



Ownership and Inheritance Rights Regarding Family Digital Assets on Artificial Intelligence Platforms: A *Qiyās* Perspective

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Abstract

The transformation driven by artificial intelligence technology has given rise to digital rights with economic value. However, Islamic jurisprudence lacks a clear classification regarding the ownership and inheritance of accounts, data, generative works, and platform access rights. The core issue lies in distinguishing between *māl* (wealth/property), *milk* (ownership), *ḥaqq* (right), *manfaʿah* (usufruct/benefit), and contractual licenses, as well as determining which digital rights may constitute part of the *tirkah* (estate). This study aims to classify the legal status of family digital assets, examine the validity of *qiyās* (legal analogy)—by identifying the *aṣl* (original case), *farʿ* (branch case), *ḥukm al-aṣl* (ruling on the original case), and *ʿillah* (legal cause)—and determine the limits of their inheritance. This normative legal research employs *uṣūl al-fiqh* (principles of Islamic jurisprudence), conceptual, and analytical approaches, drawing upon naṣṣ (scriptural texts from the Qurʾan and Hadith) regarding inheritance, literature on *qiyās*, jurisprudence concerning *māl* and *ḥuqūq* (rights), as well as *fatwās* and digital regulations. The analysis involves mapping the characteristics of each asset, comparing the *ʿillah* with concepts of usufruct, intellectual property rights, and intangible assets, and testing the applicability of the original legal ruling to the digital object. The findings indicate that accounts and access rights are not uniform as objects of inheritance, as some are personal in nature and subject to platform contracts; economically valuable personal data can be the subject of rights, subject to limitations on control and transfer; generative works are inheritable provided the deceased held economic rights; and usufruct rights and licenses are inheritable only to the extent permitted by the nature of the right and contractual terms. An *ʿillah* based solely on economic value is insufficient; recognized utility, lawful control, transferability, and the continuity of economic rights serve as determining factors. *Qiyās* is valid only to a limited extent, specifically when the *ʿillah* in the *farʿ* corresponds to that of the *aṣl*. These findings underscore the need for a digital jurisprudence that distinguishes between ownership, usage rights, and licenses regarding the deceased's estate.

Keywords: Digital Assets; Artificial Intelligence; *Qiyās*; Islamic Inheritance; Digital Jurisprudence

Abstrak

Transformasi teknologi kecerdasan buatan melahirkan hak digital bernilai ekonomi, sementara fikih belum memiliki klasifikasi yang jelas mengenai kepemilikan dan pewarisan akun, data, karya generatif, serta hak akses pada platform. Persoalan utama terletak pada perbedaan antara *māl* (harta), *milik* (kepemilikan), *ḥaqq* (hak), *manfa'ah* (manfaat), dan lisensi kontraktual serta penentuan hak digital yang dapat menjadi bagian dari *tirkah* (harta peninggalan). Penelitian ini bertujuan untuk mengklasifikasikan status hukum aset digital keluarga, menguji validitas *qiyās* (analogi hukum) melalui identifikasi *aṣl* (asal), *far'* (cabang), *ḥukm al-aṣl* (hukum dasar pada kasus asal), dan *'illah* (sebab penetapan hukum), serta menentukan batas-batas pewarisannya. Penelitian hukum normatif ini menggunakan pendekatan *uṣūl al-fiqh* (dasar-dasar hukum Islam), konseptual, dan analitis melalui studi terhadap *naṣṣ* (teks dalil Al-Qur'an dan Hadis) kewarisan, literatur *qiyās*, fikih *māl* dan *ḥuqūq* (hak-hak), serta fatwa dan regulasi digital. Analisis dilakukan dengan memetakan karakter setiap aset, membandingkan *'illah* dengan kepemilikan manfaat, hak intelektual, dan harta tidak berwujud, lalu menguji kesesuaian hukum asal dengan objek digital. Hasil penelitian menunjukkan bahwa akun dan hak akses tidak seragam sebagai objek waris karena sebagian bersifat personal serta tunduk pada kontrak platform; data personal bernilai ekonomi dapat menjadi objek hak dengan batas penguasaan dan pengalihan; karya generatif dapat diwariskan sepanjang pewaris memiliki hak ekonomi; hak manfaat dan lisensi hanya dapat diwariskan sejauh sifat hak dan ketentuan kontraktual memungkinkan. *'Illah* berupa nilai ekonomi saja tidak memadai; manfaat yang diakui, penguasaan sah, transferabilitas, dan kesinambungan hak ekonomi menjadi unsur penentu. *Qiyās* valid secara terbatas ketika *'illah* pada *far'* sepadan dengan *aṣl*. Temuan ini menegaskan perlunya fikih digital yang membedakan kepemilikan, manfaat, dan lisensi untuk *tirkah*.

Kata Kunci: Aset Digital; Kecerdasan Buatan; *Qiyās*; Pewarisan Islam; Fikih Digital

Introduction

The evolution of artificial intelligence (AI) is shaping an increasingly complex digital ownership landscape involving cloud services, generative platforms, data storage, creative output, subscription accounts, and network-based economic activities. Legal complexities arise because the term digital asset encompasses objects and rights with distinct characteristics: transferable economic balances or claims, royalty-generating digital works, service-related usufructuary rights, personal data, accounts serving as access instruments, and licenses subject to platform terms (Teng et al., 2026). These distinctions determine the status of *al-māl* (wealth/property), *milkiyyah* (ownership), and *tirkah* (estate/inheritance), as economic value does not automatically imply full ownership or transferability. Assets on AI platforms may also be subject to terms of service, limited licenses, user authentication, and post-mortem policies; consequently, a user's economic rights must be distinguished from their rights of account access (Lewis & Moorkens, 2020). Issues in Islamic law arise when an owner passes away, and heirs claim control over digital assets or benefits that were previously under the decedent's control.

Classical *fiqh* provides criteria regarding property, ownership, usufruct, and the estate (Aripin, 2025), whereas AI-platform-based assets do not appear as material objects within the historical constructs of *fiqh*. *Qiyās* (legal analogy) serves as a relevant instrument for *istinbāt* (legal derivation), provided the analogy is constructed systematically using the *aṣl* (original case/basis), *far'* (new case/branch), *ḥukm al-aṣl* (ruling on the original case), and *'illah* (legal rationale). This framework requires identifying a conventional object with comparable legal characteristics, determining the ruling on the original case, and establishing the *'illah* based on legally relevant attributes—such as economic value, recognized utility, possession, and transferability. The application of *qiyās* (analogical reasoning) must be circumscribed so that it serves to determine the legal status of objects and rights eligible for inclusion in the *tirkah* (estate), rather than to alter the *farā'id* (fixed inheritance shares) established by *naṣṣ* (scriptural texts from the Qur'an and Hadith).

The rise of the digital economy amplifies the urgency of this issue. A (2024) report by the International Data Corporation on the evolution of data ecosystems and AI services highlights the expanding use of cloud infrastructure, data processing, and digital services as integral components of contemporary economic activity. The proliferation of such services results in an accumulation of economic rights, digital content, licenses, and service benefits that remain tied to the user's identity until their death. Post-mortem issues become increasingly complex when platforms implement personal authentication, restrictions on account transfers, privacy policies, or contractual clauses that terminate specific rights upon the user's passing. Akramov et al. (2024) highlight the conflict between the interests of heirs and privacy protection mechanisms regarding the management of digital accounts after death. Similar issues may arise with cloud storage, AI-driven productivity accounts, royalty-generating works, and other digital economic assets of value to the family. The contractual nature of each service means that not all elements of an account can be treated as inheritable assets; account balances or economic claims may hold a different legal status than access credentials, personal data, software licenses, and service benefits of a personal nature (Huang & Huang, 2023). This situation transforms the issue of inheritance from a mere transfer of access into a determination of which rights were legally held by the deceased at the time of death, which rights may be included in the estate, and which rights expire due to their personal nature or contractual limitations.

Existing literature indicates that research in this field remains fragmented across various subjects and disciplines. Helmi and Maulin (2026) classify cryptocurrency as *al-māl* based on its economic value and public acceptance; while their findings help formulate indicators of value and utility, the characteristics of cryptocurrency as a readily tradable economic asset cannot be directly applied to AI accounts, personal data, or platform licenses, which entail different transferability

dynamics. Abrosimova and Vlasenko (2022) highlight the conflict between user privacy rights and the interests of heirs regarding social media accounts, thereby clarifying issues surrounding post-mortem access; however, their study operates within the framework of modern civil law and has not examined the status of *milkiyyah* and *tirkah* under *fiqh*. Al-Mahmood et al. (2025) link rights over blockchain-based works to intellectual property rights and emphasize the economic value of digital rights; yet, their focus on transactions and intellectual ownership leaves unanswered whether such economic rights automatically become part of the *tirkah* upon death.

Feriaty et al. (2025) uphold the relevance of *qiyās* for modern technology by identifying a shared '*illah*' between the *aşl* and the *far'*; while this study establishes a methodological foundation, it has not yet defined the specific *aşl*, *far'*, *ḥukm al-aşl*, and '*illah*' applicable to family digital assets, nor has it examined the limits of *qiyās* when the object possesses personal or contractual characteristics. Farooqui, Sharma, and Gupta (2022) identify a regulatory gap regarding the transfer of digital account access rights after death; their positive law approach helps clarify issues of transferability but fails to link them to the concepts of *al-māl*, *milkiyyah*, and *tirkah*, or to the *istinbāṭ* mechanisms within Islamic law. Abdel-Nabi et al. (2025) highlight the challenges Islamic jurisprudence faces in addressing digital objects that lack the material form characteristic of classical property constructs. However, they do not provide a typology of digital rights that distinguishes between full ownership, usufructuary rights, contractual rights, and personal access rights. Existing studies reveal a conceptual and methodological gap: research on digital assets tends to emphasize economic value or regulation, and studies on digital heritage focus on access and privacy, whereas studies employing *qiyās* discuss technology in general terms without constructing the specific relationship between *al-māl* (wealth/property), *milkiyyah* (ownership), *tirkah* (estate/inheritance), and transferability. This research addresses that gap by classifying the legal status of AI-based family digital assets and systematically testing the application of *qiyās*.

The analysis focuses on three questions: how AI-based family digital assets are classified as *al-māl* and objects of *milkiyyah*; how rights meeting ownership criteria can be constituted as *tirkah* and transferred to heirs; and the extent to which valid *qiyās* can be used to establish the legal status of digital assets and rights by identifying the *aşl*, *far'*, *ḥukm al-aşl*, and '*illah*'. The research aims to formulate legal criteria for classifying digital assets, analyze the relationship between digital ownership and *tirkah*, and examine the validity and limits of *qiyās* regarding AI-based assets. The study's initial argument posits economic value as one indicator—rather than the sole basis—for recognizing *al-māl*; inheritance status is determined based on the existence of legitimate ownership, recognized utility, and transferability, whereas rights that are personal in nature or constitute mere access permissions do not automatically become part of the *tirkah*. *Qiyās* is positioned as a

method for extending the application of legal categories to new objects through a verifiable *‘illah*. Consequently, the research findings can serve as an argumentative basis for heirs, *fiqh* scholars, *fatwā* bodies, legal practitioners, and digital platform operators to distinguish between inheritable assets, transferable rights, and digital access rights that terminate due to their personal nature or contractual stipulations.

Method

This study is a normative legal inquiry employing *uṣūl al-fiqh*, conceptual, and digital law approaches. It positions *qiyās* as the primary method for determining the ownership and inheritance status of family digital assets hosted on artificial intelligence platforms. Primary data sources include Qur’anic verses and hadith concerning ownership and inheritance; *uṣūl al-fiqh* literature regarding *qiyās*, *‘illah*, *al-māl*, *milk*, *ḥaqq*, and *tirkah*; classical and contemporary Islamic inheritance jurisprudence texts; *fatwās* related to digital assets; regulations governing digital data, assets, and services; and AI platform terms of service defining access and transfer rights. Secondary data comprises international journal articles, contemporary Islamic law books, and literature on digital inheritance, digital assets, and post-mortem digital rights. Data collection involved a structured literature search using thematic keywords, selection based on relevance and source traceability, and extraction into a matrix mapping asset types, bases of ownership, control, economic value, transferability, platform dependency, and post-mortem status. Analysis was conducted through asset typology; identification of *aṣl*, *far’*, *ḥukm al-aṣl*, and *‘illah*; testing of *‘illah* determination methods; verification of similarity with the *far’*; examination of the limits of *qiyās* application; and determination of legal consequences regarding *milk*, *tirkah*, heirs, and transfer mechanisms.

Results and Discussion

Legal Status of Family Digital Assets on Artificial Intelligence Platforms

The legal status of digital objects within the artificial intelligence environment must be determined by distinguishing the types of rights attached to each object. AI accounts, access rights, subscription services, personal data, economic data, generative outputs, cloud storage, and virtual assets each entail distinct legal relationship structures. Accounts primarily pertain to identity and contractual relationships with service providers (Peters, Ivens, & Pardo, 2022). In contrast, premium subscriptions grant the right to enjoy benefits for a specific duration (Iyengar, Park, & Yu, 2022). Cloud storage relates to storage services (Khan et al., 2024), while data may simultaneously encompass personal, economic, or collective family interests (Levashenko & Sinelnikov-Murylev, 2025). AI outputs may entail economic rights provided there is a legitimate basis for control and protection (Kugler, 2025). Virtual assets possess unique characteristics depending on the mechanisms of their creation, control, and transfer (Zianko & Nechyporenko, 2022).

This typology underscores the necessity of distinguishing between a valuable object and the rights that confer authority over that object.

The concept of *al-māl* must be applied using *fiqh* parameters that are testable against each digital category. Al-Zuhaylī (1985) distinguishes between property, usufruct, ownership, and rights; thus, economic value alone is insufficient to establish an object's status as *māl* capable of legal management. Elements such as recognized utility, the capacity for control, legitimate *ikhtiṣāṣ* (exclusive right), the possibility of legal utilization, and the recognition of transactions must be considered holistically. Societal recognition through *urf* (customary practice) may serve as an indicator of economic value and acceptance. However, it does not automatically create *milkiyyah shar'ī* (ownership recognized under Islamic law) over an object. The (1988) resolution by the International Islamic Fiqh Academy (IIFA) regarding moral rights (*al-Ḥuqūq al-Ma'nawīyyah*) acknowledges that certain non-physical rights—such as business names, company names, trademarks, copyrights, and rights regarding inventions and patents—possess financial value recognized in contemporary social practice. This framework provides a basis for acknowledging the economic dimension of non-material objects without negating the need to verify the source of the right, the scope of *taṣarruf* (disposition/management), and the legality of the benefits derived.

Digital data requires more rigorous classification because the term encompasses information that may hold distinct legal and *fiqh* statuses. Personal data belonging to family members cannot simply be equated with commodities that are freely owned and transferable, as such information relates to the interests of the subject who generated or serves as the source of the data. Transaction data, financial records, customer catalogs, or databases built through economic activities may possess commercial value (Zamparini, 2024); however, this value must be distinguished from rights to privacy and the interests of other parties. Similarly, family archives stored on AI platforms do not automatically become the property of the account holder, as the content may originate from multiple family members. Technical control via passwords merely demonstrates the ability to manage access, not conclusive proof of ownership. Determining legal status requires an examination of the source of acquisition, the parties with vested interests, the method of collection, the basis for utilization, transferability, and contractual limitations.

The right to use AI services cannot be equated with ownership of the platform or system providing those services. Premium subscriptions generally offer time-bound benefits based on service agreements or contracts (Kowalkowski & Ulaga, 2024); thus, the object of the user's right is more akin to the *manfa'ah* than to ownership of the underlying technological infrastructure. Users can access computing capacity, generative features, storage space, or specific functions without owning the servers, core software, or AI models employed by the provider (Iyengar et al., 2022). A similar situation applies to accounts subject to personal licenses and

transfer prohibitions. Technical control, contractual control, and ownership must be distinguished, as a party may control an account without possessing all the economic rights inherent within it.

Works generated with the assistance of artificial intelligence possess a legal structure distinct from that of accounts and services, as their primary object is an intellectual output or digital product capable of holding independent economic value. The status of rights over such works is not determined solely by the fact of human or machine contribution; rather, it requires analysis of the creation process, the extent of human contribution, the contractual basis for using the model, and the potential for legal protection of the output (Geiger, 2024). Contemporary *fiqh* principles regarding intellectual property rights provide a crucial foundation, as the International Islamic Fiqh Academy recognizes copyrights and patents as Sharia-protected rights possessing financial value. This recognition does not imply that every AI output automatically becomes the user's property. Model licenses, third-party rights, data sources, or platform terms may constrain rights. Works created jointly by family members also necessitate identifying the respective contributions and the basis of control for each party. The legal status of AI output must be determined based on the economic rights actually inherent in the work, rather than on ownership of the account where the work is stored.

The concept of *māl mutaḳawwam* (assets possessing economic value and lawful for utilization) becomes relevant once the object and the nature of the rights are distinguished, as this category requires more than the mere existence of market value. Shariah must recognize the benefits derived, the source of control must be legitimate, and the object or right involved must fall within a permissible scope of disposition. Accounts that merely grant personal, non-transferable access are more accurately analyzed as contractual rights of use rather than as fully owned property. Conversely, digital assets carrying legitimate economic rights—which can be controlled by the rights holder and recognized as objects of transaction—possess a stronger basis for being classified as *māl* or *ḥaqq mālī*. Regarding cloud storage, a distinction must be made between the storage service itself and the data stored within it. Illegal use does not necessarily negate the legal status of the object; rather, the assessment must focus on the relationship between the object, the method of acquisition, and the nature of the prohibited disposition.

The family context alters the analysis of ownership because a single digital environment may encompass a mix of individual, joint, and contractual rights. Accounts shared by spouses or family members do not automatically become the property of all users; their status depends on the contracting party, the source of payment, usage agreements, and the economic rights attached to the account's content (Kukk & van Raaij, 2022). Family data may involve the interests of multiple parties, meaning the credential holder does not automatically possess full authority over all the information contained therein. Assets generated through the economic

or intellectual contributions of multiple members require an identification of each individual’s ownership basis before being categorized as part of the family wealth. This structure highlights the need to distinguish between assets owned by individual family members, assets used jointly, and assets managed contractually by a single member for the family’s benefit. Such distinctions serve as the basis for identifying the rights holders and prevent ownership from being attributed solely based on who holds the account.

Legitimizing Digital Asset Ownership Rights through the Qiyās Approach

Establishing the legal legitimacy of AI-based digital objects must begin with defining the nature of the rights involved, rather than relying on collective assumptions about digital assets. The method of *qiyās* is relevant only for objects lacking specific provisions, requiring a legal ruling based on a shared ‘*illah*’ with an *aşl* that already possesses a defined legal ruling. Consequently, the *far’* must be defined precisely: rights to use paid AI services, data with economic value, and AI-generated digital works cannot be conflated into a single legal object. These distinctions determine the appropriate *aşl*, *ḥukm al-aşl*, and ‘*illah*’ to be applied. The *qiyās* frameworks found in works such as al-Juwaynī’s *al-Burhān* (1998), al-Ghazālī’s *al-Mustaşfā* (1993), and al-Āmidī’s *al-Iḥkām* (1983) require a methodological link between these four elements, alongside an examination of the ‘*illah*’s nature through *munāsabah* (suitability) and *inḍibāṭ* (precision/consistency). Therefore, economic value alone cannot serve as the basis for establishing ownership without first examining the underlying structure of rights and *taşarruf*. Mapping the elements of *qiyās* to each specific object is essential to avoid legal expansion based merely on superficial resemblance. The following matrix illustrates the relationships between the *far’*, *aşl*, *ḥukm al-aşl*, ‘*illah*’, and the resulting analogy, prior to the argumentative testing of each construct.

Table 1.
Construction of Qiyās Regarding Rights to AI-Based Digital Objects

<i>Far’</i>	<i>Aşl</i>	<i>Ḥukm al-Aşl</i>	<i>‘Illah</i>	The Outcome of <i>Qiyās</i>
Right to use paid AI services	Usufruct in <i>ijārah</i>	The ability has permissible benefits, is known, and is limited by the term of the contract	Benefits that are valuable, identifiable, and can be the object of a contract	<i>Milk al-manfa’ah</i> during the contract period, not <i>milk al-‘ayn</i>
Personal AI account	<i>Al-ikhtişāş</i> regarding a specific benefit or right	Recognition of special tenure in accordance with the legal basis that established it	Exclusive possession derived from a lawful right	Contractual right; does not automatically become absolute ownership

AI-generated work or output	Intellectual property rights	Protection of exclusive rights and economic benefits for qualifying works	Intellectual outputs that can be attributed and utilized legitimately	It can constitute a proprietary right (<i>ḥaqq māli</i>) if the criteria of contribution, attribution, and control are met
Digital data with economic value	Property (<i>māl</i>) and proprietary rights (<i>ḥaqq māli</i>)	Recognition of valuable objects or rights that can be legally controlled	Recognized value, lawful possession, and determinable benefits.	The status of <i>māl</i> or <i>ḥaqq</i> is limited; not all data constitutes property (<i>milk</i>)

The right to use a subscription-based AI service is more appropriately analyzed through the *aṣl* of benefit—which serves as the object of an *ijārah* (lease) contract—rather than through ownership documents or physical objects. The *ḥukm al-aṣl* encompasses the legitimacy of acquiring and controlling a permissible benefit (*mubāḥ*), known, deliverable, and limited by the contract term. The *far'*—specifically premium access—satisfies these characteristics when the user obtains computing capacity, generative features, or storage for a specific period. The relevant *'illah* is not merely economic gain, but the existence of a benefit that is valuable, identifiable, and capable under Sharia of serving as the object of a contract. This construction results in *milk al-manfa'ah* (ownership of the usufruct) that is temporal in nature, rather than *milk al-'ayn* (ownership of the substance/asset) regarding the account, server, model, or provider infrastructure. Terms of service act as a limiting factor on *taṣarruf*, as clauses regarding personal use, non-transferability, service termination, and feature changes can restrict user rights. *Qiyās* applies provided that contractual differences do not negate the nature of the benefit that constitutes the *'illah*.

The status of an AI account must be distinguished from the service benefits attached to it. The account functions as a contractual identity and a means of authentication (Mallare, Dani, & Bonaci, 2023); thus, control via a password does not fully prove ownership. The *aṣl* of *al-ikhtiṣāṣ* (exclusive right/special control) can only be applied in a limited manner if *fiqh* recognizes a specific form of control as the basis for a right to a benefit or a specific priority. The *ḥukm al-aṣl* cannot be extended to full ownership without additional evidence. The *far'* of a personal account also possesses a significant *fāriq* (differentiating factor): its existence depends on the platform contract, user identity, and provider policies. This distinction renders the analogy between an account and an ownership document inappropriate, as a document primarily functions as a means of proof, whereas an account represents a contractual relationship. The most defensible classification categorizes the account as a *ḥaqq* or a means of contractual control. In contrast, the benefits obtained

through the account can constitute the object of *milk al-manfa'ah* in accordance with the terms of the contract.

Digital works generated via AI require distinct protection because the legal issues involved pertain to exclusive rights over intellectual creations. The 1988 decision of the International Islamic Fiqh Academy regarding *al-ḥuqūq al-ma'nawīyyah* (moral/intangible rights) recognizes copyrights, trademarks, and patents as rights possessing financial value and entitled to Sharia protection; al-Zuhaylī (2003) similarly categorizes intellectual rights as rights of value. The relevant *ḥukm al-aṣl* is the recognition of exclusive and economic rights over works that meet the criteria for protection. The *far'*—specifically AI output—can be subjected to analogy once human contribution, model licensing, data sources, and platform terms have been examined. The *'illah* cannot simply be formulated as economic value; a more relevant attribute is the existence of an intellectual result that can be legitimately attributed, controlled, and utilized. The dominance of the AI system or the rights of third parties may constitute a *fāriq* that limits the applicability of the analogy.

It is inappropriate to draw a direct analogy between digital data and *dayn* (receivables/debts) solely because both are intangible and possess economic value. *Dayn* entails a structure of claims against a debtor (Yuhelson & Hakim, 2025). In contrast, data may consist of personal information, family archives, metadata, or commercial databases that lack such a claim-based relationship. Consequently, using *dayn* as the *aṣl* fails if the *'illah* is defined merely by intangibility or economic value. Data is more appropriately analyzed through the concepts of *ḥaqq*, *ikhtiṣāṣ*, and *māl*, in accordance with its function and the source of its control. Data collected lawfully for economic activities may possess financial value, whereas personal data remains constrained by the interests of the data subject and the rights of other parties (Li, Liu, & Motiwalla, 2021). *Urf* can serve as an indicator of value recognition but cannot independently establish ownership where Sharia or contractual terms dictate otherwise.

Distinguishing between *māl*, *milk al-'ayn*, *milk al-manfa'ah*, *ḥaqq mālī*, and *ibāḥah* (permissibility of use) is pivotal to the outcome of any analogy. *Māl* denotes an object recognized as having value and legal consequences, whereas *milk* signifies a relationship of control granting the authority of *taṣarruf*. *Milk al-manfa'ah* is limited to the benefit over which control is exercised pursuant to the contract; *ḥaqq mālī* refers to a valuable interest recognized by law; and *ibāḥah* merely grants permission for use without establishing ownership. *Māl mutaqawwam* adds the requirements of Sharia-recognized value and permissibility of use. This framework prevents the application of a uniform conclusion to all AI-related objects. A subscription may constitute a right to a benefit, an output may qualify as a *ḥaqq mālī*, and data may entail multiple layers of rights. In contrast, a personal account may remain a purely contractual relationship. The final categorization must be

determined based on the rights actually granted, rather than solely on market value in each instance.

The validity of a contract reinforces the legitimacy of a right only insofar as the contract's content confers clear legal authority. Payments for subscriptions, software licenses, cloud storage, or access to AI models indicate an exchange of benefits. However, the specific form of the contract and its legal consequences must still be identified. Mutual consent (*riḍā*) and compensation do not prove the acquisition of ownership over every object associated with the service. Terms of Service must be interpreted as a source of limitations on *taṣarruf*, particularly regarding account transfers, ownership of output, data usage, system updates, and service termination. Analogy *qiyās* to *ijārah* may establish the right to enjoy benefits for the duration of the contract. In contrast, analogy to intellectual property rights can only establish protection for the output if the *'illah* and legal attribution criteria are met. When a contract prohibits account transfers, that prohibition constitutes a *fāriq* that must be taken into account, rather than ignored in order to maintain a conclusion of ownership.

The most defensible construction of *qiyās* yields a differentiated form of legitimacy rather than a blanket recognition of digital assets as a form of ownership. The use of AI services bears a resemblance to *milk al-manfa'ah* via *ijārah*; AI-generated works may acquire *ḥaqq māli* through analogy with intellectual property rights, provided the contribution and attribution are valid; data requires a multi-layered analysis integrating *māl*, *ḥaqq*, *ikhtiṣāṣ*, and privacy protection; and personal accounts are best understood as contractual rights. This formulation also limits *qiyās ma'a al-fāriq* (analogy involving a relevant distinction) by ensuring that any legal differences are scrutinized before the ruling of the *aṣl* is extended to the new case. A legal conclusion is valid only when the *'illah* is proven to be *munāsib* and *munḍabiṭ*, and is found to exist in the *far'* without any *fāriq* that would invalidate the analogy.

Qiyās Regarding the Inheritance of Family Digital Assets on Artificial Intelligence Platforms

The process of inheritance must begin by identifying the rights still vested in the deceased at the time of death, rather than by focusing on the label digital asset. The principle of *tirkah* encompasses lawful property and financial rights, whereas rights that are personal in nature or expire upon death do not automatically transfer to heirs. The Qur'an stipulates that the distribution of the estate occurs after the execution of bequests and the settlement of debts (Al-Nisā' [4]:11–12); thus, an object's status as *tirkah* is established prior to the determination of *farā'id* (fixed inheritance shares). This framework necessitates distinguishing between AI accounts, personal data, usage licenses, usufructuary rights, intellectual property rights, royalties, virtual assets, and family access rights. While an account may cease to exist as a contractual relationship upon the user's death, royalties to which the deceased was entitled may persist as valid economic claims.

At this stage, *qiyās* should focus on the inheritable nature of the right rather than on the physical resemblance between digital forms and classical objects. The *far'* must be formulated individually and then matched with an *aşl* that possesses a demonstrable *ḥukm al-aşl* and '*illah*. An outstanding receivable can serve as the *aşl* for royalty claims that have accrued or remain obligations of another party, as both involve financial rights against a specific entity; however, this analogy does not apply to accounts or data simply on the grounds of their shared intangibility. Usufructuary rights under an *ijārah* contract can serve as the *aşl* for AI subscriptions, provided the benefit falls within the contract term and can legally be continued or transferred; conversely, personal licenses that expire upon death present a *fāriq* that precludes such transfer.

Intellectual property rights offer a more appropriate *aşl* for AI-generated works when there are valid exclusive rights, attributable human contribution, and recognized scope for economic exploitation. Resolution No. 43 (5/5) of the International Islamic Fiqh Academy recognizes copyrights and patents as rights protected by Sharia that possess financial value. Such recognition provides a basis for examining post-mortem economic rights, rather than granting automatic legitimacy to every AI-generated output. Qualifying works may enter the estate via their economic rights, whereas moral rights or attribution claims must still be assessed based on their personal nature. The account used to distribute a work does not automatically share the work's legal status. Royalties derived from a work must also be separated from the payment-receiving account, as the right to income is inheritable even if platform restrictions continue to limit account access.

Digital data requires stricter limitations because a single storage space may contain multiple rights-holders. A deceased person's personal data does not become an asset free for unrestricted use simply because it was stored in their account; data belonging to a spouse, child, customer, or other party retains the respective privacy interests of those individuals. While commercial databases may possess economic value through their structure, investment, and legitimate usage rights (Qin, Liu, & Hu, 2025), the individual information contained within them does not automatically become the property of the database holder. Family access rights must also be distinguished from ownership rights; heirs may have a legitimate interest in financial documents or economic claims without thereby gaining the authority to access all private communications. Literature on digital legacy highlights the tension between the need for post-mortem access and the protection of privacy, security, and user control over data after death (Buitelaar, 2017; Morse & Birnhack, 2024).

AI accounts, subscriptions, and family access rights must be examined as contractual relationships rather than being immediately classified as objects of the *tirkah*. Terms of Service may stipulate prohibitions on transfer, account termination upon death, restrictions on data export, or specific procedures for family members (Noval et al., 2026). Such clauses do not automatically determine the *tirkah* status

under Sharia, but they constitute legal facts that determine whether contractual rights persist and can be realized. Non-transferable personal accounts may terminate, whereas standalone royalty claims or copyright rights remain inheritable. Platforms also control authentication, encryption, servers, and account administration (Omohwo et al., 2023); thus, technical control should not be construed as proof of ownership. A study by Singh et al. (2022) indicates that platform policies regarding post-mortem scenarios vary, and data management mechanisms often depend on the service provider.

Virtual assets require similar scrutiny based on their underlying rights. Tokens or blockchain-based assets may qualify as *tirkah* if the decedent held legitimate economic rights, the control mechanism was not strictly personal, and transfer to a beneficiary is feasible within the technology's structure. Private keys provide only technical control; their existence does not resolve the question of legal ownership (Woxholth et al., 2024). Automatic royalties cannot be classified as *tirkah* simply because the system continues to generate revenue after death; one must verify the source of the royalties, the obligated payer, the duration of the rights, and any contract termination clauses. AI models built from family data require additional examination, as user contributions, model provider rights, third-party data, and licensing agreements can create layered ownership structures. Consequently, the category of "productive assets" cannot serve as the sole basis for inheritance; the inherited object must constitute a fully established and transferable economic right.

Conflicts between the *tirkah* and privacy necessitate a distinction between economic rights, personal rights, and third-party information. Death does not grant heirs absolute authority to access conversations, recordings, personal archives, or data involving third parties. An heir's rights primarily pertain to the legitimate estate, whereas access to data must adhere to legal grounds, intended use, and confidentiality constraints. Authentication methods, biometrics, and passwords serve as security mechanisms rather than certificates of ownership. This principle prevents the conflation of account control with inheritance rights. The *qiyās* approach must also account for distinguishing factors—such as personal nature, confidentiality, non-transferability, or reliance on the deceased's specific identity. Doyle and Brubaker (2023) highlight the tension between a family's desire to manage a digital legacy and the need to protect security and privacy. Consequently, inheritance claims must focus on demonstrable rights rather than the entirety of the account ecosystem.

The resulting framework positions inheritability as the outcome of a multi-layered assessment: the right must have been legally held by the deceased, possess recognized economic or financial character, not be purely personal in nature, exist at the time of death, and be transferable under the law and the terms governing the right itself. Royalties and economic rights associated with AI-generated works may meet these criteria provided that attribution, ownership, and transferability are

established; conversely, personal accounts, expired subscriptions, and personal data do not automatically form part of the estate. Beneficial rights are inheritable only if the underlying contractual structure permits continuity or transfer, while virtual assets must be evaluated based on the rights and control mechanisms governing them. In this context, *qiyās* yields differentiation rather than generalization.

Validity and Limits of Applying Qiyās to Artificial Intelligence-Based Digital Inheritance

Rights to use AI services, personal accounts, generative works, economically valuable data, and royalties each possess distinct *far'* and thus cannot be addressed through a single analogical pattern. The initial test lies in the presence of the *'illah* within the *far'* after it has been extracted from the *aṣl* through *munāsabah*, *inḍibāt*, and *tahqīq al-manāt* (verification of the legal cause's application to facts). Economic value alone is insufficient as an *'illah*, as value can be the consequence of a right rather than the legal cause that gives rise to it. If the *aṣl* consists of benefit within an *ijārah*, the *'illah* must point to a benefit that is valuable, known, permissible, and capable of being the object of a contract; AI subscriptions satisfy these elements as long as the usage right remains valid. Analogy remains valid at this stage because the digital nature alters the service medium rather than the structure of the benefit that serves as the legal basis. This position aligns with *uṣūl al-fiqh* requirements that the transfer of a legal ruling be based on relevant and measurable legal characteristics (Muhajir et al., 2023).

Subsequent analysis must distinguish between a change in the object's form and a change in the right's structure. The absence of physical substance cannot automatically serve as a *fāriq*, as jurisprudence recognizes various non-material rights as valuable interests, including usufruct and intellectual property rights (Ratnawati & Al Farizi, 2023). Royalties—constituting economic claims—possess a structure closer to *dayn* or financial rights than to personal accounts. Factors such as transferability, attribution, and the continuity of the claim are more relevant than the materiality of the object. Furthermore, AI output cannot be rejected simply because an algorithm generates it. Analogy with intellectual property rights depends on human contribution, the basis of attribution, licensing models, the source materials used, and the scope of legitimate exploitation. If these elements are met, the algorithmic nature does not invalidate the analogy; if contribution or attribution fails to yield exclusive rights, the *fāriq* arises within the structure of the right itself, not within the technology serving as the medium.

The construct of *qiyās ma'a al-fāriq* (analogy involving a material difference) arises when a distinction between the *aṣl* and the *far'* affects the legal ruling being transposed. Personal accounts provide the clearest example, as their existence may depend on user identity, personal licensing, authentication, and non-transferability clauses (Khani, 2024). An analogy equating an account to fully inheritable property becomes weak if user rights terminate upon death or if a valid contract restricts

transfer. Contractual clauses must be examined to determine whether such restrictions pertain to the object of the right itself or merely constitute an access mechanism. Standalone economic rights—such as royalties or fully vested exploitation rights—do not lose their financial character simply because payments are processed through a personal account.

Platform dependency must also be situated at the appropriate level of analysis. Control over servers, encryption, authentication, and account administration signifies technical control, whereas ownership or financial rights constitute a legal relationship requiring a distinct basis. Terms of Service may restrict access, transfer, or data export, as well as service continuity (Obar & Oeldorf-Hirsch, 2020); however, the presence of such clauses is insufficient to invalidate the *qiyās*. The analogy remains methodologically valid if the *‘illah* in the *far’* is identical to that in the *aṣl*, and contractual differences affect only the exercise of the right. The status changes when a clause eliminates transferability, asserts the personal nature of the benefit, or grants exclusive rights to the platform, rendering the structure of the *far’* no longer commensurate with the *aṣl*. Heirs may hold a legitimate claim, even though actual system access continues to require procedures mandated by the platform or legal authorities.

Algorithmic dynamics do not, in themselves, render the *‘illah ghayr munḍabit* (unstable or lacking precise definition). AI models can be updated, data can change, and outputs can be modified without altering the subject of the right or the basis of the economic claim. The technical identity of an object must be distinguished from its legal identity. Model changes become relevant only when such transformations alter attribution, ownership, the scope of exploitation, or the very existence of the right being subjected to analogy. AI avatars, interactive archives, or personal models may evolve after a user’s death, but technical evolution does not automatically create a new legal subject or extinguish the rights of heirs. Conversely, changes that shift control to a platform, erase attributable contributions, or transform the object into a personal service may give rise to a *fāriq*. The *‘illah* test must be applied to the legal consequences of technological change, rather than to the technological change as a standalone fact.

Data-related issues reveal another limit to analogy, as a single technical object may encompass multiple legal relationships. A commercial database may possess financial value, yet the personal information contained within it continues to implicate the interests of the data subject and third parties. Heirs do not acquire absolute authority over the entire contents of a storage medium simply through the transfer of economic rights. *Qiyās* to *māl* or *ḥaqq mālī* may apply to the database structure or the economic claims held by the deceased, provided the sources of control, utility, and transferability meet the necessary criteria. The analogy ceases to apply when the object intended for transfer is, in reality, a personal right, confidential information, or a matter involving the interests of other parties.

Buitelaar (2017) highlights the conflict between family access, security, confidentiality, and data control following death. This conflict does not demonstrate a failure of *qiyās*; rather, it underscores the necessity of defining the limits of the object and the legal consequences of the analogy.

The epistemic limit of *qiyās* arises when available information does not allow for the stable determination of the *'illah*, or when the structure of the *far'* involves irreducible legal differences. This situation differs from practical limitations. Difficulties faced by heirs in gaining access—due to encryption or platform policies—are matters of implementation, provided the substantive right has been established; failure to identify an inheritable right is a matter of classification; the absence of a precise (*munḍabīṭ*) effective cause (*'illah*) or the emergence of a distinguishing factor (*fāriq*) that alters the legal ruling concerns the validity of the analogy. This distinction prevents overreaching conclusions regarding the inapplicability of *qiyās*. Principles of *uṣūl al-fiqh* articulated by al-Ghazālī (1993), al-Āmidī (1983), and al-Juwaynī (1998) necessitate the establishment of a relevant attribute before a legal ruling is transferred from the *aṣl* to the *far'*. Morse and Birnhack (2024) also highlight the importance of distinguishing substantive rights from technical controls, enabling *fiqh* analysis to engage with technological structures without ceding legal determination to platform architecture.

A comparative analysis of the objects reveals that the scope of *qiyās* varies in degree. Subscriptions, representing time-bound benefits, bear a strong resemblance to *ijārah* regarding the nature of the agreement and the transferability of the benefit. Royalties and economic rights over completed works possess a stronger analogical basis through the concepts of financial rights or intellectual property. Commercial data requires limitations, as economic rights may overlap with privacy concerns and the interests of third parties. Personal accounts offer the narrowest scope for analogy, as identity, licensing, and contractual terms bind the benefit to the individual user. Virtual assets may be inheritable provided that economic rights, mechanisms of control, and transferability can be substantiated.

Conclusion

Family digital assets on artificial intelligence platforms may be classified as *māl* if they possess economic value, recognized utility, demonstrable control, and legitimate ownership rights; this classification does not automatically extend to accounts, personal licenses, personal data, access rights, or AI outputs subject to contractual restrictions. The *qiyās* framework positions the digital asset as the *far'* analogized to *māl* as the *aṣl* based on the *'illah* of economic value, utility, and the capacity for control. At the same time, the verification of *manāṭ* determines the transfer of rights to heirs. Such assets may constitute part of the *tirkah* provided the decedent's ownership is proven, the asset is transferable and non-personal in nature, and it does not conflict with Sharia or platform terms; asset ownership is not synonymous with account access rights. This study offers a theoretical contribution

by expanding the conceptualization of *māl* and *tirkah* while clarifying the limits of *qiyās* when the legal object is algorithmic and dynamic. Practical implications include the documentation of ownership, the substantiation of heirs' rights, and the obligation of platforms to provide transfer mechanisms. Limitations of this normative-*qiyās* study stem from the absence of empirical testing, variations in terms of service, and jurisdictional differences. Future research should employ socio-legal and comparative approaches to examine asset transferability, platform practices, and the harmonization of *fiqh* with cross-border digital regulations.

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Author Contribution Statement

NN contributed to the conceptualization of the research, formulation of the methodology, data collection and analysis, as well as the drafting and revision of the manuscript. MM contributed to the development of the theoretical framework, literature search and analysis, interpretation of results, and critical review of the manuscript. ATB contributed to the validation of data and research results, interpretation of findings, refinement of academic content, and the final review and revision of the manuscript. All authors approved the final version of the manuscript and are responsible for the integrity and accuracy of the research content.

Conflict of Interest

This manuscript involves no conflicts of interest of any kind that could influence the research process, data analysis and interpretation, or the preparation and publication of the manuscript. The entire research process was conducted independently, free from any personal, institutional, or financial interests—or relationships with other parties—that could potentially compromise the objectivity and integrity of the research findings. The authors further declare the absence of any relationships or interests that could introduce bias regarding the substance, conclusions, or editorial process of this manuscript.

AI Usage Statement

The authors utilized artificial intelligence (AI) technology only to a limited extent—specifically to enhance language quality, correct grammar, refine sentence structure, and assist with manuscript formatting. AI was not used to generate or develop research results, findings, concepts, analyses, arguments, ideas, interpretations, or conclusions. The entire scientific substance of the article—including problem formulation, method selection, data processing and interpretation, argument development, and the drawing of conclusions—is solely the result of the author's own work and responsibility. The author has reviewed and verified the entire manuscript and bears full responsibility for the accuracy, integrity, and originality of the article's content.

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