

networked  
theology

negotiating faith in digital culture

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and stephen garner

  
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*For Kim, Mark, Chris,  
Laura, and Philip  
and  
in memory of  
Vivian Margaret Campbell,  
who loved theology!*

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# introduction

## When New Media Meets Faith

We live in a world where our digital technologies are increasingly intersecting with our spiritual lives. This is not only changing personal presentations of faith—as blogs, podcasts, and social media become important public platforms for individuals to discuss their beliefs—but also the way we do church. The Barna Research Group reported significant increases in church leaders' use of the internet (from 78 percent in 2000 to 97 percent in 2014), especially for information gathering, keeping up existing relationships, and making new friends. It also noted an increase in pastors' perception of the internet as useful for facilitating spiritual or religious experiences (from 15 percent to 39 percent). In 2014 nine out of ten pastors believed that it is “theologically acceptable for a church to provide faith assistance or religious experiences to people through the Internet.” Overall, many churches in America viewed the internet as having moved from being a luxury to being an essential tool for ministry.<sup>1</sup>

The Church of England announced plans in early 2015 to equip all of its sixteen thousand churches with Wi-Fi internet access to draw more visitors to these sites and encourage churches to enhance and develop outreach programs to serve the practical and spiritual needs of a digital generation.<sup>2</sup> As the internet increasingly becomes a place where people meet and live a large portion of their social lives, the call has been sounded ever louder to meet them there with the gospel of Christ. In 2014 the Billy Graham Evangelistic Association recorded over six million online conversions connected to their website and resources, in contrast to only fifteen thousand converts made through face-to-face outreach.<sup>3</sup> Similarly, Global Media Outreach—a ministry that leverages the internet, mobile devices, and social media—claimed that more than thirty-four million people made decisions to follow Christ through its digital evangelization work.<sup>4</sup>

Technological innovations give rise to experimentation with new forms of creative outreach and religious education and discipleship resources. For instance, Christian technology developers and workers with the American Bible Society have pondered how Microsoft's new holographic technology and augmented reality goggles such as Oculus Rift might be used to superimpose digital text on interactive images of Bible passages, opening the way for a holographic Bible and study materials.<sup>5</sup> Other trends in digital ministry include e-giving, which provides members with online and mobile giving options through touch-screen kiosks and mobile apps, and virtual world churches, which use virtual-reality technology to create digital worship experiences in online environments for avatar-based worshipers.<sup>6</sup>

As digital media continue to find a way into church practice and our everyday lives, we are increasingly faced with the challenge of how to evaluate and theologically reflect on these changes. We, the authors, believe that theological discourse must be taken seriously to understand how new media shape our everyday lives and the ethical impact of our technological engagement on our perception of what it means to be human. Such reflection requires moving beyond the overly simplistic framing of technology as either good or evil. Some current work on the church and the internet has focused on how digital media can or should be used in worship or ministry contexts, presenting digital media as tools simply to be embraced for the cause of Christ. Other work has sought to offer a general Christian appraisal of the nature and impact of technologies on the church and society, but it has started with the assumption that media technologies are all-powerful and users are passive respondents to media's influence. This work has framed technology as inherently problematic, always promoting values that need to be resisted by the faithful.

While many books have sought to offer a Christian theological reflection on digital technologies, few have presented clear, systematic investigations that not only allow readers to reflect deeply on how the characteristics of new media correlate with emerging social practice but also provide concrete resources for evaluating the theological trajectory created by new media values. This book starts with the assumption that any analysis of religious approaches to new media involves a careful reading of technological trends within our global information society, coupled with a Christian ethical analysis of media grounded in a thoughtful theology of technology. This book seeks to map out and provide readers with a framework for identifying an authentic theology of new media that relates to their faith communities.

We offer the concept of *networked theology* as a way to describe our approach to theologizing about the digital, technological, and network society in which we live. Networked theology draws together discourse in media theory on the

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nature of how communication networks are conceived and function. It stresses that within digital culture our relationships with information and others have changed from static, controlled structures to dynamic, adaptive connections. The network represents a unique form of social relations that is reshaping how people see and interact with others. The culture created by networks has important theological implications and challenges for how we treat the other around us and connected to us. We thus turn to the resources offered within theological discourse on technology to see how the Christian tradition can guide our response to these new relationships and patterns of interaction. Later in this introduction we will unpack this approach to theology. For now we note that networked theology offers a useful and important conceptual image for how the internet, as the network of networks, offers a unique and vibrant space calling us to new forms of theological inquiry. Such inquiry can help us contextualize and explain the life of faith in the twenty-first century.

In the pages that follow, we set out a systematic analysis through a series of conversation points on how people of faith consume and are affected by digital media. This leads to focused discussion of the effects that these technologies and their traits can have on our social and spiritual lives and what theological resources can be of use in our technological discernment process. This introduction begins with a discussion of the complex relationship between new media, faith, and digital culture. We argue that new media technologies are situated in a unique cultural context, described by scholars as the network society, that frames how we understand the social world and raises important theological issues for people of faith. This leads to a detailed reflection on the metaphor of the network and our understanding of theology. We present the idea of networked theology as a framework for understanding the intersection between new media and theology. After introducing these key concepts, we outline the contents and trajectory of the rest of the book.

## The Nature of the Network in Network Society

The network has become a popular and powerful metaphor in digital culture. It offers a dynamic image to portray how the internet functions, the nature of social interactions online, and the infrastructure supporting our information-based society. Indeed, many have argued that we now live in a network society, in which new social, economic, political, and cultural structures are emerging from an increasingly wired and global world. Because the network has become an important framing concept, we must unpack the assumptions and expectations embedded within this image to see how they affect our understanding of

doing theology within this context. To do this, we will briefly consider three important discourses from which certain beliefs about the nature of networks emerge. These discourses come from (1) science fiction and stories related to the birth of the internet, (2) the rise of social network analysis as a new way to understand contemporary communities, and (3) rhetoric related to the network society. By discussing the image of the network in each of these contexts, we will discover some significant assumptions about how society functions, how people interrelate, and how dominant cultural values emerge that shape people's expectations and behaviors in the new media landscape.

### *The Network in Science Fiction and Nonfiction*

The image of the network is arguably connected to the birth of the term “cyberspace.” Coined by William Gibson in his classic science-fiction novel *Neuromancer*, the term was used to describe a computer-generated space in a near-future world where most of earth's computers have been connected in a global network. People entered this network through “a virtual-reality grid space” known as cyberspace, a technical and yet human network. Cyberspace became an idea used to encapsulate the notion of a wired space connecting humans to a computer-created world. As a network connecting humans and machines, it became a popular image within science-fiction films of the 1980s and 1990s. The network was presented as everything from a space of entrapment to one of ultimate freedom—from *Tron's* (Disney, 1982) circuit-board world inside the mainframe computer where programs battled for their very existence to the *Matrix* trilogy's (Warner Bros., 1999 and 2003) dystopic future in which humanity was enslaved by an all-encompassing network of sentient machines. The matrix was a simulated reality implanted in human consciousness by the machines to keep humans complacent about this system as humans functioned as passive batteries powering the network. More recent films such as *Transcendence* (Alcon Entertainment, 2013) and *Her* (Annapurna Pictures, 2013) feature similar story lines that present computer networks as spaces that give life to sentient artificial intelligences seeking to control or deceive humanity. In all of these narratives, the network represents both promise and peril. Within these computer networks lies a sense of hope for a better world that empowers humans with unique abilities and potential, mingled with an overarching sense of hopelessness that our technologies will ultimately overpower and control us.

This tension—between utopian possibilities that the technological world offers and a possible dystopic future reality created by a computer-controlled environment—is heightened by the rhetoric surrounding the rise of the internet. The network became an important metaphor to describe the function

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and capture the innovative nature of the internet in the mid-1990s. One of the earliest precursors of today's internet was ARPANET, launched in 1969 by the Advanced Research Projects Agency (ARPA), a division of the US Department of Defense, as a government-funded research-sharing tool. Over a twenty-five-year period, this early computer network grew from a resource accessible only to researchers associated with the defense industry to a collaborative tool used by the wider scientific community, which was eager to have access to the revolutionary possibilities offered in data sharing and cooperation. By the early 1990s, the internet was defined as “a collection of over two thousand packet switched networks” located worldwide.<sup>7</sup>

“Internet” is a shortening of “internetworking,” a term referring to the connecting of smaller computer networks such as local area networks (LANs) through a series of links—known as gateways—that help route and transfer information through an interconnected system of computers. By the time the internet became a public entity in the United States in 1996, it networked a variety of software and services, including the World Wide Web (WWW). The internet provided unique opportunities for information access and exchange. Soon the public and the popular press began to refer to the internet as “the web” or “the net,” terms that seemed to capture the way individuals actually interacted with this new technology, moving in a nonlinear fashion from webpage to webpage and creating their own nonhierarchical networks of interactions. Even Microsoft in its 1998 version of Windows opted to replace its initial desktop metaphor with the icons and symbolism of a network.

These images of the internet as a network echoed some of the hype surrounding the internet at the time. The internet was presented as a space connecting people to endless opportunities for education, social interaction, and freedom of information. The image of the network also promoted a decentralized view of control, promoting a flattening of hierarchical structures and allowing people to share and connect in ways not before possible. In a network, interactions can begin from a variety of points or perspectives rather than one central control or gatekeeper. This means that information can travel from one point to another on multiple paths, offering people new and flexible options for connecting. Thus, people talked about the internet as contributing to the redefinition of traditional boundaries. For example, in the mid-1990s Bill Gates, in his book *The Road Ahead*, speculated that the internet would change our patterns of socialization and systems of education, forcing us to rethink the nature of our relationships. He stated, “The network will draw us together, if that's what we choose, or let us scatter ourselves into a million mediated communities. Above all, and in countless new ways, the information highway will give us choices that can put us in touch with entertainment,

information, and each other.”<sup>8</sup> Cyber-philosophers in the 1990s and early 2000s, from Mark Numes to Donna Haraway, used the image of the network to discuss the potential for redefining traditional power and gender relations. They believed the internet would provide an opportunity to envision social structure, class, and race relations, creating a space where the voices of the previously marginalized could be heard.

The image of the network continues to be associated with the internet as a way to talk about how the internet functions, as a space of information exchange, and as a platform for new social and cultural interactions. The image acts as both a conceptual tool and a metaphoric reality. Its previous connection to science-fiction narratives highlights a core assumption: that the network represents a space where human and machine merge in a new relationship that can lead either to hopeful escape from the constraints of the physical world or to a place of technological domination and control.

### *The Network in Social Network Analysis*

The internet has been popularly framed as a social network, a place of unlimited connections where, through a few clicks or links, people find themselves interacting with others and not just searching for information. The social nature of the internet has also been key to its development. ARPANET, the predecessor of the current internet, was established as a research-sharing platform. The birth of email in 1970 soon transformed the network into a message system and social interchange, and email became the dominant use of the internet for over three decades.<sup>9</sup> Using the internet as a sphere of social connection became even more popular with innovations such as email lists, bulletin board services, and newsgroups that allowed network users to interact with one another by posting messages and, later, through asynchronous platforms such as chat rooms and multi-user dimensions (MUDs). Early internet researchers such as Steve Jones observed that, for many, the internet is primarily a social landscape, “because it is made by people and thus as the ‘new public space’ it conjoins traditional mythic narratives of progress with the strong modern impulses towards self-fulfillment and personal development.”<sup>10</sup> In an age of social media, tendencies to use internet technologies to socialize, maintain relationships, play games, and receive emotional support have become even more prevalent.

This framing of the internet as a social network is not just a practical distinction; it is rooted in a larger theoretical framework touching on shifts occurring within society. Beginning in the 1950s, sociologists began to document changes in the nature of community. Drawing on the work of German sociologist Ferdinand Tönnies, who first observed a cultural shift from tightly bound community

relationships to loose societal associations within rural and urban settings in the nineteenth century, sociologists of community began to observe changes within the structure of society. Modern society, instead of being made up of homogeneous, small-scale relationship networks defined by geographical and familial relations, was marked by fluid boundaries, changing interactions, and diverse, large-scale associations based on needs. Community studies began to focus on how people created social structures in vast urban spaces where loosely bound interpersonal relationships were the norm.<sup>11</sup>

This understanding within sociology of community studies helped birth social network analysis. This new approach to the study of community argues that communities are in their essence social structures and not spatial or geographic structures such as neighborhoods. Social network analysis is a method used to identify a set of nodes (which can be persons, groups, or organizations) and the ties between all or some of them in order to understand the social structures that emerge from the network of relationships. Proponents of this approach argue that communities are best understood as dynamic, changeable, self-selecting structures that create networks defined by commonality and select needs or interests. This is a very different view of community, which is traditionally defined by familial, institutional, and other tightly bounded relations.

The internet provided a unique environment for studying new forms of community, and sociologists were quick to use social network analysis as a way to approach and document how relationships function online. Barry Wellman argued in his essay “An Electronic Group Is Virtually a Social Network” that online discussion forums could be described as communities representing a network of free-form relationships that are constantly changing and resist being tied down.<sup>12</sup> Social network analysis has been used to map the shape and composition of community networks existing online, to study the strength of different social ties within a given network, and to observe how networks relate to or influence one another. Online communities, as they represented a group of people culturing a new technological and social space together in a new social context, presented a new way to explore changing social relations in contemporary society. Although in the 1990s and early 2000s studies portraying community as a social network were often seen as employing a controversial or debatable depiction, today that image has become mainstream. The network metaphor has become an important frame for describing not only the function of online communities but also the nature of community offline.

The framing of community as a network supports a number of assumptions about social relationships: they are fluid and based on changeable connections that vary in depth, and they promote individual choice, malleability, and dynamic interactions.<sup>13</sup> The network in this sense is social, but it facilitates

community through personally regulated, specialized association, encouraging individual choice over corporate cohesion and accountability.

### *The Network in the Network Society*

We cannot fully understand thinking and assumptions about networks without also discussing the network society. This conceptual framework is used by scholars to describe the social structure that has emerged from the proliferation and integration of new information technologies in society. The term “network society” was coined by Dutch media sociologist Jan van Dijk to describe the new form of society he saw developing.<sup>14</sup> According to van Dijk, the increasing integration of global, business, interpersonal, and media networks in many areas of society in the late 1980s and early 1990s gave rise to a unique social structure in which information and its exchange became the central economic commodity.

Manuel Castells discusses the idea of a network society in his work on the information age.<sup>15</sup> He argues that there is a shift in understanding of how social, political, and economic worlds function in globalized society. This social-technical infrastructure creates a network-based society where social relations are increasingly decentralized yet interconnected. Castells is concerned with the impact that this internationalized information economy has on systems of labor, production, and power. In other words, the network creates new systems that privilege the process and structures of the network over the actual content or information that networks exchange. Castells argues that the process of networking is creating a network economy and networked organizations with actors who depend on each other for information and support. The network substructure pervades all areas of society, exemplified by the increasing dependence on the infrastructure of the internet, where interpersonal, organizational, and mass communication come together to support new levels of social and economic interaction.

For Castells and others, the logic of the network is seen to pervade much of contemporary society, becoming a powerful force shaping how we think about our business, civic, and even personal relationships. This logic is one of dichotomies and tensions. The network both unites people and fragments them into specialized groups; it promotes both collaboration and individuation. The network is a social environment that builds a new space that both draws together and excludes. The network has also become the dominant metaphor for describing the expectation and patterns of behavior for how people interrelate within our information-based society. This argument is articulated by Lee Raine and Barry Wellman in *Networked: The New Social Operating System*,

in which they suggest that the network has become the model and logic by which society functions.<sup>16</sup> Wellman has long suggested that societies are best understood as networks of flexible social relations rather than bound groups embedded in hierarchical structures. In *Networked*, Wellman and Rainie assert that the social-technical infrastructure of the internet and mobile technologies has transformed the ways we connect to one another and thus our expectations for how we learn, provide support, and make decisions. They describe this social operating system of the network as “networked individualism” marked by several core characteristics: “The social operating system is *personal*—the individual is at the autonomous center just as she is reaching out from her computer; *multiuser*—people are interacting with numerous diverse others; *multitasking*—people are doing several things; and *multithreaded*—they are doing them more or less simultaneously.”<sup>17</sup>

A benefit of networked individualism is that it encourages active participation and exchange with others in the network. Examples of this are crowdsourcing, problem solving via blogging, and maintaining valued social relations through mediated connections (e.g., Facebook) that can strengthen physically separated family and friendship tribes. However, such networked individualism also encourages loose, fragmented networks of relationships and can enable individuals to develop multiple social circles rather than investing and being accountable to a single group. This creates a situation where “people function more as connected individuals and less as embedded group members.”<sup>18</sup> Thus, the network in the network society is a distinctive social system undergirded by digital communication technologies that promote new forms of social connection and information sharing and encourage individual choice and freedom.

### ***Summarizing the Network Metaphor***

This brief survey of the network metaphor provides some important insights into assumptions carried within this image. The network is embedded with both positive and negative narratives, offering us hope for a better future through technology, along with the seeds of fear that our technologies will seduce or enslave us. Networking offers opportunities that can simultaneously connect and divide us. Thus, the network is a social system that privileges the individual in ways that can either encourage innovative interactions and relationship building or lead to possibly isolating patterns of being.

The network has become an important conceptual tool to describe the ways that people in contemporary society interact and build community. In many respects, seeing community as a network offers us a more accurate picture of how people form and maintain relationships, including relationships within religious

contexts.<sup>19</sup> Nancy Ammerman suggests in her study of Christian congregations that many churches function as a network of social relations and that the recognition of this can strengthen the role and influence of churches in modern community life.<sup>20</sup> Therefore, the network not only offers us a useful metaphor for describing contemporary social life and relations but also contains values that are both promising and potentially problematic for communities of faith.

## Defining Theology

The term “theology,” derived from the Greek words *theos* (god) and *logos* (word, or teaching or study), literally means “words about god” or “the teaching about or study of god.”<sup>21</sup> In Christianity the understanding of what constitutes theology and how it is approached has developed over time, yet Christian theology remains focused on the figure of Jesus of Nazareth, seeking to understand and articulate both his identity and his work in restoring the relationship of people and the wider world with God.

In the eleventh century, Anselm of Canterbury (c. 1033–1109) described theology as “faith seeking understanding” (Latin: *fides querens intellectum*). Anselm’s approach, often used as a starting point for defining Christian theology, emphasizes the need for believers to intelligently seek to comprehend how the study of God should be applied and worked out in the context in which they find themselves. Anselm’s definition was rooted in his own medieval context and so suggests that every generation must rearticulate what theology is in relation to the sociocultural situation of its day. Thus, theology is an active pursuit of making meaning of the world through the eyes of faith.

This human desire for meaning-making results from lived experience in the world or an encounter with God. People, individually or as a community, seek to narrate their experiences in a way that helps them make sense of life and locate themselves in a wider story that connects them with God, with others, and with the wider world. In doing this, people move from what Neil Darragh calls *implicit* theology, an automatic response shaped by values and beliefs held uncritically, to a more critical and self-reflective *explicit* theology of faith seeking understanding and intelligent action.<sup>22</sup>

This narration of our lives in relation to God, our theologizing, is passed down to others as shared experiences, stories, forms of worship, creeds and confessions, sacred texts, the lived experience and rituals of community, and a shared framework for making sense of the world. This process is a constant negotiation between what we inherit from sources such as tradition and Scripture and from our own experiences in the world. And we must learn to express



our understanding of the Christian faith in a language that is intelligible and credible in that contemporary context.

Theology thus becomes a basis for wrestling with broad claims about reality and the meaning of life, a task that can be aided by resources from wider culture for understanding how to express convictions. Lutheran theologian Ted Peters grapples with this process of theological discernment when he asks, “How can the Christian faith, first experienced and symbolically articulated in an ancient culture now long out-of-date, speak meaningfully to human existence today as we experience it amid a worldview dominated by natural science, secular self-understanding, and the worldwide cry for freedom?”<sup>23</sup>

In this book, our theological reflection is focused on technology, and specifically on the internet and digital technologies, often described as “new media.” This kind of reflection exhibits traits of what is called *contextual theology*, a theological endeavor seeking to articulate a practical theology rooted in the experience of the individual or community. Contextual theology offers an explicit dialogue between the past, represented by Scripture and the Christian tradition, and the present, represented particularly by personal and community experience.<sup>24</sup> It pays attention to the experiences of individuals or groups, the mediation of those experiences through culture, and the social location, shaped by factors such as gender, age, ethnicity, socioeconomics, health, and place at the center or margins of power. The last factor is particularly important when considering how social location empowers people to ask theological questions that are new, relevant, and demanding of answers, and also how social location prevents or oppresses theological voices, silencing them or pushing them to the margins.

If, as Kathryn Tanner asserts, Christian theology must be comprehensive because all aspects of the universe are in some form of relationship with God, then theology must grapple with new digital technologies and media. To do that kind of theologizing, Tanner argues, one should not attempt to become an expert in all things but rather draw from the knowledge and wisdom of others who are already steeped in that field.<sup>25</sup> Thus, in this book the authors seek to complement each other’s expertise in theology and media, respectively, allowing the conversation between disciplines to develop into theological reflection upon technology and media. Our purpose is to constructively explore the theme of the network in light of the intersection between contemporary media culture and the Christian faith.

While religion and technology are often seen as a fraught or even antagonistic pairing, we argue that theology can and must engage technology and new media to offer a holistic theological response to new media culture. Theologian and bioethicist Ronald Cole-Turner asks,

Can theology—that communal process by which the church’s faith seeks to understand— . . . can theology aim at understanding technology? Can we put the words *God* and *technology* together in any kind of meaningful sentence? Can theology guess what God is doing in today’s technology? Or by our silence do we leave it utterly godless? Can we have a theology of technology that comprehends, gives meaning to, dares to influence the direction and set limits to this explosion of new powers?<sup>26</sup>

In addressing these kinds of questions, we acknowledge that all theology is articulated in the language, context, and culture of its day. To describe what we understand to be the shape and content of the gospel, the good news of Jesus Christ, will mean using concepts, ideas, and symbols that make the language intelligible and relevant to those we are communicating with. We also acknowledge, following Lesslie Newbigin, that all culture and language is critiqued by that same gospel.<sup>27</sup>

In a manner similar to the method of correlation proposed by theologian Paul Tillich, we suggest that our culture, including the dimensions connected to digital technologies and media, raises questions about human life and the human condition that the gospel must address.<sup>28</sup> To address these questions and to speak into the networked world in which we are living in a way that clearly communicates the gospel, we must draw upon the riches of the Christian tradition in dialogue with the present, while keeping an eye on the future. Thus, our networked theology seeks to understand the gospel in light of the world in which we live and to faithfully communicate that understanding in both word and deed in this networked world.

## The Relationship between the Network and Theology

So how can theology and the metaphor of the network be brought together? According to Stanley Grenz, the theologian is a poet who “crafts meaningful pictures about our world and our relationship to the transcendent.”<sup>29</sup> This crafting gives life to images and metaphors drawn from contemporary society that can be used to describe and make tangible people’s spiritual beliefs and ideas about God, themselves, and the world around them. In this book we seek to do that crafting in a collaborative exploration that makes theology visible through the eyes of media studies and the network metaphor. By bringing theology into conversation with the idea of the network, a useful conceptualization of networked theology emerges, enabling us to discuss the opportunities and challenges that digital culture presents to Christian communities.

Jesus’s parables of the kingdom of God are rooted in this kind of contemporary exploration of his message of good news and our relationships with God

and others. In these stories, which were a key component of Jesus's preaching, the kingdom of God expresses the idea of a future vision of well-being and *shalom* under God's rule, as well as the idea of any place and time where God exercises ruling power.<sup>30</sup> When Jesus says, "The time is fulfilled, and the kingdom of God has come near; repent, and believe in the good news" (Mark 1:15), we get a glimpse of both the coming hope of God's rule and peace and the expectation of experiencing that in the present. Using examples from the everyday world of his listeners, Jesus describes the kingdom of God as a small, growing mustard seed, the yeast in bread, a treasure hidden in a field, a pearl of great price, and a net cast into the sea.

In our age of networked media and culture, what would be the equivalent parables of the kingdom? For example, could we tell a parable that begins, "The kingdom of God is like a smartphone with endless battery life and unlimited data" or "The kingdom of God is like a wireless network connecting all kinds of people"? Dwight Friesen, in *Thy Kingdom Connected*, says that the "vision of a networked kingdom" of God is an ideal way to understand how the faith community should behave and interact in our current social reality.<sup>31</sup> Friesen uses the parable of the yeast from the Gospel of Matthew (13:33) as an allegory for how the church should exist as a living, spreadable reality of closely interdependent relationships. He links the idea of active yeast to the concept of the network, which brings together individual nodes into a dynamic system of relational connections. He calls on the church to "shift perceptions from atomized individuals to interconnected relational networks" and so seeks to provide a new map that presents the kingdom of God as a networked kingdom.<sup>32</sup>

In describing how the image of the network can shape theology, Friesen draws on missiologist Paul Hiebert's categories of bounded and centered sets, which have proven influential not only in the areas of mission and evangelism but also in Christian engagement with social justice and spiritual formation.<sup>33</sup> Hiebert's ideas have been used to challenge the idea that entry into the kingdom of God is only a movement across a boundary as a result of a particular event or action, such as praying the sinner's prayer or being baptized. Instead, mission in a networked, relational environment focuses on how people reorient themselves toward God and begin a trajectory of movement toward Christ as the center of their lives. Thus, there is a paradigm shift from encouraging a single-moment event or decision to recognizing a process of alignment with Jesus through relational connections. In Friesen's networked kingdom, Christians are formed and made more Christlike as they continually encounter the living God, not just as a distant, future objective but also in and through the relationships with others—mediated by the Holy Spirit—in which Christ is present.

Seeing the kingdom of God as a network provides a framework for how we interact with God, others, and the world around us. One of the strands of this book looks at Jesus's teaching to love God and love our neighbor and asks who and where our neighbors are in a networked world and how we should act toward them. Tied to this are questions about how to do justice, love mercy, and walk humbly with God in that network culture. The idea of the kingdom as a network also alerts us to the wide range of people and relationships in both church and wider communities (in both physical and online environments) and the possibilities for encountering God in and through them.

The idea of the network highlights not only how we encounter various people and relationships but also the variety of ways in which those relationships are organized. The network can promote flattened rather than hierarchical structures, along with relationships that allow more dynamic interaction rather than being unresponsive and static. This creates sources of creativity and participation that promote connectedness within Christian community, with the "called out" people of God existing together in a system of interdependence and interaction. However, the network can also create tensions and anxiety when it is seen to challenge or undermine aspects of the Christian life, particularly communal life and faith. This book highlights both of these dimensions—the opportunities and challenges—brought about by new forms of communication, new proposals for community, new kinds of interaction, and issues of accountability and ethics in the networked world. In doing so, it seeks to assist individual Christians and church communities as they negotiate the opportunities and challenges of network culture.

At one level, networked theology is about theology and media in dialogue, as it seeks to make connections and generate relationships between the two areas that can lead to fruitful and insightful conversation. For theology to grapple with and speak into the church as a network, it needs to interact more fully with the expertise available in media and communication disciplines. Similarly, media and communication disciplines can learn how religion, technology, and media interact within a faith community by engaging with theology, which informs about the core concepts, practices, and experiences that shape that community.

At a deeper level, this book seeks to engage Christians in their faithful living in a networked world, encompassing not only their individual spiritual lives and the lives of their communities but also their living wisely and well within the wider world. It explores the complexities of the relationships between Christian life and media culture in order to aid the church in thinking critically and constructively about those relationships so as to live out the good news of Jesus Christ in our contemporary world. At this level, networked theology is about seeking to love God and love neighbor with all our hearts, minds, and

bodies in a way that helps us to live well in a media culture and also to shape that culture for the sake of the gospel of Christ.

## **A Guide to *Networked Theology***

*Networked Theology* explores core issues and trends that influence Christian beliefs and practices in a world increasingly dependent on and wrapped in new media. *Networked Theology* thus highlights and analyzes how religion is practiced both online and offline in our information-based society and shows that digital practices and innovations in religion online often point toward larger cultural shifts in how faith is perceived and shaped offline.

We argue that serious theological discourse is important in order to fully understand how new media shape our everyday lives and the ethical impact of our technological engagement on our perception of what it means to be human. A central goal of this book is to bring new media studies and theory into conversation with theology in a new way. We, the authors of this book, have unique backgrounds making us well suited for such a task.

Heidi A. Campbell is a media studies scholar, specializing in digital culture and new media theory, who also has training in theology. Since the mid-1990s she has been studying the relationship between religion and the internet, with a focus on how Christian communities have used and responded to the internet. She completed one of the first PhDs in the world on religion and the internet, combining the study of computer-mediated communication with practical theology to investigate the impact religious communities online might have on people's perception of and involvement in the church and in Christian communities offline. Over the past two decades her work has explored questions of religious community, identity, and authority online, as well as religious communities' negotiations with digital media. As director of the Network for New Media, Religion, and Digital Culture Studies, she strives to build bridges between academic disciplines, such as theology and media studies, to create a vibrant interdisciplinary conversation about the extent to which new media technologies are affecting religious communities' authority, identity, and rituals in a globalized society. Through this book she desires to bring her expertise on the social and ethical implications of digital culture into dialogue with her training and personal study in the theology of technology to help the church think more critically about how technology can and should intersect with faith in the network society.

Stephen Garner is a theologian with expertise in systematic, public, and contextual theology as well as a background in computer science. Prior to his

theological studies, he completed postgraduate studies in software engineering, conducted research in the application of machine learning systems to real-world databases, and worked in the information technology industry as a programmer analyst. In his theological teaching and research, he has maintained an interest in technology and media from the theological perspective, with his PhD research examining Christian theological responses to new digital technologies, such as artificial intelligence, virtual reality, and the ideology of transhumanism. He has also served on the New Zealand Interchurch Bioethics Council and continues to research in the areas of religion and transhumanism, public and contextual theology, religion and popular culture, and theology and technology. He believes that theology must engage with the everyday communities we find ourselves in, seeking to offer something distinctly Bible-based to the church and world.

This collaborative book offers insights into our shared conversation, demonstrating what each field of study has to offer in creating a theologically informed response to new media culture. We assert that the effort to understand the impact of new media and the network society on Christianity requires a more in-depth and multidisciplinary conversation than is currently taking place within Christian scholarship. To date, much of the scholarly work on the intersection of new digital media and theology has taken one of two forms: either guides for Christians on how media should be used for purposes such as evangelism or worship, or appraisals of new media often grounded in overly pessimistic or overly optimistic assumptions about the nature of new media and their potential religious and cultural impact. We suggest a need for reflection that does more than offer advice about how churches should or should not engage with media and instead interrogates how the use of new media correlates with social and religious values. In an age of new media, we must pay attention to the theological and ethical impact of technology. This requires a nuanced understanding of both media theory, to help explain the function and revolutionary nature of new media, and the theology of technology, which provides resources for constructing a faith-based response to digital culture.

This book synthesizes key findings from our previous and current work in digital media studies, theology of technology, and sociology of religion and technology on the relationship between the Christian faith, new media, and digital culture. Thus, it is theoretically grounded and practical. We draw on scholarly research on the concepts of religious community, identity, and authority in relation to the internet, as well as on case studies of Christian engagement with the internet, to explore what a theology of media could look like in an age of new media. We also provide theological reflections on the effect of digital space, mobility, information authenticity, and technologized presence on traditional theological notions of truth, being, community, and authority.

Chapter 1 offers an introduction to the theology of technology, providing some definitions of technology and bridging from those definitions to more specific media technologies. It then traces a path through the history of the Christian church, examining how Christian communities have negotiated new technologies and media. This leads to three key responses to technology within the Christian church—optimism, pessimism, and instrumentalism—each of which highlights a particular dimension of technological negotiation. Finally, the chapter introduces the idea of appropriate technology, enabling us to live wisely in our networked world. Thus, it offers an overview of theological tools and frameworks that help us look at the relationship between media technology and theology.

This leads us to chapter 2, which offers a crash course in new media theory. It outlines the difference between old or traditional mass media and new media by highlighting key characteristics of this new generation of digital, computer-networked technologies. It also discusses what is really “new” about new media, not just in terms of technological features, but in terms of the culture that new media facilitate and the social practices and expectations they create. The chapter introduces key concepts such as the myth of interactivity, media convergence, and the rhetoric surrounding the transition from Web 1.0 to Web 3.0. It then highlights conditions of the network society that create a distinct set of expectations of how the world does and should function. Issues discussed include patterns related to constant contact, publicized privacy, remix culture, and networked individualism, all of which have important theological implications.

Chapter 3 addresses the potential impact of technological embeddedness on our values and behaviors as our daily lives become increasingly mediated by digital and mobile technologies. It considers how digital media promote and encourage certain social practices and religious understandings. This is done by presenting the concept of networked religion, which encapsulates some of the important trends in practicing religion online and highlights dominant traits related to religious community, identity, authority, practice, and authenticity. This discussion provides synthesis of twenty years of research on how religion is practiced and perceived online and what implications this has for the Christian tradition. It demonstrates that key characteristics of online religion are mirrored in contemporary offline religious culture. These changes in religious practice often have not been recognized by Christian groups and churches and are in need of careful consideration.

Chapter 4 explores how our technological and media environment engages with and shapes particular areas of our theology. Using the motif of Jesus’s command to love our neighbor, this chapter asks who is a neighbor in our networked world, where are they located, and how we ought to treat them.

It examines particular aspects of Christian theology, such as physical presence, community, identity, and agency, about which new media raise significant challenges and opportunities. We end this chapter with the challenge to find avenues for developing theologically based, appropriate technology that stands in continuity with Christianity's past, present, and future.

In chapter 5 we map out a framework for how religious communities and groups can develop their own "theology of new media." A four-stage strategy, adapted from the religious-social shaping approach to technology, is translated into a set of questions and areas of reflection that Christian groups can use to consider how their media use does or should relate to their community's beliefs and mission. This provides a practical framework for developing a theologically informed media strategy for communities or even families. It enables Christians to actively reflect on their technology use in light of their faith and consider how new media technologies themselves, or their patterns of use, may need to be adapted to be in line with their core values and convictions.

Finally, chapter 6 offers a proposal for what a robust, theologically informed, appropriate technology might look like and how it might speak to both the church and the wider public. We ask in particular: How can technology and media address some of our previous questions about neighbors and neighborhood? To answer this, we take the text from Micah 6:8 to do justice, love mercy, and walk humbly with God as a framework for identifying aspects of appropriate technology that maintain a love of neighbor, an engagement with the wider world, and a focus on using technology and media as a form of worship of God.





# theology of technology 101

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## Understanding the Relationship between Theology and Technology

We begin our exploration of networked theology by exploring the historical and contemporary dialogue between technology and theology within the context of the Christian church. We argue that if technology and new media are the environments in which we find ourselves, it is important to consider how we might faithfully engage with these areas and the ways they are shaping us. Theology of technology is an area of study that has sought to offer theological reflection on the history and development of technology. This chapter unpacks the relationship between technology and the Christian church in order to provide a theological context to discuss how the emergence of digital technologies can and should draw on a long tradition of ethical reflection. We begin this introduction to a theology of technology by looking at how technology has been defined, some different ways the church has negotiated with technology and media, and common Christian responses to technology. This, in turn, will lead to further discussion in later chapters as to what is an appropriate response to technology and media in network society, where we are increasingly wrapped in media.

## Defining Technology

Searching for a single, concise definition of technology can prove problematic. Etymologically the term originates in the Indo-European stem *tekhn-*, which is connected to woodworking and seen in the Greek term *technē*, meaning “art,” “craft,” or “skill.” The latter goes beyond working with material things and includes manipulating concepts and language, such as forms of writing and speaking (like rhetoric) or particular intellectual disciplines or ways of thinking. In Latin, *texere* related first to weaving and later to construction or fabrication. By the eighteenth century the term had begun to narrow in definition; it excluded the broad range of artistic endeavors and instead focused on the application of science, particularly with respect to practical mechanics.<sup>1</sup>

This shift to focusing on mechanisms and mechanics has led to a common definition of technology as tools or machines. As David Hopper puts it, technology is concerned with the human community creating and inventing assorted tools, machines, and mechanisms to manipulate and exploit the natural world. Furthermore, technological application influences not only creation but also the human community, shaping the rhythms of everyday life.<sup>2</sup> Such a definition of technology is consistent with the familiar understanding, which David Pullinger expresses, “that society develops the technology it needs and then uses it to produce goods and services for the creation of wealth and for human culture to flourish. Needs and wishes come first, and then technology simply fulfils them.”<sup>3</sup> Thus, we need shelter, so we develop forms of clothing and housing; we need stable food sources, so we develop agriculture; and we desire to communicate over a longer distance than we can shout, so we develop semaphore, the telegraph, and radio. This way of looking at technology is linked with the augmentation of human abilities such as mobility, communication, and thinking.

This predominant view of technology as mechanism, mechanics, and applied practical knowledge reduces technology primarily to an instrument, seeing it simply as a tool to accomplish specific tasks. This parallels the way that media have typically been viewed. Peter Horsfield notes that this approach to media as tools or instruments started in the 1920s with the development of mass media, which aimed to address large, broad audiences through cinema, radio, and newspapers. Attempts to understand the power of media and how they shaped society led to ways of looking at media so that they (and their effects) might be measured in linear, cause-and-effect models.<sup>4</sup> More recently, though, both technology and media have been seen to possess more than just an instrumental nature. Media technology is understood to include epistemological and sociological dimensions, which combine with the instrumental to create a view of technology that is complex and dynamic.

Looking at technology primarily as a tool to achieve some human goal, typically by transcending the natural abilities of human beings, is one of three interwoven perspectives that Susan White identifies in her examination of the interplay between technology and Christian worship.<sup>5</sup> First, technology can be seen as artifacts produced by manufacturing processes, whether a computer, pen, fire, chemical compound, or software system. This is perhaps the most common way of thinking about technology. The second view sees technology as describing not so much the manufactured artifacts as the processes and structures needed to produce these things. Various kinds of human skills and techniques combine with the manufacturing infrastructure to comprise technology. The third way to look at technology is to see it as the cultural structures that provide the inclination and motivation to support the technological systems—becoming a pervasive “technoculture.” White argues that these three views interpenetrate each other to create a vision of technology as a “sociotechnical system in which hardware, technique, and a particular ideological frame of reference combine to aid in the pursuit of essentially pragmatic ends, generally associated with the augmentation of human capabilities.”<sup>6</sup>

This approach implies that technology is inherently connected to and embedded within human culture and values, with a particular emphasis on the achievement of pragmatic ends. Similar views to this are reflected in Ian Barbour’s definition of technology as “the application of organized knowledge to practical tasks by ordered systems of people and machines”<sup>7</sup> and Rudi Volti’s opinion that technology is “a system based on the application of knowledge, manifested in physical objects and organizational forms, for the attainment of specific goals.”<sup>8</sup> However, while emphasis is often placed on practical, purposeful definitions of technology, such definitions are not exclusive. For example, technologist Kevin Kelly argues that while technology might start with the experience of the human condition and also with scientific method, it exists to allow human beings to pursue novelty and experience.<sup>9</sup> Thus, technology becomes a way of understanding ourselves and the world and bringing something new into existence simply because it can and might be done, even as a spiritual exercise.

Similarly, the instrumental approach has tended to dominate definitions of media. As noted previously, this view of media as instruments or tools dates back to the rise of interest in mass media in the 1920s, when newspapers, film, and radio were engaging large audiences.<sup>10</sup> Questions around how this affected populations, say, with respect to political or commercial interests, led to a desire to see media as something that could be controlled and targeted. Thus, media, and particularly mass media, were reduced to simple and mechanical communication processes or channels that functioned in predictable ways.

This limited way of understanding media was challenged toward the end of the twentieth century as questions were asked of media that the instrumental models could not fully answer. For example, what is the relationship between violence in media and violence in society? What other forms of mediated communication outside of mass media have societies used? And do media really possess a value-neutral character? The outcome of this line of questioning is that media may be seen not only as processes or tools but also in terms of how an entire society or culture exists in a space of constant mediation of information, ideas, behaviors, and values through a variety of media. According to Horsfield, this contextual view, with its attention to cultural processes, understands media “not as instruments carrying a fixed message but as sites where construction, negotiation, and reconstruction of cultural meaning takes place in an ongoing process of maintenance and change of cultural structures, relationships, meanings, and values.”<sup>11</sup>

Both the instrumental and cultural approaches to media benefit when they are used together. The instrumental approach is useful in posing questions about the effects of communicating a message, while the cultural approach shapes questions about the societal environment that the process is located within. As with technology, media are simultaneously tools and environments.

## **Bridging between Technology and Media Technologies**

White’s and Horsfield’s definitions above alert us to the fact that technology and media are multifaceted entities involving, as Stephen Monsma notes, anthropological, sociological, and epistemological dimensions.<sup>12</sup> For example, an anthropological approach might ask if certain facets of a technology can be seen as inherent parts, and thus defining marks, of human beings, individually and communally. Here human beings are first and foremost *homo faber*, makers or creators in their very nature. Sociologically, we might go beyond the concepts of technology and media as manufactured items, a human attribute, or a distinct body of knowledge to see technology as an all-encompassing force within modern society. We might also consider technology as a special form of knowledge, useful to those who want to investigate how knowledge is transferred within or between communities, or to compare different bodies of knowledge (such as methodologies) present in different communities.

Monsma picks up these three dimensions in his theological perspective on technology, where he sees technology as a key human cultural activity, born from human beings as culture creators.<sup>13</sup> Human beings create “integrated patterns of human behavior,” and technology is integrated into a web of relationships that

permeate human existence, including religious beliefs, customs, and institutions. As we shall see later in this chapter, one example of this is the written word or book, which moves beyond just being a technological artifact into shaping religious and cultural life in various historical contexts. On the other hand, limiting technology merely to one of many human cultural activities can obscure the role of technology in vertical relationships—that is, relationships between humanity and the divine. Technological activity might in fact be seen as a response to God’s call. Not only that, but by asserting that technology is the defining mark of humanity, other human distinctives may be obscured. For Monsma, “God calls his children as his image bearers to be formers of culture. As such we purposefully take what is given in God’s creation and creatively form it into art, language, laws, social mores, societal institutions—and technological tools and products.”<sup>14</sup>

Bringing all these strands together provides us with a definition of technology, and in particular media technology, which we will focus on in this book. Technology is, first and foremost, *a human activity that is carried out within the context provided by God for human beings to exercise their creativity and agency*. This definition possesses both the aspects of pragmatism, seen in problem solving and transforming the natural world, and the aspects of novelty and a human creative trajectory. It recognizes that technology has a significant sociocultural dimension—it is *human* technology—that wraps it in a network of relationships, values, and histories and makes technology dynamic, shaped by and shaping the various feedback loops that exist within that network. Technology includes the artifacts that are produced and the special knowledge and processes that produce those artifacts, as well as the people, practices, and values in a particular time and place. Technology in this way is the environment in which we live.

What this means for how we think about technology and media is that we cannot simply reflect theologically upon the most visible artifacts in the wider technology system. Rather, we must be concerned with the human elements, such as what human activities are served or prevented, what values are implicitly or explicitly present, how technology functions as part of the context of human existence, and the history of communities’ negotiation with human creativity, which has a strong pragmatic direction. With this in mind, we now turn to look at how Christianity has negotiated the place of technology in human history.

## Historical Negotiation with Technology

Christianity is one of the three major world religions, along with Judaism and Islam, whose adherents are sometimes called the People of the Book. For the

Christian church, identity and faith are shaped by interaction with the Christian Bible, which is composed of the Hebrew Scriptures and the later Christian writings known as the New or Second Testament. The Bible itself can be seen as a tangible expression of technology and media in that it is typically a human-created physical artifact (though other mediated representations are possible) that has been produced by special knowledge. The Bible's form and content, as well as the form and shape of the Christian community, are influenced by distinct social and cultural environments.

While people may not consider Christianity and technology deeply connected in their everyday world, the Bible provides a useful example of how Christianity has been negotiating with technology and media throughout its history. This negotiation is interwoven with disputes over how technology and media should or should not interact with the faith and the ways that technology and media development in wider society have shaped Christianity. This constant negotiation is important to recognize because the way Christianity and other faiths respond to new technologies and media is often predicated on how they responded to technologies and media in the past. In the following section we will discuss specific negotiations with technology—from the oral and written media traditions to contemporary media—through the history of Christianity.

### *From Oral Traditions to Books and Codices*

The early Christian church negotiated between the oral tradition of the day and the written literate traditions also present in that society. Jesus of Nazareth was a skilled and effective orator who, in the Gospels, displays a rabbinic model of teaching based on oral storytelling, discussion, and debate. He identified himself with the poor and the oppressed and used oral forms such as parables to communicate with them, yet he drew on a comprehensive knowledge and interpretation of Jewish sacred written texts. By utilizing oral and written traditions, Jesus gathered around himself a community of disciples who continued in versions of that oral tradition as witnesses to him and bearers of his teaching.<sup>15</sup>

This model of itinerant preaching formed one of the communication strands of the early church. Over time, though, another communicative role developed in the church, that of literate teachers who brought text-based approaches from both Jewish and Greek practices of oral interpretation of written texts. Thus, we find in the Christian writings of the New Testament stylistic practices involving both reflection upon Jewish writings and allusions to Greco-Roman philosophers and poets (e.g., Acts 17:28). Often the two roles were combined, as in the case of people who took letters to a community and then “performed” them for that audience. However, as Horsfield observes, over time the significance of

codifying particular accounts of Jesus's life into standardized forms, as well as the connection between literacy and leadership in the church, led to the written text, and particularly the Bible, becoming a source of power and authority.<sup>16</sup>

The adoption of the papyrus codex, a precursor of the book, marked the acceptance of a particular expression of media technology that became a significant part of Christian identity and the Christian church. Moreover, the physical form of the codex, seen as containing the sacred writings and accounts of the faith, became so significant that its protection and veneration were causes of martyrdom. Tension arose between those who gave up the texts under persecution and those who protected them unto death. As Horsfield and Asamoah-Gyadu note, "Stories such as this reinforced the importance and emotional attachment to the codex as an important identity marker for Christianity as a religion of the book rather than just the text. The codex set Christianity apart culturally from groups such as other imperial religions and the literati, who did not adopt the codex for literary purposes until several centuries later."<sup>17</sup>

By the end of the third century, the presence of the written text was well established, particularly after the recognition of Christianity as a state religion in the Roman Empire. This helped stabilize what was being said about Jesus and his followers. Those who were literate stood a better chance at leadership in the church, as the focus on texts favored literate men and created stronger ecclesiastical control by ruling bishops. This also contributed to the marginalization of women in the church from their initial position of supporters, patrons, and coworkers, as authority shifted to a church administration influenced by Roman societal structures. Moreover, it was possible to name some texts as heterodox, if not heretical, and control their impact. The Bible shifted from being a book that was read for its content to being an artifact to be decorated and venerated in its own right.<sup>18</sup> In addition to the Hebrew Scriptures, Christian accounts of Jesus of Nazareth and his followers and helpful letters to churches were collected together and declared the sacred Word of God.

Thus, a form of technology found in the codex and the book made its way into the Christian church and shaped the faith itself. In particular, the book as a technology influenced ways of thinking about the sources of authority in the church, which were based on who could read and write. The book as a technology created control of access to and use of the Bible and thus the authority of the collected and authorized (or canonical) writings of the church, as the Bible became encoded in a static form. Authority then rested with the interpreters of that static form rather than in direct engagement with the biblical text. Moreover, the book emphasized that the technology of writing was something that could convey power and organization across cultures and geographies.

Horsfield and Paul Teusner develop this idea further when they argue that one can only understand how Christianity negotiated media—and we would add technology—by observing the relationship between religion and media in the overall matrix of cultural life.<sup>19</sup> For them, no aspect of Christianity is unmediated, because every experience and concept of the faith is caught up in the network of relationships found in the language used to describe them, human experience, the politics of church and society, relationships—including power relationships—and historical-cultural contexts. The Bible is a product of these things, and its usage and role are shaped by their particularities.

### *Literacy as Power*

With the decline of the Roman Empire came a corresponding decline in literacy, with the emphasis upon the written text limited to the imperial Roman church. This was manifest particularly in monasteries, which served as libraries and production houses for books. Monasteries became the centers of writing and education, as well as the preservation of language, especially Latin. The preservation of literacy brought with it political and cultural power through the development of law codes and libraries, centers where legal documents, records, and charters were stored and copied. It also meant that the Christian tradition was further codified in terms of liturgy and doctrine, as spoken, sung, and enacted forms of worship were recorded in a fixed structure, enabling an illiterate society to faithfully replicate these practices. Horsfield summarizes: “Through the control of language and literacy, the male clergy celibate class came to exercise control over all aspects of Christian life. This linguistic power would not be challenged until the time of printing, when vernacular languages regained political power.”<sup>20</sup>

The enhancement of printing technology during the Renaissance had significant religious implications, again highlighting the complex interaction between culture, technology, and society. The availability and influence of printing technology grew in the mid-1400s with the development of the Gutenberg printing press using cast metallic type, the establishment of a paper-making industry, mass distribution transport networks, and the European Renaissance environment. The resulting reproduction of old manuscripts (such as in classical philosophy and mathematics), an increased desire for literacy, developments in natural philosophy and science, and social and political developments all contributed to the renegotiation of media and technology. Examples of this can be seen in the way current events were recorded and disseminated, the production of printed maps, printed text becoming a primary form of social communication, more rapid transmission of ideas (including religious ideas), and increased literacy among the public.<sup>21</sup>



Francis Bacon (1561–1626) is a good example of someone from this time who influenced the social and cultural negotiation of media and technology. Bacon’s empiricism, the idea that knowledge comes from sensory observation of the world, led not only to a modern scientific approach that connects hypothesis to observation to theory to understanding but also to a narrative of purpose that saw the relationship between science and technology develop. Bacon argued that human beings were to shape the natural world in such a way as to bring about a better world for humanity—a return to the Garden of Eden—because human beings have the power to observe what needs to be corrected in the world and the divine mandate to make those corrections through human agency.<sup>22</sup>

John Briggs notes the close association argued for by Bacon between the philosophical study of nature—leading to sciences such as physics—and religion. These new sciences worked together with God’s purposes, Bacon thought, to save humanity both materially (e.g., from illness and suffering) and spiritually (e.g., undoing humanity’s separation from God). Natural philosophy, with its application of human reason, was seen as the handmaiden of traditional religion, a powerful subordinate seeking to restore humankind’s dominion over a rebellious nature. With the ultimate goal of a return to Eden, to original perfection, science and technology are to serve humanity by alleviating human suffering. Thus, while God and faith in God work to repair the human soul, humanity can work to repair creation.<sup>23</sup> In this way Bacon firmly connects technological progress, seen in natural philosophy, with divine purpose. In *Novum Organum* he writes, “Only let the human race recover that right over nature which belongs to it by divine bequest, and let power be given to it; the exercise thereof will be governed by sound reason and true religion.”<sup>24</sup>

Mitcham and Grote note that the theological virtue of charity—using technology to help people—has been the virtue most often used to provide the strongest case for technology. Bacon’s influence developed a strand of thought that asserted that the technological endeavor was purposed to the relief of suffering, motivated by charity.<sup>25</sup>

### ***Printing and the Wider World of Text***

The development of printing allowed for larger-scale publishing and distribution of religious and other books. Different parts of the church responded differently to the rise of printed religious text. To increase reading of the Scriptures among common people, William Tyndale in the sixteenth century worked to produce Bibles in the local vernacular, in this case English, while his contemporary Martin Luther produced similar translations in German.

The printing press facilitated the spread of religious ideas and propaganda, including Luther's Ninety-Five Theses (1517) and John Calvin's *Institutes of the Christian Religion* (1536). Such works were disseminated to a wider audience by the ability to produce and copy texts with increasing ease. Protestant and Roman Catholic churches sought to use printing for their own purposes and maintained close control over it (e.g., the Roman Catholic Church produced the *Index Librorum Prohibitorum*, or List of Prohibited Books). Horsfield notes that the Roman Catholic Church had an early investment in the use of printing, a good example of which is Ignatius of Loyola's *Spiritual Exercises*, which embodied a structured system of spiritual formation formally approved by Pope Paul III in 1548, and which was, and still is, widely read. However, not everyone in the church saw printing as a good thing. Many people had concern about printed media, including the fact that printed text lost the aesthetic of the written manuscript produced by expert calligraphers and illuminators. Furthermore, the mechanism of printing removed the act of human contemplation on the text from the process of copying and writing, where the scribe is initiated into the divine mysteries being recorded through the process of creating the written text.<sup>26</sup>

Changes brought about by printing were significant. Printing not only changed the way information and ideas spread but also elevated text so that it became the dominant medium of communication both formally and socially. Printing allowed bureaucracies to develop through the social and institutional standardization brought about by using text. For Christianity, printing had many implications, including the development of a movement accepting Enlightenment rationalism over spiritual knowledge of God. It also led to the establishment of denominations such as Presbyterianism and Methodism. The failure of any one particular Christian group to completely dominate its context led to groups of Christians forming their own distinctive communities. Such groups were supported by access to printed Bibles in the vernacular and the production of printed material to educate and attract new members and defend against other groups. Horsfield contends, "If we think of media culturally rather than instrumentally, it can be argued that different media prefer particular forms or structures of religious faith to others. From this perspective, I'd argue that the denominational structure of Christianity that emerged during the Modern period, emerged because it was the structure of Christianity most appropriate for cultures structured by printing."<sup>27</sup> He argues that print technology led to increased individual use and interpretation of the Bible. Worship materials became standardized in hymn and prayer books, demanding increased literacy among clergy and laity, and theological studies became predominantly a book-based, academic discipline.

This kind of splintering produced by the development and application of various media technologies available through printing was mirrored in the later development of electronic media such as television and the internet. For example, Stewart Hoover notes that the development of cable and satellite television in the United States in the 1970s made it possible for religion to be broadcast to niche audiences (e.g., Christian evangelicalism), with particular emphases on theological and cultural distinctives.<sup>28</sup> No longer limited to set time slots on network television or radio, smaller groups could become broadcasters, adopting radio and television to produce relatively cheap electronic media to be consumed by a target audience or, in the case of religious marketing and evangelism, develop new target audiences.

As with previous negotiations between religion and technology, the adoption of electronic media technology is not uniform, with some rejecting it, others embracing it, and still others vacillating between these responses. Hoover notes, however, that “most people seem to want to say that they will regularly accept, reject, and contest media in ways that are relevant to their values and their beliefs.”<sup>29</sup> It is to these responses to technology and media that we now turn.

## Responses to Technology and Media

Christian responses to technology and media reflect a somewhat ambiguous state of affairs, with some seeing technology and media in very positive ways, while others are quite pessimistic about them. Within the range of responses to technology, several trends can be seen. Science and religion scholar Ian Barbour offers a helpful threefold typology that sums up the most common responses to technology. Barbour’s work is influenced by the work of twentieth-century theologian H. Richard Niebuhr, who outlined various ways in which the relationship between Christianity and culture can be understood.<sup>30</sup> Barbour’s own scheme employs three categories of individuals: those optimistic about technology, those pessimistic about it, and those who view technology as an ambiguous instrument of power.<sup>31</sup> Although any scheme like this tends to reduce the complexity and ambiguity of its subject to something simpler than its reality, Barbour’s categories provide a helpful starting point for thinking about how different parts of the Christian community conceive of and engage with technology.

### *Technological Optimism*

One response to technology and media is to see them as a liberating force that brings an overall improvement to the human condition. From this perspective,

technology ushers in labor-saving devices and access to information and entertainment, and it improves productivity, leading to economic growth. Technological optimism sees media and technology as making the world a better place for humanity, increasing people's choice of available products and services. People also gain social and geographic mobility and control over nature and the human body, such as through birth control and reproductive technologies. In this case, Christians might see the endowment of human beings with intellectual and technological prowess as a way in which human technological activity is divinely "baptized," provided by God to improve life and, in some cases, to establish the kingdom of God here on earth. In this pragmatic view, technology and knowledge do not exist for their own sake but are to be channeled to provide "material mercies" for humankind.<sup>32</sup>

In response to the internet and new media, technological optimism highlights the positive ways those technologies might be used in mission and evangelism as well as church worship. Christ's commandment in the Gospel of Matthew (28:18–20) to go and make disciples of all nations becomes a mandate to use whatever media are available to achieve that task, be it print, radio, television, or the internet. The promise of access to communities who have not yet heard the gospel sits well with the vision of being witnesses of Christ to "the ends of the earth" portrayed in the book of Acts (1:7–8).

Technological optimism sees technology and media as having a positive impact on the nature and function of the church. Engagement with the internet and new media becomes a way for churches to promote themselves and their causes to a wider public. They can not only spread their teaching but also attract new members and engage younger generations. Technology allows members to access church services at different times through podcasts and video feeds, and it helps maintain regular and extensive pastoral support networks. As such, technology serves to maintain church structures; we shall see it can also challenge them. Finally, with a plethora of church management software now available, technology and the internet can be used to manage the daily running of churches.

However, this optimistic view can mask a variety of problems inherent in technology. For example, Barbour notes that when technology is looked at through an overly optimistic lens, things like environmental problems and human risks associated with technology are often minimized or seen as problems that can be solved through the application of another technology. Moreover, the interaction between economic, political, and social institutions and technology is downplayed, because technology is seen as a value-neutral instrument. Questions about who can afford and access technology, the disproportionate consumption of resources in the industrialized world, and the nature of power

relationships between technology, corporations, politicians, civil servants, and various publics are either minimized or considered not to be in the interests of the community. Graham Houston argues that the increasing control of the technological world by a decreasing number of experts and technocrats is challenging the presuppositions that technology is a democratic medium; technology may be easy to use, but users only get the world that others want them to have.<sup>33</sup>

### *Technological Pessimism*

Whereas the previous response promotes unbridled optimism about technology and its effects on humanity, technological pessimism takes an opposite trajectory. For some, the way technology pervades modern society results in a number of negative effects. Technological pessimism highlights the suppression of individuality and creativity within society because of the quest for technological efficiency through mass production. It also highlights the influence of mass media as dehumanizing people and relationships through impersonal communication structures.

These perceived effects are typically coupled with the fear, often couched in sociological terms, that technology has become an autonomous, all-powerful system that most people have little or no understanding of or control over and that reduces the choices an individual can make. Barbour notes that “some critics assert that technology is not just a set of adaptable tools for human use but an all-encompassing form of life, a pervasive structure with its own logic and dynamic.”<sup>34</sup> Pullinger observes that technological development, with its related scientific exploration, tends to happen outside the public eye, leading to new developments suddenly appearing “fully grown” in the world, such as developments in genetics or biotechnology or even the internet, which had existed in some form for decades before the public became aware of it. Furthermore, these new developments often appear to be imposed on society by some external, alien force, causing people either to adapt to technology or to be left on the margins of society. This force, sometimes referred to as technological determinism, removes the element of volition from technological use, or at least reduces it to a choice about which form of the technology to adopt.<sup>35</sup> For example, you might be offered the choice of different computers or operating systems to do your work or access a public system such as a government department. However, the option of living or working a different way is not permitted, a fact that is often wrapped up in a myth of progress.

One of the most well-known advocates of technological pessimism was the French theologian and philosopher Jacques Ellul. Ellul described technology, or more specifically “*technique*,” as “the totality of methods rationally arrived at

and having absolute efficiency (for a given stage of development) in every field of human activity.”<sup>36</sup> In this view of technology, a quest for efficiency through the application of human reason and logic ultimately dehumanizes individuals and communities by reducing them to impersonal, economic units. Here technological culture becomes the milieu in which human beings now live. This is an environment determined not by nature but by the complex interdependencies between artificial components of an all-embracing technological ecosystem that seeks efficiency. In this environment humanity must adapt to technological culture or be marginalized, because technology seeks to integrate all things, people, ideologies, and institutions into a unified worldview that pushes the values of technology over its creators.

Ellul saw technology as bringing some benefits to humankind, but for him every “beneficial” technological development included unforeseen negative implications that outweighed the benefits. Within the world of the internet and new media, this pessimism is seen in framing the internet as magnifying problems and flaws present within humanity and its social structures. The internet is perceived as leading to the breakdown of face-to-face relationships, replacing the physical worship community, and encouraging mediated interaction even within religious and spiritual life.<sup>37</sup> Additionally, some see it as providing access to naive and potentially dangerous and heterodox religious ideas and teachings leading people away from orthodox faith in Christ.<sup>38</sup> The argument here is that although access to information, other cultures, and freedom of speech is a good thing, believers may not have the capacity to critically evaluate all the competing ideas and values made available by digital media and communications and be drawn away from authentic expressions of the faith. Moreover, the Vatican’s Pontifical Council for Social Communications expresses concern that the internet provides a pathway for the young into “consumerism, pornographic and violent fantasy, and pathological isolation,”<sup>39</sup> a concern echoed in other parts of the wider church.<sup>40</sup>

The pessimistic response is powerful, often highlighting very real human issues brought about by the presence, development, and application of technology. However, technology is multifaceted, and what might be one person’s peril is another person’s benefit. Barbour argues that the recognition of the social context of technology is significant, but he also points to how social, political, and economic forces operate upon the very technology shaping those forces.<sup>41</sup> Ronald Cole-Turner cites the example that while technologically supported market forces were promoting genetically modified foods in the United Kingdom in the 1990s, consumers exerted their own influence through consumer choice to reject the particular technology at that time.<sup>42</sup> Moreover, Barbour contends, pessimism may become self-fulfilling when resistance to technological

development is seen as futile, muting the desire to change the system and effectively relinquishing power to those technological systems. Instead, Barbour asks that we locate alternative values that will challenge and shape the values of the individuals, institutions, and communities involved in technological development and application. If alternative values can be articulated, questioning technological dependence and the material progress that gives rise to narratives of oppression, and if humans develop better relationships with each other and with nature, then maybe technological endeavor can be reshaped in better, more positive directions.

### *Technological Ambiguity*

Sitting between technological optimism and pessimism is the category of individuals who approach technology as an ambiguous instrument of power. What is most important here is the social context of technology, considering how its development, application, and consequences determine its moral value. For example, a hammer might be considered a positive tool in the hands of a person building a house, but it may become a negative, destructive tool used to destroy that same house. The key for proponents of this approach lies in the intentions of those using the tool and the consequences of its use. What is the intention of the hammer wielder? What are the consequences of its being wielded? And what framework of values do we use to evaluate both intention and consequences? For example, the “builder” might be part of a development process that is harming the environment, and the “destroyer” might be part of a much-needed restoration project. Tools, like the hammer in this example, can function simultaneously in positive and negative ways.

This is clearly illustrated through a recent television commercial advertising an internet banking service. In the commercial a man walks into a bank. A little while later he leaves in a distressed state, on the verge of tears. The cause of his anguish is the fact that he has just signed up for the bank’s internet banking service and will never need to come to the bank again. On the one hand, the customer now has access to a range of online banking services that the bank claims will make his life better. On the other hand, the human relationships the customer has developed at his local bank are now in jeopardy. The television commercial ends with the customer standing outside the bank, face pressed against the glass, longingly looking inside and stating he’s not sure if he’s ready for the future.

Alongside concerns about technology is a corresponding sense of wonder and awe at the power and scope of human technological agency. The customer in the commercial is excited that he can do his banking online, twenty-four

hours a day, and that the technology will allow him to use his time differently, and hopefully more productively, in the future. Thus, the technology in question is perceived as an ambiguous instrument of power—simultaneously imbuing it with power and limiting it.

This ambiguous stance echoes the response of those like Barbour, for whom technology is not value-neutral in that it is neither wholly, inherently good nor wholly, inherently evil. Technology does not occur in a vacuum; technologies are social constructions created in response to guiding values present in society and its institutions. This view reflects the cultural dimension of technology (which Susan White alerted us to earlier), where ideologies and pragmatism combine to shape technology in part through political and commercial processes. However, Barbour comments that the public ability or desire to engage with these types of processes may, in many cases, be thwarted by those in power or muted in the face of the enormity of the task.<sup>43</sup>

A good example of this perception is the Pontifical Council for Social Communications' response to the internet highlighting what it sees as its ambiguous nature: "Although the virtual reality of cyberspace cannot substitute for real interpersonal community, the incarnational reality of the sacraments and the liturgy, or the immediate and direct proclamation of the gospel, it can complement them, attract people to a fuller experience of the life of faith, and enrich the religious lives of users."<sup>44</sup> Here technology and media are seen to possess both positive and negative dimensions. They can build people up, particularly in the religious or spiritual sense, and they can also divert people from an ideal of what true spirituality and human life should look like. For Barbour, it is this ambiguous response to technology that most closely fits within what he calls a biblical outlook, which recognizes that human relationships with technology can become idolatrous and displace God, especially when technology is used as an unjust instrument of power over human beings and the natural world. However, technology can also become the medium through which human beings respond to God in creative, compassionate, and just ways. "The biblical understanding of human nature," Barbour says, "is realistic about the abuses of power and the institutionalization of self-interest. But it also is idealistic in its demands for social justice in the distribution of the fruits of technology. It brings together celebration of human creativity and suspicion of human power."<sup>45</sup>

This bifocal view of technology, which simultaneously celebrates and suspects it, makes the response to technology both simple and incredibly complex. As Cole-Turner points out, our technology, "for all its good, is constantly on the edge of sin, exploitation, and greed. It is, after all, *human technology*, beset by our weaknesses."<sup>46</sup> Not only that, but the very ambiguity of our response to technology and media might suggest that we no longer recognize technology



or media when we see them. As Monsma puts it, “Technology and its results are so much with us that, like the air we breathe, their presence and effects go unnoticed and unanalyzed. As a result, modern technology and all it entails are often accepted by default, with few questioning what life would be like if humankind performed tasks and attained goals by other means.”<sup>47</sup>

Critically engaging with technology and media in a manner that notices their presence and effects, as well as thinking about whether default acceptance of those is necessary, becomes part of a life lived out faithfully in the world. Faithful living involves thinking about optimistic, pessimistic, and ambiguous responses to technology and how one might respond appropriately and wisely to the environment we find ourselves in.

## **A Starting Point for a Theology of Technology in an Age of Digital Media**

Each of the responses identified above recognizes that the technological environment is all-embracing. Whether it be the vast vistas of possibility envisioned by the optimists; the bleak, oppressive world of technological determinism posited by the pessimists; or the ambiguity of those wrestling with technology, all agree that technology cannot be removed from human existence. Technology and media have become ingrained in our environment.

Thinking about technology as our environment raises interesting possibilities. Taking the notion of technology in an ecological sense, Bonnie Nardi and Vicki O’Day understand technology as “information ecology.” They define information ecology as “a system of people, practices, values, and technologies in a particular local environment. In information ecologies, the spotlight is not on technology, but on human activities that are served by technology.”<sup>48</sup> With connections to both global and local perspectives on the environment, this view of technology pays closer attention to contexts that shape technology’s form and impact. Paying attention to the local context, as well as the wider social, economic, and political contexts encompassing the local, allows for different levels of granularity in technological engagement that move beyond an overwhelming global view of technology.<sup>49</sup>

Rather than focusing on tools, practices, and practitioners within technological systems, Nardi and O’Day shift the focus to the relationships between entities within a technological system. Technology becomes more than just a single tool for an individual and is instead examined as a network of relationships that responds to local environmental changes. From a theological perspective, this approach to technology allows the values and practices embedded within these

relationships, as well as their effects upon people and the world they exist in, to be engaged through contextual theology. This occurs when the experiences of the technological environment in the present are in constant, faithful dialogue with the experience and contexts of the past found in sources such as Scripture and tradition and mediated through the material reality of the everyday world.<sup>50</sup>

Viewing technology ecologically recognizes technology as a dynamic and evolving system comprising diverse and interconnected entities and relationships. Change in one aspect of the system propagates through the system, altering relationships through feedback loops and altering the nature of the system, possibly rendering it unviable. Here we might find some useful overlap with the perspective on new media developed by Lev Manovich, who sees media and technology as caught up in a networked environment that creates feedback loops, which then shape the way that technology is used and developed. It is this feedback loop that puts the “new” in new media.<sup>51</sup>

By adjusting the scale at which relationships between entities such as tools or techniques are viewed, it is possible to identify certain entities as members of several different ecologies that may themselves be part of a single, larger ecosystem. A simple example is the way a company might have different kinds of computer networks operating in different geographic locations. Each local network connects to form a single company-wide computer network, which in turn is then connected to other organizations to form a yet larger network. The users, devices, software, and configurations of these networks are in a constant state of activity and change at these various levels. Moreover, this dynamic view of media and technology alerts us to the fact that technology and its components evolve over time. A technology may be ephemeral, existing in a particular time and place, or it may continue over time, as in the case of the book, being constantly refined or redefined. Likewise, new tools and methods arise to complement or replace existing ones, while people within the ecosystem adapt, or fail to adapt, to the new environment.<sup>52</sup>

Nardi and O’Day argue that focusing on technology as ecology brings urgency to our reflections, because it uses the language of environmental concern and awareness. Issues that deal with people, relationships, social justice, sustainability, and wise use of technology come to the fore, both in local and global contexts. This, in turn, provides a helpful avenue for connection with theological themes, recognizing that amid the network of relationships between tools, techniques, nature, and people, one might also find God and God’s concerns. Furthermore, an ecological view of technology may provide novel ways of connecting theological concepts described using pastoral and agrarian metaphors with contemporary technological issues. As such, a definition of technology as a system of God, people, practices, values, and technological

artifacts in a particular local environment serves as a useful starting place for theological engagement.

This chapter has highlighted some of the negotiation that has taken place around technology and media in the history of Christianity and that continues today. The Christian church has been both shaped by technology—for example, through its relationship with the Bible as a technological artifact—and has shaped the wider society with respect to technology and values surrounding it. In the process theologians have noted the emergence of three common reactions to technology and media reflecting optimistic, pessimistic, and ambiguous responses. For some, technology is tied to a God-given opportunity to make the world a better place, both materially and spiritually. For others, it represents something that has the capacity to dehumanize and break down authentic relationships between people and with the world. Finally, many individuals respond with considered ambiguity, in which the intentions and consequences of technology and media form an ever-shifting evaluation of their worth and effects.

Throughout this chapter we see a common theme developing, one that says that wisdom is needed to engage with and live within the technology and media that have become our environment. In future chapters we will address how we might approach the quest for that wisdom, what faithful and life-giving technology might look like, and how that technology can interact with our theologies of creation and humanity, with Christology, and with our hope for the future.