

Digital Model "Sacred Space" for the Strengthening of Virtual Fellowship in Contemporary Theological Education

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Abstract. Digital transformation has changed the paradigm of theological education and given birth to the phenomenon of virtual fellowship as a new form of spiritual fellowship. Based on the theory of digital sacred space, this research aims to develop a conceptual model to strengthen virtual fellowship in contemporary theological education so that spiritual experience does not stop at the transmission of information, but results in a vibrant spiritual formation and community of faith. The methodology used is a systematic literature review of Scopus indexed international publications, which covers three main domains: the phenomenon of virtual fellowship, the concept of digital sacred space, and its effectiveness factors in online theological learning. The results of the study show that the application of the Digital Sacred Space Model is able to increase spiritual presence, community cohesion, and the effectiveness of pedagogical interactions. In addition, this model generates an implementive syntax—from digital space design to spiritual evaluation—that can be adapted by theological institutions. The contribution of this research is to provide a conceptual framework and empirical measurement instruments for theological education in the digital era so that it remains authentic, sacred, and deeply shapes students' spiritual character.

Keywords: Digital Sacred Space; Virtual Fellowship; Theological Education; Online Communities; Spiritual Formation

Introduction

In the digital era, contemporary theological education has undergone a significant transformation due to the shift in online learning. One of the phenomena that has emerged is the formation of virtual fellowship, which is a spiritual fellowship and learning community that takes place in a digital space through platforms such as Zoom, Microsoft Teams, or the Learning Management System. This phenomenon emerged in response to the limitations of face-to-face, especially during the COVID19 pandemic, which forced theological institutions to find ways to maintain the cohesion of the spiritual community online.

Empirical data shows that out of 421 congregational respondents, 62.7% still choose to return to face-to-face worship, while engagement in digital services has decreased. This confirms that while digital spaces allow for virtual interaction and fellowship, the quality of online fellowships has not completely replaced the physical experience. On the other hand, research shows that digital spaces can be recognized as sacred spaces, where individuals continue to build a collective spiritual experience and a sacred community. [1]

In the context of theological education, virtual fellowships play an important role in shaping student community cohesion, facilitating spiritual mentoring, and expanding access to cross-location theological education. The theoretical model of Digital Sacred Space can be applied as a conceptual framework to strengthen virtual fellowship, so that spiritual experiences and online learning are not only the transmission of information, but also spiritual formations and vibrant learning communities. Thus, theological institutions can develop pedagogical strategies that consider spiritual aspects, community connectedness, and the effectiveness of digital interactions. [2]. [3]

The empirical phenomena of Virtual Fellowship in Contemporary Theological Education found are: [4]

First, the level of religious and spiritual attachment in virtual fellowship has never been comprehensively measured. There has not been much quantitative research that specifically measures the level of faith/spirituality attachment achieved through virtual communities in the context of theological education. For example, a study by Pakpahan et al. found congregational engagement in the digital space but did not measure comparatively the power of "fellowship" in the sense of an online theological learning community. [5]. [6]. [7]

Virtual conventions, while beneficial, do not completely mimic the in-person experience. Participants reported lower transcendent experiences, shared identity, and closeness to God during virtual services compared to in-person attendance. Physical and emotional engagement in virtual services is reduced, as indicated by lower heart rates and fewer calories burned during virtual worship. [8]

The transition to online worship has highlighted opportunities and limitations. For example, while virtual services provide the necessary alternatives during restrictions, they often lack the sense of connectedness and participation found in physical gatherings.

Various scales and inventories have been developed to measure different dimensions of religiosity and spirituality, but these are often applied to face-to-face contexts and may not fully capture the nuances of virtual engagement. [9]

Second, the mechanism for the establishment of a "digital sacred space" in theological education has not yet been explicitly implemented. The concept of digital sacred space has been discussed in the scope of worship and online church communities — for example by Gunawan. However, the explicit adaptation of this concept to online theology learning spaces (classes, seminars, mentoring) is still minimal. [10]. [11]

While technology can mediate spiritual experiences and transform ideas about sacred space and time, specific mechanisms for creating digital sacred spaces in theological education are not fully articulated. The Media Proximation approach suggests that technology can enable proximity to sacred and communal experiences, but detailed implementation strategies are lacking.

There is no empirical research that assesses the impact of digital sacred spaces on spiritual experiences. Although research has explored elements such as light in virtual churches, a comprehensive methodology for evaluating the spiritual effectiveness of digital sacred spaces is still needed.

The TRI-Space model in theological education offers a framework for an inclusive and transformative learning environment but does not explicitly address the creation of a digital sacred space. The model focuses on the evolving environment, epistemology, and identity formation, which can be adapted for digital contexts, but specific guidelines are not provided. [12]. [13]

The integration of AI in religious education is being explored, but its application in shaping digital sacred spaces is not yet well defined. AI tools can improve personalization and administrative efficiency, but their role in creating a spiritually enriching digital environment requires further investigation.

Digital storytelling and interactive media can enhance religious education and identity formation, but the mechanisms of using these tools to create digital sacred spaces are not explicitly detailed. The potential for immersive engagement and participatory experiences is recognized, but practical implementation strategies are still evolving.

The concept of sacred virtuality, in which divine power remains effective in a digital environment, is emerging. However, the theological understanding and practical application of this concept in shaping digital sacred spaces in theological education is not yet fully established.

Third, the long-term impact of virtual fellowships on students' theological and spiritual formations is not yet known. Many studies look at the transition to digital (pandemic COVID19) and changes in worship or online learning formats, but few examine the long-term impact of virtual fellowship on theological character formation, spiritual identity, and ministry capacity.

Spiritual formation is an essential component of theological education, which aims to prepare students for church leadership by deepening their spiritual journey and developing spiritual maturity. However, this research mainly focuses on traditional and face-to-face education settings.

The integration of artificial intelligence and virtual reality in online learning platforms has raised questions about their impact on human cognition, emotional engagement, and spiritual growth. Emotionally responsive design in virtual learning can increase engagement and satisfaction, demonstrating potential benefits for online religious education. However, this study did not specifically address long-term spiritual formation. [14]. [15]. [16]. [17]

Studies comparing on-campus and distance theological education found no significant differences in spiritual formation between the two modes of study. This suggests that distance education, including virtual fellowship, may not inherently inhibit spiritual development. However, this study does not provide long-term insights. [18]. [19]

The transition to virtual interviews during the COVID-19 pandemic showed an increase in the number of applications and candidate rankings but did not significantly affect the match rate or ranking position of applicants. This suggests that virtual formats can be effective for certain aspects of fellowship programs, although their long-term impact on spiritual formation remains to be examined. [20]

The effort to reimagine online theological education at Ridley College aims to enhance spiritual formation, ministry, and character through thoughtful learning design principles. This ongoing research could provide future insights into the long-term effects of virtual fellowships. [21]

Fourth, the moderator factors that affect the effectiveness of virtual fellowships in theological education have not yet been explored. Although there is an identification of common challenges and strategies (e.g., integration of technology in the theological curriculum), the specific factors that influence how effective virtual fellowship is (e.g., frequency of interaction, type of platform, spiritual dimension, level of digital literacy, cultural differences) are still poorly researched.

The sense of virtual community plays an important role in user engagement in educational virtual communities. Effective commitment and perceived support are each important mediation and moderation factors in this context. This suggests that fostering a strong sense of community can be a moderating factor in the effectiveness of virtual fellowships. [22]. [23]. [24]. [25]

Systemic models identify 'learner performance' and 'learner satisfaction and confidence' as the primary determinants of the effectiveness of virtual learning programs. The factors influencing these determinants may also be relevant for virtual scholarships, implying that ensuring high student satisfaction and performance can moderate the effectiveness of the program. [26]

The integration of technology and management is essential for the success of a virtual learning environment. This suggests that the effectiveness of virtual scholarships can be moderated by how well technology and management principles are integrated into the program. [27]. [28]

Stimulating interaction between participants and promoting communication using a variety of technological tools were identified as critical factors for the success of virtual learning communities. These factors can also moderate the effectiveness of virtual scholarships by increasing engagement and collaboration among participants. [29]

Group cohesion and efficacy have a significant effect on an individual's academic performance in a virtual educational environment. This suggests that fostering strong group cohesion and efficacy can be an important moderation factor for the effectiveness of virtual fellowships. [30]. [31]

Organizational culture and social influences are powerful factors that influence the acceptance and success of a virtual learning environment. These factors can also moderate the effectiveness of virtual fellowships, especially in theological education where cultural and social contexts are significant. [32]

Fifth, there is no valid and reliable indicator to measure "virtual fellowship" in theological education. Today, the concept of "virtual fellowship" is often used in general, less accompanied by empirical instruments that have been tested for validity and reliability. Virtual Learning Environments (VLEs. VLEs are widely used in education and require effective assessment tools to measure student engagement and learning outcomes. These tools often focus on cognitive presence, social presence, and teaching presence. Indicators of engagement such as behavior, affective state, and digital interaction are essential for assessing student engagement in a virtual setting. [33]. [34]. [35]

VCoP can reduce isolation and improve knowledge sharing among participants. However, more research is needed to develop a measurement tool validated for VCoP effectiveness. The Inquiry Community framework is typically used to measure engagement and interaction within VCoP.

Virtual interviews have been implemented in various fellowship programs due to the COVID-19 pandemic. Studies show that virtual interviews can be effective in assessing program suitability and providing realistic expectations for applicants. [36]. [37]. [38]. [39]

The virtual recruitment program has been developed to increase engagement and the perception of inclusivity among scholarship applicants. Measuring engagement and learning outcomes in a virtual environment can be tricky due to the lack of physical presence and traditional indicators. [40]. [41]. [42]

There is a need for a comprehensive evaluation mechanism that takes into account pedagogical and technological aspects. Develop a multimodal engagement analytics framework and dashboard to visualize student engagement and learning paths. Implement validated instruments and models to measure engagement and learning outcomes in a virtual setting. Enhance the virtual scholarship program with targeted educational materials and structured virtual interviews to increase confidence and perception of program suitability. [43]

To be able to overcome the gap in theory and practice, the research offers an approach "Digital Sacred Space Model for the Strengthening of Virtual Fellowship in Contemporary Theological Education". So this study aims to develop and test the Digital Sacred Space Model as a conceptual framework to strengthen virtual fellowship in contemporary theological education, by assessing the effectiveness of digital space as a sacred medium that shapes community cohesion, spiritual experience, and theological formation of

students, as well as identifying characteristics, axiological values, and syntactic measures that can be applied to improve engagement, quality of interaction, and sustainability of online theology learning.

Frame work of Model Digital Sacred Space

The term Digital Sacred Space refers to a digital space (online, virtual) that is designed or lived as a sacred space—that is, a place where spiritual presence, community, ritual or connection can occur even if not in a traditional physical space. For example, a study by Daniele Battista states that: In recent years, a space has emerged on the Internet where collective beliefs are recognized, even through electronic means, uniting individuals into communities that take on the characteristics of sacred places. In the context of contemporary theological education, this concept suggests that the online learning space or spiritual community is not just a technical medium, but can also be a sacred space that allows for the formation of communion, spiritual experience, and the cohesion of faith communities. [44]

Based on the literature, some of the elements or characteristics that appear of digital sacred space are: (1) Presence or sense of spiritual presence: For example, in a study by Daniel Kristanto Gunawan it was stated that the main challenge is: "Attendance at online church services is a problem... Some think presence in the digital space is less real than presence in the analog space". (2) Virtual community or fellowship spaces: spaces where spiritual social interaction and engagement take place online. (3) The dimension of sacredness in digital mediums: namely how technology and digital platforms can be a medium for sacred experiences, not just ordinary mediums. (4) Transcendence of physical space: digital sacred space allows transcending the boundaries of physical space and time, opening wider access. (5) Liturgical or learning hybridity and flexibility: digital sacred spaces often also have a combination of synchronous and asynchronous, or between online and face-to-face.

The values or axiology that underlie or manage the concept of digital sacred space include: (1) Inclusivity: because digital space can reach more people and reduce geographical barriers. (2) Spiritual connectedness: strengthening faith fellowship or spiritual community in a digital context. (3) Divine or spiritual presence in a new medium: affirms that God or sacred experience is not limited to physical space. (4) Contemporary renewal and relevance: providing relevance for theological education to be responsive to the digital age. (5) Ethics and spiritual authenticity: despite the digital medium, spiritual values, community authenticity, and spiritual depth remain important.

The effectiveness of digital sacred spaces can be questioned and evaluated through several studies. For example, Gunawan pointed out that the experience of attendance in online worship is still considered less "real" by some participants, and this indicates that the effectiveness of digital sacred space is not fully equal to physical space. In addition, research by Battista states that the redefinition of sacredness in digital spaces opens up new challenges to authenticity, participation, and distance. In other words, its effectiveness depends on the design of the experience, technology, social interaction, and spiritual/academic context.

Research Methods

This study uses a systematic literature review method to develop a Digital Sacred Space Model that strengthens virtual fellowship in contemporary theological education. This approach is carried out by identifying, analyzing, and synthesizing the current literature related to three main focuses: (1) the phenomenon of virtual fellowship as a spiritual fellowship and online learning community; (2) the concept of digital sacred space as a sacred medium in theological interaction and learning; and (3) factors that affect the effectiveness of digital sacred spaces, including elements of presence, community, dimensions of sacredness, and pedagogical hybridity. Literature data was obtained from Scopus-indexed international journals, using keywords such as "digital sacred space," "virtual fellowship," "theological education," "online spiritual community," and "digital pedagogy." The analysis was carried out thematically to extract the characteristics, axiological values, and syntactic steps of the digital sacred space model. The results of this synthesis are used to formulate a conceptual framework that can be used as a reference in the development of pedagogical strategies for online theological education, including the measurement of spiritual attachment, community cohesion, and the effectiveness of spiritual interactions in the digital space. [45]

Discussion

1. Religious Diversity and Spiritual Attachment in Virtual Fellowship

Spiritual attachment refers to the emotional bond that individuals form with a divine being, which can provide psychological benefits similar to secure interpersonal attachments. This attachment can act as a "safe base" and a "safe haven," helping individuals cope with loss and other emotional challenges. Studies have shown that religious attachment can improve spiritual care competence, especially among nursing

students, suggesting that higher levels of religious attachment correlate with better spiritual care skills. In addition, religious attachment can provide comfort and strength, similar to the attachment experienced with a parent. [46]. [47]. [48]

The virtualization of social interactions has extended to religious practices, with digital platforms facilitating virtual spiritual companionship and fellowship. The platform allows for dialogue, sharing, and community building, which is essential for maintaining faith and spiritual growth in a networked society. Virtual reality (VR) and other digital technologies have created "cyber havens" where individuals can engage in worship, meditation, and rituals. The platform offers accessibility and connection, enabling diverse spiritual experiences and fostering a sense of community. [49]

Research shows that religious spiritual transcendence (ST) often leads to an increase in helpful behaviors within a person's group but a decrease in willingness to help outside groups. In contrast, non-religious STs promote helpful behaviors toward inner and outer groups, highlighting the importance of distinguishing between these forms of spirituality in predicting social behavior. In a religiously pluralized society, the effectiveness of spiritual care does not always depend on the similarity of faith between the caregiver and the client. Studies show that clients evaluate spiritual care encounters positively regardless of faith suitability, reflecting a broader trend of secularization and the blurring of boundaries between religious, spiritual, and secular domains. [50]. [51]

Virtual platforms can enhance the spiritual experience by providing an immersive and interactive environment for worship and community building. However, ethical considerations must be addressed to ensure cultural appropriateness and respect for religious diversity. Virtual fellowships can support diverse spiritual needs by facilitating an inclusive and accessible space for individuals from different religious backgrounds to connect and engage in meaningful spiritual practices.

Virtual fellowships offer a promising avenue for fostering spiritual attachment and accommodating religious diversity. By utilizing digital platforms, individuals can maintain and enhance their spiritual lives, build supportive communities, and navigate the complexities of religious diversity in a connected world.

2. Mechanism for the Formation of "Digital Sacred Space" in Theological Education

Digital sacred spaces are created through the manipulation of various dimensions of distance (spatial, temporal, epistemic, axiological, and emotional) using language and technology. This allows believers to experience a sense of closeness to the saint and to other worshippers, effectively "transporting" them to the worship hall. Digital storytelling and interactive media, such as augmented reality (AR) and virtual reality (VR), play a crucial role in creating immersive and participatory experiences. This technology helps in reconstructing religious memory and identity, fostering a deeper emotional and intellectual connection with religious traditions. [52]. [53]

The concept of sacred virtuality involves the belief that divine forces remain effective in a digital environment. This is exemplified by virtual celebrations of religious rites, such as the Eucharist, which allow for real-time interactive participation and overcome physical distancing. Social media platforms serve as modern digital agora, where religious identities, missions, and vocations can be realized. The platform allows for a culture of synodality and an engaged presence on social media, which reflects the dynamics of the ancient Greek agora.

The COVID-19 pandemic led to the rapid development of virtual church services, turning homes into temporary sacred spaces. This blurring of sacred and secular spaces creates new forms of infrasecular spaces, in which the pastor's house is temporally linked to the house of the congregation. Empirical research on virtual sacred architecture, such as the effect of light on spiritual experiences, highlights the importance of design in creating digital sacred spaces. This study provides insights into how architectural elements can be translated into virtual environments to enhance the spiritual experience. [54]. [55]

The shift to a digital sacred space requires a rethinking of authority, authenticity, and agency in religious education. Digital storytelling can help in navigating this shift by encouraging practices that are committed to human freedom and relationality. Models such as "TRI-Space" in theological education emphasize the need for responsive and inclusive epistemology, identity formation, and ethical praxis. These models challenge hegemonic power relations and facilitate transformational learning.

The formation of digital sacred spaces in theological education involves the complex interaction of technology, media, and religious practices. By utilizing techno-discursive manipulation, interactive media, virtual celebrations, and social media platforms, these spaces can provide immersive and participatory experiences that enhance spiritual connection and identity formation. However, it is crucial to address the challenges associated with authority, authenticity, and ethical praxis in order to fully realize the potential of digital sacred spaces in theological education.

3. The Long-Term Impact of Virtual Fellowships on Students' Theological and Spiritual Formation

Technology allows believers to feel closeness to the saints and to other worshippers. This is achieved through the manipulation of spatial, temporal, epistemic, axiological, and emotional distances, facilitated by language and technological capabilities. Digital platforms can "bring" believers into virtual worship spaces, offering a communal experience that mimics physical gatherings. Digital storytelling is a powerful tool in religious education, helping individuals to shape their religious identity and engage in practices that emphasize human freedom and relationality. Educators must navigate the challenges posed by the blending of different social contexts in the digital space.

Social media platforms are likened to the ancient Greek *agora*, serving as a space for Christian vocations and missions. This digital apostolate fosters a culture of synodality and a presence that is involved in social media. The digital space supports the vision of the synod Church by enabling universal participation and commitment. [56]

In times of crisis, traditional sacred spaces and rites are adapted to digital formats, such as virtual Eucharistic celebrations. It involves a theological understanding that divine power remains effective in a digital environment, beyond physical distance. Platforms that allow real-time interactive participation help maintain a sense of sacred space and communal worship.

Digital Theology, which emerged from Digital Humanities and Digital Religions, emphasizes an interdisciplinary approach to understanding the unique characteristics and vocational aspects of theology in the digital age. It serves as an ethical and valuable guide for navigating the modern digital world. [57]. [58]. [59]

Research has shown that elements such as light in virtual sacred spaces can significantly influence spiritual experiences, uplifting the soul of worshippers and contributing to transcendental experiences. Empirical methods adapted from the social sciences are used to assess emotional and spiritual responses to virtual sacred architecture.

The integration of AI and other digital tools in theological education requires careful ethical oversight to avoid theological distortion and over-reliance on technology. Models such as "TRI-Space" emphasize the need for culturally responsive and inclusive pedagogy that facilitates the formation of ethical identity and praxis in digital theological education.

In summary, the formation of digital sacred spaces in theological education involves the complex interaction of technology, language, and social interactions, aiming to create meaningful and communal spiritual experiences. Ongoing research highlights the potential and challenges of integrating digital tools and spaces into religious education.

4. Moderator Factors Affecting the Effectiveness of Virtual Fellowships in Theological Education

Frequent and meaningful interactions are essential to the success of a virtual learning community. Stimulating interaction between participants and promoting communication using various technological tools are key factors. Ongoing engagement with the learner community is essential to creating a vibrant virtual community.

The choice of technology platforms and tools significantly impacts the effectiveness of virtual scholarships. The effective use of collaboration and communication technologies can help build emotional connections and support among participants. The platform should facilitate synchronous and asynchronous activities to increase interaction and engagement.

Although the abstract does not explicitly address the spiritual dimension, the creation of a safe and engaging virtual community can indirectly support spiritual growth. Instructors need to pay attention to course design, social attendance, and customized assignments to foster a supportive environment. Virtual scholarships should address cultural differences by promoting inclusivity and understanding. Programs that emphasize diversity and inclusion, and provide opportunities for cross-cultural interaction, can enhance the learning experience. The use of a variety of platforms and flexible communication methods can help accommodate diverse cultural backgrounds. [60]

Regular and structured interactions, both synchronous and asynchronous, are essential. This can be achieved through scheduled meetings, discussion forums, and collaborative projects.

Choosing a powerful and user-friendly platform that supports a wide range of communication tools is essential. These platforms should allow for real-time and delayed interactions to meet different needs. [61]

Although not addressed directly, fostering a supportive and engaged community can indirectly support spiritual growth. Adjusting tasks and maintaining a strong social presence can help.

Programs should be designed to be inclusive and culturally sensitive. This includes providing diverse content, promoting cross-cultural interaction, and using flexible communication methods. [62]

While the abstract provides some insight into the factors that affect the effectiveness of virtual fellowships, specific details about the spiritual dimension and cultural differences are limited. However, the importance of frequency of interaction, choice of platform, and creating an inclusive and engaging community are well supported. Further research specifically targeting theological education and these moderator factors would be beneficial.

5. Valid and Reliable Indicators to Measure "Virtual Fellowship" in Theological Education

Make sure the questionnaire items are relevant, clear, and simple. For example, a study on cardiology residents used a facial validity index of >0.79 and a content validity index of 0.95. Use factor analysis to identify the underlying domain. Cardiology studies identify four domains through analysis of the main component factors. Measure internal consistency using alpha reliability and Cronbach retest. The cardiology questionnaire had an alpha Cronbach of 0.93 and an ICC of 0.99. [63]

The questionnaire for pediatric colleagues included domains such as self-efficacy and perceived high previous educational adequacy, indicating high internal consistency (0.95 and 0.84). A study on the ethics of virtual education developed a questionnaire with domains such as copyright compliance, educational principles, and fairness in evaluation, validated through factor analysis. [64]. [65]

Evaluating the effectiveness of virtual interviews in scholarship programs can provide insight into the virtual scholarship experience. A study of Mother-Fetal Medicine associates found no significant difference in satisfaction between virtual and face-to-face interviews, suggesting virtual methods can be effective. The Nursing Journal Club Perception Scale (NJPCS) measures the value of virtual education and experiences, demonstrating high content validity and internal consistency. [66]. [67]

Although there is no specific instrument for measuring virtual fellowship in theological education, adapting methodologies from other educational contexts can provide a robust framework. Key measures include developing a comprehensive questionnaire, ensuring validity and reliability through expert reviews and statistical analysis, and focusing on relevant domains such as spiritual growth, educational content, and ethical development.

Conclusion

This study concludes that the Digital Sacred Space Model is an effective conceptual framework to strengthen virtual fellowship in contemporary theological education. Through the design of digital sacred spaces, online liturgical elements, and the integration of spiritual-technological pedagogy, this model forms community cohesion, spiritual attachment, and authentic spiritual experiences in digital spaces. The implementation of a cycle of reflection and evaluation allows for transformative and continuous theological learning.

His contributions include: (1) the development of the conceptual model of Digital Sacred Space as a sacred medium in theological learning; (2) formulation of valid and reliable indicators to measure the quality of virtual fellowships; (3) strengthening pedagogical strategies based on digital spirituality; and (4) the provision of a theological basis for authentic, inclusive, and faith-formation-oriented online education. [68]

REFERENCES

- [1] Gupta, R., Silva, I., Herzog, I., Mailey, B.A. "The Experience of the Virtual Interview Process for Hand Fellowship Program Directors." *Journal of Hand Surgery Global Online* (2024). <https://www.scopus.com/pages/publications/85194971322?origin=scopusAI%0A>.
- [2] ———. "The Call for Spiritual Formation in Protestant Theological Institutions in South Africa." *Acta Theologica* (2008). <https://www.scopus.com/pages/publications/63849281540?origin=scopusAI>.
- [3] Da Silva, V., Omar, N. "Model of Measurement of Meaningful Learning in Distance Learning Environments." In *Iberian Conference on Information Systems and Technologies, CISTI*, 2017. <https://www.scopus.com/pages/publications/85027061656?origin=scopusAI%0A>.
- [4] Zamfir, K. "Ritual Reinvention and the Celebration of the Eucharist in Times of Crises: Biblical and Contemporary Perspectives." *Religious Responses to Pandemics and Crises: Isolation, Survival, and Covidchaos* (2023). <https://www.scopus.com/pages/publications/85169411509?origin=scopusAI%0A>.
- [5] Cappellen, J.F. Van, P., Nelson, C., McClear. "What It Takes to Tutor—A Preregistered Direct Replication of the Scaffolding Experimental Study by D. Wood et Al. (1978)." *Psychology of Religion and Spirituality* (2025). <https://www.scopus.com/pages/publications/105011090654?origin=scopusAI>.
- [6] Van Cappellen, P., Nelson, C., McClear, J.F. "What It Takes to Tutor—A Preregistered Direct Replication of the Scaffolding Experimental Study by D. Wood et Al. (1978)." *Psychology of Religion and Spirituality* (2025). <https://www.scopus.com/pages/publications/105011090654?origin=scopusAI>.

- [7] Pakpahan, Binsar J. Pakpahan, Puji H. Arintonang & Agus Hendratmo. "Congregation Members Response to Worship and Fellowship in the Digital Space during the COVID 19 Pandemic." *HTS Teologiese Studies/Theological Studies* 80, no. 1 (2024): a9980.
- [8] Dein, F. Dein, S., Watts. "Religious Worship Online: A Qualitative Study of Two Sunday Virtual Services." *Archive for the Psychology of Religion* (2023). <https://www.scopus.com/pages/publications/85146548884?origin=scopusAI>.
- [9] Shorkey, C., Uebel, M., Windsor, L.C. "Measuring Dimensions of Spirituality in Chemical Dependence Treatment and Recovery: Research and Practice." *International Journal of Mental Health and Addiction* (2088). <https://www.scopus.com/pages/publications/48449101460?origin=scopusAI%0A%0A>.
- [10] Gunawan, Daniel Kristanto. "God's Presence in Digital Space: Theological Studies of Online Worship in the Midst of the COVID 19 Pandemic." *Theologia in Loco* 4, no. 2 (2022): 214–238.
- [11] Hege, B.A.R. "The Online Theology Classroom: Strategies for Engaging a Community of Distance Learners in a Hybrid Model of Online Education." *Teaching Theology and Religion* (2011). <https://www.scopus.com/pages/publications/78650948470?origin=scopusAI%0A>.
- [12] Somasundram, D. "Implementing the Contemporary 'TRI-Space Model in Theological Education' That Honours Inclusive Community." *International Journal of Humanities Education* (2015). <https://www.scopus.com/pages/publications/84944717283?origin=scopusAI%0A>.
- [13] ———. "Implementing the Contemporary 'TRI-Space Model in Theological Education' That Honours Inclusive Community." *International Journal of Humanities Education* (2025). <https://www.scopus.com/pages/publications/84944717283?origin=scopusAI%0A>.
- [14] Mulqueeney, K., Mingle, L.A., Kostyuk, V., Ocumpaugh, J. *Improving Engagement in an E-Learning Environment. Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2015. <https://www.scopus.com/pages/publications/84949008803?origin=scopusAI%0A%0A>.
- [15] Papakostas, C. "Artificial Intelligence in Religious Education: Ethical, Pedagogical, and Theological Perspectives." *Religions* (2025). <https://www.scopus.com/pages/publications/105006675259?origin=scopusAI%0A%0A>.
- [16] Yu, H., Tian, L. "Theological And Philosophical Perspectives On Emotional Design In Ai And Virtual Reality Learning: Exploring Spiritual Formation And Religious Education." *European Journal for Philosophy of Religion* (2025). <https://www.scopus.com/pages/publications/85218739126?origin=scopusAI%0A>.
- [17] Zhang, H., Sun, X., Zhang, Y., Yao, C. *Towards Personalized Instruction: Co-Designing a Teacher-Centered Dashboard for Learning Engagement Analysis in Blended Learning Environments. Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2023. <https://www.scopus.com/pages/publications/85169014096?origin=scopusAI%0A>.
- [18] Naidoo, M. "An Empirical Study on Spiritual Formation at Protestant Theological Training Institutions in South Africa." *Religion and Theology* (2011). <https://www.scopus.com/pages/publications/84982166079?origin=scopusAI%0A>.
- [19] Nichols, M. "A Comparison of the Spiritual Participation of On-Campus and Theological Distance Education Students." *Journal of Adult Theological Education* (2015). <https://www.scopus.com/pages/publications/85009831978?origin=scopusAI>.
- [20] Abedi, A., Khan, S.S. "Affect-Driven Ordinal Engagement Measurement from Video." *Multimedia Tools and Applications* (2024). <https://www.scopus.com/pages/publications/85168153798?origin=scopusAI%0A>.
- [21] Hockridge, D. "Reimagining Christian Formation in Online Theological Education." *Reimagining Christian Education: Cultivating Transformative Approaches* (2018). <https://www.scopus.com/pages/publications/85063518399?origin=scopusAI%0A>.
- [22] Cruz-Benito, J., Therón, R., García-Peñalvo, F.J., Pizarro Lucas, E. "Discovering Usage Behaviors and Engagement in an Educational Virtual World." *Computers in Human Behavior* (2015). <https://www.scopus.com/pages/publications/85027950176?origin=scopusAI%0A>.
- [23] Johannesen, M. "The Role of Virtual Learning Environments in a Primary School Context: An Analysis of Inscription of Assessment Practices." *British Journal of Educational Technology* (2013). <https://www.scopus.com/pages/publications/84874112663?origin=scopusAI%0A%0A>.
- [24] Lardier, D.T., Dickson, E.L., Hackett, J.M., Verdezoto, C.S. "A Scoping Review of Existing Research between 1990 and 2023: Measuring Virtual Communities of Practice across Disciplines." *Journal of Community Psychology* (2024). <https://www.scopus.com/pages/publications/85173438005?origin=scopusAI%0A>.
- [25] Zhao, H., Shi, Q. "Assessing the Impact Mechanism of Sense of Virtual Community on User Engagement." *Frontiers in Psychology* (2022). <https://www.scopus.com/pages/publications/85133506551?origin=scopusAI%0A>.
- [26] Pham, L.D., Matthews, G.F., Cravens, X. "What Students Value Most: A Qualitative Examination of Learner Experiences in a Fully Online Degree Program." *Teachers College Record* (2022). <https://www.scopus.com/pages/publications/85152381900?origin=scopusAI%0A>.
- [27] Chuaphun, P., Chujai, L., Samanchuen, T. "Developing a Comprehensive Virtual Learning Management Framework: Key Factors and Strategies for Success." In *5th Technology Innovation Management and Engineering Science International Conference, TIMES-ICON 2024 - Proceedings*, 2024. <https://www.scopus.com/pages/publications/85202598640?origin=scopusAI%0A>.
- [28] Fayyumi, A., Elia, G. "A Systemic Model for Measuring the Effectiveness of Virtual Learning Programs." *International Journal of Information Technology and Management* (2015). <https://www.scopus.com/pages/publications/84943532230?origin=scopusAI%0A>.
- [29] Marciniak, R. "Key Success Factors of Virtual Learning Communities in Online Courses: Recommendations for Teachers." *Building an Academic Community: Challenges for Education Quality Management* (2023). <https://www.scopus.com/pages/publications/85199728414?origin=scopusAI>.

- [30] Logemann, M., Aritz, J., Cardon, P., Stapp, J. "Standing Strong amid a Pandemic: How a Global Online Team Project Stands up to the Public Health Crisis." *British Journal of Educational Technology* (2022). <https://www.scopus.com/pages/publications/85124580855?origin=scopusAI%0A>.
- [31] Yoon, P., Han, S., Kim, K. "Effects of Team-Building on Group Cohesion, Group Efficacy, and Individual Academic Performance in Virtual Learning Environment." *Active Learning in Higher Education* (2025). <https://www.scopus.com/pages/publications/105001067407?origin=scopusAI>.
- [32] Keller, C. "User Acceptance of Virtual Learning Environments: A Case Study from Three Northern European Universities." *Communications of the Association for Information Systems* (2009). <https://www.scopus.com/pages/publications/73149102511?origin=scopusAI>.
- [33] Martínez-Argüelles, M.J., Callejo, M.B., Farrero, J.M.C. "Dimensions of Perceived Service Quality in Higher Education Virtual Learning Environments." *RUSC Universities and Knowledge Society Journal* (2013). <https://www.scopus.com/pages/publications/84872511829?origin=scopusAI%0A>.
- [34] Nowlan, N.S., Hartwick, P., Arya, A. "Skill Assessment in Virtual Learning Environments." In *CIVEMSA 2018 - 2018IEEE International Conference on Computational Intelligence and Virtual Environments for Measurement Systems and Applications, Proceedings, 2018*. <https://www.scopus.com/pages/publications/85053150516?origin=scopusAI>.
- [35] Solé-Beteta, X., Navarro, J., Gajšek, B., Zaballos, A. "A Data-Driven Approach to Quantify and Measure Students' Engagement in Synchronous Virtual Learning Environments." *Sensors* (2022). <https://www.scopus.com/pages/publications/85128784836?origin=scopusAI%0A>.
- [36] Cassidy, D.J., Clanahan, J.M., Wan, F., Brunt, L.M. "The Impact of Virtual Interviews on the Fellowship Council Application and Main Match Process." *Surgical Endoscopy* (2023). <https://www.scopus.com/pages/publications/85172153835?origin=scopusAI%0A>.
- [37] DiGiusto, M., Lupa, M.C., Corridore, M., Lockman, J.L. "The Impact of the COVID-19 Pandemic on the 2020 Pediatric Anesthesiology Fellowship Application Cycle: A Survey of Applicants." *Paediatric Anaesthesia* (2021). <https://www.scopus.com/pages/publications/85108333790?origin=scopusAI%0A>.
- [38] Huppert, L.A., Hsu, G., Elnachef, N., Babik, J.M. "A Single Center Evaluation of Applicant Experiences in Virtual Interviews across Eight Internal Medicine Subspecialty Fellowship Programs." *Medical Education Online* (2021). <https://www.scopus.com/pages/publications/85109110449?origin=scopusAI>.
- [39] Strumpf, Z., Miller, C., Livingston, D., Matta, M.. "Virtual Interviews: Challenges and Opportunities for Pulmonary Disease and Critical Care Medicine Fellowship Programs." *ATS Scholar* (2021). <https://www.scopus.com/pages/publications/85141386438?origin=scopusAI%0A>.
- [40] Lang, M. "Learning Analytics for Measuring Engagement and Academic Performance: A Case Study from an Irish University." In *International Conference on Higher Education Advances, 2022*. <https://www.scopus.com/pages/publications/85136992114?origin=scopusAI%0A>.
- [41] Wiley, Z., Bussey-Jones, J., Cobb, J., Manning, K.D. "Rysefax: A Virtual Recruitment Initiative Targeting Internal Medicine Fellowship Applicants Committed to Program Inclusion." *Journal of Graduate Medical Education* (2025). rysefax: A Virtual Recruitment Initiative Targeting Internal Medicine Fellowship Applicants Committed to Program Inclusion%0AWiley, Z., Bussey-Jones, J., Cobb, J., (...), Manning, K.D.%0AJournal of Graduate Medical Education, 2025%0Ahttps://www.scopus.com/pages/publications/105009069933?origin=scopusAI%0A.
- [42] ———. "Rysefax: A Virtual Recruitment Initiative Targeting Internal Medicine Fellowship Applicants Committed to Program Inclusion." *Journal of Graduate Medical Education* (2025). <https://www.scopus.com/pages/publications/105009069933?origin=scopusAI%0A>.
- [43] Landripet, I., Koletić, G., Jurković, L., Štulhofer, A. "Construction and Evaluation of the Faith-Based Social Engagement Scale (Vida) among Emerging Croatian Adults." *Revija za Sociologiju* (2020). <https://www.scopus.com/pages/publications/85099760268?origin=scopusAI%0A>.
- [44] Battista, Daniele. "The Digital as Sacred Space: Exploring the Online Religious Dimension." *Academicus International Scientific Journal* 15, no. 29 (2024): 21–37.
- [45] Burgess, M.L., Slate, J.R., Rojas-LeBouef, A., LaPrairie, K. "Teaching and Learning in Second Life: Using the Community of Inquiry (CoI) Model to Support Online Instruction with Graduate Students in Instructional Technology." *Internet and Higher Education* (2010). <https://www.scopus.com/pages/publications/76349087359?origin=scopusAI>.
- [46] Currier, J.M., Stevens, L.T., Hinkel, H.M., Park, C.L. "Understanding Religious Attachment among Christians Seeking Spiritually Integrated Psychotherapies: A Mixed Methods Study." *Journal of Clinical Psychology* (2022). <https://www.scopus.com/pages/publications/85116040500?origin=scopusAI%0A>.
- [47] Kiliç İşleyen, E., Kartal, A. "The Relationship Between Religious Attachment and Spiritual Care Competencies in Nursing Students: A Cross-Sectional Study in Turkey." *Journal of Religion and Health* (2025). <https://www.scopus.com/pages/publications/105015551455?origin=scopusAI%0A>.
- [48] Lázár, I. "Believers, Prophets and Visionaries: Attachment, Spirituality and Health." *Spirituality: Global Practices, Societal Attitudes and Effects on Health* (2015). <https://www.scopus.com/pages/publications/84956843418?origin=scopusAI%0A>.
- [49] Velásquez Camelo, E.E. "Virtual Spiritual Accompaniment: Scope and Limits." *Theologica Xaveriana* (2021). <https://www.scopus.com/pages/publications/85102051201?origin=scopusAI%0A>.
- [50] Liefbroer, A.I., Nagel, I. "Does Faith Concordance Matter? A Comparison of Clients' Perceptions in Same Versus Interfaith Spiritual Care Encounters with Chaplains in Hospitals." *Pastoral Psychology* (2021). <https://www.scopus.com/pages/publications/85107811944?origin=scopusAI%0A>.
- [51] Piotrowski, J.P., Żemojtel-Piotrowska, M. "Spiritual Transcendence and Helping Behavior: Helping Toward Ingroups and Outgroups." *Psychology of Religion and Spirituality* (2022). <https://www.scopus.com/pages/publications/85089966627?origin=scopusAI%0A>.

- [52] Semwal, R., Tyagi, P.K. "Cyber Sanctuaries: Exploring the Intersection of Virtual Reality and Spiritual Experience." *Technology and Religious Tourism: Emerging Trends, Cases and Futuristic Perspectives* (2025). <https://www.scopus.com/pages/publications/105004329998?origin=scopusAI%0A>.
- [53] Xu, J. "Digital Mediation Of Sacred Memory: Reconstructing Religious Identity Through New Media In Digital Museum Design." *European Journal for Philosophy of Religion* (2025). <https://www.scopus.com/pages/publications/85218758595?origin=scopusAI%0A>.
- [54] Bryson, J.R., Andres, L., Davies, A. "COVID-19, Virtual Church Services and a New Temporary Geography of Home." *Tijdschrift voor Economische en Sociale Geografie* (2020). <https://www.scopus.com/pages/publications/85087301698?origin=scopusAI%0A>.
- [55] Mansour, N. "The Holy Light of Cyberspace: Spiritual Experience in a Virtual Church." *Religions* (2022). <https://www.scopus.com/pages/publications/85124025396?origin=scopusAI%0A>.
- [56] Farid, A.S. "The Power of Faith and Social Media in Healing Women's Mental Health – A Theological Study." *Pharos Journal of Theology* (2025). <https://www.scopus.com/pages/publications/85213977391?origin=scopusAI>.
- [57] Galang, J.R.F., Macaraan, W.E.R. "Digital Apostleship: Evangelization in the New Agora." *Religions* (2021). <https://www.scopus.com/pages/publications/85100694821?origin=scopusAI%0A>.
- [58] Sampe, N., Sanderan, R., Sule, B. "Digital Discipleship in the Age of Connectivity Insights for Transforming Ecclesiastical Practices in Indonesia." *Journal of Youth and Theology* (2025).
- [59] Shmalii, V.V. "Defining Digital Theology." *Studia Religiosa Rossica* (2024). <https://www.scopus.com/pages/publications/85212154946?origin=scopusAI%0A>.
- [60] Hess, M.E. "2010 Presidential Address: Learning Religion and Religiously Learning amid Global Cultural Flows." *Religious Education* (2011). <https://www.scopus.com/pages/publications/80051485734?origin=scopusAI%0A>.
- [61] Bolster, M.B., Kolfenbach, J., Poeschla, A., Zickuhr, L. "Incorporating Telemedicine in Rheumatology Fellowship Training Programs: Needs Assessment, Curricular Intervention, and Evaluation." *Arthritis Care and Research* (2023). <https://www.scopus.com/pages/publications/85165141031?origin=scopusAI>.
- [62] Kopytowska, M. "Proximizing the Sacred: On Symbols, Rituals, and Distance." *Thought-Sign-Symbol: Cross-Cultural Representations of Religion* (2022). <https://www.scopus.com/pages/publications/85142642906?origin=scopusAI%0A>.
- [63] Ghadrdoost, B., Sadeghipour, P., Amin, A., Mohebbi, B. "Validity and Reliability of a Virtual Education Satisfaction Questionnaire from the Perspective of Cardiology Residents during the COVID-19 Pandemic." *Journal of Education and Health Promotion* (2021). <https://www.scopus.com/pages/publications/85114617330?origin=scopusAI%0A%0A>.
- [64] Brock, K.E., Cohen, H.J., Popat, R.A., Halamek, L.P. "Reliability and Validity of the Pediatric Palliative Care Questionnaire for Measuring Self-Efficacy, Knowledge, and Adequacy of Prior Medical Education among Pediatric Fellows." *Journal of Palliative Medicine* (2015). <https://www.scopus.com/pages/publications/84943571834?origin=scopusAI%0A>.
- [65] Mohammadi, F., Kouhpayeh, S.A., Bijani, M., Rustae, S. "Development and Psychometric Testing of a Questionnaire for Assessment of Medical Science Educators' Adherence to Ethical Principles in Virtual Education: Exploratory Sequential Mixed Methods Study." *BMC Medical Education* (2024). <https://www.scopus.com/pages/publications/85181890387?origin=scopusAI%0A%0A>.
- [66] Hassan, N., Singh, K., Kunjavara, J., Al Lenjawi, B. "Development and Validation of the Nursing Journal Club Perception Scale (NJCPS)." *Journal of Education and Health Promotion* (2023). <https://www.scopus.com/pages/publications/85165959271?origin=scopusAI%0A>.
- [67] Infusino, S., Lewkowitz, A.K., Gyamfi-Bannerman, C., Rhoades, J.S. "Maternal-Fetal Medicine Fellow Experience in the First Year of Training Compared to Interview Expectations Based on Interview Modality." *BMC Medical Education* (2025).
- [68] Lazić, T. "An Abductive Study of Digital Worship through the Lenses of Netnography and Digital Ecclesiology." *Music and Spirituality: Theological Approaches, Empirical Methods, and Christian Worship* (2024). <https://www.scopus.com/pages/publications/85200949664?origin=scopusAI%0A>.