chandra M. M. Kotteti is an assistant professor in the School of Computer Science and Information Systems at Northwest Missouri State University, Maryville, MO. His current research interests include machine learning, deep learning, data science, and computer science.

Janet O. Sadiku holds bachelor degree in Nursing Science in 1980 at the University of Ife, now known as Obafemi Awolowo University, Nigeria and Master's degree from Juliana King University, Houston, TX in December 2022. She has worked as a nurse, educator, and church minister in Nigeria, United Kingdom, Canada, and United States. She is a co-author of some papers and books.



Figure 1 Components of ethics [4].



Figure 2 Modern human beings and their ethics [4].

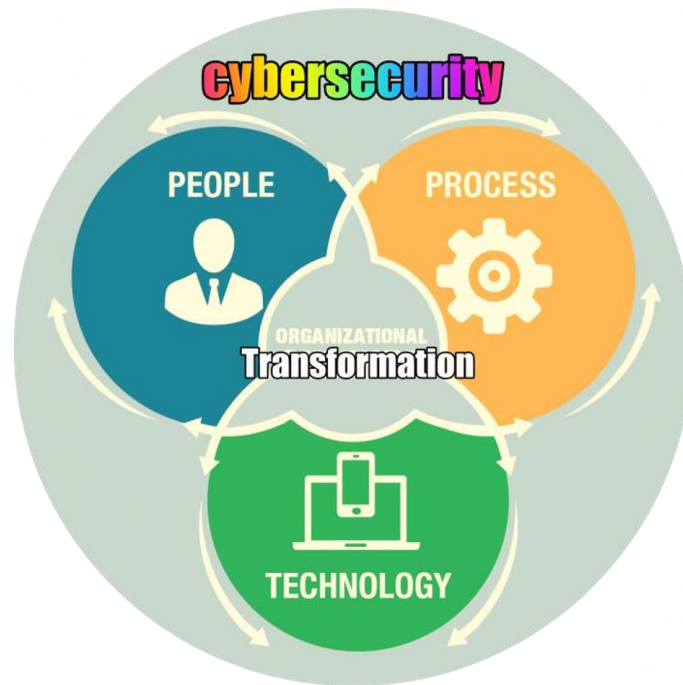


Figure 3 Cybersecurity involves multiple issues related to people, process, and technology [9].



Figure 4 Different areas in business [12].

Email: chandra@nwmissouri.edu