

Pneumatology in the digital age: Reimagining the Holy Spirit's role in Trinitarian theology



Authors:

Rendani C. Nthakheni¹ 
Ndidzulafhi Mudau¹ 

Affiliations:

¹Department of Human Science, Faculty of Humanities, Social Sciences and Education, University of Venda, Thohoyandou, South Africa

Corresponding author:

Rendani Nthakheni,
23039930@mvula.univen.ac.za

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Background: The Holy Spirit is becoming increasingly marginalised in contemporary Christian theology and practice, particularly as churches grapple with the technological and philosophical implications of the Fourth Industrial Revolution (4IR).

Objectives: This study examines pneumatological theory within Trinitarian theology through the lens of 4IR technologies, addressing systematic marginalisation, reductionism and insufficient theological inquiry of the Holy Spirit.

Method: The study employs qualitative theological approaches that include historical-critical analysis and systematic theology, as well as a thorough biblical assessment of major pneumatological texts and an investigation into the historical evolution of Trinitarian theology.

Results: The study finds important gaps in present pneumatological understanding, establishes the Holy Spirit's distinct personhood within the Trinity and indicates the Spirit's critical role in both church and individual spirituality that goes beyond functional dimensions.

Conclusion: A strong pneumatological framework is required for Christians navigating the digital age, one that recognises the Spirit's role in technical innovation while maintaining theological purity.

Contribution: This study advances theological scholarship by proposing novel models for understanding the Holy Spirit's operation in digital environments and providing practical applications of pneumatological insights for current Christian communities using 4IR technology.

Keywords: Holy Spirit; Trinity; Pneumatology; Fourth Industrial Revolution; Theological anthropology; digital theology; biblical exegesis.

Introduction

Trinitarian theology and the Fourth Industrial Revolution (4IR) pose distinct challenges and opportunities for comprehending the notion of the Holy Spirit. The Trinity is undoubtedly a fundamental Christian belief; nonetheless, the Holy Spirit has frequently been marginalised as churches adapt to the digital landscape and its technological and philosophical implications. Currently, Christians have overlooked the role of the Holy Spirit in God's work. The development of this area serves the practical advantage of advancing a comprehensive framework of Evangelical theology that facilitates our construction efforts. It is fundamentally a Christian cognitive apparatus that elucidates the reality of beneficent evil and other intricacies. These issues are increasingly urgent as churches confront the implications of 4IR technologies on their faith and theology. The study aims to reevaluate pneumatological theology within the Trinitarian framework and the global context of the 4IR using both historical-critical and systematic theological methodologies. This article seeks to establish a framework for comprehending the function of the Holy Spirit in contemporary Christian faith and practice through comprehensive biblical exegesis and meticulous analysis.

Foundational context of Pneumatology

The Trinity theory is at the centre of Christian theology. 'Trinity' refers to God as one in essence, nature and will, but three in person (Swinburne 2018:420). This foundation explains God's relationship as a family; they have a shared essence but are three distinct forms. The reading of Scripture and the acknowledgement of God's self-revelation in the unfolding of history are based

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on God's Trinitarian actuality (Bradshaw 2021:68). All three persons are equal, eternal and substantial. The Trinity teaches Christians how to pray and worship, thus something about living out their Christian faith must teach them the same thing. The foundation also establishes a paradigm for viewing salvation as a Trinitarian act (Hong 2017:317). The Father originates, the Son completes and the Spirit provides salvation. In conventional Christian theology, God the Father is often perceived as the creator or origin of all things. He is the architect who initiates the celestial design. Within the context of salvation, the Father is perceived as the architect and initiator of the redemption plan (Eph 1:4). The Son denotes Jesus Christ, who fulfils the Father's will via his incarnation, life, death and resurrection. The Son 'fulfils' the Father's initiation by acting as the mediator between God and humanity and providing the requisite sacrifice for salvation (Jn 3:16). The Holy Spirit is thought to implement Christ's work in believers. The Spirit operates in the lives of Christians to effectuate regeneration, sanctification and, eventually, glorification. Individuals derive advantages from Christ's personal redemption via the Spirit (Jn 14:16–17).

The Trinitarian theory was formed through a long debate and then incorporated into the decisions of ecumenical councils of the early centuries. The Council of Nicaea (325 AD) established the consubstantiality of the Son with the Father, and the Council of Constantinople (381 AD) clarified the divinity of the Holy Spirit (ed. Kim 2021:65). Church fathers such as Athanasius, Basil the Great and Augustine articulated why the Son and Holy Spirit is divine against Arianism and Sabellianism. Over time, the Western and Eastern traditions acquired slight distinctions, most notably in the Filioque clause. 'Filioque' is a Latin term meaning 'and from the Son'. This clause was added to the Nicene-Constantinopolitan Creed (381 CE) by Western churches, specifically addressing the procession of the Holy Spirit. Nonetheless, the fundamental statement of one God in three people remained a unifying element of orthodox Christianity (Taylor 2020).

Biblical and contemporary understanding of the Holy Spirit

Pneumatology, the study of the Holy Spirit, is grounded in the Old and New Testaments. The Spirit participates in creation as described in Genesis 1:2. The Spirit empowers leaders and prophets as indicated in Judges 6:34 and Isaiah 61:1. The Spirit also guarantees renewal in Ezekiel 36:26–27. In the New Testament, the Spirit is significant as he assists Jesus' family, exemplified by his descent during Jesus' baptism and his support of Jesus' ministry. On Pentecost, the Spirit is bestowed upon believers, initiating the Church (Ac 2:1–4). The epistles indicate that the Spirit participates in sanctification and spiritual gifts, guiding believers into all truth (Rm 8:14; 1 Cor 12; Jn 16:13). The Spirit is described as a helper of believers and is described as the one who never leaves the believers.

Congar (2016) made breakthrough contributions with his comprehensive work, *I Believe in the Holy Spirit*. Congar

suggested that the Filioque expresses the Son's role in the Spirit's temporal mission although the Father remains the ultimate source in the immanent Trinity. He proposed that the formula 'from the Father through the Son' may connect Eastern and Western perspectives. In addition, Zizioulas (2008), Metropolitan of Pergamon, argued for a relational interpretation of the Trinity in his works, notably 'Being as Communion'. He contended that the Filioque issue reflected deeper differences in how the East and West view persons within the Trinity, with the East emphasising hypostatic individuality and the West emphasising substantive union. Furthermore, David Bentley Hart argues in 'The Beauty of the Infinite' that the Filioque dispute stems from fundamental metaphysical differences in how the East and West view divine causality and the grammar of Trinitarian relations, implying that resolution must address these deeper philosophical divergences. Furthermore, in 'She Who Is', Johnson (2017) examines pneumatological issues from a feminist theological viewpoint, proposing that rediscovering the feminine imagery connected with the Spirit in early Christian traditions may bring new insights for resolving historical difficulties.

Today's theological and cultural situations pose problems to pneumatology (Kärkkäinen 2018). The rise of secularism and scientific rationalism frequently overshadows discussions about the Spirit's activities in the world. Furthermore, the global Pentecostal and Charismatic movements have created tension between orthodox and experiential understandings of the Spirit (Yong 2019:133). Disagreements about the nature of spiritual gifts, the role of the Spirit in interreligious contexts and the relationship between the Spirit and social justice are complicated by present discourse. Confronting these challenges involves active engagement with Scripture and contextual realities to clarify faith-based and practical pneumatology.

Fourth Industrial Revolution and pneumatology

The 4IR, defined by rapid technology breakthroughs, represented by artificial intelligence (AI), robotics and biotechnology, has particular consequences for pneumatology (Vorster & Van Niekerk 2022). One effect is that pneumatology is challenged in its view of the action of the Spirit in creation and human creativity. For example, how do we figure out if the Spirit's inspiration is behind technological advancements and how might the Spirit assist us ethically to use them? How does the Spirit participate in virtual communities and spaces, and what role does it play in this measurement? Addressing these issues necessitates a pneumatology integrating technology with the Spirit's instrumental work of community, justice and creational transformation.

The convergence of pneumatology with 4IR technologies encourages us to look at the Spirit's creative and redeeming activity in digital domains through a strong biblical perspective. Perhaps the Spirit, as it did at creation, hovers above the seemingly chaotic digital frontier, offering order

and purpose. The biblical testimony reveals the Spirit as the giver of wisdom and skill for craftsmanship (Ex 31:3–5, where Bezalel is filled ‘with the Spirit of God, with wisdom, with understanding, with knowledge, and with all kinds of skills’), implying that technological innovation itself may be a Spirit-empowered activity when aligned with divine goals. Furthermore, the Spirit transcends physical limitations while maintaining authentic community, as demonstrated at Pentecost when the Spirit overcame linguistic barriers to form the first Christian community (Ac 2:1–12), implying that the Spirit may similarly work through digital mediums to establish genuine connection. Paul’s belief that ‘the Lord is the Spirit, and where the Spirit of the Lord resides, there is liberty’ (2 Cor 3:17) encourages discernment in determining which technologies promote human flourishing and which lead to new forms of bondage. Furthermore, as societies navigate the difficult ethical quandaries provided by AI, genetic engineering and surveillance technologies, the Spirit’s role as the ‘Helper’ who guides believers into all truth (Jn 16:13) becomes increasingly important. The prophetic vision of Joel 2:28–29, in which God promises to pour forth the Spirit on all people, permitting dreams and visions, may also apply to how the Spirit inspires inventive technical solutions to critical global concerns. As the Spirit makes all things new in the eschatological vision (Rv 21:5), pneumatological reflection must consider how technology may aid or hinder the Spirit’s restorative work in creation, recognising that all genuine innovation ultimately derives from ‘every good and perfect gift’ that comes from above (Ja 1:17).

Literature review

Digital theology and faith in the technological age

Digital theology is a new field of study that examines the connection between faith, theology and digital technologies (Garner 2021:266). The digital revolution is altering how we perceive religious involvement, ecclesiology and theological notions. The literature on this topic frequently examines how digital tools, applications and platforms influence worship, community and theology. Campbell and Evolvi (2020) investigate the effects of digital spaces on sacred experiences, questioning if the sacred can be real in an online space. Digital theology examines the role of technology in democratising access to theological education, allowing for more engagement in religious discussion across geographical and cultural divides.

Historical Trinitarian texts and development

God has shown Himself as a singular being rather than a triad; His nature encompasses multiplicity. The male designation of God, which raises concerns regarding gender sensitivity, has been conveyed to us through prophets and sacred texts (Barrett 2016:153). Different texts are regularly employed in historical Trinitarian studies to demonstrate the development of the doctrine of the Trinity. The Church struggled to make the relationships between the Father, Son

and Holy Spirit meaningfully tangible to a monotheistic faith in Jesus (Smith 2023). These texts also provide insight into the context and culture in which the Trinity’s interactions are defined.

The New Testament has the first Trinitarian texts. The ties between the Father, Son and Holy Spirit involve all three. The Great Commission (Mt 28:19) requires baptism in the name of the Father, Son and Holy Spirit, while the Pauline benediction (2 Cor 13:14) expresses a Trinitarian concept of God’s favour, love and fellowship. The verse depicts baptism, in which believers proclaim their faith in the Father, Son and Holy Spirit.

The early Church Fathers’ Accomplishments (particularly those of the Apologists) were useful in defending and articulating Trinitarian theology (Dulles 2018:5). Justin Martyr, Irenaeus and Tertullian addressed misunderstandings of the Trinity while resisting heresies such as Gnosticism and modalism. Tertullian’s essay ‘Adversus Praxean’ (Against Praxeas) is particularly significant because he was the first to adopt the term *Trinitas* (Dulles 2018:6). He emphasised the three individuals’ distinctness and unity. The Nicene Creed (325 AD) resulted from the First Council of Nicaea. Furthermore, the Nicene Creed defends the Son’s consubstantiality with the Father against the Arian denial of Christ’s divinity (Brasher 2017:84).

The 4th-century Cappadocian fathers Basil the Great, Gregory of Nyssa and Gregory of Nazianzus advanced Trinitarian theology (Whitworth 2017:55). They pointed out that there is a distinction between God’s essence [*ousia*] and his expression [*energia*]. The Nicene Creed, which came out of the Council of Constantinople, was updated in 381 AD to include a statement about the deity of the Holy Spirit (Cheung 2019:32). By that time, the Cappadocians’ insights were being used. The ‘Cappadocian Fathers’ are three 4th-century theologians from Cappadocia (now Turkey): Basil the Great, Gregory of Nazianzus and Gregory of Nyssa. Their theological discoveries played an important role in the development of Trinitarian dogma. By the time of the Council of Constantinople (381 CE), which produced the extended Nicene-Constantinopolitan Creed, the Cappadocians’ theological formulations had become extremely important in settling theological debates concerning the nature of the Trinity.

Augustine of Hippo’s on the Trinity contains a thorough discussion of the Trinity and its symbolism. Augustine employed mental metaphors (memory, understanding and will) to explain the Trinity’s unity and relationship (Knight 2021). Throughout the mediaeval period, theologians such as Thomas Aquinas in *Summa Theologica* combined Trinitarian theology with Aristotelian philosophy, emphasising the economic and immanent components of the Trinity.

Ancient Trinitarian texts not only established the Trinity but also provided a theology of God’s relationship with creation

and humanity (Blanton 2023:1). These texts are relevant today because they can affect worship, mission and Christian identity. They also encourage current Christians to engage with the mystery of the Trinity in ways loyal to Scripture and tradition while addressing contemporary problems. The Church's historical contributions declare the triune God as the source of life, love and salvation.

Contemporary pneumatological studies and movements

Current studies in pneumatology focus on the active role of the Holy Spirit in a dynamic world. Lovelace (2020) investigate the Spirit's influence within the Church and beyond, encompassing renewal, empowerment and transformation. Contemporary pneumatology highlights the Spirit's significant presence in various contexts, such as social justice, ecological concerns and interfaith dialogue. The Spirit's role is connected to modern life and practices, with traditional doctrines regarding sanctification, spiritual gifts and guidance being reinterpreted for relevance in contemporary Christian existence (Sheldrake 2012:4). There is an expanded understanding of the Spirit's interaction with society to address challenges, provide innovative solutions and foster the healing of fractured communities.

The global expansion of Pentecostalism and Charismatic movements influences modern pneumatology (Kgatle 2024:121–122). These movements emphasise the pragmatic dimensions of the Spirit, encompassing prophecy, healing and glossolalia, which require more robust frameworks. Researchers investigate the impact of these activities on individual and communal faith, with many emphasising their emancipatory potential for underprivileged groups. The Southern Hemisphere, or Global South, is a crucial centre for pneumatological studies, providing novel insights from indigenous cultures within their specific environments (Asumang 2018:115). Researchers investigate how each of these practices influences individual and collective faith, frequently emphasising the emancipatory consequences for the marginalised. The Global South has emerged as a significant locus for pneumatological research, offering novel insights rooted in indigenous cultures and situations.

Pneumatology has increasingly intersected with many disciplines such as sociology, psychology and environmental studies in contemporary research. The inquiry into other disciplines aids in contextualising the Spirit's contributions to mental health, environment, technology and other areas (Burgess & Campbell 2014). For instance, a subdivision of pneumatology known as eco-pneumatology investigates the Spirit's function in the stewardship of creation. It seeks a theology that aligns with global climate change initiatives. Pneumatology intersects with neuroscience and psychology to investigate the Spirit's influence on human flourishing and resilience (Risser 2022:99). Contemporary pneumatology reveals not only the means by which the Spirit transforms individuals but also its influence within society.

The 4IR presents a unique challenge and potential for pneumatology. Theologians question whether the Spirit exists in the digital sphere, virtual communities and AI (Fourie 2020:13–14). Can the spirit provide technological ideas, and how may the spirit guide ethical thinking in a world increasingly shaped by automation and AI? The Spirit contributes to the formation of genuine community, particularly as technology alters our interactions with one another (Vallor 2016:129). Today's understanding of the spirit helps this goal by emphasising the spirit's potential to unite, rejuvenate and give hope to a more divided world. This emphasises the Spirit's activity and presence, ensuring that the concept remains relevant and impactful in current theology.

Fourth Industrial Revolution religious impact and digital challenges

Digital theology is a new field of study that examines the connection between faith, theology and digital technologies (Garner 2021:266). The digital revolution is altering how we perceive religious involvement, ecclesiology and theological notions. The literature on this topic frequently examines how digital tools, applications and platforms influence worship, community and theology. Campbell and Evolvi (2020) investigate the effects of digital spaces on sacred experiences, questioning if the sacred can be real in an online space. Digital theology examines the role of technology in democratising access to theological education, allowing for more engagement in religious discussion across geographical and cultural divides.

Published research sheds light on how technology is influencing worship and community. Aduloju (2024:145) asserts that looking into how digital technology affects worship and community life. Cooper (2022:28) examines the assumptions about the impact of digital platforms on worship, raising concerns about whether they can improve or undermine the sacredness of these experiences. The concept of 'digital ecclesiology', which investigates churches that manage to combine real-life events with online activity, is also being considered in research. These works demonstrate how digital places might increase the Church's accessibility. However, they raise doubts regarding their authenticity and depth. When applied to poor rural and township communities with limited access to technology and the Internet, digital ecclesiology faces challenges. Many rural and township regions lack access to reliable electricity and broadband infrastructure. Without these fundamentals, digital worship is out of reach, with many subsistence-level communities still unable to buy devices and data (smartphones, PCs, tablets). Dominant languages and cultural values are increasingly prioritised in digital content, excluding populations that speak minority languages. Churches can design models that include both digital and analogue components. For example, they could distribute sermons on USB (Universal Serial Bus) sticks or memory cards to share the information on communal computers. Short message service (SMS)-based

devotionals, call-in prayer lines and radio are also potential low-bandwidth solutions. *Technology-enabled community*: Churches can also host technology hubs where people can use digital resources in groups, promoting both digital users and the physical community. Creating an ecosystem in which apps and resources are available offline after download helps to address the issue of sporadic access.

The writings on digital theology address ethical and philosophical concerns regarding how technology affects our human identity (Simon 2022:18). Surveillance and AI are explored via religious lenses, and they are found to impact human dignity and freedom. Telkamp and Anderson (2022:961) examine how AI affects our ideas of humanity and moral agency. Theologians also think about the ethics of digital evangelism, highlighting the significance of ethical and inclusive methods that respect cultural diversity. It is also vital to prevent faith from becoming commodified.

The future of digital theology depends on the use of information from other fields such as sociology, computer science and media studies (Dörpinghaus 2022:4–5). The literature on this topic is increasingly focused on how technology facilitates inter-religious dialogue on a global scale, as well as issues such as inequality and climate change. The study of digital theology focuses on how technology may assist the Church in combating climate change (Ugboh 2023:60). Digital theology also investigates how virtual reality and augmented reality may provide immersive environments for learning and faith development (Palkowitsch-Kühl & Müller 2020). These articles advocate for a future-oriented theology that advances while guaranteeing that digital and other technology benefit people and honour God.

With the emergence of technological advancements such as AI, robotics, big data and the Internet of Things (IoT), the 4IR is having a significant impact on religion, theology and community (Adeboye, Owoade & Afolaranmi 2023). Religious effect studies in the 4IR examine how they affect religious expression, religious leadership, communal worship, among others. Artificial intelligence sermon preparation tools are now employed for biblical interpretation and even automated pastoral care, raising concerns about technology's ability to provide spiritual advice. Using virtual and augmented reality technologies creates immersive worship experiences that allow remote participation in sacred rites (Fernandez 2024:25). Although many challenges might arise because of discussing which digital sacraments are authentic when utilised digitally, faith has been commodified through digital platforms, and over-reliance on technology can also detach a person from real-world duties. Furthermore, 4IR religious impact studies investigate how religious communities might utilise technology to advocate for social justice, strengthen global interfaith interaction and encourage ethical behaviour in a fast-changing environment (Chibambo 2022). These 4IR studies demonstrate that religion necessitates a theology that harnesses the best of technological inventiveness while preserving the finest of religion.

In the digital age, pneumatic issues present chances to be. The rapid advancement of technology and digital culture is transforming how people communicate, connect and experience community (Miller 2020). These changes have profound implications for the church and what the Holy Spirit is up to.

The digital era can separate and detach people from real-world events, which can be extremely difficult. While technology has made it easier to connect with others, it has also made formation more difficult because of increased alienation. Virtual interaction results in less meaningful ties than face-to-face interaction, leading to loneliness and alienation. Pneumatology is the study of the spirit and spirituality (Siwinda 2017). A theology that investigates the place of the Holy Spirit (or spirit) in the universe. The Spirit, who builds and sustains community, leads the church to embrace digital technology to foster connection and belonging.

A related concern is the commercialisation of spiritual awakening in the era of technology. With the help of online tools, apps and platforms, people now have easier access to spiritual information. However, ability often comes at the expense of depth and quality. People enjoy shopping online as it is quick and easy to find what they want. Marketing promises often lead to material possessions, such as malls, stores and flats, rather than individuals (Zukin 2008:724). Spirit provides powerful God experiences; it lets us know that God has benefited us. It challenges churches to encourage people to quit practising spirituality based on convenient choices and instead make room for serendipitous encounters.

The digital age also presents issues concerning the nature of presence and embodiment (Radde-Antweiler 2021). Virtual interactions question traditional concepts of presence, posing theological problems concerning the Spirit's role in digital realms. Can the Spirit exist in virtual communities? How does the Spirit use modern media to inspire, convict and transform? Addressing these problems necessitates a pneumatology open to new modes of presence and interaction. It entails investigating how the Spirit might use technology to establish meaningful connections and promote spiritual growth.

Developing a theological framework for the digital age

A powerful theology based on an equally strong model of the Holy Spirit will help us overcome obstacles. A good 21st century pneumatology must address the work of the Spirit in creation, redemption and transformation (Kgatle & Chigorimbo 2024:1). To achieve this requirement, we require a Trinitarian model that explains how Father, Son and Holy Spirit interact and provides assurance of the Spirit's uniqueness in the Godhead and the world. This paradigm must also be contextual, addressing the specific cultural, social and technological challenges of the digital age. A solid model of the Spirit's work will engage the Father-Son-Spirit

shape of the trinitarian reality while asserting the Spirit's legitimate role in both divine reality and the world (Bracken 2008:43). It must be contextual, that is, responsive to the specific cultural, social and technological realities created by the digital age.

The digital environment challenges long-held conceptions of community, presence and embodiment (Doyle 2024:9). As a result, it raises significant theological problems, particularly about the Trinity. The Trinity's relationship can serve as an example for learning and developing authentic interactions in online places (Nelson 2021). The Father, Son and Holy Spirit are in perfect communion. This is a model for us in terms of unity and variety. By demonstrating the Spirit in developing and maintaining community, the church will develop practices and methods representing Trinitarian practices in the digital era. This attempts to develop truly powerful, meaningful communion experiences with one another in the community.

In the modern era, the Holy Spirit is our wellspring of creativity and innovation (Ijezie 2020:53–54). The Spirit inspires people to build technological innovations to improve life and solve critical challenges. This function requires distinguishing between good and evil, as technology can be beneficial. The Spirit guides us in using technology properly so that human flourishing, social justice and sustainability can be attained (Nelson 2021). When a church chooses to engage the Spirit, it may rethink technology as a tool for mission, ministry and the common good.

Conclusion

This research highlights challenges and opportunities for rethinking the role of the Spirit in Trinitarian theology during the 4IR while also acknowledging the complexities of digital technology. This study presents various novel discoveries.

The marginalisation of the Holy Spirit in trinitarian theology persists, especially as the church adapts to the changing technological context. This exclusion limits what it means to be Christian and practise theology, rather than being merely theoretical. Strong pneumatology is necessary to maintain theological consistency in the digital age.

The digital age challenges traditional concepts of presence, embodiment and community, which have been carefully considered by pneumatologists. Online interactions and communities raise metaphysical problems concerning the Spirit's role in non-corporeal realms. This study suggests that the Holy Spirit can inspire creativity and foster true interactions through digital media, rather than perceiving technology as a barrier to spiritual encounters.

A Trinitarian paradigm is useful for understanding digital interactions and communities. The perichoretic interplay of the Father, Son and Holy Spirit provides a theological framework for meaningful human engagement in digital settings, as they mutually indwell, live in peace and are in

perfect communion despite their individuality. The concept challenges the online culture's emphasis on individualism and depersonalisation.

Pneumatology offers valuable advice on the ethical usage of 4IR technologies. The Spirit guides and counsels Christians in navigating ethical issues related to AI, surveillance and virtual reality. A Spirit-guided strategy evaluates new technologies for their potential to improve human well-being and enhance overall welfare, rather than simply accepting or rejecting them.

This study proposes a contextual pneumatology based on God's self-revelation and tradition while also considering technological advancements. An action can hinder the spirit's activities in creation, inspiration and recreation, even technological advancement that serves divine purposes.

This research has practical applications beyond scholarly theology, including ministry and personal spiritual growth. Online spiritual practices that resemble pre-Trinitarian traditions of worship allow for the Trinity, real community and the Spirit to work and make old things new. Training is necessary for individuals to sense the presence of the Holy Spirit both physically and digitally.

This study provides unique frameworks for understanding the Holy Spirit's digital action, with practical consequences for the church's digital practices. By integrating 4IR technologies and reactivating pneumatological centralism in Trinitarian theology, Christians can go forward in the digital era with renewed theological and spiritual strength. An updated pneumatology is essential for a true Christian witness in the modern age. It should be both new and grounded in historical faith.

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Authors' contributions

N.M. developed the theoretical framework and analysed the theological foundations of Trinitarian doctrine. Furthermore, he contributed to the historical analysis of pneumatological development in church history, critical examination of how the Holy Spirit is marginalised in contemporary theology, biblical exegesis of key pneumatological texts, contextual analysis of 4IR impacts on religious expression and theological discourse and overall research design and methodological approach. R.C.N. focused on the contemporary pneumatological challenges in church practice, analysis of digital theology literature and its implications, practical

applications for churches navigating digital contexts, exploration of 4IR technological elements and their theological significance, interdisciplinary engagement between theology and digital studies and development of the practical framework for reimagining pneumatological doctrine. N.M. and R.C.N. together contributed to abstract development and refining research questions, literature review and source evaluation, theological implications and future research directions, final editing, revision and integration of concepts and formulating conclusions and practical recommendations.

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Data availability

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