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Review Article

Uniqueness of Fingerprints: The Religious and Scientific Perspectives

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Abstract: Fingerprint is the papillary ridges on the ends of the fingers and thumbs, which is also known as an impression of the friction ridges on a person's finger, has long fascinated scientists, theologians, and philosophers alike as an insignia or hallmark of individuality and identity. Modern science confirms that fingerprints are unique and unchangeable. It is immutable as it serves as a reliable biometric identifier. This explains the idea that each human being is distinctively marked, which also resonates with the theological and philosophical traditions of major world religions. This article explores the religious, ethical, and sociological interpretations of fingerprint uniqueness, analyzing perspectives from Islam, Christianity, Judaism, Hinduism, Buddhism, and other traditions. By situating fingerprints within broader frameworks of divine creation, moral accountability, and personal identity, the study shows how religious traditions crossways with scientific discovery. Particular attention is, however, given to the Nigerian context, where interfaith engagement and the adoption of biometric technologies reveal both opportunities and tractions. It is against this backdrop that this article argues that the study of fingerprints provides a veritable common ground for interfaith dialogue, technological ethics, and reflections on human dignity in an age of surveillance and artificial intelligence.

Keywords: Fingerprint, Uniqueness, God, Religions, Science, Christianity, Islam, Bible, Qur'an

Introduction

The uniqueness of fingerprints as established in forensic science, has increasingly become a subject of broader discourse. This has become a similitude for individuality, personal dignity, and divine craftsmanship. It goes beyond the realms of criminal investigation and biometric identification. As biometric technology spreads globally - in

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voting systems, banking, immigration, and religious institutions - the interpretation of fingerprints acquires theological and philosophical relevance.

Historically, religions have asserted the individuality of each human being linking physical distinctiveness to divine intentionality. The Qur'an, for instance, declares the after death restoration of fingertips during resurrection. This is an indication of their symbolic significance in demonstrating the power of God (Allah) to regenerate the microcosmic or minutest of human identity. Christianity upholds the notion that God knows every detail of creation, with fingerprints serving as a visible sign of this intimate knowledge. Similarly, Jewish theology considers the uniqueness of human beings as *tzelem Elohim* (the image of God). In Hinduism and Buddhism, while the doctrine of *atman* (real Self) of the individual ephemerality or transitory directs attention to spiritual identity rather than physical traits, bodily uniqueness indicates karmic polarity and distinction.

This article intends to contribute to the academic discussion of religion and science by analysing the symbolic and theological interpretations of fingerprints across religious beliefs. It attempts to investigate how the scientific assertion of fingerprint uniqueness corroborates with the theological affirmation of individuality. It further engages ethical and sociological implications of fingerprint technology, especially in Nigeria, where biometric systems are braided and connected with issues bothering of governance, interfaith relations, and human rights.

The research adopts a comparative, interdisciplinary approach, linking insights from theology, sociology, and forensic science; arguing that the study of fingerprints serves as a bridge between empirical study and religious knowledge, enriching interfaith understanding and offering critical perspectives on the moral use of biometric technologies.

Historical and Scientific Literature on Fingerprints

Pre-historic picture writing of a hand with ridge patterns was discovered in Nova Scotia in eastern Canada. It is believed to be associated with the Mi'Kmaq people in the 1st Century A.D. In ancient China, thumb prints were, according to Theology archeology chronicles, found on clay seals. Around 1900 BC fingerprints were used in Babylon In the quest to protect against forgery and falsification in the Babylon around 1900, parties to a legal contract were compelled to impress their fingerprints into the clay tablet on which the contract had been written (fingerprints.handresearch). =

Ed German of the US Department of Defense in his research article on the History of Fingerprint, wrote that, in the 14th century Persia, various official government papers had fingerprints impressions.

Malpighi, a Professor of anatomy at the University of Bologna in 1686 noted in his treaties; ridges, spirals and loops in fingerprints. He made no mention of their value as a tool for individual identification. A layer of skin was even named after him; "Malpighi" layer, which is approximately 1.8mm thick.

In 1823, Purkinji, another Professor of anatomy at the University of Breslau, published his thesis discussing 9 fingerprint patterns, but he too made no mention of the value of fingerprints for personal identification.

The English first began using fingerprints in July of 1858, when Sir William Herschel, Chief Magistrate of the Hooghly district in Jungipoor, India, first used fingerprints on native contracts. On a whim, and with no thought toward personal identification, Herschel had Rajyadhar Konai, a local businessman, impress his hand print on the back of a contract (correctionhistory.org).= The idea was just to frighten the person concerned against future denial.

Following this development, Herschel introduced palm prints while later, he would ask for the prints of the right Index and Middle fingers on every contract made with the locals. It was their belief that personal contact with the document made the contract more binding than simply signing it. Thus, the first wide-scale, modern-day use of fingerprints was predicated, not upon scientific evidence, but superstitious beliefs.

Meanwhile, as his collection of fingerprint grew, Herschel observed that the inked impressions could further prove or disprove identity. Although, his experience with fingerprinting was obviously limited, he had a personal conviction that all fingerprints were unique and permanent to the individual throughout the person’s life hence he was spurred to expand their use.

In the 1870's, Faulds, the British Surgeon-Superintendent of Tsukiji Hospital in Tokyo, Japan, took up the study of "skin-furrows" after noticing finger marks on specimens of "prehistoric" pottery. Learned and industrious, Faulds not only recognized the importance of fingerprints as a means of identification, but devised a method of classification as well.[1] In 1880, Faulds forwarded an explanation of his classification system and a sample of the forms he had designed for recording inked impressions to Sir

[1] Dr. Henry Faulds – 1880.

Charles Darwin who, owing to his advanced age and ill health, told him that he could be of no assistance. Darwin however promised to pass the materials on to his cousin, Francis Galton.

Faulds, in an article, Scientific Journal, *"Nautre"* (nature) published in 1880, discussed fingerprints as a means of personal identification, and the use of printers ink as a method for obtaining such fingerprints thus earning the credit for the first fingerprint identification of a greasy fingerprint left on an alcohol bottle.

In another development, Gilbert Thompson of the U.S. Geological Survey in New Mexico, used his own fingerprints in 1882 on a document to prevent forgery. That became the first known use of fingerprints in the United States.[2]

The following year (1883), Mark Twain in his book, "Life on the Mississippi", a murderer was identified by the use of fingerprint identification. Later, he published another book titled, "Pudd'n Head Wilson", in which there was a dramatic court trial on fingerprint identification.[3]

Galton, British anthropologist and a cousin of Charles Darwin, began his observations of fingerprints as a means of identification in the 1880's while in 1892, he published a book, "Fingerprints" that established the individuality and permanence of fingerprints. That book contained the first classification system for fingerprints. Galton's primary interest in fingerprints was as an aid in determining heredity and racial background (UNISA).=

Following his discovery that fingerprints offered no firm clues to an individual's intelligence or genetic history, he was able to scientifically prove what Herschel and Faulds already suspected: that fingerprints do not change in an individual's lifetime, adding that no two fingerprints are exactly the same. According to his calculations, the odds of two individual fingerprints being the same were 1 in 64 billion. He identified the characteristics by which fingerprints could be identified. Since then, these characteristics (minutia) otherwise referred to as Galton’s Details are basically in use till date.

In 1891, Juan Vucetich, an Argentine Police Official, began the first fingerprint files based on Galton pattern types. At first, Vucetich included the Bertillon system with the files. In 1892, the first criminal fingerprint identification was made by Vuncetich. He was

[2] Gilbert Thompson – 1882.
[3] Mark Twain (Samuel L. Clemens) – 1883.

able to identify a woman, Rojas, who had murdered her two sons, after which cut her own throat in an attempt to place blame on another person. Rojas bloody print was left on a door post, proving her identity as the murderer (UNISA).

Introduction of fingerprints for criminal identification in England and Wales, using Galton's observations and revised by Sir Edward Richard Henry was in 1901, thus marking the beginning of the Henry Classification System, used even today in all English speaking countries. However, 1902 recorded the first systematic use of fingerprints by the New York Civil Service Commission for testing in the United States. Dr. Henry P. DeForrest was credited to have pioneered U.S. fingerprinting. The New York State Prison system began, in 1903, the first systematic use of fingerprints in U.S. for criminals while in 1904, the use of fingerprints began in Leavenworth State Penitentiary in Kansas, and the St. Louis Police Department.

1905 saw the use of fingerprints for the U.S. Army. Two years later the U.S. Navy started, and was joined the next year by the Marine Corp. During the next 25 years more law enforcement agencies keyed into the use of fingerprints as a means of personal identification as they also send copies of their fingerprint cards to the National Bureau of Criminal Identification, an agency established by the International Association of Police Chiefs.

It was in 1918 when Edmond Locard wrote that if 12 points (Galton's Details) were the same between two fingerprints, it would suffice as a positive identification. Some countries have set their own standards which do include a minimum number of points, but not in the United States.

In 1924, an act of congress established the Identification Division of the F.B.I... The National Bureau and Leavenworth consolidated to form the nucleus of the F.B.I. fingerprint files which in 1946, the F.B.I. had reportedly processed 100 million fingerprint cards in manually maintained files; and by 1971, 200 million cards. Records showed that Malpighi’s work provided the first scientific basis for the study of fingerprints, establishing that these unique patterns were a characteristic of human skin. He also recognized that the ridges on fingers served to enhance grip and traction.[4]

Why Fingerprint Identification?

Fingerprints offer an error-free means of personal identification, providing fundamental explanation that surpassed other methods of establishing the identities of

[4] Greg Moore's excellent fingerprint history.

criminals who refused to admit previous arrests. Other personal characteristics change nay fingerprints.

In earlier civilizations, branding and even maiming were used to mark the criminal for what he was. The thief's hand which he used to commit the theft was cut off. The Romans employed the tattoo needle to identify and prevent desertion of mercenary soldiers (UNISA).

More recently, law enforcement officers with extraordinary visual memories, so-called "camera eyes," identified old offenders by sight. Photography lessened the burden on memory but was not the answer to the criminal identification problem as personal appearances could change. It was around 1870 when a French anthropologist devised a system to measure and record the dimensions of certain bony parts of the body. These measurements were reduced to a formula which would theoretically apply only to one person and would not change during that individual adult life.

This Bertillon system, named after its inventor, Alphonse Bertillon, was generally accepted for thirty years (UNISA). But it never recovered from the events of 1903, when a man named Will West was sentenced to the U.S. Penitentiary at Leavenworth, Kansas. There was already a prisoner at the penitentiary at the time, whose Bertillon measurements were nearly exact, and his name was William West.

But upon investigation, there were indeed two men who, though, looked exactly alike, they were allegedly not related. One of them was Will West while the other was William West. Their Bertillon measurements were close enough to identify them as the same person.

However, a fingerprint comparison quickly and correctly identified them as two different people. The West men were apparently identical twin brothers as prison records eventually showed correspondence from the same immediate family relatives.[5]

Recent research also highlights the embryological development of fingerprints. By the 17th week of gestation, the epidermal ridges are fully formed, shaped by both genetic and environmental factors in the womb.[6] This combination ensures that even identical twins—who share DNA—do not share identical fingerprints. The uniqueness of fingerprints is therefore both biologically and environmentally determined.

[5] Ibid.
[6] 2 Ashbaugh, Quantitative-Qualitative Friction Ridge Analysis

Biometric science has led to fingerprint uniqueness to design secure systems of identity verification. But this raises ethical concerns; particularly regarding privacy, surveillance, and data misuse.[7] The religious and moral dimensions of such technologies demand closer scrutiny, as they touch upon questions of human dignity, autonomy, and divine purpose.

Islamic Perspectives

In Islam, the Qur'an verse most frequently cited in discussions about fingerprints is found in Surat al-Qiyamah: "Does man think that We cannot assemble his bones? Yes indeed; we are able to reconstruct his finger tip" (Q 75:3–4).[8] Classical commentators interpreted this as a reference to the divine ability to recreate the most delicate parts of the human body, thereby refuting skepticism about bodily resurrection.

Modern Muslim scholars, however, have interpreted it as a possible allusion to the uniqueness of fingerprints, seeing in it a miracle of the Qur'an anticipating scientific discovery.[9]

Beyond this specific verse, Islamic theology emphasizes the individuality of each human being as part of God's creative design: "We have certainly created man in the best of stature" (Q95:4).12 The uniqueness of fingerprints is thus seen as a sign (*ayah*) of divine craftsmanship, symbolizing God's intimate knowledge of His creation.

Contemporary Muslim bioethics has also engaged with the implications of biometric technologies, raising questions about privacy, surveillance, and the protection of individual rights within an Islamic framework.[10] The Qur'an explicitly mentions that God can not only reconstruct bones but can also perfectly reconstruct the tips of the fingers.

Symbol of Divine Precision:

Scholars interpret this verse as highlighting the unique and intricate patterns of fingerprints, a divine sign of individuality and precision in creation.

Proof of Resurrection:

Fingerprints serve as a powerful reminder of God's ability to bring everything back in perfect order, confirming the concept of resurrection.

[7] 3 Zuboff, The Age of Surveillance Capitalism
[8] The Qurʾān, 75:3–4

[9] El-Naggar, Scientific Signs in the Qur'an
[10] Ghaly, Islamic Ethics…

Application in Islamic Law and Society

The application of fingerprint under the Islamic Law could be analysed under three main categories. These are:

Identification in Criminal Investigations:

The uniqueness of fingerprints is well-established, and this characteristic has been seen as aligning with the Qur'an emphasis on identifying individuals.

Historical Recognition:

An ancient story of Anas bin Malik describes how his sister identified him after a battle by his distinct finger patterns, a narrative used to highlight the importance of fingerprints long before they were scientifically discovered.

Forensic Use:

Modern science has validated the Qur'an reference by confirming the uniqueness of fingerprints, which are now essential for identification in the justice system worldwide.[11]

The reality today is that fingerprint identification plays a determining role in forensic science in its endeavours to solve crimes through matching to suspects, prints found at crime scenes. Likewise, in security systems such as biometric locks and devices, it is used to verify user identity ditto smartphones and personal gadgets for secure access.

The development of science of individuality has assumed a remarkable height as identity can now be authenticated through fingerprints, facial recognition and biometric scans. Thus, fingerprints stand out as strong and most reliable unique identifiers of the human being.

Remarkably, this modern scientific fact was hinted at over 1,446 years ago in the Holy Qur'an; a revelation made long before fingerprint science had emerged. Unique and undisputably permanent, these prints have come to be the most trusted means of identification. According to the U.S. Department of Justice, fingerprint identification has no known case of duplication among billions of records worldwide (The Fingerprint Sourcebook).[12] (The Fingerprint Sourcebook, www.ojp.gov)

The Qur'an revelation: A divine detail

The Qur'an has clearly addressed human creation and resurrection as one of the most compelling verses referring to fingerprints is found in Surah al-Qiyamah:

بَلَىٰ قَٰدِرِينَ عَلَىٰٓ أَن نُّسَوِّيَ بَنَانَهُۥ

[11] Abubakar, Jamia Ahmadiyya…
[12] The Fingerprint Sourcebook …

"Yea, We have the power to restore his very finger-tips." (Q 75:4).16

This verse describes man's re-creation after death, revealing an insight into human individuality and identity. The puzzle therefore, is why would the Qur'an specifically mention fingertips and not just say body or bone? The answer becomes more clear, given our eventual comprehension of the uniqueness of fingerprints.

Historical context: A knowledge ahead of its time

It should be born in mind that when this verse was revealed in Arabia, there was no scientific understanding of fingerprints let alone, their application in identifying individuals. It was, in the late 19th century when Sir Francis Galton pioneered the first scientific study of fingerprints as a means of identification (The Fingerprints Sourcebook).

To this end, the Qur'an mention of the reconstruction of fingertips, a body part now known to hold the secret of human identity is, beyond scientific relevance, spiritually compelling.

Theological and scientific harmony

Far from being a coincidence, fingerprints as mentioned in the Qur'an calls for reflection over the divine message in regards to the purpose of man's creation. In Surah Aal-e-'Imran, the Qur'an states:

هُوَ ٱلَّذِي يُصَوِّرُكُمْ فِي ٱلْأَرْحَامِ كَيْفَ يَشَآءُ ۚ لَآ إِلَٰهَ إِلَّا هُوَ ٱلْعَزِيزُ ٱلْحَكِيمُ

He it is Who fashions you in the wombs as He wills; there is no God but He, the Mighty, the Wise.[13]

This verse clearly tells us that the creation of humans is anchored on intentionality, individuality, and unimaginable intricate design. The fingerprint is, apart from a physical imprint, is a spiritual sign of uniqueness rooted to divine origin and subsequent accountability. And beyond being a forensic tool, it is a divine signature engraved into the human body as constant reminder to us about our individuality, origin, and destiny. The Qur'an mentions and calls attention to this unique marker long before it was recognised by science. The fingertip is ultimately a symbol of divine precision, a proof of resurrection, and a reminder of the Creator's intimate knowledge of His creation (Al Hakam.org).==

Given that the Qur'an mentioned fingertip' and not 'fingerprint', it is necessary to clarify the meanings of the two words and their interrelationship. A fingertip is the end part of a finger, a physical anatomical structure containing skin, ridges, and pores, while a fingerprint is the impression or pattern of those ridges left on a surface, serving as a unique

[13] The Qur'an, Surah 3:7

identifier and being formed by sweat, oils, and grease from the fingertip. In essence, the fingertip is the source, and the fingerprint is the product or mark. Thus, fingerprint which is the subject of this study is sourced from fingertip.

Christianity Perspectives

The Christian theology has long affirmed the uniqueness of each person as part of being created in the *imago Dei* (Genesis 1:27).[14] This doctrine underscores the Christian understanding of human dignity, individuality, and accountability before God.

Although the Bible does not clearly mention fingertip or fingerprints, the broader theme of God's detailed knowledge of creation ruminates with their uniqueness. Psalm 139:13–16 states that God knit each person together in the womb, implying divine intentionality in physical formation.[15] Two Theologians, Augustine and Aquinas reflected deeply on individuality, linking it with divine omniscience and providence. Augustine's reflections on God's intimate knowledge of creation echo the metaphorical significance of fingerprints as divine signatures upon human bodies. However, in contemporary Christian ethics, discussions of biometric technology often emphasize stewardship, human dignity, and justice.[16]

Jewish Perspectives

Judaism places strong emphasis on the uniqueness of each person as part of being created *b'tzelem Elohim*—in the image of God. The Mishnah compares human creation to the minting of coins: when a human king mints coins, they all emerge identical, but when God creates human beings, they all emerge unique.[17] This rabbinic teaching parallels the scientific discovery of fingerprint uniqueness. Jewish legal thought (*halakhah*) has also grappled with questions of individuality in the context of identity verification. While fingerprints are not mentioned in classical texts, modern rabbinic authorities have discussed their admissibility as evidence in Jewish courts.[18] Fingerprints thus become a nexus between ancient theological affirmations of uniqueness and modern legal-ethical practices.

Hindu and Buddhist Perspectives

In Hinduism, the doctrine of *atman* emphasizes the eternal self that transcends physical form while bodily marks are often interpreted as manifestations of karmic

[14] The Bible, Genesis 1:27

[15] The Bible, Psalm 139:13–16

[16] Biggar, Behaving in Public…

[17] Mishnah Sanhedrin 4:5.

[18] Bleich, Contemporary Halakhic Problems

individuality. Palmistry and other forms of divination, though not universally accepted, have long associated fingerprints and palm lines with fate and character.[19] Accordingly, Hindu thought affirms the uniqueness of physical features such as fingerprints affirms the diversity of manifestations within the unity of Brahman.

Buddhism in its doctrine, emphasis on impermanence (*anicca*) and non-self (*anatta*), viewing physical traits less as eternal markers and more as transient conditions shaped by karma. Nevertheless, the uniqueness of fingerprints can be interpreted as part of the karmic continuum. It differentiates sentient beings while reminding them of the impermanent nature of the physical body. Buddhist ethics also contribute to debates on biometric technology, particularly in terms of compassion, non-harming, and equitable use.[20]

Other Traditions and Secular Philosophy

Indigenous traditions across Africa, including Nigeria, often associate bodily marks with identity and spiritual significance. Scarification, for example, functions both as identity verification and as a spiritual-cultural marker. In this light, fingerprints can be understood as God-given identifiers, aligning with traditional African philosophies of personhood.[21] Secular philosophy has also engaged with the metaphor of fingerprints. For existentialists, fingerprints symbolize individuality and authenticity; for phenomenologists, they represent the embodiment of personal identity. Modern bioethical philosophy examines the implications of fingerprints in surveillance societies, questioning the balance between security and freedom.[22]

Here's a **multi-religion comparison chart** on **human uniqueness** (with notes where fingerprints or fingertips connect):

Human Uniqueness across Religions

Religion	**Key Teaching**	**Link to Fingerprint Uniqueness**
Judaism	*Midrash Sanhedrin 4:5*: God made all humans in the image of Adam, yet no two are alike.	Strongly affirms individuality—directly resonates

[19] Agrawal, Indian Palmistry
[20] Keown, Buddhist Ethics
[21] Mbiti, African Religions and Philosophy
[22] Agamben, Homo Sacer: Sovereign Power and Bare Life

Religion	Key Teaching	Link to Fingerprint Uniqueness
		with science showing no two fingerprints are the same.
Christianity	*Genesis 1:27*: Humans are created in God's image. *Psalm 139:14*: "I am fearfully and wonderfully made."	Highlights uniqueness in God's creation. Fingerprints illustrate this individuality.
Islam (Qur'an)	*Surah al-Qiyāmah 75:3–4*: God can recreate even the **fingertips**.	Explicit mention of fingertips—interpreted today as a sign of individuality, confirmed by fingerprint science.
Hinduism	Concept of **Ātman** (unique soul) and **svadharma** (personal duty). Palmistry traditions studied unique hand lines.	Suggests every being has a unique essence/destiny. Physical uniqueness in fingerprints reflects spiritual individuality.
Buddhism	Doctrine of **anattā** (no permanent self), yet each being has a unique **karmic stream** shaped by causes and conditions.	No two karmic lives are identical—parallel to no two fingerprints being alike.
Sikhism	Guru Granth Sahib: Each person is a unique creation of God (Waheguru).	Affirms uniqueness of every person; science confirms this physically in fingerprints.
Indigenous/Traditional Religions	Yoruba: **Ori** (spiritual head/destiny) makes each person unique. Native traditions: every spirit has a distinct role.	Fingerprints mirror the belief that every person has a distinct, unrepeatable essence.

Summary:

- **Islam** is unique in mentioning **fingertips directly**.
- **Judaism, Christianity, Hinduism, Sikhism, Buddhism, and Indigenous faiths** affirm **human uniqueness in spirit, destiny, or identity**.
- **Science** shows this uniqueness is physically encoded in fingerprints, even among identical twins.

Gaps in Existing Literature

Scientific literature affirms the uniqueness of fingerprints while theological literature affirms the uniqueness of human beings; few works systematically bridge the two. Moreover, the Nigerian and African context remains underexplored, despite its rich interfaith dynamics and increasing reliance on biometric technology.

This article seeks to fill that gap by providing an integrated, comparative, and contextually grounded analysis. It is against this backdrop that the sociological, ethical and philosophical dimensions of fingerprints should be examined.

Sociological Dimensions of Fingerprints

Fingerprints are not merely biological facts; they carry profound sociological implications. As identifiers, they mediate the relationship between individuals and institutions. The expansion of fingerprinting into civic registration, electoral systems, and immigration controls illustrates how personal uniqueness is harnessed for collective governance.

Émile Durkheim's theory of social facts helps situate fingerprints within the broader framework of collective life. Fingerprints, though individual in nature, are socially regulated and institutionalized through legal and bureaucratic structures. Max Weber's notion of rational-legal authority further underscores how fingerprints symbolize the bureaucratization of identity in modern states.[23]

The sociological importance of fingerprints extends to religion. Within faith communities, the recognition of individuality is not only theological but also sociological: individuals are distinct members of a collective body. The Apostle Paul's metaphor of the Church as a body with many members (1 Corinthians 12)[24] parallels the notion that each fingerprint, though unique, contributes to the whole. Similarly, Islamic teachings emphasize

[23] Weber, Economy and Society
[24] The Bible, 1 Corinthians 12

individuality within *ummah*, underscoring both personal accountability and communal solidarity.

Under the situations where identity verification is tied to access to services, fingerprint becomes instruments of inclusion or exclusion. This is evident in Nigeria, where biometric registration determines access to banking, voting, and social services. When properly managed, fingerprints affirm citizenship and participation; when mismanaged, they deepen marginalization and mistrust.

Ethical and Philosophical Dimensions

The ethical debates surrounding fingerprints revolve around issues of privacy, autonomy, and dignity. Michel Foucault's theory of surveillance and bio-politics provides a critical lens for understanding how fingerprints, once markers of individuality, become instruments of state control.[25] The fingerprint thus occupies a paradoxical space: it is both a sign of divine uniqueness and a potential tool of dehumanization when reduced to a data point in vast surveillance systems.

Religious traditions contribute rich ethical frameworks for addressing these dilemmas. Islamic jurisprudence emphasizes the protection of *ḥuquq al-'ibad* (rights of individuals), cautioning against technologies that violate privacy.[26]

Christian ethics, rooted in the imago Dei, insists that individuals must not be reduced to numbers in bureaucratic systems. Jewish ethics, particularly in light of historical experiences of surveillance and persecution, emphasizes the sanctity of personal identity and the dangers of state overreach.[27]

Philosophically, fingerprints invite reflection on the tension between individuality and universality. Existentialist thinkers such as Søren Kierkegaard and Jean-Paul Sartre stressed individuality as the locus of authenticity and responsibility.[28]

The fingerprint, in its singularity, embodies this existential authenticity. Conversely, Kantian ethics underscores the universality of moral law, suggesting that while fingerprints differentiate individuals, they also anchor shared human dignity.

The debate extends into bioethics. Should religious organizations adopt biometric technologies for managing welfare, attendance, or security? Some argue that it enhances accountability, while others fear it commodifies the sacred relationship between the

[25] Foucault, Discipline and Punish
[26] Al-Qaradawi, The Lawful and the Prohibited in Islam
[27] Sacks, To Heal a Fractured World
[28] Kierkegaard, The Sickness Unto Death

individual and the community. The challenge lies in balancing technological efficiency with the preservation of human dignity.

Case Studies: Fingerprints in Nigerian Context

Biometric Voter Registration

Nigeria provides a compelling case study of the intersection of fingerprints, religion, and society. Biometric voter registration, introduced to reduce electoral fraud, relies heavily on fingerprint authentication. While the technology enhances transparency, it has also exposed systemic challenges, including machine failures, voter disenfranchisement, and accusations of manipulation.[29]

Religious leaders, both Muslim and Christian, have weighed in on the ethical implications, emphasizing that while technology can promote justice, it must not be used to undermine the will of the people.

Bank Verification Number (BVN) System

The Central Bank of Nigeria's Bank Verification Number (BVN) system mandates fingerprint registration to access financial services. This has profound implications for religious institutions that manage large networks of members and donations.

Although the system strengthens financial accountability, critics argue that it risks excluding rural populations who lack access to registration centers.[30] The religious discourse on this issue frames fingerprints as God-given identifiers but cautions against policies that exacerbate inequality.

Religious Institutions and Biometrics

Churches and mosques in Nigeria have experimented with biometric systems for attendance and welfare distribution. Some Pentecostal churches use fingerprint scanners to monitor member participation, while Islamic organizations have applied biometrics in zakat distribution.[31] Supporters claim this ensures fairness and accountability, while critics argue it reduces spiritual communities to bureaucratic registers.

Interfaith Dimensions

Nigeria's plural religious context makes fingerprints a site of interfaith reflection. The Qur'an emphasis on fingertips as signs of divine power resonates with Christian and Jewish teachings on divine knowledge and individuality. Interfaith dialogues have drawn upon these shared values to advocate for ethical applications of biometrics. For instance,

[29] Suberu, Electoral Reforms and Democratization in Nigeria
[30] Central Bank of Nigeria, BVN Guidelines, 2014
[31] Obadare, Pentecostal Republic

the Interfaith Mediation Centre in Kaduna has referenced fingerprints as a metaphor for unity in diversity: each finger is distinct, yet together they form a hand.[32]

Global Ethical Implications

Beyond Nigeria, the global spread of biometric technology raises ethical concerns that cut across religious traditions. The use of fingerprints in refugee registration by the United Nations High Commissioner for Refugees (UNHCR) exemplifies both the potential and the risks of such systems.[33] On the one hand, fingerprints ensure aid reaches the right individuals; on the other, they create databases that could be misused by oppressive regimes.

Religious leaders worldwide have raised alarms about the creeping normalization of surveillance. Pope Francis, for example, has emphasized that technological advances must serve human dignity and not undermine freedom.[34] Muslim scholars, particularly in the Gulf and South Asia, have called for ethical guidelines on biometric data usage to align with Islamic principles of privacy and justice.

In all contexts, the fingerprint functions as a touchstone for negotiating the relationship between individuality and community, technology and ethics, science and religion.

Toward an Integrated Understanding

The interplay of science, religion, and society in the study of fingerprints demonstrates the need for an integrated perspective. Fingerprints are not merely biological markers; they are also theological symbols, sociological instruments, and ethical challenges. By examining fingerprints through multiple lenses, scholars and practitioners can better appreciate their multifaceted significance.

Religious traditions, rather than resisting scientific findings, often provide interpretive frameworks that enrich our understanding. When Islam interprets fingerprints as signs of divine power, or Judaism reflects on their uniqueness as *tzelem Elohim*, or Christianity frames them as part of God's intimate knowledge, they demonstrate the compatibility of religious belief and scientific discovery. At the same time, religious ethics remind us that technological applications of fingerprints must be governed by principles of justice, dignity, and compassion.

[32] Ashafa and Wuye, The Pastor and the Imam

[33] Geneva: UNHCR, 2015

[34] Pope Francis, Laudato Si': On Care for Our Common Home

Comparative Religious Analysis

Fingerprints, as symbols of individuality and divine craftsmanship, invite comparative reflection across religious traditions. Each religion interprets uniqueness differently, yet a recurring theme emerges: the human being is both distinct and accountable within a larger spiritual and communal framework.

Islam emphasizes divine omnipotence and the certainty of resurrection. The Qur'an reference to fingertips demonstrates God's attention to detail and His ability to reconstitute human identity fully. The fingerprint is thus a sign (*ayah*) of God's creative power and a proof of human accountability before Him.[35]

Christianity situates human uniqueness within the doctrine of the *imago Dei*. The distinctiveness symbolized by fingerprints resonates with God's intimate knowledge of creation. Christ's incarnation further affirms individuality, as divinity took on a singular human identity. Fingerprints become metaphors of God's personal relationship with each believer.[36]

Judaism presents perhaps the most striking parallel through rabbinic teachings that compare human creation to coin minting: while earthly kings produce identical coins, God creates human beings each with distinct features.[37] This teaching mirrors the scientific affirmation of fingerprint uniqueness and underscores the Jewish emphasis on individuality as sacred.

Hinduism and **Buddhism** approach the question differently. Hinduism emphasizes the eternal *atman* and interprets physical distinctiveness, including fingerprints, as expressions of karmic individuality within the cosmic order.

Buddhism, stressing impermanence and non-self, views fingerprints as transient but meaningful manifestations of karmic differentiation. Both traditions highlight the spiritual implications of physical uniqueness without making it the ultimate ground of identity.[38]

Indigenous African religions often perceive bodily marks as divine or ancestral signs. Fingerprints, in this context, align with traditions of scarification or symbolic bodily markers that define belonging and spiritual protection.[39]

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[35] El-Naggar, Scientific Signs in the Qur'an
[36] Biggar, Behaving in Public
[37] Mishnah Sanhedrin 4:5
[38] Keown, Buddhist Ethics
[39] Mbiti, African Religions and Philosophy

When placed side by side, these perspectives highlight both commonalities and divergences. Abrahamic religions stress divine intentionality and accountability, while Dharmic religions emphasize karmic differentiation and impermanence.

Indigenous traditions situate fingerprints within cultural-spiritual frameworks of identity. Together, they affirm that the uniqueness of fingerprints resonates with deep-seated human intuitions about individuality, destiny, and divine purpose.

Extended Case Studies: Fingerprints and Religion in Global Perspective

India: Biometrics and Religious Identity

India's Aadhaar system, the world's largest biometric database, requires citizens to register fingerprints, iris scans, and demographic details. While the program aims to streamline welfare distribution, it has sparked controversy regarding privacy, exclusion, and surveillance. Religious minorities have expressed concerns about disproportionate disenfranchisement, particularly Muslims and Dalits.[40] Hindu scholars have debated Aadhaar in light of karmic philosophy, questioning whether state control over identity undermines spiritual autonomy.

Israel: Jewish Law and Fingerprints

In Israel, fingerprints play a central role in both civil and religious law. Biometric passports, mandatory since 2017, sparked debate among rabbis regarding data security and halakhic permissibility.[41] Some rabbis supported biometric identification as an efficient tool for governance, while others cautioned against potential abuse, recalling Jewish historical experiences of surveillance. These debates illustrate how fingerprints intersect with collective memory and theological reflection.

United States: Church Practices and Privacy Concerns

In the U.S., some mega churches have introduced biometric systems—including fingerprint and facial recognition—for child check-in, volunteer management, and access control. Advocates argue that this enhances safety and accountability, particularly in preventing child abduction.[42] Critics, however, fears that it commercializes worship and subjects believers to unnecessary surveillance. Theologically, the debate revolves around balancing stewardship of community resources with respect for personal dignity.

[40] Ramanathan, Aadhaar: Governing with Biometrics
[41] Bleich, Contemporary Halakhic Problems
[42] Christianity Today, Biometrics in Church Administration

Middle East: Islamic Perspectives on Biometric Surveillance

Several Gulf countries have implemented biometric systems for border control, labor regulation, and policing. Islamic jurists have issued *fatwas* addressing their legitimacy. Some affirm that as long as these systems serve justice and security without violating privacy, they are permissible. Others caution that excessive surveillance contradicts Qur'an principles of dignity (*karamah*) and privacy (*satr*).[43] The debate reflects broader tensions between modernization and Islamic ethics.

Africa: Interfaith Applications of Fingerprints

Across Africa, biometric systems are increasingly used in elections, banking, and welfare. In Kenya, for instance, Christian and Muslim leaders jointly endorsed fingerprint-based registration to prevent electoral fraud but warned against disenfranchisement of marginalized communities.[44]

In South Africa; biometric systems for welfare distribution have been praised for reducing corruption but criticized for creating dependency and surveillance. Religious institutions in these contexts serve as mediators, interpreting fingerprints both theologically and socially.

Theological and Philosophical Reflections

Fingerprints, as unique identifiers, symbolize more than physical patterns. They serve as metaphors for divine-human relations, ethical responsibility, and existential authenticity.

From a **theological perspective**, fingerprints reveal God's intimate knowledge of creation. The Qur'an, Psalms, and rabbinic literature all affirm that God knows every detail of human life, including the minutiae of fingertips. This knowledge is not merely observational but relational: God's awareness affirms human worth and accountability.

From a **philosophical perspective**, fingerprints embody the tension between individuality and universality. They affirm the singularity of each person while also pointing to shared human dignity. This duality reflects broader philosophical themes: Kierkegaard's insistence on individuality, Kant's emphasis on universal moral law, and Levinas' notion of responsibility toward the Other.[45]

[43] Ghaly, Islamic Ethics and the Use of Biometric Technologies
[44] Barkan, Biometrics and African Elections
[45] Levinas, Totality and Infinity

Fingerprints also raise **bioethical questions**. Do they reduce individuals to data points in surveillance systems, or do they affirm personal uniqueness? The answer depends on the ethical frameworks governing their use.

Religious traditions insist that fingerprints must be treated not merely as technical identifiers but as signs of human dignity, entrusted to society for just and compassionate use.

Significance of Fingerprints in Islamic Context

Divine Testimony:

The Qur’an's reference to perfectly proportioning fingertips on the Day of Resurrection is seen as a clear indication of Allah's power to recreate individuals with absolute precision, despite the eventual disintegration of the body. This divine testimony is a clear sign from the almighty Creator, Allah.

Human Uniqueness:

Fingerprints are considered a unique "divine signature" etched by the Creator, a miraculous genetic code that makes each person distinct, even from the identical twins. The distinction has been made manifest.

Individuality and Accountability:

The fingerprint serves as a spiritual sign of individuality, connecting each person to their divine origin and reminding them of their accountability before God, the only source of all creations.

Connection to Modern Science

Forensic Science:

The discovery of the uniqueness of fingerprints in the late 19th century by Sir Francis Galton is seen as a remarkable parallel to the Qur’an's 1446-year-old mention of this feature.

Biometric Identification:

Fingerprints, as a unique and consistent biometric marker, are a cornerstone of modern identification and criminal investigations, echoing the Qur’an's emphasis on individual features.

Spiritual and Scientific Harmony:

Scholars find a profound spiritual and scientific harmony in the Qur’an's foresight, as the concept of the unique fingerprint was only understood scientifically centuries after the revelation.

Theological Interpretation

A Miracle of Creation:

The intricate patterns of loops, whorls, and ridges on fingertips are viewed as a divine miracle, complex and beautiful in their design and complexity.

A Symbol of Re-creation:

The ability to perfectly reconstruct fingertips is presented as evidence of Allah's power to gather and reassemble every part of a person on the Day of Judgment, emphasizing the certainty of the Resurrection.

In view of the capabilities and potentials of human beings, bestowed on them by Almighty Allah, they are named in Islamic culture as: The Best of the Creatures. In addition to the mental faculties, capacity to assimilate guidance and power to differentiate between virtues and vices, the human beings have been created in the best formation. A Qur'an verse reads:

لَقَدْ خَلَقْنَا الْإِنسَانَ فِي أَحْسَنِ تَقْوِيمٍ

We (Allah) have indeed created man in the best of moulds/formations. (Surah: 95, Verse: 4).[46]

Several verses of the Qur'an always challenge humans, particularly the believers to ponder and reflect over their creation by Allah. One of such verses reads:

سَنُرِيهِمْ آيَاتِنَا فِي الْآفَاقِ وَفِي أَنفُسِهِمْ حَتَّىٰ يَتَبَيَّنَ لَهُمْ أَنَّهُ الْحَقُّ ۗ أَوَلَمْ يَكْفِ بِرَبِّكَ أَنَّهُ عَلَىٰ كُلِّ شَيْءٍ شَهِيدٌ

We (Allah) will show them Our proofs on the horizons, and in themselves (their bodily structure and formation), until it becomes clear to them that it is the truth. Is it not sufficient that your Lord (Allah) is witness over everything? (Surah: 41, Verse: 53).[47]

By showing the exaltedness and omnipotence of the Lord in creating innumerable species and living organisms, the Holy Qur'an challenges those who do not believe in Almighty Allah as the Creator, Resurrection and the Day of Judgment, the following Qur'an verse reads: Surely, We (Allah) are able to put together in perfect order the very tips of human beings' fingers. Surah 75, Verse 4.

Imagine, 1450 years ago, we were asked to ponder and meditate on the mystery of fingertips. Unfortunately, we did not pay any heed to it. At last, through hit and trial and laborious experiments, man came to know that every one of us has unique fingerprints even those born as one of the identical twins.

[46] The Qur'an, Surah: 95:4
[47] The Qur'an, Surah 41:53

Every human being, male or female, is unique in the sense that the chances of two persons having the same fingerprints are roughly one in 64 billion.[48]

A celebrated criminologist and an award-winning author: Jennifer Chase describes the tips of the fingers and fingerprints:

"Every human being has friction ridges located on the hands and feet. These friction ridges have a specific detail on the gripping surfaces with an enhanced quantity of nerves and pores. These tiny raised peaks and valleys are located on the tips of the fingers along with sweat pores. This gripping skin has been described as similar to the tread of an automobile tire. This has a structured dermis layer with the friction layer of skin that includes the sweat pores. There are extra pores that remain moist and help the skin to remain soft and pliable, which presents better frictional characteristics of the print."[49]

It is interesting to note that it has only been about one century and a half ago since we have started to study finger prints as an independent genre and as an infallible source of criminal investigations. Jennifer Chase further traces the history of this genre:

"Fingerprints became an important identification of criminals in a criminal investigation when a book written by Sir Francis Galton from England titled "Fingerprints" was published in 1892. It has been discovered that the earliest known fingerprints were used by the Chinese in the 700s for identification purposes to establish identity of documents on clay tablets.

In 1924 by the act of congress, the Identification Division of the F.B.I. was established and consolidated fingerprint files. By 1946, the F.B.I. had processed over 100 million fingerprint cards. These cards were maintained manually and by 1971, they had doubled while in the mid-1980s, Automated Fingerprint Identification System was established (AFIS).

Fingerprints play an extremely important role in crime scene investigations. It is pertinent to state at this point that in regards to the fingertips or pores of the fingers, there are still some mysteries to be solved and answered by the scientists. Do the fingertips emit or release some enzymes that accelerate the process of decomposition of the food and sharpen the process of digestion? As reported in books of Hadith that the Holy Prophet Muhammad, peace be upon him, always handled food with his hand. What was the wisdom behind it? When we handle food with hand does our body get signal of the food and

[48] JS Uppal. Explore Forensics

[49] Jennifer Chase. Fingerprints - Important Piece of Evidence

prepares itself for the food by releasing enzymes, though in the stomach only? Release of saliva carrying enzymes, in the mouth is one of such reactions when we are about to consume food. Muslims' insistence that eating with fingers (as Muhammad, peace be upon him always did) helps digestion is certainly right; and this Sunnah (practice of the Prophet, peace be upon him) should be followed by the believers.

The Holy Prophet Muhammad, peace be upon him, had proclaimed about the Eternal Word of Allah, the Qur'an:

"The wonders of the Qur'an will never come to an end, and it will never cause boredom for its readers; therefore, read it (Al-Tirmidhi)."[50]

Had we taken up these verses centuries before; we would have been leading the world in Forensic and allied sciences. You are requested to ask your children to learn the Holy Qur'an while keeping themselves students of their cherished fields.

Implications for Interfaith Dialogue

The study of fingerprints provides fertile ground for interfaith dialogue. In Nigeria and beyond, religious leaders can use the symbolism of fingerprints to emphasize shared values: uniqueness, dignity, and accountability. By highlighting convergences across traditions, fingerprints can become metaphors for unity in diversity.

Interfaith dialogue on biometrics also has practical implications. Religious leaders can advocate for ethical guidelines on biometric technologies, ensuring they respect privacy, prevent exclusion, and promote justice. Collaborative statements on technology and human dignity could foster interreligious solidarity in addressing global challenges.

Furthermore, fingerprints remind interfaith practitioners that while religions differ in doctrine, they converge in affirming the sacredness of individuality. This convergence can serve as a foundation for cooperation in promoting human rights, resisting unjust surveillance, and protecting vulnerable communities.

Conclusion

The uniqueness of fingerprints is both a scientific fact and a religious symbol. Scientifically, fingerprints are permanent, individual, and reliable identifiers shaped by genetics and environment. Religiously, they resonate with deep theological affirmations of individuality, divine intentionality, and accountability. Historically, fingerprints have served as signatures of authenticity; sociologically, they mediate relationships between individuals and institutions; ethically, they raise questions of privacy, dignity, and justice.

[50] Al-Tirmidhi: Chapter, Fadl al-Qur'an, p. 143

In Nigeria and globally, fingerprints exemplify the intersection of science, religion, and society. They are tools of governance, symbols of interfaith reflection, and subjects of ethical debate. Religious traditions - from Islam to Christianity, Judaism to Hinduism, Buddhism to indigenous African beliefs - interpret fingerprints within frameworks of divine creation, karmic destiny, or spiritual identity. These interpretations converge on the affirmation of individuality as sacred.

The integration of fingerprints into biometric systems underscores the urgent need for ethical reflection. While fingerprints can enhance transparency and accountability, they can also become instruments of exclusion and surveillance. Religious communities play a vital role in shaping the moral discourse around these technologies, ensuring they serve justice, dignity, and compassion.

Ultimately, fingerprints remind us that every human being is distinct, irreplaceable, and known. In the whorls and ridges of fingertips, science discovers individuality, and religion discerns divine craftsmanship. Together, they invite humanity to honor the uniqueness of each person, to safeguard dignity in an age of technology, and to build interfaith solidarity rooted in the sacredness of identity.

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