

Investing AI Ethics in Forensic Investigations: Development, Policies, and Best Practices

Artificial intelligence (AI) is a dominant technological feature that affects the ethical use of forensic accountants during investigations. A code of ethics can help mitigate ethical risks such as presenting AI-generated digital information as evidence in court. Normative, informative, and advisory aspects underpin the formulation of a code of ethics and are examined. Philosophical perspectives of our ancestors are discussed, who strived to impart the enduring moral principles that apply universally, to help navigate contemporary challenges, such as AI. Forensic accountants must rely on ethical principles to guide their use of AI, since they are subject to the ethical standards set by their professional bodies. These philosophical principles guide ethical policy making and ensure effective ethical strategies for use in forensic investigations. Risks can be assessed with ethical policies and the code of ethics can be revised as new technologies become available. An effective code of ethics answers the questions of whether, how, and to what extent the use of AI is ethically acceptable in forensic investigations. Lastly, introducing AI responsibly and ethically is also significant in teaching professional accountants about ethical principles and the risks associated with using AI.

Keywords: *accountant, artificial intelligence, code of ethics, ethics, universal*

Introduction

Health care, law, education, transportation, energy, and the environment are all experiencing profound advances due to artificial intelligence (AI). Advances are being made as data and computing power become more available and AI systems become more refined (Leslie, 2019). AI technologies could play a crucial role in the advancement of public interest and human development as society progresses. In the field of forensics, artificial intelligence is used primarily as a tool for analysis, and forensic accountants use it primarily to identify possible accounting risks and oversee fraud prevention initiatives. The use of artificial intelligence in forensic investigations raises incidentally ethical questions. Although AI can perform tasks such as learning and mimicking human reasoning (Aldoseri, Al-Khalifa & Hamouda 2023); it lacks a unique moral code as it remains a machine. Since AI lacks conscience, new strategies must be developed to ensure that forensic accountants and governments use AI ethically in forensic investigations to avoid punishing innocent people (Jerian, 2024).

The goal of employing AI as a tool by forensic accountants is analytical in nature, primarily to recognise potential accounting risks or manage fraud prevention activities. To ensure that forensic accountants or professional accountants adhere to ethical guidelines when using artificial intelligence software or programmes, it is necessary to establish a code of conduct or code of ethics (ethics policy) that identifies international and domestic influences and inclinations. Ensuring consistent and regulated governance of AI is a significant

1 and consequential challenge of our time, as rapid technological changes may pose
2 high risks (Global Forum on the Ethics of AI, 2024). This need to implement
3 consistent ethical norms and effective governance to minimise the potential
4 dangers associated with AI is highlighted by the Global Forum on the Ethics of AI
5 (2024). To determine the scope of the issue and weigh the potential risks and
6 benefits, it is necessary first to determine what is at stake.

7 The philosopher Carissa Véliz, in her book “The Ethics of Privacy and
8 Surveillance” (2023), discusses privacy regulations and how laws cannot predict
9 good or bad behaviour because they change according to trends and the societies
10 in which we live. Véliz argues that ethics must play a crucial role in shaping and
11 changing the legislation that governs privacy and surveillance in the age of
12 technology. She argues for the need for ethical considerations to ensure that legal
13 frameworks are not only effective but also represent the social values, behaviours,
14 and customs (Véliz, 2023) of each individual. Ethics are an essential prerequisite
15 for law, and regulations can exist without them. With the rise of data protection,
16 surveillance, and AI challenges, ethics has to grow and improve the law to make it
17 more effective and inclusive.

18 Véliz’s ideas resonate with the UN Call for Action on Human Rights and
19 Civic Space in a “Time of Socioeconomic-Cultural Crisis” (UN, 2020), as well as
20 the Call for Action of the Open Government Partnership (2021), which urges
21 members to protect and facilitate citizen participation while consolidating
22 democracy, which has become a central priority for the OECD Public Governance
23 Committee. OECD (2022) also supports the idea of involving the public in
24 decisions about AI policies and legal structures within a society that values
25 freedom, democracy, openness, and a focus on the individual.

26 The Centre for Artificial Intelligence and Digital Policy (CAIDP, 2024) has
27 expressed concerns about the potential safety risks associated with uncontrolled
28 advanced AI systems. These risks include generative AI, misinformation, deep
29 fakes (videos that feature digitally altered faces), and voice cloning (CAIDP
30 Update 2024). Therefore, it is important to understand the importance of ethical
31 conduct that adheres to international standards for professional conduct of forensic
32 accountants. Critical aspects include ethics, data privacy, and cybersecurity when
33 using AI technologies. Several South African guiding legislations are noted at this
34 stage and include the Constitution of South Africa, 1996, the Cybercrimes Act 19
35 of 2020, the Electronic Communications and Transactions Act 25 of 2002 (ECTA),
36 and the Protection of Personal Information Act 4 of 2023 (POPI Act). In this
37 article, a discussion of the provisions in the Criminal Procedure Act 51 of 1977
38 and other evidence rules is not necessary but should be discussed with the legal
39 advisor on the forensic team.

40 Ensuring compliance with international and domestic (relevant) laws and
41 regulations is necessary when developing a code of ethics, including normative,
42 informative and advisory resources. For example, the Universal Guidelines for AI
43 (UGAI), which were introduced at the Global Privacy Assembly Conference in
44 October 2018 hosted by the European Union, represent a significant milestone in
45 the incorporation of moral principles into the legal systems that govern technology.
46 The UGAI underscores the essential nature of transparency, accountability, and

1 human agency in the development and implementation of AI technologies. The
2 UGAI aims to address the ethical issues raised by AI's impact on individual rights,
3 drawing inspiration from a variety of sources including human rights conventions,
4 data protection laws, and ethical frameworks.

5 By outlining key principles like transparency, the right to human decision-
6 making, obligations for identification, fairness, evaluation, and responsibility,
7 accuracy, reliability, validity, public safety, cybersecurity, prohibition of covert
8 profiling and singular scoring, and obligations for termination, the UGAI seeks to
9 provide guidance for the incorporation of ethical standards into both domestic and
10 international policies. The importance of prioritising human well-being and
11 ensuring sufficient oversight of AI systems by humans is a critical factor to
12 consider in law, regulations, and codes of ethics. Next, a review of the literature on
13 ethical considerations applicable to a code of ethics is presented.

14 15 16 **Objectives, Key Considerations, and Review of the Literature on the use of AI** 17 **in Forensic Investigations**

18
19 In the first part of the article, background information and the context of the
20 research were provided, along with a brief overview of the problem. Consequently,
21 this article aims to establish, from a practical perspective, expected considerations
22 for an ethical policy or code of ethics that forensic accountants could use for AI
23 applications during forensic investigations. One of the important considerations is
24 transparency. Transparency is necessary to enable judgement (wisdom) of the
25 ethical use of algorithms that are applied by AI. From a practical perspective, the
26 objective is to encourage transparency in the use of AI algorithms and models in
27 accounting processes. Although the South African Institute of Chartered
28 Accountants (SAICA) Board adopted a comprehensive Code of Conduct, the use
29 of AI in audits and risk assessments should be clearly defined and explained.

30 Another consideration is risk assessment, which describes the process of
31 assessing risks associated with AI technologies, including data quality, biases, and
32 potential errors in AI-driven decision-making processes. A significant
33 consideration when conducting a forensic investigation, as with any criminal
34 investigation, is that people must be presumed innocent until any misconduct or
35 crime is proven (see Section 35 of the Constitution).

36 For SAICA members, the SAICA Code of Conduct (Subsection R607) allows
37 chartered accountants to offer supportive litigation services to a public interest
38 entity, provided that the firm of chartered accountants is not the appointed auditor
39 of the same entity. For non-public entities, a chartered accountant may offer
40 supportive litigation services, provided that the individual chartered accountant
41 providing such services is not a member of the team that performs the audit on
42 such entities (SAICA, 2023: R607.5). However, should none of the threats to
43 professional conduct, namely objectivity, advocacy, integrity, and professional
44 behaviour, be present, the SAICA professional code allows members to offer
45 supportive litigation services, such as forensic accounting services, and to act as
46 expert witnesses in court proceedings (SAICA, 2023).

1 For members of the Independent Regulatory Board for Auditors (IRBA),
2 IRBA describes the relationship of providing supportive litigation services to a
3 client as an advocacy threat (IRBA, 300.6 A1). Similar to the SAICA Code of
4 Conduct, IRBA and the CPA (CPA, s120) also provide measures to address such
5 threats, such as assigning non-assurance services, for example, litigation support
6 relating to forensic accounting services, to a different partner than the one
7 performing assurance services (IRBA, 200.8 A2). The professional body for
8 forensic accountants in South Africa, namely the ICFP as well as the international
9 body, the ACFE, require their members to act professionally by avoiding conflicts
10 of interest (ICFP, Rules of conduct, 2.1; ACFE, Code of Professional Conduct, II).

11 These requirements to ensure independence are in agreement with the SAICA
12 and IRBA Codes of Conduct, which confirm the need to be included in the
13 policies for using AI in forensic investigations. Once it has been established that
14 the ethical conduct of the forensic accountant will be acceptable to a court, the
15 details of the AI applied in the forensic investigation need to be addressed. The
16 next section discusses philosophical aspects of ethics and AI.

17 18 19 **Ethics and AI**

20
21 Examining Aristotle's (384–322 BCE) Nicomachean ethics, which addresses
22 ethics, virtues, and human flourishing, can help us understand how ethics function
23 in the current digital era of AI. Aristotle believed that each action, decision, and
24 investigation had a goal, and true fulfilment was achieved through the cultivation
25 and excellence of virtue. This holistic approach to achieving a happy life is crucial
26 for ethical considerations in the use of technology and AI. He also defined and
27 applied technology, 'techne', as the practical knowledge of doing or making things
28 that are useful to humans and “defend humans” (Ellul, 1954). The 20th French
29 philosopher Jacques Ellul (1912–1994), in his masterpiece 'The Technological
30 Society' (1954), argues that humans are not paying enough attention to the risks of
31 technology. He believes that technology has the capacity to lead to catastrophe,
32 and we need to be aware of its ethical consequences.

33 A similar approach is offered in Jacques Ellul's *The Technological Society*
34 (1954), where he commented on technology and observed that humans do not pay
35 enough attention to technological risks, which can lead to disaster. He warns of the
36 ethical consequences of technology and urges caution in its application. This idea
37 aligns with Aristotelian views, which view technology as like the Natural Law,
38 determined by human reason and independent of the natural world. This
39 distinction focusses on the unique role of humans in affecting their environment
40 through invention and creativity.

41 Fulfilment and happiness are universal aspirations of all individuals,
42 regardless of their background. The end of various aspects of life, such as
43 healthcare, the economy, military action, and education, is the goal of human
44 action and goodness. AI, or pure machine action, can be considered part of this
45 universal good and excellence. Human excellence involves applying scientific
46 frameworks to lead a morally virtuous life. AI goods can be considered good in

1 and of themselves if they benefit from human action. If AI developers benefit from
 2 their ideas or results, it can be concluded that AI is the reason for an accountable,
 3 accurate, equitable, relevant and safe society, promoting human values and virtues.

4 5 *Contemporary AI ethicists*

6
7 Contemporary AI ethicists, such as Friar Paolo Benanti, a member of the
 8 Italian AI Commission on Information and the UN Advisory Body on AI, argue
 9 that in the ethics of technology, technology is a human-created artefact (Benanti,
 10 2018), distinguishing between natural and artificial. Friar Benanti defends the use
 11 of AI in the context of human dignity. He argues that by examining our ethical
 12 principles, we can avoid the potential dangers of AI. Benanti's advocacy for AI that
 13 improves lives without jeopardising human dignity is evident in his interactions
 14 with influential figures in Silicon Valley. Consequently, the integration of AI ethics
 15 is crucial in determining what is considered right and wrong, guiding ethical
 16 behaviour in the development and usage of AI technology.

17 Much has been written about the use of AI in theory and the development of
 18 computer systems (Mikalef & Gupta, 2021; Hunt, 2014). In contrast, little has
 19 been written about the current state of AI in forensic investigations and its impact
 20 on ethical considerations. To accomplish the objective of the study, which is to
 21 develop an ethics policy for use by forensic accountants, it is helpful to refer to the
 22 early works of Greek philosophers and ethicists for guidance. Several Greek
 23 philosophers, such as Socrates, Plato, and Aristotle, have debated ethics as a moral
 24 philosophical theory (Khillar, 2022).

25 What is the highest of everything that can be achieved through action or good
 26 practice? Everyone aspires to be fulfilled and happy, whether they are rich, poor,
 27 educated, low-income, healthy, or sick. Furthermore, if the goal of healthcare is
 28 health, the final goal of the economy is wealth, the end of military action is
 29 strategy or victory, and the end of education is knowledge, then all have an end;
 30 that is, fulfilment. Similarly, it is when we analyse whether the act of deploying AI
 31 (a pure machine action that ought to be subjected to human capabilities and,
 32 therefore, regulated by ethical standards) is the end of human action, and hence
 33 human goodness.

34 Human excellence is defined as the ability to apply a scientific framework
 35 and identify key questions to lead a good and morally virtuous life. If we consider
 36 AI to be part of our universal good and excellence, we can divide goods into two
 37 categories: *a priori* and *posteriori*; the first is goods that we love and pursue for
 38 themselves and are intrinsic, and the second is goods by reason.

39 What kinds of AI goods would be considered good in and of themselves, and
 40 why? If AI goods are treated as a separate entity, separate from human action, they
 41 will almost certainly be worthless, and thus empty. As a result, the main argument
 42 is that if the AI developer will benefit from their idea or outcome, which is a good
 43 thing in and of itself, we can conclude that AI is the reason for an accountable,
 44 accurate, equitable, relevant, and safe society for the sake of human values and
 45 virtues. Somehow, this seems to have a parallel with Aristotelian views.

1 In philosophy, according to the ancient Greeks, Plato and Aristotle,
2 technology is similar to the natural law, which is determined by our human reason
3 and is therefore an outcome of human innovation and labour. This exists
4 independently of the natural world. This distinction emphasises the unique role of
5 humans in affecting their environment through invention and, by extension,
6 creativity.

7 8 *AI Use and Moral Behaviour*

9
10 More recent debates about ethics have again surfaced as humans engage in
11 technological change, interaction with AI, and moral behaviour (Bankins &
12 Formosa, 2023). For the professional accountant, this is significant, as the use of
13 AI in forensic inquiries changes the moral code of use. The SAICA Code of
14 Professional Conduct outlines several principles that establish the expected
15 standard of conduct for professional accountants (SAICA, 2022:20). It includes
16 integrity, objectivity, professional competence, due care, confidentiality, and
17 professional behaviour. The use of artificial intelligence in the field of forensic
18 accounting raises ethical concerns about the extent to which AI should be involved
19 in the decision-making process.

20 Forensic or professional accountants subscribe to codes of professional ethics
21 (Naidoo, 2021), and it cannot be delegated to AI as accountability for these codes
22 cannot be transferred to algorithms, which lack moral agency (Raji et al., 2020).
23 Although the creators of the algorithms of which the AI consists of are also held
24 accountable by regulators (Novelli, Taddeo & Floridi, 2023), such accountability
25 cannot replace that of the professionals applying AI in their work (Munoko,
26 Brown-Liburd & Vasarhelyi, 2020).

27 The question now becomes how AI is employed during a forensic
28 investigation and which ethical principles will affect the work of a professional
29 accountant. By considering how these principles will affect their work, the
30 professional accountant can adopt new strategies in the form of policies and
31 procedures to assist with forensic inquiries. As a result, adopting the use of AI to
32 conduct more effective forensic investigations is essential. Considering emerging
33 technologies used by perpetrators to commit financial crimes, such as AI, it is
34 necessary for professional accountants to adopt AI to conduct more efficient
35 forensic investigations and catch up with perpetrators.

36 Additionally, it is important to ensure that the data used to create AI tools are
37 reliable and free from bias. The question is how to do it. Professional accountants
38 can use AI in their field of work by following the due process and using policy
39 guidelines that address the principles stated above and to improve their ethical
40 behaviour in the workplace.

41 42 *Conflict of Interest and Ethical Decision-making*

43
44 The conflict of interest of professional accountants occurs from relationships
45 with the entity on which the accountant has a duty to report that will negatively
46 influence the ability of the professional to report truthfully. Professional

1 accountants are required to complete a declaration of interest form and present it to
2 the designated manager when conducting an investigation or audit. They are
3 prohibited from participating in decisions affecting those organisations.
4 Professional accountants, when faced with an ethical dilemma, should ask the
5 following questions.

- 6
- 7 • Are you carrying out your job responsibilities in a *bona fide* manner (in
8 good faith)?
- 9 • Is your decision in line with the organisation’s policies?
- 10 • Are you acting according to a specified procedure?
- 11 • Is the decision based on the core values of the organisation?
- 12 • Is the decision in conflict with my professional ethics and the law?
- 13

14 The decision or action aligns with the values of the organisation if all these
15 questions are answered positively. It is important to treat cases of suspected fraud
16 or corruption with caution and, in terms of the Prevention and Combating of
17 Corrupt Activities Act 12 of 2003, to report any fraudulent activities identified in
18 an investigation.

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21 **Breach of Ethics and the Consequences of a Failure to Act Ethically**

22

23 In the case of *S v Western Areas Ltd and Others* 2004 4 SA 91 (W),
24 Labuschagne J addressed a comparable issue concerning an alleged fraud resulting
25 from a failure to disclose information mandated by the Security Regulation Panel's
26 rules, the Companies Act, and the Johannesburg Stock Exchange (JSE) listing
27 requirements:

28

29 ‘[7] [7.1] ... the crucial question for decision in this case is whether it is
30 competent in law to found criminal liability for fraud based on a duty of disclosure
31 flowing from the (SRP) rules and the Companies Act and the JSE listing
32 requirements where neither the rules, the relevant provisions of the Companies Act
33 nor the JSE listing requirements create criminal liability for their breach.’

34

35 Thus, a breach of the code of conduct by a professional accountant can also
36 cause reputational damage and a loss of trust from clients, as well as legal
37 consequences, including disciplinary action from their professional bodies or even
38 being delisted from their professional bodies. According to Section 100.1A of the
39 IRBA Code of Professional Conduct for Registered Auditors (2018), a code of
40 conduct imposes obligations on the professional registered auditor and a
41 distinguishing mark of the accounting profession is its acceptance to act in the
42 interest of the public and not only the individual. Therefore, a registered auditor
43 must comply with the code unless prohibited by other laws or regulations. Where
44 laws and regulations do not prevail, the registered auditor shall comply with the
45 other parts of the code.

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1 **Ethics and its Universal Influence**

2
3 As Immanuel Kant stated in his philosophical work, 'Groundwork of the
4 Metaphysics of Morals' (1785), 'Act only according to that maxim, whereby you
5 can at the same time will that it should become a universal law without
6 contradiction.'

7 Kant's deontological ethical principle focusses on morality above other aims.
8 It promotes universalism by encouraging organisations to behave as they would
9 like others to. This technique may be related to AI laws. The ethical implications
10 of AI and universal moral norms must be considered as it evolves. In the AI age,
11 when robots may outperform humans, this is crucial.

12 Likewise, Copernicus's *De Revolutionibus* (1543) places the Sun, rather than
13 the Earth, at the core of the cosmos, implying that the human subject is inevitably
14 at the heart of the cognitive process. Before the revolution, people (subjects) had to
15 adapt to nature (objects); today, with the roles reversed, nature must adapt to
16 humans (Kuhn, 1992). Such a Copernican revolution is part of the change in our
17 values within an AI technological period, in which our androcentric or human-
18 centric perspective suggests that AI should be at the centre of the universe or
19 cosmos, with AI serving as a mirror of our human abilities and thus knowledge.
20 This shift in perspective encourages us to reconsider intelligence and awareness, as
21 well as the implications of developing machines capable of outperforming
22 humans.

23 In his most recent paper on Pope Francis' comments on AI, Luciano Floridi
24 (2024) argues that AI is not 'intelligence' but a technical tool that can benefit
25 people without consciousness or emotions. AI is not neutral and always has an
26 ethical value. It can be a tool for good or harm, depending on how it is used. As a
27 result, humanity must ensure that it is used for good while avoiding misuse. The
28 development and regulation of AI should not be solely based on rules and laws; AI
29 development should be based on a spiritual approach, promoting social and
30 environmental benefits and facilitating spiritual rebirth from the individual to the
31 collective (Floridi, 2024).

32 33 34 **The Role of AI and Ethical Considerations in Organisational Commitment**

35
36 Ethical policies or guidelines are contingent upon normative (legislation and
37 primary case law), informative (organisational policies and procedures) and
38 advisory resources that direct their implementation. These (resources) help
39 organisations, especially employers in the field of accountancy, establish ethical
40 standards for decision-making and behaviour related to AI. In addition, they enable
41 organisations to fulfil their social mandates by considering the consequences of
42 their actions and AI-generated results on stakeholders and society. There is,
43 however, a warning, as can be seen from the case of *Oudekraal Estates (Pty) Ltd v*
44 *City of Cape Town and Others* 2004 (6) SA 222 (SCA). In this case, the Supreme
45 Court of Appeal ruled that an unlawful act may still result in legally binding
46 consequences, meaning that an unlawful decision remains enforceable until it is

1 overturned. It is crucial to consider the philosophical perspectives of our ancestors,
2 who strived to impart the enduring moral principles that apply universally as we
3 navigate contemporary challenges.

4 As we develop AI, we have to examine its ethical and philosophical
5 implications and develop a set of categorical imperatives, or moral rules, that
6 apply to everybody. In this new era of AI, it is crucial to consider the ethical
7 implications of creating machines that may surpass human capabilities. It is
8 essential to establish universal moral guidelines to ensure the responsible
9 development and use of AI.

10 Why do governments, companies, and people require rules and how can they
11 be used to integrate AI systems?

12 The EU created the AI Act in 2021, which entered into effect on 13 March
13 2024 (European Commission, 2024). This AI Act is an example of a vital
14 regulatory framework whose goal is to regulate critical AI-related developments in
15 organisations worldwide. These regulations aim to promote trustworthy AI in
16 Europe and beyond by ensuring that AI systems adhere to fundamental human
17 rights, transparency, safety, and ethical standards, as well as addressing the risks
18 associated with AI models.

19 The AI Act classifies these AI systems into four risk categories: unacceptable,
20 high-risk, low-risk, and general-purpose models. Data quality, openness, human
21 supervision, accuracy, cybersecurity, and compliance are required for these
22 systems.

23 Organisations have the deontological commitment to carry out impact
24 assessments on rights, create risk management systems, notify people, test AI
25 material, and label under the AI Act. Violators face 7% penalties for worldwide
26 turnover, or 7.5 million euros in fines (European Parliament, 2023) (Foo Yun
27 Chee, Coulter & Mukherjee, 2023). The Centre for Artificial Intelligence and
28 Digital Policy (CAIDP, 2024) has expressed concerns about the potential safety
29 risks associated with uncontrolled advanced AI systems. These risks include
30 generative AI, misinformation, deep fakes (videos that feature digitally altered
31 faces) and voice cloning (CAIDP Update 2024). Therefore, it is important to
32 understand the importance of ethical conduct that adheres to international
33 standards for the professional conduct of forensic accountants. The CAIDP has
34 endorsed the Universal Guidelines for AI (UGAI) as a necessary tool when
35 developing a code of ethics and regulations globally. For example, the UGAI,
36 introduced at the Global Privacy Assembly Conference in October 2018 hosted by
37 the European Union, represents a significant milestone in incorporating moral
38 principles into the legal systems that govern technology.

39 *King IV Corporate Governance*

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41
42 For the purposes of King IV, proper corporate governance is defined as the
43 exercise of ethical and effective leadership by the governing body toward the
44 achievement of the following governance outcomes:

- 45 • Ethics culture.

- 1 • Good performance.
- 2 • Effective control.
- 3 • Legitimacy.

4
5 The use of ‘corporate’ in the term ‘corporate governance’ differentiates it
6 from other forms of governance, for example, national or political governance.
7 ‘Corporate’ refers to legal entities separate from their founders and therefore
8 applies to all forms of incorporation, whether as a company, voluntary association,
9 retirement fund, trust, legislated entity, or others.

10 King IV defines ethics, which resonates with Kant as follows. Consider what
11 is good and right for you and the other and can be expressed in terms of the golden
12 rule, namely treating others as you would like to be treated yourself. In the context
13 of organisations, ethics refers to ethical values applied to decision making,
14 conduct, and the relationship between the organisation, its stakeholders, and
15 society.

16 17 18 **Ethical Behaviour and Business Practices**

19
20 Integrity is essential for professional accountants to ensure ethical business
21 practices. As they remain responsible for their actions and behaviours, it should
22 permeate business relationships. There are several principles and values that
23 should be aligned with business practices in the Constitution, including respect for
24 human dignity, non-discrimination, diversity, impartiality, and reputation. Whether
25 it was previously condoned or not, anything prohibited by organisational policy,
26 law, or the Constitution remains prohibited. Employees who cross the line of
27 ethical conduct are seen as supporting the conduct of the organisation if no
28 corrective measures are taken.

29 30 *AI Ethics and the Rights and Obligations of the Employer*

31
32 It is the employer's responsibility to cultivate a culture of trust among
33 stakeholders and respect for their dignity as an organisation that places all
34 stakeholders' needs first. Fairness, impartiality, and justice are all aspects of ethical
35 behaviour. A code of ethics not only pertains to the conduct of employees in
36 financial matters, but also requires transparency and integration with other
37 employer policies. Forensic accountants must apply their skills, competencies, and
38 expertise when using AI in investigations to act ethically by upholding the values
39 of the organisation. Organisations must be transparent about their AI ethics
40 policies and practices to build trust with stakeholders. Accountability mechanisms
41 must be in place to ensure that ethical guidelines are followed and any violations
42 are addressed effectively and from a human-centric perspective (Lepri, Oliver, N.,
43 & Pentland, 2021).

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45

1 *Integrating AI in Forensic Accounting*
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3 As stated above, ethics teaches us that AI should be used from a more human-
4 centric perspective; thus, in the case of a forensic investigation, we advocate an
5 ethical policy for forensic accountants when using AI in investigations. The South
6 African Institute of Chartered Accountants (SAICA) Code of Conduct provides for
7 audits and risk assessments. Risk assessment involves evaluating data quality,
8 biases, and potential errors. Permission to investigate is presumed until a proven
9 misconduct or crime is identified.

10 The use of *artificial intelligence* in forensic accounting raises ethical
11 concerns, as it changes the moral code of conduct. The SAICA Code of Conduct
12 outlines principles such as integrity, objectivity, professional competence, due
13 care, confidentiality, and professional behaviour (SAICA, 2022). Since AI lacks
14 moral agency (Raji et al., 2020), accountants cannot delegate professional ethics
15 (Naidoo, 2021). Governments are responsible for holding AI systems accountable
16 (Novelli, Taddeo & Floridi, 2023), but they cannot replace the professionals who
17 use AI in their work (Munoko, Brown-Liburd & Vasarhelyi, 2020).

18 The question arises as to how AI is used during a forensic investigation and
19 which ethical principles will affect the work of the professional accountant. By
20 considering these principles, professional accountants can adopt new strategies in
21 the form of policies and procedures to assist with forensic investigations. Given
22 that criminals use AI tools to commit financial crimes, adopting AI ethics to
23 perform more effective and reliable forensic investigations is necessary to ensure
24 successful convictions.

25 Forensic accountants must maintain professional affiliations and uphold
26 codes of conduct as AI continues to evolve. For example, members of professional
27 bodies for forensic accountants in South Africa must avoid conflicts of interest
28 when providing services, according to the Institute of Commercial Forensic
29 Practitioners (CFP) and the Association of Certified Fraud Examiners (ACFE).

30 Forensic accountants employ AI to detect fraud and submit results to court
31 (Kommunuri, 2022) and provide the defendant with the source code of these
32 algorithms (Garrett, 2020). By employing AI ethically, they should be able to
33 defend its benefits of increased accuracy and context (Novelli, Taddeo, & Floridi,
34 2023). Auditors must remain responsible for the results generated by AI
35 technologies, using professional scepticism to ensure dependability (Ghanoum &
36 Alaba, 2020) and avoiding shifting responsibility for audit errors (Malouin, 2020).
37 Data governance principles should set rules for collecting, storing and managing
38 data collected and processed by AI, making sure that they follow data protection
39 laws such as the Cyber Crimes Act in South Africa and the Economic Crime and
40 Corporate Transparency Act 2023 in the United Kingdom (UK). Despite its ethical
41 implications, the Cybercrime Act does not explicitly prohibit AI from collecting
42 personal information.

43 One of the measures by which auditors determine the quality of their work is
44 the frequency of restating already audited amounts. The use of AI has been found
45 to significantly reduce such restatements, thereby proving the increased accuracy
46 brought about by AI (Fedyk, Hodson, Khimich & Fedyk, 2022). In the final

1 analysis, the auditor remains responsible for the results produced by AI tools by
2 exercising professional scepticism to ensure that the results are reliable (Ghanoum
3 & Alaba, 2020). Such accountability also holds for forensic accountants since the
4 results presented will be scrutinised by the court.

7 **Evidence and AI**

9 The presentation of evidence in court requires the court to be informed of the
10 exact procedures followed and the steps taken to obtain and preserve the evidence
11 (chain of custody). The respondent (defendant) in a court case is entitled to an
12 explanation of how AI was applied to arrive at the evidence presented. Such
13 explanations should be sufficient to stand up or be subject to public scrutiny
14 (Collenette, Atkinson, & Bench-Capon, 2023). This explanation, documenting the
15 use of AI systems, can help facilitate accountability by creating a clear audit trail.
16 The use of AI evidence to be presented in court requires documentation to exist in
17 a complete audit trail and a sufficiently maintained chain of custody.

18 Chain of custody should be proven from the point where permission, in the
19 form of a court order, has been obtained up to the point where evidence has been
20 submitted as evidence. The forensic accountant must explain every step taken to
21 process the data, up to the conclusion drawn, to the court, and may be challenged
22 by the counsel for the respondents (defence). This explanation will include which
23 AI applications were applied and why the forensic accountant decided to apply
24 them. Furthermore, the court needs to be informed of the results AI obtained from
25 analysing the data and what evidence emerged from those results to prove or
26 disprove any allegations investigated.

27 The explanations regarding the chain of custody and transparency in AI usage
28 should be incorporated in the code of ethics. Importantly, the requirement for data
29 governance aligns with the chain-of-custody specifications discussed in the
30 preceding paragraph. Such governance principles should establish guidelines for
31 data acquisition, storage, and management, guaranteeing compliance with data
32 protection laws, including the ECTA and the Cyber Crimes Act. It is crucial to
33 consider concerns about data privacy and the application of sensitive data,
34 considering the provisions of the POPI Act.

35 The code of ethics must be supported by training and competency objectives,
36 which promote ongoing professional development to ensure that accountants
37 possess the necessary skills and knowledge to work effectively with AI
38 technologies. It is essential to encourage them to learn about AI and the role of
39 ethics in its responsible use, as well as to mitigate emotional bias among ethics and
40 irresponsible AI practices through employer training initiatives. Coping with
41 emotional bias in an ever-changing world of technology is crucial and should be
42 supported through the code of ethics. To ensure collaboration with AI, accountants
43 should be encouraged to accept AI as a tool to enhance, rather than replace, their
44 responsibilities.

45 Monitoring and evaluation are critical components, so it is imperative to
46 establish procedures to regularly assess the performance and impact of AI

1 technologies on accounting processes. Regularly evaluate the precision, reliability,
 2 and fairness of all technologies implemented. Forensic accountants will need to
 3 ensure that the AI software used has been fully reviewed and originates from a
 4 reliable source. Software designed specifically for forensic accountants should be
 5 provided with comprehensive explanations that may be provided in court. If an AI
 6 produces incorrect findings, the service provider could be exposed to negligence
 7 cases (Bambauer, 2023). However, the professional codes of SAICA and similar
 8 professions will continue to require their members to accept final responsibility for
 9 the accuracy of their work and will not hold service providers vicariously or
 10 strictly liable, though a degree of blame will be shared between the professional
 11 and the AI service provider (Bambauer, 2023).

12
 13

14 **Code of Conduct and Ethics Standards for Professionals**

15

16 Professional accountants and officials must maintain high ethical standards
 17 when using *artificial intelligence* during forensic investigations. They must also
 18 disclose any conflicts of interest that may arise, as stipulated by the National
 19 Treasury Regulations published in GN R225 of the Government Gazette 27388 on
 20 March 15, 2005 (reg 16A.8.). A code of ethics must be read in the context of the
 21 general legislative framework and other mandatory and regulatory prescripts. For
 22 example, the National Treasury Code of Conduct for Supply Chain Management
 23 Practitioners (National Treasury, 2003) requires high ethical standards of conduct
 24 by all officials and persons doing business with the government. As the credibility
 25 of supply chain management practices has been questioned by various sources in
 26 newspapers and television, the importance of ethical behaviour cannot be
 27 overstated.

28

29 *Development of the Code of Ethics*

30

31 The first part of the code should consist of an explanation of normative,
 32 informative, and advisory sources, including definitions. The second part presents
 33 the policy, its scope, ethical behaviour, and conduct in the workplace, and its
 34 application in business practices. The third and final section of the code could
 35 include the rights and obligations of employers and professional accountants, their
 36 relationships with stakeholders, the handling of conflicts of interest, relationships
 37 with third parties, and ethical decision-making. As past trends suggest a promising
 38 future trajectory (Papanikos, 2024), it would be deemed prudent to review the
 39 code regularly.

40

41 *Normative, informative, and advisory resources*

42

43 Every code of ethics should include normative and informative sources.
 44 Advisory sources provide additional guidance on best practices and are only
 45 persuasive in nature. This is necessary to provide a ‘living’ framework document
 46 to adopt the key principles and values that underlie the code. For example, the UK

1 government adopted an outcome-based framework to regulate AI based on key
2 principles and values, including safety, security, transparency and explainability,
3 fairness, accountability, governance, contestability, and redress (Deloitte, 2023).

4 First, a code of ethics should be guided by the regulatory landscape within
5 which it operates (normative resources). From a South African perspective, a key
6 normative resource includes the Constitution of South Africa, 1996. It supports
7 human values, including the right to privacy (Section 9), the right to the security of
8 people (Section 12), and the right not to be automatically assumed guilty (Section
9 35). Normative resources include the Prevention and Combating of Corrupt
10 Activities Act 12 of 2004, Protected Disclosures Act 26 of 2000, Public Finance
11 Management Act 1 of 1999 (as amended), and, as previously mentioned, the POPI
12 Act, the Cyber Crimes Act 19 of 2020, and the ECTA.

13 Second, the use of informative resources could include current or existing
14 organisational policies and procedures. Third, advisory references can be obtained
15 from experts in the fields of ethics and AI, such as forensic auditors or IT
16 specialists. These advisors can train AI software to perform compliance checks on
17 a client's system to determine whether a prescribed standard has been applied
18 correctly (Ng & Alarcon 2020). Other references could include academic or
19 scientific papers or written material that provides background information or
20 introduces alternative views on AI that are both ethical (Vyas, 2022) and
21 technically sound (Danish, 2023).

22 A discussion of the significance of definitions is an essential next step in the
23 draughting of ethics. Examples of definitions can be found in various statutes and
24 regulations. Definitions should generally be included in the first paragraphs of a
25 code. Definitions serve as statements that provide the meaning of a word or phrase
26 and provide guidance to the policy user regarding its factual meaning, regardless
27 of how it may be interpreted in a particular context. Since different values may be
28 assigned to a word or phrase, providing a clear and accurate definition clarifies and
29 explains the actual purpose and intent of the word or phrase to the user. For
30 example, AI can have dual use (think of its military/peace and risk detection/risk
31 prevention abilities). Definitions are necessary to eliminate ambiguity and
32 confusion, unless the word or phrase has a dual meaning. To ensure that a policy is
33 comprehensive and widely accepted, it is crucial to consult with relevant
34 stakeholders when defining words or phrases. It is advisable to provide
35 stakeholders with multiple interpretations, such as those found in dictionaries or
36 online sources.

37 Any code should provide for the enhancement of gender sensitivity. By not
38 only using non-discriminatory wording with reference to gender, other sensitive
39 issues such as race, religion, privacy, age, disability, and equity criteria should be
40 considered in the design. AI can inherit human flaws in the design phase, and
41 therefore the sensitive issues mentioned above should be carefully considered
42 when big data is analysed.

43 The second part of the code refers to the introduction, scope, and ethical
44 principles that should be incorporated. This section includes information resources
45 such as other organisational policies. In accordance with the scope of the code, all
46 stakeholders should be recognised. Ethics should describe ways to behave in

1 specific business situations based on the concepts of right and wrong. Ethical
2 behaviour involves the ability to discern what is morally right and to commit to
3 taking the appropriate course of action.

4 To ensure continuous improvement of the code, it is necessary to encourage
5 feedback and active participation from professionals, such as forensic accountants,
6 to improve the details and ensure it remains up-to-date with evolving technology
7 and industry standards. Improvements are required to keep AI ethics useful by
8 guarding against meaningless principles, isolated principles, and toothless
9 principles. More productively, AI justice should be practised by engaging with
10 groups that may suffer from the use of AI, such as LGBT-QIA + communities and
11 migrants. AI justice should also aim to decolonise AI by refraining from using
12 discriminatory terminology.

13 14 15 **Conclusions**

16
17 This article aimed to establish, from a practical perspective, the ethical
18 considerations for an ethical policy or ethics code for use by professional
19 accountants when using AI. From the philosophical debates presented in this
20 paper, a holistic approach is necessary to achieve a meaningful code of ethics by
21 which professional accountants can do their work. For the sake of human values,
22 AI must create an accountable, accurate, equitable, relevant, and safe environment.
23 Integrating AI into forensic accounting practices is not only necessary, but is also
24 now required for the sake of a changing world. AI must be trained to recognise
25 potential biases and account for them when making decisions. Additionally, AI
26 algorithms must be tested and monitored for accuracy, fairness, and accountability
27 to ensure accuracy. Finally, AI systems should be regularly reviewed and updated
28 to ensure their continued ethical use, as the past is an indicator of the future.

29 Gathering evidence using AI technology requires that the evidence chain be
30 performed by professional accountants. To validate the evidence, a complete audit
31 trail is required when presenting it to the court, as well as an explanation of every
32 step taken. Organisations and employees must be guided by normative,
33 informative, and advisory resources when pursuing ethical considerations when
34 using AI. This means that when conducting investigations to gather accounting
35 evidence using AI, it is crucial to keep an eye on the legislative requirements such
36 as laws and regulations, as well as the guiding policies of the organisation. In a
37 follow-up article, practical examples of ethical policies will be examined and
38 evaluated to develop a code of ethics.

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