Doing Theology *with* Videogames – Insights for Computational Theology

Erin Raffety

(b) https://orcid.org/0000-0002-6543-6513

Abstract This chapter explores the intersections of Computational Humanities, Digital Theology, and videogames, asserting that a definition of Computational Theology must clarify how its assorted methods, both digital and computational, inform knowledge-making, and avoid separating users from computers, something the field of *Human Computer Interaction* (HCI) has been instrumental in establishing (especially when it comes to disabled users). Drawing on a mixed-methods pilot study, in which disabled users helped to design and play a videogame to enrich Protestant Christian faith experiences in the Northeastern United States, the author provides three guiding insights for doing Computational Theology with videogames:

(1) Computational theologians wishing to engage videogames must center users in prototype development and methods for study;

(2) Computational theologians must appreciate play as a site of theological knowledge-making, moving from observing structural symmetry between religion and games to doing theology with games and gamers themselves;

(3) Even when games are created with specific users in mind, computational theologians must not mistake games for neutral objects; rather, they must continually interrogate the theological underpinnings of computational models.

Keywords Computational Theology, Digital Theology, Game Studies, Human Computer Interaction

1. Introduction

The intersection between videogames and religion was historically neglected (Campbell & Grieve, 2014, 2–3). However, the recently founded *International Academy for the Study of Gaming and Religion* (IASGAR), *Videogaming and Program Unit in the American Academy of Religion* (AAR), and the online journal, *Gamevironments* (all between 2014–2015), attest to the widespread import of digital games not only for entertainment, but also meaning-making for youth and adults across the globe and varied religious affiliations. In her chapter on "The Importance of Playing in Earnest," Rachel Wagner highlights some of the surprising symmetry between gaming and religious life, including but not limited to order-making mechanisms, predictive capacities, and escapist elements (2014, 193). But are videogames and religion merely symmetrical or metaphorical?

Even as the field of Digital Religion has taken up videogaming and even religious education and formation, there are few studies that look to videogames themselves or those who play them as a source of theological knowledge. In other words, theologians participate and consume, but we are not always critical theologically about the difference those actions make, nor do we frequently create our own models for further study. In order to assess the study of videogames for theological knowledge-making, let alone Computational Theology, this chapter begins by discussing and defining the various intersections between the fields of Digital Humanities, Computational Humanities, Digital Theology, and Computational Theology. I argue that Computational Theology, which creates and studies computational models, like algorithms and machine learning in videogaming, offers a significant opportunity for theological knowledge-making, so long as it does not become divorced from the users who make and utilize such models or obscure the researchers and research methods for studying them. As a practical theologian who uses qualitative methods, I use mixed-methods technological approaches, including, for instance, using digital tools such as Zoom, to gather qualitative data, and computational models, such as videogames, to study interactions between users and God. By drawing on background from The Spiritual Loop Project, a study of disabled videogamers and their Christian communities funded through the *Templeton World Charity Foundation* from 2020–2022, the article also elaborates three noteworthy lessons from our work in Computational Theology that may further conversation for the burgeoning field.¹

2. Defining Computational Theology (and its Methods)

In his paper, "Ain't No Way Around It: Why We Need To Be Clear About What We Mean By 'Digital Humanities," Michael Piotrowski argues that new disciplines are not distinguished by new methods, but rather by "a particular combination of (1) a research object and (2) a research objective" (Piotrowski 2020, 10). Piotrowski continues, "...how does research – in whatever field – come to new insights? ...the answer is easier than it may seem: it does so by *building models* of its research object" (Piotrowski 2020, 10). Piotrowski goes onto argue that as "universal modeling machines" (Piotrowski 2020, 11) computers are particularly adept at answering research questions. He concludes, "Thus, the difference between computational humanities and most traditional research in the humanities is not that computational humanities

¹ This chapter focuses on distilling insights relevant to the field of computational theology from *The Spiritual Loop.* For a more thorough overview of *The Spiritual Loop* research methods, game design, and study results, see Raffety & Insa-Iglesias 2023.

constructs models, but that computational humanities construct models that can be manipulated by the computer, i.e. *computational models*, or more generally, *formal models*" (Piotrowski 2020, 11). As I understand it, Piotrowski wants to move computational research in the humanities toward a definition that actually meets three criteria, namely research of a (1) computational research object; (2) with a research objective related to computational humanities; and (3) facilitated by a computational model. This not only helps move the definition of Digital Humanities away from a simple rebranding of the traditional humanities, but also offers clarity as to how Computational Humanities research differs from humanities research by creating new knowledge using computers to produce models.

Before I move onto examine how we used *The Spiritual Loop* prototype as a computational model for Computational Theology, it is important to try to bring together Piotrowski's definition of the Computational Humanities with Peter Phillips, Kyle Schiefelbein-Guerrero, and Jonas Kurlberg's paper on "Defining Digital Theology" (Phillips et al. 2019). In their article, Phillips, Schiefelbein-Guerrero and Kurlberg outline some of the history of the development of Digital Humanities and the CODEC Research Centre at Durham's advocacy for a parallel "big tent" Digital Theology that encompasses a wide variety of projects and approaches and reflects "the prevalence and omnipresence of digitality" (Phillips et al. 2019, 33). Although theologians are as much impacted and conversant in digital technology as other scholars, Phillips, Schiefelbein-Guerrero and Kurlberg note confusion around the concept of Digital Theology, in contradistinction to the much more developed field of Digital Religion (Phillips et al. 2019, 33).

Drawing on established scholarship to map the waves of research in Digital Religion and the Digital Humanities, the authors conclude that these waves are both chronological and methodological (Phillips et al. 2019, 34–36), a distinction they further when developing their definition of Digital Religion as *purposively* "sociological and descriptive whereas the purpose of Digital Theology is theological" (Phillips et al. 2019, 37). They do note some crossover here, acknowledging that Digital Religion can be theological and presumably that Digital Theology can also be sociological (37), but ultimately (even though they do not specify it as I have below), they try to separate the two disciplines, much the way Piotrowski does, by way of research object: God for Digital Theology and religion for Digital Religion; and research objective: theological knowledge for Digital Theology and sociological knowledge (about religion) for Digital Religion.

Yet, this is where Piotrowski's third point, that disciplines develop new insights by building models of their research objects, in my opinion, demands some attention to methods. First, in looking back at Piotrowski's definition of Computational Humanities, we can see how wedded it is to the discipline of computer science, whose methods of coding and creating computing models with codes, are already inherent to the discipline. For instance, quoting from an inaugural use of the term, Computational Humanities (CH), Piotrowski writes, "[...] CH is a discipline that should provide an algorithmic foundation as a bridge between computer science and the humanities" (Biemann et al. 2014, 81, cited in Piotrowski 2020, 8). Therefore, embedded in the definition of Computational Humanities is this turn to computer science, whose methods, making computational models, although not new, are still integral to making such knowledge. Although Phillips, Schiefelbein-Guerrero and Kurlberg assert, "the disciplines of history and theology are located in the humanities, whereas anthropology and ritual studies are located in the social sciences" in their effort to explain the rough differences between digital theology and digital religion (Phillips et al. 2019, 37), notably, they make no mention of methods. However, in my mind this becomes a critical nexus in furthering understanding of what we are talking about when we are talking about Digital Theology.

Second and to explain further, I do not think it is fair to say theology, along with history, remains "located in the humanities, whereas anthropology and ritual studies are located in the social sciences," especially because contemporary studies of digital culture need consider and study just how human beings interact with technology to understand and make knowledge about God. Importantly, Phillips, Schiefelbein-Guerrero and Kurlberg acknowledge that theology is not just the study of God, God's interaction with the world, or the mystery of faith, but also includes, "thinking through that connection with the other" (Phillips et al. 2019, 37). Hence, it is critical to note that although many theologians studying God and seeking to make theological knowledge do so by studying ancient texts, history, and even evaluating and creating theological systems, other theologians study God and create theological knowledge by studying and evaluating human interaction with the divine. For instance, practical and pastoral theologians in the US, Europe, and elsewhere have argued persuasively that ethnographic, qualitative methods, and even quantitative methods can be approaches that help us to study how human beings create, interact with, and shape theological understandings in the world.²

Third, this is important because it suggests that Piotrowski's approach to computational humanities, one that places the emphasis on a particular method of model-building, will be too narrow for theology, a multi-methods discipline that is not only interested in modeling God, but also in understanding the interaction between God, users, and computational models. It is also important, because given the ubiquity of digital culture, digital theologians may necessarily use digital tools, such as Zoom, and computational models, such as videogames, as we did, for instance, to simultaneously study interactions between users and God. However, the current waves in digital theological research that Phillips, Schiefelbein-Guerrero and Kurlberg suggest (2019, 37–40) do not distinguish between these methods. Yet this is critical, not only because it is ethically vital for researchers to specify just what it is they are doing and how they are doing it, but also because good knowledge-making demands

2 See e.g. the work of *The Ethnography & Ecclesiology Network, The International Society for Empirical Research in Theology* [ISERT] and Ward & Tveitereid (2022).

epistemological clarity and methodological precision. As we continue to make theological knowledge with these mixed methods, both digital tools and computational models, we need to be reflexive about how the methods and models impact our knowledge-making.

In short, I do think that Computational Theology offers a significant point of development for theological knowledge, so long as it does not become divorced from the users who make and utilize computational models, nor the digital methods its researchers may use to study it. In other words, any definition of Computational Theology needs to enumerate how humans and methods interact with both God and technology. Failure to do so is unethical, imprecise, and even anti-theological, in that it obscures the ways by which we as humans come to know and understand God. I like that a focus on computational models moves us a bit afield from the "prophetic re-appraisal" Phillips et al. associate with progressive digital theology (Phillips et al. 2019, 39–40). Instead, by focusing on how researchers and people of faith are not just consumers but creators of computational models, we begin to ask good questions about not just what computers do but what we (and God) ultimately do with them. In the sections that follow, I enumerate what kind of lessons this sort of creative computational, yet relational work can have for theologians, with specific reference to our work with *The Spiritual Loop Project*.

3. Insights from The Spiritual Loop Project

3.1 Lesson l

Computational theologians wishing to engage videogames must center users in prototype development and methods for study.

From Fall 2020-Spring 2022, the *Center of Theological Inquiry*, funded by a grant from the *Templeton World Charity Foundation, Diverse Intelligences Initiative* (TWCF Grant Number 0265), and in collaboration with Glasgow Caledonian University in Scotland, created a *Minecraft* videogame prototype called, *The Spiritual Loop Project*. This videogame prototype was designed and developed for fostering spiritual growth and connection based on digital ethnographic research with disabled, neurodivergent³ persons and their Christian faith communities in the United States. Considering the lack of access disabled persons experience with respect to Christian communities in the U.S. (Carter 2007), alongside the disproportionate emphasis on educational and

³ Neurodivergence is a broad term that can include autistic persons and persons with ADHD, as well as persons with dyslexia, Tourette's, other emotional and behavioral conditions, as well as persons with mental health diagnoses.

therapeutic outcomes with respect to neurodivergent gamers (Spiel & Gerling 2021), our participatory fieldwork with neurodivergent players led us to emphasize the game's opportunities for spiritual connection and growth versus mastery of biblical content or Christian virtues.⁴

Our guiding research question was, "Can machine learning be used to enhance the spiritual lives of disabled persons?"⁵ Although this question sounds quite innocuous and straightforward, numerous disability scholars and activists have noted concerning prejudice in the way much artificial intelligence tends to assume an able-bodied user, thus reflecting and reinforcing ableist biases that threaten to further pathologize disability (Alper 2017; Nakamura 2019; Whittaker et al. 2019). The broad cultural bias expressed toward disability can actually be unknowingly and problematically integrated into machine intelligence in a way that perpetuates power asymmetries and further marginalizes disabled people (see e.g. anthropologist Karen Nakamura's work on the problem of self-driving cars running over people in wheelchairs, 2019). Both the pervasive nature of disability bias, and the intersectional and diverse nature of disability experiences make them particularly difficult to codify with respect to AI. A multi-author report on "Disability, Bias, and AI" identifies implicit biases in technology that tend to reinforce ableist ideas of normal and treat impairment as an object of repair or mediation, thus reinforcing a crude medical model of disability (Whittaker et al. 2019).

Although not much research has been done on virtual worlds and multiplayer videogames from disabled perspectives, the advent of game streaming with platforms such as Facebook and Twitch has substantially widened the social component of gaming. For instance, Kathryn Ringland's extensive ethnographic work with the "Autcraft" community, a community of autistic players in the online game *Minecraft*, demonstrates the variety of forms of technology and platforms that foster simultaneous connection and communication, as well as the importance of this virtual world as social space for autistic youth (Ringland 2019a). Ringland's work, in fact, highlights how important it is that theological researchers aiming to do digitally reflexive computational work do not proceed in a vacuum, but make use of other epistemologically analogous fields. For instance, the field of *Human Computer Interaction*, or HCI in the United States, not only centers interactions between users and computational models,⁶ but offers a critical perspective on ethics and personhood, through its robust

- 4 Portions of this chapter also appear in Raffety & Insa-Iglesias (2023).
- 5 The article in footnote 4 further explores this intersection between machine learning, spirituality, and neurodivergence.
- 6 In their book *Digital Theology: A Computer Science Perspective* (2021), Erkki Sutinen and Anthony-Paul Cooper argue for an interactive design process for developing technology for faith communities, that comes out of computer science and "follow the principles of co-design...[in which] diverse stakeholders work together throughout the design process" (Chp 1, Section 1.2). Although there seems to be much resonance between this approach and HCI, especially because HCI has

consideration of disabled users (see e.g. Ringland et al. 2016; Ringland 2019b; Williams et al. 2021; Williams & Gilbert 2019). Not only has work in this area been critical for my own epistemological and methodological learning in research with disabled users, but it is scholarship that theologians, given their applied focus, cannot afford to overlook. It demonstrates how to use digital methods to study computational models, and while it does not primarily seek to produce knowledge about God, of course, the discipline has already thoughtfully mapped relationships between researchers, users, and machines.

Hence, our research design centered disabled users, particularly neurodivergent persons, as experts, relying on fieldwork with them and their communities to shape the development of a videogame prototype to test the insights for machine intelligence in enhancing spiritual lives.

For instance, in Winter 2020, I began fieldwork by observing the majority of the neurodivergent gamers on Zoom playing their favorite games. This helped me experience the features disabled gamers particularly enjoyed so that I could work to incorporate them into the future prototype and offered a familiar medium with which to do so: gamers could talk over Zoom and tell me what they were doing, but they could also simply allow me to observe, type comments in the chat, or offer verbal exclamations as they played. I also conducted focus group sessions via Zoom that Winter to provide insight on what disabled gamers and their respective Christian communities wanted to see in a game prototype. This pre-design fieldwork, conducted through the digital platform of Zoom, gathered critical insights about what these communities and their disabled congregants valued in both videogaming and church life.

In Spring 2021, the technology fellow worked to construct a novel game in Minecraft that met the specifications developed from these pre-design fieldwork and focus group sessions. Here we should note that our process fell short of the principles of co-design (Sutinen & Cooper 2021) in that, given constraints of time and expertise, our technology fellow was responsible for implementing the design of the game. Yet, centering disabled users in the study also required that we worked with them to create methods that allowed us to access their experiences playing the game. In Summer 2021, the research units had an opportunity to test various elements of the game and provide feedback. Although I tested other gaming platforms such as Discord, due to research participants' widespread familiarity with Zoom and preference for visual and audio communication during play, the technology fellow and I developed a method for online gameplay that involved simultaneous Zooming for communication and data collection during play. We also tested this approach in Summer 2021 orientation sessions, during which participants were instructed over Zoom how to download the current version of *Minecraft*, log onto the server, and periodically share their screen to demonstrate challenges or observe other players' play. These orientation sessions

thoughtfully centered disabled users in design and studied those users' experience, I cite that literature here.

also allowed research participants to give some initial feedback on some of the gaming elements, as the technology fellow was still working to complete the prototype through August 2021.

From Sept 2021–February 2022, each research unit played the game in their units, along with me. Finally, in January and February 2022, each research unit participated in a feedback session with me, where they provided verbal and chat feedback on their experience playing the game. It should be noted that research units played exclusively with me and the other members of their unit so that I could observe how the game impacted spiritual play, conversations, and relationships among persons who already had prior relationships.

What I believe this rather exhaustive description of the methods in the project demonstrates is that methods for studying computational models must also center users and work in tandem with the models themselves. First, as I have shown, without centering users in research design and development, it is far too easy for existing biases to be imported into computational models, particularly models utilizing artificial intelligence. However, because theology is studying not just God but the interaction between God and human beings, mixed methods approaches, like the one I present above, that use both computational models and digital technology to study how users interact with these models, need more development and transparency in the digital theology literature in order to substantiate epistemological and theological insights. Finally, computational theology ought to both critique and refine relevant fields, such as HCI, as it continues to refine its methods toward developing both computational models and methods for evaluating their import.

3.2 Lesson 2

Computational theologians must appreciate play as a site of theological knowledge-making, moving from observing structural symmetry between religion and games to doing theology with gamers themselves.

This brings me to my second point, that for computational models to make theological contributions, we must seek to truly integrate theology in research, rather than just observe or identify structural symmetry between religion and videogames. Much of the existing work on videogames and religion tends to fall into two camps: (1) sociological work that observes the surprising symmetry between gaming and religion (Campbell & Grieve 2014; Wagner 2014); or (2) studies of how didactic games make educational contributions to particular religious communities (Gottlieb 2015; Hutchings 2023). Although a few recent publications helpfully complicate these categories (Garner 2021; Hess 2019), the existing binary demonstrates a tendency to focus on the computational models themselves, rather than interaction between user and model. Indeed, these perspectives tend to epistemologically undermine the agency of



Fig. 1 This figure shows a bird's eye view of *The Spiritual Loop Project Minecraft* server. The first environment where participants start playing is the village, which includes the fountain square, plots (yellow house plot and mural plot), and the church. This server is inhabited by Non-Player Characters who guide players, promote social interaction, and collaborative play to win the game.

gameplayers, rather than insist on their agency in not just consuming the game, but creating new forms, in our case, of theological knowledge. Both for Christians and for disabled persons, play is often instrumentalized for religious or educational purposes, thus ironically subordinating or controlling play itself (see Raffety & Insa-Iglesias 2023; Spiel & Gerling 2021). Therefore, in centering disabled users and harnessing *Minecraft* "maker culture" (Ringland 2017), we shift the theological emphasis from the model, or the game itself, to how users, through "play" with theology, offer critical insights for Christian communities.

Owing to our players' interest in creating a game that allowed them to simulate worship, we created a village style game with a Christian storyline. The game takes place in a small village (see Fig. 1) consisting of a main square, with a fountain, several house plots, and a small church with a bell tower. The game's purpose is to cooperate with players to complete a set of tasks (individual and cooperative), called "advancements" in *Minecraft* on each level, and make it to the last level to "win the game" (see Fig. 2 (B) for level 0 advancements and (C) for level 1 advancements). The advancements are designed to encourage interaction and cooperation and correspond to Christian biblical themes and principles. When players complete all the advancements, they are invited to participate in the great feast, a banquet that simulates the last supper. Upon completion of this final level, they advance to creative mode, where they are given access to all resources and can explore beyond the pre-existing village, simulating heavenly freedom.



Fig. 2 This figure shows some scenes from the *Minecraft* server. Players start the game next to the fountain square (A), where they find a book with instructions about how to play, suggested by the chat. Players need to complete a set of individual and collaborative tasks (called "advancements" in Minecraft) that are listed in the book or can be visualized on the advancement tab: level 0 (B) and level 1 (C). The NPC, AI witness, guides players through the game and provide hints when interacting with it, for example, on the mural plot (D) or at the Community House (E).

The *individualized tasks* are custom advancements where each player is required to interact with elements of the game or perform tasks that benefit the community. For example, the task "find your chest" requires players to find a chest labeled with their name; the task "build your house" requires players to place a minimum number of blocks into the configuration of a house on their plot of land to welcome others and interact with them; the task "speak to your neighbors" requires socializing and interacting with others in the game through utilizing the chat feature. Other individualized tasks include "discover the mural," "call to worship," "visit the church," and "light the church." The *cooperative tasks* are customized advancements where cooperative play is required to benefit the community. For example, the task "share to care" requires sharing resources with others; the task "cooperate to discover the mural" requires cooperating to break blocks to discover the village mural. Players are not able to advance through the game if they do not discover the meaningful cooperation necessary to complete the tasks (see the hint provided by NPC in Fig. 2 (D) and (E)). Other cooperative tasks include "share time together," "worship together," and "the great feast."

Although a few of the advancements can be individually completed (i.e. "find your chest," "build your house," etc.), most advancements require cooperative action to be completed (i.e. "share to care," "worship together," etc.). In fact, many cooperative advancements, when not completed together, have mechanisms built into the game to slow individual actions and prevent players from advancing, simulating the Christian doctrine of sin. For instance, we used white witness characters (non-player characters or NPCs) designed with decision trees who appear strategically in the game when players were taking nonproductive actions to provide hints, biblical/spiritual advice, or assistance regarding how to process through the advancements. The implementation of the witnesses follows decision trees where the NPC decides based on a set of conditions.

There were several findings with respect to gameplay that are generally relevant to demonstrating how studying computational models and users can facilitate theological knowledge-making. First, despite the manufactured cooperative elements in the game, players expressed an even greater desire to collaborate with other players. For instance, many players named cooperative tasks built into the advancements, including discovering the mural, worshiping in the church, sharing resources, and eating together, as highlights of the game experience from both a social and spiritual perspective. However, many players also explicitly expressed a desire to collaborate on individual advancements, such as "build your house," which were not supported by the existing game. From a Christian theological perspective, this suggests that play itself can expand our notions of what Christian fellowship, care, and community-building can even look like. We assumed that each player would want autonomy over their own house, but the feedback suggesting that element be cooperative, attests to more challenging Christian teachings, regarding having all things in common (Acts 2:44-45), for instance, that are often either inaccessible within our individualist, capitalist culture, or simply ignored. This simple insight shows the way in which the interaction between the user and the computational model, the videogame, develops theological claims and practices that are relevant to contemporary Christian worship, culture, and community.

Another surprising finding was that even the players who had ample knowledge of *Minecraft* and led with expertise, noted that more instruction in the game would still benefit both them and other players. In this excerpt, Player A, an inexperienced neurotypical player and Player B, an experienced neurodivergent player, agree that there wasn't enough direction in the game:

Player A (NT Player): For me, there wasn't enough direction. I didn't really know like what I was doing...and when it ended, I was surprised because I felt like I didn't really know what I had done. Like, I couldn't remember a few tasks, but there were other things that just happened. Or I was told to press this button and a little banner popped up and then we at the end, uh, had made it, uh, as like an inexperienced player like that, I was missing some of that.

Player B (ND Player): [There was] too little direction [in the game]. There should've been a little more like push for them. Some things for the um, what was it? The...dinner thing. It should have been more straightforward on like where we had to be at what time. (Feedback Session, January 27, 2022)

The surprising desire across players with different levels of gaming experience for more direction in the game suggests that the merit of play is not necessarily amplified by challenge and struggle and can coexist with meaningful support, clarity, and assistance. Of course, it is impossible to say whether this insight is specific to Christian gaming or Christian gaming communities, but its suggestion that accessibility may be an integral and often overlooked aspect of play and connection, dovetails so strikingly with the American culture of competitiveness in which this game was played.

Finally, as nearly all the players also suggested that the game did not need to have a logical end point, but rather should have gone on and on, we realize that these Christian gamers are keenly focused on cooperation, accessibility, and are much more comfortable with ambiguity than we might have expected. Those often overlooked aspects of play are not merely symmetrical to the model itself, but insights that are uniquely and specifically drawn out of agentive play with the model. These are just a few examples of how computational models may produce new theological insights, demonstrating not just the importance of models themselves but the perceptions and insights that gamers enact with them in the scope of gameplay that may have theological implications even beyond the game.

3.3 Lesson 3

Computational theologians must not mistake games for neutral objects; rather, they must interrogate the theological underpinnings of computational models.

Another critical insight from our study was that despite centering users in our prototype design and study methods, it was only in the feedback loop from users that we gleaned some of the theological implications of the models themselves. In our case, we chose to build our existing game within the *Minecraft* videogame because of its widespread popularity, accessibility, and adaptability. However, by building within an existing game, we inherited many of the game's features, storyline, and culture. As aforementioned, part of this culture is a "maker" culture, where players can design and build structures, and alter the existing environment. Yet, the game is also organized around individual advancements where players gradually acquire resources to build tools to access and alter their environment. Players noted that not only did our cooperative tasks rather conflict with some of the individual elements of the game, but our cooperative tasks also introduced competing values into the existing game. As one player remarked quizzically, "[We're] building an experience for, spirituality and collaboration, and the first thing it tells you is how to make swords" (RU1 February 22, 2022). Here the player implies that she experienced some tension between a game that wants to foster Christian spirituality and collaboration, yet contains existing programming to prompt and encourage players to create weapons to defend themselves and potentially harm others.

Beyond mere symmetry between religious and videogame themes, is it reasonable to assume that videogames themselves may harbor their own theologies? In her book, Christian Ethics for a Digital Society (Ott 2019), Kate Ott makes this point with regards to the ideologies of social media platforms, but through our fieldwork, users highlighted the theological implications of *Minecraft*'s features, storyline, and culture. As the player above went onto say, "You're defending your crops and it's like, no in our game, we would, what is it? We would mold our swords into plowshares. And we would give the crops away...we would bend it to our narrative" (RU1 February 22, 2022). In her comments, this player points out the extent to which our computational model offered a parallel experience, rather than an integrated experience, in Minecraft. Although we offered an alternate storyline in *The Spiritual Loop*, it was not integrated into the existing culture of *Minecraft*, such that it even caused theological tension for players. Yet, the player sees potential within the existing game's infrastructure to offer theological meaning, by creating, for instance, cooperative advancements that offer players opportunities to beat those swords into plowshares in accordance with the ancient scriptures (Isaiah 2:4).

These players' insights clarify that computational theologians must learn iteratively, toggling between games and gamers, in order to fully understand the theological implications of these interactions. As one research participant put it,

...Christianity by and large is in this country a very independent, non-collaborative endeavor. [So] maybe instead of trying to teach that endeavor through *Minecraft*, we should be teaching Christianity how to be collaborative...through *Minecraft*. Maybe we should be learning from *Minecraft* rather than using it as a tool to convey something that's already not quite biblical, but this is just the way we accept things are. (RU3 Feedback Session, Jan. 18, 2022)

Although a bit abstract, the player in this quote seems to be suggesting that Christianity in the United States has appropriated values of independence from the culture that run counter to the Gospel. Hence, if we create computational models with this version of Christianity in mind, we necessarily fall short, encounter, or even merely recreate the same biases. However, the player suggests that by learning from the collaborative modes and features inherent to videogaming, or in this case in *Minecraft*, perhaps we can even open up more faithful practices of Christianity. This player's insight is important because it brings together the three lessons in this chapter: first, it highlights how important it is for computational theologians to move beyond observing symmetry between gaming and Christian practices and study gaming's theological implications with seriousness and resolve. Second, it points out how this study on its own, though, is not enough. Rather, in seeking to learn from computational models, computational theologians must take users seriously as not only as mere players but as theologians in their own rights, whose contributions and insights in gaming, can lead to valuable theological knowledge-making today.

4. Conclusion

This chapter has explored the potential for Computational Theology to distinguish between digital methods for studying computational models and computational models themselves, such as videogames, by clarifying how users interact with such models and what it teaches us about God. By drawing on findings from *The Spiritual Loop Project*, I show how centering users in the making and studying of videogames can allow us to think theologically with games and gamers themselves. This helps move theological knowledge-making beyond mere analysis of models toward playing with and learning from models, demonstrating tremendous potential for the field of computational theology when it comes to studying videogames.

References

- Alper, M. (2017). *Giving Voice. Mobile Communication, Disability, and Inequality.* Massachusetts: MIT.
- Campbell, H.A. & Grieve, G.P. (2014). *Playing with Religion in Digital Games*. Bloomington: Indiana University Press.
- Garner, S. (2020). Sacred Pilgrimage in Playful, Digital Spaces. In J. Tucker & P. Halstead (Eds.), *Sports and Play in Christian Theology* (pp. 93–108). Lanham, MD: Lexington Books/Fortress Academic.
- Gottlieb, O. (2015). Current Key Perspectives in Video Gaming and Religion. Theses by Owen Gottlieb, *Gamevironments*, 1(3), 18–25. URL: https://journals.suub. uni-bremen.de/index.php/gamevironments/article/view/90/76 (Accessed: 21 June 2024).
- Grieve, G., Radde-Antweiler, K., & Zeiler, X. (Eds.). (2015). Special Issue. Current Key Perspectives in Video Gaming and Religion, *Gamevironments*, 1(3), 1–10. URL: https://journals.suub.uni-bremen.de/index.php/gamevironments/article/ view/126/112 (Accessed: 21 June 2024).
- Hess, M.E. (2019). Why Games and Gaming Might Be the Best Way and Place in Which to Consider the Meaning and Purposes of Theological Education. A Reflection, *CrossCurrents*, 69 (1), 80–94.
- Hutchings, T., (Ed.). (2023). Teaching with Games. Formative Gaming in Religion, Philosophy and Ethics, *Gamevironments*, 19, 1–18. URL: https://journals.suub. uni-bremen.de/index.php/gamevironments/article/view/243/193 (Accessed: 21 June 2024).
- Nakamura, K. (2019). My Algorithms Have Determined You're Not Human. AI-ML, Reverse Turing-Tests, and the Disability Experience. In *Proceedings of the 21st International ACM SIGACCESS Conference* (1–2). Pittsburgh PA: Association for Computing Machinery.
- Ott, K. (2019). *Christian Ethics for a Digital Society.* London: Rowan & Littlefield Publishers.
- Phillips, P., Schiefelbein-Guerrero, K., & Kurlberg, J. (2019). Defining Digital Theology. Digital Humanities, Digital Religion, and the Particular Work of the CODEC Research Centre and Network, *Open Theology*, 5, 29–43. DOI: https://doi.org/10.1515/ opth-2019-0003 (Accessed: 21 June 2024).
- Piotrowski, M. (2020). Ain't No Way Around It. Why We Need to Be Clear about What We Mean by "Digital Humanities". Online: *SocArXiv* (pp. 1–16). DOI: https://doi. org/10.31235/osf.io/d2kb6 (Accessed: 21 June 2024).
- Raffety, E. & Insa-Iglesias, M. (2023). Re-imagining Christian Education through Neurodivergent Fellowship, Play, and Leadership in Online Videogaming, *Gamevironments*, 19, 80–114. URL: https://journals.suub.uni-bremen.de/index. php/gamevironments/article/view/220/187 (Accessed: 21 June 2024).

- Ringland, K.E. (2017). Who has Access? Making Accessible Play Spaces in Minecraft for Children with Autism, *Analog Game Studies*, 4(3). URL: http://analoggame studies.org/2017/05/who-has-access-making-accessible-play-spaces-in-minecraftfor-children-with-autism (Accessed: 21 June 2024).
- Ead. (2019a). 'Autsome'. Fostering an Autistic Identity in an Online Minecraft Community for Youth with Autism. In N. Greene Taylor, C. Christian-Lamb, M.H. Martin & B. Nardi (Eds.), *Information in Contemporary Society. 14th International Conference, iConference 2019. Proceedings* (pp. 132–143). Washington, DC: Springer [= Lecture Notes in Computer Science, 11420].
- Ead. (2019b). A Place to Play. The (Dis)Abled Embodied Experience for Autistic Children in Online Play Spaces. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (pp. 1–12). Glasgow: Association for Computing Machinery.
- Ead., Wolf, Ch.T., Boyd, L.E., Baldwin, M.S. & Hayes, G.R. (2016). Would you be mine. Appropriating minecraft as an assistive technology for youth with autism. In *Proceedings of the International ACM SIGACCESS Conference on Computers and Accessibility 2016* (pp. 33–41). Reno Nevada: Association for Computing Machinery.
- Spiel, K. & Gerling, K. (2020). The Purpose of Play. How HCI Research Fails Neurodivergent Populations, *Association for Computing Machinery (ACM)*, 1(1), 1–39.
- Sutinen, E., & Cooper, A.-P. (2021). *Digital Theology. A Computer Science Perspective.* Bingley: Emerald Publishing Limited.
- Wagner, R. (2014). The Importance of Playing in Earnest. In H.A. Campbell & G.P. Grieve (Eds.), *Playing with Religion in Digital Games* (pp. 192–213). Bloomington: Indiana University Press.
- Ward, P., & Tveitereid, K. (Eds.). (2022). *The Wiley Blackwell Companion to Theology and Qualitative Research.* Hoboken: Wiley Blackwell.
- Whittaker, M., Alper, M., Bennett, C.L., Hendren, S., Kaziunas, E., Mills, M., Ringel Morris, M., Rankin, J.L., Rogers, E., Salas, M., & Myers West, S. (2019). Disability, Bias & AI Report. New York: *AI Now Institute.* URL: https://ainowinstitute.org/ publication/disabilitybiasai-2019 (Accessed: 21 June 2024).
- Williams, R.M., & Gilbert, J.E. (2019). 'Nothing About Us Without Us' Transforming Participatory Research and Ethics in Human Systems Engineering. In R.D. Roscoe, E.K. Chiou & A.R. Wooldridge (Eds.), *Advancing diversity, inclusion, and social justice through human systems engineering* (pp. 113–134). London: CRC Press.
- Williams, R.M., Ringland, K., Gibson, A., Mandala, M., Maibaum, A., & Guerreiro, T. (2021). Articulations Toward a Crip HCI, *Interactions Dialogues (Conversations)*, 29–30.

Figure Credits

All figures show screenshots of the *Minecraft* servers from *The Spiritual Loop Project*.

Fig. 1: The screenshot was taken by the author herself.

Fig. 2: The screenshot was taken by Maria Insa Iglesia, Technology Fellow in *The Spiritual Loop Project.*