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Spiritual Experience in Digital Interaction based on Insan-Centered Design

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ABSTRACT

This concept paper introduces Insan-Centered Design, a design approach that integrates Islamic ethics and values with human-centered design principles. It uniquely addresses both the physical and spiritual needs of users, reflecting the Islamic view of life as a temporary state with a focus on achieving peace in the afterlife. Central to Insan-Centered Design is the promotion of *ihsan* (excellence), and the adherence to *Maqasid al-Shariah* (objectives of Islamic law). The approach is further enriched by incorporating *taqwa* (God-consciousness), *khalifah* (stewardship) and the principle of *amar ma'ruf nahi mungkar* (enjoining good and forbidding evil) into digital interactions. This paper presents practical applications of Insan-Centered Design through scenarios such as mindful financial apps, Islamic navigation systems, and ethical online platforms, demonstrating how technology can align with Islamic values and ethical considerations. Insan-Centered Design thus emerges as a transformative approach, offering a fresh perspective in technology design by integrating Islamic values into technology and considering the lasting impact of our digital interactions.

INTRODUCTION

This paper is motivated by an idea to centre an alternative implementation of design approaches, through the interpretation of the concept of human, or *insan* from the Islamic worldview with a focus on digital interaction experiences. In this worldview, humans are God's vicegerent in this World, with the responsibilities to uphold and maintain the balance and justice as decreed by God (al-Attas, 2015). Additionally, the Islamic worldview recognizes the dual nature of human beings, consisting of both the physical and spiritual dimensions (Wahab, 2022). The physical nature of humans is transient and limited, while the spiritual nature is eternal. The life given by God in this world is to be filled with worship, good deeds, and actions that will contribute to the greater good of humanity and the world, as well as to prepare oneself for the eternal life in the hereafter (Sulastri et al., 2024).

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The evolution of design approaches has seen a significant shift from user-centered design to human-centered design and, eventually, to humanity-centered design (Cochran & Rayo, 2023). User-centered design, which began in the 1980s, primarily focuses on the needs and usability for individual users, supporting them in their tasks and emphasizing ease of use in their interaction with technology (Salinas et al., 2020). This approach, while effective in improving user experience, is often limited in its scope to immediate user requirements, overlooking the broader social, ethical, and contextual factors. Human-centered design expanded this perspective, incorporating a more holistic view of human needs, behaviours, and capabilities, not just as users but as complex beings interacting within a society and its environmental context (Holeman & Kane, 2020). The most recent conception of thoughts to humanity-centered design, as championed by thinkers like Don Norman, marks a further broadening of scope. It recognizes the far-reaching impacts of design decisions on society and the environment, advocating for sustainable, equitable, and beneficial solutions for humanity as a whole (Norman, 2023). This progression signifies a growing awareness and responsibility within the design community towards addressing all needs and challenges, ensuring equity, and promoting a sustainable future, moving beyond individual user satisfaction to the well-being of all humanity and the world.

Building upon the foundational principles of human-centered and humanity-centered designs, Insan-Centered Design introduces an essential, often overlooked dimension to digital interaction experiences: the spiritual. This approach not only echoes the broader societal and environmental concerns of these design approaches, but also enriches it by recognizing human beings as both physical and spiritual entities. Insan-Centered Design is deeply rooted in the understanding that life on this world is transient, and that our actions, even in the digital realm may have profound, eternal consequences. It underscores the notion that as God's vicegerent on Earth, the *insan* has a responsibility to design for the good of humankind, harmonizing material needs with spiritual well-being. The objectives or the *maqasid* of Information Technology should be for the pleasure of Allah. Thus, design of systems must have this consideration as the most important mission. This can be realized through the implementation of Insan-Centered Design. This holistic approach extends beyond creating functionally efficient and socially responsible products; it also involves developing solutions that integrate the spiritual realities of human existence.

In essence, Insan-Centered Design mirrors but also transcends the humanity-centered approach by incorporating a deep spiritual devotion and God consciousness into the design process. This method seeks to promote the well-being of all creation by incorporating spirituality into digital interactions and. It highlights how meeting human needs in the digital age involves more than just providing for material needs; it also involves spiritual needs and ties in with the more profound, enduring goals of human existence, which are determined by our worship and awareness of God.

LITERATURE REVIEW

Human-Computer Interaction (HCI) is a multifaceted field that integrates principles of computer science, design, usability engineering, and psychology to optimize the interaction between humans and computers (Gupta et al., 2023). The integration of Islamic spirituality into Human-Computer Interaction (HCI) has emerged as a significant area of study, addressing the unique needs and perceptions of Muslim users. Among significant works that integrates interaction designs with Islamic principles were the works in aligning website designs with Islamic principles (Wan Mohd Isa et al., 2009), framework for evaluating websites for Islamic cultural characteristics (Mehad et al., 2010), and research on discovering key elements of spirituality for user experience based on data from older Muslim adults (Ahmad et al., 2021) which implies the importance of designing within Muslim contexts. These studies collectively underscore the importance of incorporating Islamic values into design practices to enhance user engagement, and facilitates spiritual experience, awe, wonder, transcendence and mindfulness (Sheh Hamidulfuad et al., 2023). Moreover, findings from these research efforts reveal that Islamic HCI design not only addresses the spiritual needs of users but also fosters a more inclusive and empathetic design ethos (Wan Mohd Isa et al.,

2009). The development of frameworks and methodologies that integrate Islamic ethics and spirituality into HCI practices has been shown to significantly influence user satisfaction and engagement, paving the way for a holistic approach to digital interaction design (Ahmad et al., 2021). Muslim communities have unique needs in aspects relating to gender and family roles, financial obligations, privacy, and assimilations among others. Islamic HCI require adaptations of Western-originated design methods to suit these contexts (Mustafa et al., 2020) as religious beliefs greatly influenced the culture and lifestyle of Islamic countries, especially in Southeast Asia (Ahmad & Razak, 2013).

In contrast, HCI research in addressing the spiritual needs of other religious traditions mainly focus on techno-spiritual designs, defined as employing ICT for supporting spiritual activities (Rifat et al., 2022) and repurposing the internet for religious experiences (Ahmad & Razak, 2013). Efforts in this field include works on online Buddhism altar for worship (Claisse & Durrant, 2023), compassion cultivation using Buddhism principles (Mah et al., 2020), development of 'God-I-Box' for online worship in Protestant religious rituals (Wolf et al., 2023), social scripture Bible reading tool design and evaluation (Kim et al., 2022), and research on how Indian Spiritual Sects uses technology in their Hinduism practices (Meena et al., 2020). Various HCI workshops on designing for spirituality reflect this leaning, with the objectives of designing tangible interactive spiritual artifacts (Markum et al., 2023), and designing novel technologies for faith-based activities (Rifat et al., 2022) in recent years. Muslim HCI scholars have also undertaken works in techno-spiritual research such as emoji design to cultivate Islamic identity (Nasruddin et al., 2018) and sensor-equipped prayer mat to assist elderly with cognitive impairment (J. Ismail & Noor, 2015), however, the overarching understanding of Islamic spirituality in guiding interaction design is holistic, more closely related to what is defined by digital spirituality – the integration of digital medium into one's lifestyle, reflecting and impacting one's lifestyle (Butler, 2022).

In recent years, many concepts originating from Islamic traditions or imbued with Islamic values have been scholarly discussed and movements towards integrating these values in various domains have gained momentum. In governance, Malaysian Prime Minister Dato' Seri Anwar Ibrahim introduced the concept of *Madani*, derived from Arabic word meaning civilization that highlighted six core values of sustainability, care and compassion, respect, innovation, prosperity, and trust as a policy framework and government slogan (Abdul Rahman & Abdul Karim, 2023). This framework is inspired by, and guided by Islamic values in ways that promote harmony in a multiracial country landscape (Aziz & Rusli, 2023). In education, International Islamic University Malaysia highlighted the values of "KhAIR" namely *khalifah*, *amanah* (trustworthiness), *iqra'* ('read', here framed as the pursuit of knowledge), and *rahmatan lil-alamin* (to do good for all the worlds) as part of the university's *Sejahtera* Academic Framework in defining the values desired for all graduates (Borhan et al., 2021). Meanwhile *Tawhidic* paradigm that was originally proposed for management system transformation in organizations based on the ethos of unity of God, harmonizing the world and hereafter (Y. Ismail & Sarif, 2011) has found applications in other fields including crisis management and education (Sarif, 2017). It is in this spirit that *Insan*-Centered Design is hereby proposed.

INSAN-CENTERED DESIGN WITHIN HUMAN-COMPUTER INTERACTION

Traditional HCI focused on aspects like ergonomics and the efficiency of computer systems, but over time, it has expanded to encompass a broader scope (Stephanidis et al., 2019). Both User-Centered Design and Human-Centered Design are integral components of HCI. User-Centered Design emphasizes understanding and addressing the specific needs, limitations, and contexts of individuals in which the technology is designed to enhance satisfaction and usability (Dopp et al., 2019). Human-Centered Design on the other hand, expands the focus beyond the individual user to the environment in which the technology is used. It emphasizes the people and the activities at play in the technological ecosystem rather than focusing on the systems and artifacts (Auernhammer et al., 2022). Table 1 shows the comparison between the design approaches discussed in several dimensions as extracted from the works by (Van Velsen et al., 2022), (Salinas et al., 2020), (Holeman & Kane, 2020), and (Norman, 2023).

The shift from User-Centered Design to Human-Centered Design prepares the ground for the introduction of Humanity-Centered Design, which expands the design domain to include the long-term impacts of technology on ecosystem and the environment (Gorichanaz, 2023). Don Norman call upon designers to design for the 21st century; which include decolonising designs from Anglocentric and Eurocentric paradigms (D'ávila, 2021). Insan-Centered Design reflects this rally, proposing an Islamic lens in which designs can be viewed upon.

Table 1: Design Approaches Comparison

Dimension	**User-Centered Design**	**Human-Centered Design**	**Humanity-Centered Design**
Focus	Specific user needs, preferences, and limitations	Overall environment where human interacts with technology	Societal and environmental impact of design decisions
Scope	Individual usability and satisfaction	Broader context of human activities and environments	Global ecosystem and long-term consequences for humanity
Outcome	Products that are efficient, effective, and satisfying for users	Systems that are usable and improve human activities	Designs that are sustainable, equitable, and beneficial for all of humanity
Methodology	Iterative design process involving user feedback	Multidisciplinary approach considering various human factors	Inclusive design process considering the rights of all humanity and the entire ecosystem
Ethical Considerations	Primarily concerned with user privacy and autonomy	Includes ethical considerations related to human welfare and dignity	Addresses broader ethical issues such as sustainability, equity, and global well-being

Insan-Centered Design adds the unique dimension of integrating the spiritual considerations into digital interaction design. It recognizes the fleeting nature of human life and the eternal consequences of all our actions digitally included. Insan-Centered Design aligns technology with Islamic values of *taqwa* (God consciousness) and *khalifah* (stewardship) and ensures that digital interactions not only cater to the immediate physical and contextual needs of users but also resonate with their deeper spiritual aspirations and responsibilities as believers. Figure 1 shows Insan-Centered Design juxtaposed against the progression of other design approaches. Insan-Centered Design is at the outermost circle, signifying the encompassing of all other design approaches while adding a spiritual dimension.

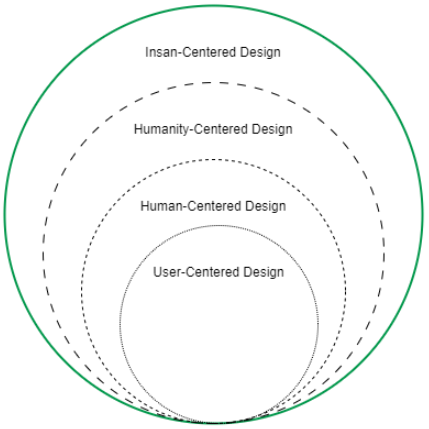

Figure 1: Insan-Centered Design with other design approaches. Adapted from (*What Is Humanity-Centered Design?*, 2023)

CONCEPT OF INSAN AND ITS CENTRALITY IN INSAN-CENTERED DESIGN

T.S Eliot's poem from 1934 "The Rock" is widely said to have inspired the Data-Information-Knowledge-Wisdom hierarchy and excerpts from it reads: *"…where is the the Life we have lost in living? Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?...*" (McDowell, 2021). This hierarchy, places "wisdom" as the highest hierarchy of knowledge. In the wisdom stage, behaviours involve values, and the exercise of judgement (Ackoff, 1989). This is why, in some information hierarchy frameworks, this stage is associated with the ability to be compassionate (Tuomi, 1999). In Islamic perspectives, the stage of wisdom may combine "merciful" in addition to "compassionate". This exemplifies the journey of *insan* where at the ultimate stage, mankind uses wisdom gained from the knowledge of Qur'an and Sunnah to exercise judgements between right or wrong, and good or bad (Noordin, 2017). To exercise judgment is to apply the faculty of reasonings. In Islamic perspectives, the cognitive source is the heart, contrasting to the more commonly accepted Western conception of brain as the thinking organ (Asadzandi, 2019). The Qur'an has verses on how Allah has sealed the hearts of unbelievers, destroying their ability to discerning the truth as in Surah Al-Baqarah (2:6-7): "*As for those who disbelieve, it makes no difference whether you warn them or not, they will not believe. God has sealed their hearts and their ears, and their eyes are covered. They will have great torment*" (Haleem, 2016). This shows the relationship between having a good heart, and the ability to have wisdom. To achieve wisdom and discover the truth is to maintain a good heart through remembrance of Allah, and *taqwa* (piety). Figure 2 shows the diagram on the journey of *insan* with the goal of gaining wisdom as the end, internalizing the virtues of merciful and compassion.

Insan-Centered Design is grounded upon this concept of *insan*, or *al-nas*: person in Islam, made up of both the physical and spiritual properties. In Qur'an, "person" is also expressed through several other concepts such as *bani adam*, *basyar* (Sulastri et al., 2024), *shakhs*, *nafs*, *rijal* and also *wajh* (Riddell, 2023). The Holy Qur'an uses the term *insan* 97 times with the semantic meaning ranging from man/human being to men/people, second only to the term *nafs* – semantically meaning "soul, living soul or person" which appeared 298 times (Riddell, 2023). In Qur'anic discourse, the term *insan* is often discussed with negative characteristics. This includes traits such as denial, physical and spiritual weakness, hastiness, hopelessness, stinginess, contentiousness, ignorance and self-tyranny, self-doubt, and dipped in hardships (Ababneh et al., 2023).

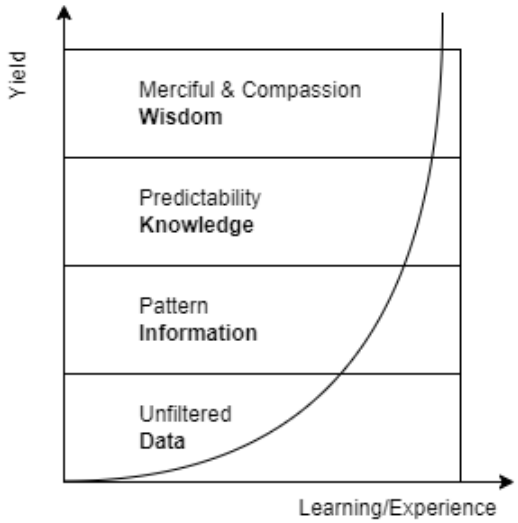

Figure 2: Journey of *Insan*. Source: (Noordin, 2017)

Contrastingly, the Qur'an also proclaimed that *insan* has been created in the best form as stated in Surah Al-Tin (95:4-7) and translated by (Haleem, 2016): "*We created man in the finest state. Then reduced him to the lowest of the low. But those who believe and do good deeds, will have an unfailing reward.*" According to Abul A'la Maududi in his commentary of these verses, mankind has been blessed with the noblest facilities of thought, knowledge, and intellect that no other creatures have. The abilities honed by these God-given facilities can be perverted as exemplified through the creation of weapon of mass destruction that can instantly destroy whole populations, dooming them to the lowest of the low. To avoid this, mankind must strive to believe in God, the hereafter and Prophethood, and to live their lives in righteousness and piety (Maududi, 1972). As God's creation blessed with the highest faculties, mankind is responsible for the role of stewardship of this world. Islamic scholars agree that this duty as a custodian of the natural world (Muhamad et al., 2020) is part of the principle of *khalifah* (Kader, 2021), as revealed in Surah Al-Baqarah (2:30): "*I am putting a successor on earth*" (Haleem, 2016). Mohd Kamal Hassan as cited by (Sanusi, 2021) indicated that this role as vicegerent must be viewed together with the role as servant of Allah. These two fundamental responsibilities is in line with the creation of both the body and soul (Sanusi, 2021).

In verses of the Qur'an Allah reminds humans about the brevity of life. Translations of Surah Al-Mu'minun (23:115) reads: "*He will say, 'How many years were you on earth?' And they will reply, 'We stayed a day or apart of a day, but ask those who keep count.' He will say, 'You stayed but a little, if you had only known*" (Haleem, 2016). To emphasize the fleeting nature of this world, Hadith of the Prophet Muhammad also reads: "*Be in this world as though you were a stranger or a wayfarer*". This Hadith is collected in Imam Nawawi's 40 collection of Hadith and in his commentary of this hadith from Imam Nawawi's collection, Saalih Al-Fawzaan (2020) explained that this world is not an abode for Muslims but is in fact a place to work for Paradise. To be preoccupied with this world is to be kept busy with something not of belonging, nor is lasting. The wayfarer is always longing for the real home: the Paradise that must be earned for (Al-Fawzaan, 2020).

Islamic tenet states that while God has foreknowledge of how men's deeds will be weighed on Judgement Day, they themselves do not know and would do well to follow the guided path (Riddell, 2023). Sunni theologies hold that having faith in predestination does not take away from people's capacity for free

will and accountability for their acts (Menin, 2020). Thus, for the benefits of both this world and hereafter, mankind should be accountable for all the decisions of their actions and conduct their life journey with piety while continuously upgrading their level of deeds.

COMPONENTS OF INSAN-CENTERED DESIGN

In the operation of this research, we define *insan* as a creation of Allah, endowed with the responsibility of being a *khalifah* (steward) on Earth, while also being aware that actions taken in this world have implications in the hereafter. The ways for Muslims to act to ensure salvation are available as guidance, derived from the two primary sources of Qur'an and Sunnah of the Prophet Muhammad. From a hadith of the Prophet Muhammad most notably recognized as the hadith of the Archangel Gabriel, the fundamentals of Islam are three: the six pillars of faith (*arkan al-iman*), the five pillars of ritual practice (*arkan al-islam*), and sincerity and excellence in faith (*al-ihsan*) (Ramadan, 2017). The Qur'an and Prophetic narrations are also rife with guidance and laws on how Muslims should act in all aspects of life. This guidance comes together with the rationale and the wisdom behind the divine rulings, from which analysis resulted in realization that all the rules are meant to serve a higher purpose (Gowhar, 2017). This is the *Maqasid al-Shariah*, or the goals and objectives of Islamic laws as extracted by jurists. Under the *Maqasid al-Shariah*, Islamic laws and rulings are meant to preserve the following categories: faith, life, intellect, lineage, and property (Kamali, 1999). Ibn al-Qayyim as explained by Jasser Auda (2008) summarised the fundamental rule in which Islamic law is to be viewed, which is "*about wisdom, and achieving people's welfare in this life and the afterlife… any ruling that replaces justice with injustice does not belong to the Islamic law*". This, according to Jasser Auda is the fundamentals in which the Maqasid al-Shariah is viewed through the whole Islamic laws (Auda, 2008). *Maqasid al-Shariah* is the paradigm in which all justification of actions can be understood on. It also serves as the guidance on which virtues to be prioritized according to situations. In the field of healthcare chaplaincy, virtues that are deemed important are respect, compassion, *rukhsah* (leniency), and protection of physical, mental, and spiritual dimensions to support constant worship of God (Abu-Shamsieh, 2020).

Insan-Centered Design prioritizes the virtues of *khalifah* and *taqwa* as part of the understanding in the importance of intentionality in system design. Designing under this approach requires the agreement on both the physical and spiritual needs of human and therefore these two virtues of trusteeship, and God-consciousness is deemed to be of utmost importance. Additionally, other values relating to specific implementation of design may be derived from the contemplation on the parameters of Maqasid al-Shariah. This approach is similar to other existing efforts in implementing Islamic adherence in activities such as the one undertaken by Siddiqi, Jan and Ullah (2019) in the field of Islamic Banking, and by Ibrahim, Abdul Rahman, Saifuddeen and Baharuddin (2019) in Islamic Bioethics.

THE GOALS OF INSAN-CENTERED DESIGN

Insan-Centered Design is a holistic approach that integrate both physical and spiritual components in system design. It aims to do that by integrating Islamic values of *khalifah* and *taqwa* together with considerations of *Maqasid al-Shariah* in the design of interactive systems. With the implementation of this design approach, Insan-Centered Design aims to achieve these following goals.

Fostering Worship and Spirituality in System-Supported Tasks

Insan-Centered Design aims to infuse daily technological interactions with elements of worship and spirituality. By integrating features that remind users of their spiritual duties and encourage reflection, such systems support the seamless integration of religious practices into everyday tasks. This goal is about transforming mundane activities into acts of worship, thereby enhancing *taqwa* (God-consciousness) and connection of users with their faith as they engage with technology.

Promoting Development of *Muhsinin* in System Users

This goal focuses on cultivating the quality of *ihsan* (excellence) in users, encouraging them to become *muhsinin* - those who excel in their deeds. Insan-Centered Design achieves this by creating systems that encourage ethical behavior, inspire good deeds, and promote moral excellence. The design approach fosters an environment where users are consistently reminded that Allah is watching every action and motivate them to embody the best of their abilities and values in both their digital and real-world interactions.

Empowering Users to Act as *Khalifah*, Responsible Caretaker of the World

A key aspect of Insan-Centered Design is to empower users in their role as *khalifah* or stewards of the earth. This involves designing systems that encourage responsible and sustainable interaction with the environment, promoting awareness and actions that contribute to the preservation and betterment of the world. It underscores the responsibility of humans to care for the earth, aligning technological use with environmental stewardship and sustainable practices. It also encourages ownership of users own actions, and to enact *amar ma'aruf nahi mungkar* (enjoining good and forbidding evil), and to spread goodness for all under the concept of *rahmatan lil alamin*.

Ensuring The Protection of the Five Necessities of the *Maqasid Al-Shariah*

Insan-Centered Design aims to safeguard the five essential objectives of Islamic law (*Maqasid al-Shariah*): faith, life, intellect, lineage, and property. This goal is pursued by designing systems that not only respect these principles but actively support and enhance them. It involves creating technology that upholds religious values, preserves human dignity and life, stimulates intellectual growth, respects family and lineage, and ensures the ethical management and protection of property.

PRINCIPLES OF INSAN-CENTERED DESIGN

Insan-Centered Design is complementary to existing design approaches within the Interaction Design field while directing the purpose of design activities to the goals of supporting both physical and spiritual requirements of users. It means adding the dimension of spiritual considerations to existing principles of design guidelines. To demonstrate, Table 2 shows the principles of Human-Centered Design and Humanity-Centered Design as explained by Don Norman in his book "*Design for a better world*" (Norman, 2023) with additional considerations for implementing spirituality in interaction using Insan-Centered Design.

Table 2: Principles of Design Approaches with Insan-Centered Design

Dimension	Human-Centered Design	Humanity-Centered Design	Insan-Centered Design
Problem Solving	Solve the core, root issues, not just the problem as presented (which is often the symptom, not the cause)	Solve the core, root issues, not just the problem as presented (which is often the symptom, not the cause).	+ consider the values arising from issues at hand and investigate the issues from all five areas of *Maqasid al-Shariah*.
Focus	Focus on the people.	Focus on the entire ecosystem of people, all living things, and the physical environment.	+ prioritize designs that serve both physical environment and spiritual well-being of humankind, aligning with role as *khalifah*: steward of this world.

Systems Thinking	Take a systems point of view, realizing that most complications result from the interdependencies of the multiple parts.	Take a long-term, systems point of view, realizing that most complications result from the interdependencies of the multiple parts and that many of the most damaging impacts on society and the ecosystem reveal themselves only years or even decades later.	+ contemplate the immediate and eternal implication of design choices, with the long-term view of increasing *taqwa*: piety of God and *ihsan*: excellence
Testing and Refinement	Continually test and refine the proposed designs to ensure they truly meet the concerns of the people for whom they are intended	Continually test and refine the proposed designs to ensure they truly meet the concerns of the people and ecosystem for whom they are intended.	+ continue to refine the system's ability to support *amar ma'aruf nahi mungkar* (enjoining good and forbidding evil)
Community Involvement	N/A	Design with the community and as much as possible support designs by the community. Professional designers should serve as enablers, facilitators, and resources, aiding community members to meet their concerns	+ consider implementing *shura* (consultation) with Muslim scholars on related field for their advice

The table demonstrates the function of Insan-Centered Design in adding spiritual considerations in existing design approaches. It allows designers to rethink design from the perspectives of addressing both the physical and spiritual needs of users. For each principle, Insan-Centered Design urges designers to conduct a reflective design process that considers the broader implications of technology on human life and spirituality, thereby fostering a more holistic and ethically conscious interaction between users and technology.

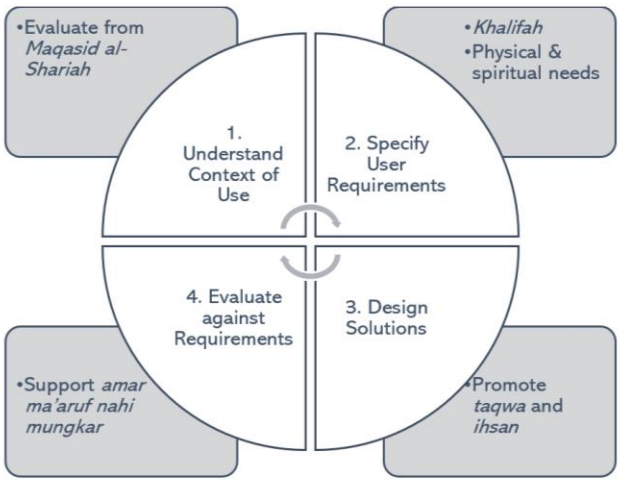

Figure 3: Insan-Centered Design with other design approaches. Adapted from (International Organization for Standardization, 2019)

Meanwhile, Figure 3 shows the framework of Human-Centered Design based on the ISO 9241-210 standard with the added spiritual considerations of Insan-Centered Design principles. The diagram

integrates traditional steps of understanding context, specifying requirements, designing solutions, and evaluating against requirements with the spiritual dimensions of Insan-Centered Design. Figure 3 specifically shows how the core values of Insan-Centered Design especially *ihsan*, *taqwa*, and *khalifah* can be operationalized within the design approaches of an established design framework by coupling in a spiritual consideration to the four phases. For example, user requirements consider not only use and context, but the spiritual needs of the users in the situation that can support them in a *khalifah* conduct. This might be translated to a design of an e-commerce app that support sellers to consolidate multiple purchases into a single packaging, avoiding waste and reducing environmental harm.

SCENARIOS OF SYSTEM DESIGN IMPLEMENTATION OF INSAN-CENTERED DESIGN

This section demonstrates the results of implementation of Insan-Centered Design in scenarios of system designs for Islamic applications in several purposes including financial tracking, navigation, and comment hosting services.

Mindful Financial Tracker Application

Mindful Financial Tracker Application designed with the Insan-Centered Design approach facilitate not only the practical management of personal finances but also to reinforce the spiritual discipline of economic stewardship. The application's expense tracking and budget planning features are designed to reflect the principle of *khalifah*, enabling users to exercise responsible stewardship over their financial resources in accordance with Islamic teachings. For savings and investments, the application incorporates ethical guidelines that align with Islamic values, advising users on Shariah-compliant investment opportunities and encouraging them to consider the long-term impact of their financial decisions on both their personal growth and societal well-being.

A notable feature is the Charitable Contribution Guidance, which recommends a proportion of the user's budget to be allocated to charitable causes, thereby directly supporting the *Maqasid al-Shariah*'s goal of protecting wealth through redistribution. This feature not only aids in fulfilling religious obligations but also cultivates a sense of ummah, the collective community of Muslims bound by shared values. Furthermore, the application is infused with prompts designed to cultivate gratitude and a keen awareness of blessings, reinforcing the concept of *al-ihsan* — the pursuit of excellence in faith — by encouraging users to be mindful and have *syukur* (gratitude) for their financial state, irrespective of its size, as a blessing from Allah. This fusion of financial management with spiritual enrichment demonstrates the potential of Insan-Centered Design to create holistic, transformative user experiences.

Islamic Navigation App – The Straight Path

This Islamic Navigation App, aptly named "The Straight Path," illustrates the application of Insan-Centered Design in creating technology that harmonizes daily activities with spiritual practices. This app goes beyond traditional navigation features by inviting users to set their *niyyah* (intention) and engage in *tawakkul* (reliance on Allah) for a safe journey at the start, thereby integrating the action of travel with a conscious act of worship and trust in God's plan. During the journey, the app actively promotes the Islamic value of *wasatiyyah* (moderation) by providing timely reminders for breaks and maintaining the speed limit to ensure safety, aligning with the *Maqasid al-Shariah*'s objective of preserving life. Furthermore, recognizing the importance of prayers, the app notifies users of nearby mosques and suitable places to perform prayer, especially if the journey's duration extends beyond prayer times, supporting the preservation of religion—one of the five necessities.

Upon journey completion, the app presents users with an opportunity for reflection, offering a moment to express gratitude for a safe arrival. This act reinforces the spiritual connection and mindfulness, encouraging users to reflect on the blessings of safe travel and the seamless integration of their faith with

the navigation experience. The Straight Path app exemplifies the potential of Insan-Centered Design to infuse everyday technology with reminders of Islamic values and practices, fostering a continuous connection with one's faith even amidst the simplest task of travel, thereby elevating it to an act of *ibadah* (worship).

GentleWords - Ethical Blog Comment Hosting Service

"GentleWords," is an ethical blog comment hosting service, that demonstrates the practical application of Insan-Centered Design in digital communication platforms. GentleWords is designed to encourage respectful and constructive online environment, rooted in the Islamic values of *adab* (etiquette) and *ihsan* (excellence). GentleWords encourages respectful language by prompting users to express themselves kindly. The service employs algorithm that identifies and gently suggests alternatives to inappropriate language, replacing harsh or offensive terms with kinder or neutral phrases. This feature not only promotes positive interactions but also aligns with the Islamic value of speaking with kindness and respect, as emphasized in the Qur'an and Hadith. In reinforcing the concept of *muhasabah* (self-accountability), GentleWords requires users to engage under their real identities. This approach discourages anonymity-driven irresponsible behaviour and encourages a sense of personal accountability, displaying ownership to their conducts.

Additionally, the service incorporates a feature focusing on patience and reflection. Using sentiment analysis, the system detects signs of escalating tension or heated conversations and intervenes by prompting users to pause and reflect. Drawing inspiration from the Prophet Muhammad's teachings on patience, users are suggested to temporarily step away or leave from the conversation if it becomes hostile. This intervention not only cools down potential online conflicts but also provides a moment for users to realign their responses with Islamic values of patience and reflection, thus encouraging a more harmonious and understanding online community.

These scenarios demonstrate how Insan-Centered Design addresses the dual nature of human existence, encompassing both the physical and spiritual realms in alignment with the Islamic understanding of *insan* as an integration of body and soul. By infusing spiritual experience into system-supported tasks, this approach transcends traditional HCI paradigms. It harmonizes the practical aspects of daily life with spiritual enrichment and ethical mindfulness, preparing individuals for both their worldly journey and the hereafter. Insan-Centered Design thus emerges as a transformative framework in technology design, enriching user experiences by not only meeting functional needs but also fostering spiritual growth and reflection, resonating deeply with the holistic human pursuit of balance between earthly responsibilities and eternal aspirations.

CONCLUSION AND LIMITATIONS

In conclusion, Insan-Centered Design represents a notable progression in the field of Interaction Design, offering a new approach that integrates the physical and spiritual components of human existence within the realm of system design. Grounded in Islamic values such as *khalifah* (stewardship) and *taqwa* (God-consciousness) and guided by the objectives of *Maqasid al-Shariah*, this approach moves beyond traditional design methodologies by infusing spiritual and ethical dimensions into interactive systems. The implementation of Insan-Centered Design, as illustrated through various scenarios in this paper, not only enhances the functionality and user experience of digital platforms but also infuses them with a deeper, spiritual significance. This integration empowers users to engage with technology in a way that aligns with their faith and ethical values, fostering a harmonious balance between their material needs and spiritual aspirations. By bridging the gap between technological advancement and spiritual fulfilment, Insan-Centered Design paves the way for future innovations that not only meet the practical demands of users but also resonate with their deeper existential and spiritual needs, ultimately contributing to a more wholesome and fulfilling human experience in the digital age.

Acknowledging the scope of this concept paper, it is important to note the deliberate limitation placed on the discussion of Maqasid al-Shariah to focus solely on the five preservations of objectives and excluding the classifications of luxuries (*tahsiniyyat*), necessities (*darurat*), and needs (*hajiyat*). This focus was chosen to establish a foundational understanding of how these objectives can be integrated into the Insan-Centered Design framework. Challenges in implementing Insan-Centered Design may include the complexity of translating spiritual concepts into measurable and actionable design criteria, and the challenges of balancing spiritual considerations with commercial and usability objectives. This may be mitigated with requiring specialized training or guidance. Although this may also increase resource needs, the collaborative dialogues (s*hura*) necessitated can enrich the overall design process, leading to more meaningful and ethically responsible design solutions aligned with users' spiritual and practical needs. Additionally, while the principles of Insan-Centered Design are articulated through envisioned scenarios, actual real-world implementations have not been documented within this paper. This presents an opportunity for future research to apply these principles in practice and to study their impact empirically. The potential of Insan-Centered Design to enrich the field of Interaction Design is clear, yet its practical application remains an area ripe for exploration, experimentation, and validation.

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