PUTTING THE REALITY IN VIRTUAL REALITY: A LOOK AT THE VIABILITY OF VIRTUAL REALITY FOR APPLICATIONS IN MINISTRY

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ABSTRACT

The Christian church has always wrestled with the idea of how best to convey the gospel through media. At this time, virtual reality (VR) is a new frontier of digital communication. Can the church benefit from adopting this technology into its teaching and preaching practices? In this paper, I will evaluate a couple of principles behind educational technology, consider direct applications for VR in the Lutheran church, as well as consider what our Lord has to say about the use of social media and technology as the church seeks to adapt to the world.

INTRODUCTION

When telling others that I was writing a thesis about virtual reality (VR) and its use in the church, I received a variety of different looks. The looks ranged from eyebrow raises and smiles indicating a piqued interest, to looks of intense confusion. Those looks say a lot about the need to speak on this topic. In confessional Lutheran circles specifically, it would seem that VR is almost something of a punchline to a joke. The negative connotations associated with VR can stem from it often being seen as a complicated money pit that has very limited benefit, while others may assert that it is bad science fiction that has no place in a Christian's spiritual life.

The reality is that VR is somewhat "uncharted territory" in the circles of confessional Lutheranism, as well as in Christian denominations at large. I hope to provide a stepping stone towards seeing this wonderful tool as the blessing it can be. The technology is adapting and becoming more broadly available to a growing list of users. In many ways, the time has certainly come to start considering this growing opportunity. VR can be put to good, beneficial use in special areas of a pastor's work, as is evident in both the principles behind its use and its interesting and unique areas of application.

PART I: CONSIDERATIONS FOR THE USE OF VR

Before one can consider direct applications for the use of VR in any educational setting, there should be not only serious consideration of the educational principles behind the utilization of technology as a teaching tool but also some knowledge of what is available for educators in terms of both hardware and software. For any attempt at integration of VR, the leader of such a movement needs to have a thorough knowledge of what the current and future VR ecosystem will look like. However, it is best to first start with the basics. The Christian educator also needs to be solid in their grasp of educational principles and how to teach most effectively by using new educational technology.

Educational Principles

To implement technology tools well, it is important to consider the principles at work behind the use of updated technology in one's vocation as a minister of the gospel. Educational principles are integral to the ministry of any pastor as he decides what content to teach, how to teach it, when to teach it, etc. There are certainly many principles to be considered with the use of VR. This paper will briefly highlight just two items of consideration: the topics of media ecology and design for learning.

Media Ecology

In his book *Why Johnny Can't Preach*, T. David Gordon presents the goal of understanding media ecology: "to describe how changes in dominant media alter the human and social *environment*." This discipline is something that has always existed, but only recently has been studied more closely due to our ever-changing landscape of media. From the invention of writing to the printing press to VR headsets, the way we as a society have been taking in information has always been adapting. Gordon further notes that "Media ecology, as a discipline, is comparatively less concerned with the content of a given medium and more concerned about how the mere presence of that medium itself alters individual consciousness, social structures, or cultural habits and sensibilities."²

The process of understanding media ecology starts with a somewhat abstract question: "How has the movement from language-based media to image-based and electronic media altered our sensibilities?" The answer to this question, however, is evident. Students are becoming more and more visual learners. Richard Mayer identifies a source of this shift in his studies on multimedia learning when he says, "The advent of computer technology has enabled an explosion in the availability of visual ways of presenting material, including large libraries of static images as well as compelling dynamic images in the form of animations and video." This comes as no surprise. People are inundated every day with all sorts of visual stimuli from advertisements to entertainment.

^{1.} T. David Gordon, Why Johnny Can't Preach (Phillipsburg, New Jersey: P&R, 2009), 16.

^{2.} Gordon, Why Johnny Can't Preach, 16

^{3.} Gordon, Why Johnny Can't Preach, 16.

^{4.} Richard E. Mayer, Multimedia Learning (Cambridge, NY: Cambridge University Press, 2009), 6.

As a result, there have been plenty of shifts in teaching to try to meet students from newer generations where they are at, and for good reason. "The rationale for multimedia presentations—that is, presenting material in words and pictures—is that it takes advantage of the full capacity of humans for processing information. When we present material only in the verbal mode, we are ignoring the potential contribution of our capacity to process material in the visual modes as well." Using VR in an educational setting opens up the door to learning opportunities that can specifically cater to those who are already so attuned to processing visual stimuli for information. VR also adds the benefit of offering a subtle kinesthetic means of learning as well. In a virtual environment, students can look around and compare the scale of their environments to themselves. Depending on the program, assets within the virtual environment can be manipulated and controlled by the students. As an educator seeks to instruct, it would be wise for them to find as many of these complementary teaching methods as possible. The rationale for this goal can be defined in a qualitative sense, as Mayer points out:

The qualitative rationale is that words and pictures, while qualitatively different, can complement one another and that human understanding occurs when learners are able to mentally integrate corresponding pictorial and verbal representations. As you can see, the qualitative rationale assumes that the two channels are not equivalent; words are more useful for presenting certain kinds of material – perhaps representations that are more formal and require more effort to translate – whereas pictures are more useful for presenting other kinds of material – perhaps more intuitive, more natural representations.⁶

Pastor Rob Guenther summarizes his this point well as he considers how to apply VR to his Catechism instruction. He asks, "if a picture is worth a thousand words, standing in a place is

^{5.} Mayer, Multimedia Learning, 6.

^{6.} Mayer, Multimedia Learning, 7.

worth, what, ten thousand, a million words?"⁷ The more a student can involve the senses in their learning experience, the more likely it is they will take away more from the lesson or activity.

We live in a time where media has an incredible effect on the retention of information in education, but many educators still seek to teach according to older methods, such as lecturing. There are, however, plenty of individuals who see the change towards adopting modern technology as beneficial for education in the twenty-first century. Pastor Guenther noted his own experience with education.

I would like to make education far more immersive than lecturing. I've gone to school for twenty-two years, from Pre-K through the seminary, and I think that has trained us to be audio learners, but very few people are naturally. I feel most are visual now, especially because of YouTube, the internet, and screen time, and how it has trained us to be that, and many more kinesthetic. They need to hold it and interact with it to learn it, so I believe we ought to try and reach those other learners better.⁸

Instructional methods need to adapt to meet the needs of the students. VR provides a potential setting for very memorable and meaningful interaction with the material presented. It would be unwise to ignore it.

But there is also room for warning when it comes to making concessions based on arguments from the study of media ecology. Gordon was mainly writing his book about hymnody and the media's effect on it. In his study, he noted a new factor of media ecology: contemporaneity. "Contemporaneity is more an aesthetic value than an ethical value; but it is a value, a sensibility, that considers the past passé. No other generation ever before found itself so utterly distant from the art forms (or other cultural expressions) of previous generations. Yet this generation fids itself there." Embracing new media presents a potential clash with more

^{7.} Rob Guenther, interview with the author, November 6, 2020.

^{8.} Guenther, interview.

^{9.} T. David Gordon, Why Johnny Can't Sing Hymns (Phillipsburg, New Jersey: P&R, 2010), 45.

traditional methods. It is up to the educator to take great care not to pit new against old, but to utilize the best of both worlds as he seeks to edify his students.

There is an inherent need for educators to know their material and how best to present it. It is valuable to know what ways will convey the most effective and lasting lessons for students. This alludes to another principle that must be kept in mind as one seeks to adapt their teaching methods. One must also consider how to appropriately incorporate an effective design into their instruction.

Instructional Design

It is a fact of life with many vocations that a certain amount of excellence must be applied to succeed. In their article on backward design, Grant Wiggins and Jay McTighe assert that this excellence and precision must naturally be applied to teachers as well.

Like people in other design professions, such as architecture, engineering, or graphic arts, designers in education must be mindful of their audiences. Professionals in these fields are strongly client-centered. The effectiveness of their designs corresponds to whether they have accomplished explicit goals for specific end-users. Clearly, students are our primary clients, given that the effectiveness of curriculum, assessment, and instructional designs is ultimately determined by their achievement of desired learnings. We can think of our designs, then, as software. Our courseware is designed to makes learning more effective, just as computer software is intended to make its users more productive. ¹⁰

A teacher must be efficient and focused on the goal of their teaching methods. Without a necessary focus on the desired outcome, the learning that take place may not be as effective as the educator may hope.

^{10.} Grant Wiggins and Jay McTighe, *Understanding by Design* (Alexandria, Virginia: Association for Supervision and Curriculum Development, 2005), 13.

When it comes to flaws in educational design, there are two ditches on either side of the road. Wiggins and McTighe call these ditches "the twin sins of traditional design." On the one hand, there is "coverage." They identify coverage as "an approach in which students march through a textbook, page by page (or teachers through lecture notes) in a valiant attempt to traverse all the factual material within a prescribed time." This more traditional method of teaching sometimes fails to meet the students where they are at. Trying to correct this gap can lead to the other of the "twin sins."

The ditch identified on the other side of the road is activity-oriented design. This is a more proactive approach on the teacher's part. "The error of activity-oriented design might be called 'hands-on without being minds-on'—engaging experiences that lead only accidentally, if at all, to insight or achievement. The activities, though fun and interesting, do not lead anywhere intellectually." This is where great care must be taken when considering the use of VR as a teaching tool. It could become all-too-easy for a teacher to place their students in a VR environment and not actually teach them about it. VR must not be used as a novelty. To effectively reach the students, the educator must absolutely have an intended trajectory for the learning activities that utilize VR. It cannot just be cool for the sake of being cool. As with any teaching method, a teacher must take great care to drive the students to the intended takeaways associated with the VR activity at hand.

These ditches can be avoided by defining a feasible learning outcome. What does the teacher want the students to know? What does he want his students to do with what they know? How will the class time spent in VR impact the content that the students are receiving? These are

^{11.} Wiggins and McTighe, Understanding by Design, 16.

^{12.} Wiggins and McTighe, Understanding by Design, 16.

just basic examples of the considerations for the design that an educator needs to consider before moving forward with an ambitious virtual reality project.

Equipment Options Available

Educational principles are not the only considerations here. Equipment and software must also be on the table for discussion. Due to the ever-increasing technological versatility of the twenty-first century, there are plenty of options available for those who wish to use VR as a tool in their ministries. Even for congregations with limited budgets and reservations about the use of technology, there are still options for the use of VR that do not require an excessive amount of money and a deep-seated knowledge of specific technology. But there are also options available for those who wish to do more with this concept.

Simple Approach

For those looking to get into VR at a relatively simple entry-level, one need not look further than an advanced technology that is already widely available to much of the population at large: the smartphone. It is possible to use the built-in gyroscope in so many modern smartphones to view 360-degree videos and images with no difficulty. Outside of owning or borrowing a smartphone, the only requirement is a means of holding the phone in front of one's own eyes. This can be done through products such as Google Cardboard.

The basic premise behind Google Cardboard, is that of using a smartphone or small tablet device (such as an iPod Touch) set inside a device that serves as a stable viewer, is by far the most common and easily applied immersive VR technology available right now. The viewer devices range from actual cardboard with inexpensive plastic lenses for \$10 or

less up to more elaborate devices that cost hundreds of dollars (see a wide range on retail sites like Amazon.com using the search term "VR viewers"). 13

The use of technology at this level puts less stress on the educator. Their burden lies in finding and/or creating resources that apply to technology. The catch is that control is limited, and the individual experience of the user is not as involved as it could potentially be.

Technology has developed to a point where the hardware required for this method is not necessarily out of reach. Even if someone wanted to create their own content for their congregation or students to view, it would only require the purchase of a camera with 360-degree video recording capabilities. At the entry-level tier of these cameras, a congregation or school would be set back approximately \$150 to \$500, with plenty of other options to spend more for better features on professional level cameras.

It is also possible to use content that has been created without the use of dedicated 360-degree technology such as the cameras mentioned above. Software built into smartphone apps can offer plenty of opportunities as well.

The Google Street View App allows you to create your own and view other people's photospheres, which are photographs that provide a full view of a location—you view the location from the center of a sphere. With a single touch you can convert the photosphere for a Google Cardboard device. It takes us about ten minutes to complete a photosphere and upload it for public view, and about ten seconds to convert a sphere to Google Cardboard view.¹⁴

VR capable pictures from trips to distant places with educational significance such as Greece, Rome, or Jerusalem can be made by anyone with a smartphone, and there are plenty of opportunities to view pictures that have been taken and shared by others as well.

^{13.} Abbie Brown and Tim Green, "Virtual Reality: Low-Cost Tools and Resources for the Classroom," *TechTrends: Linking Research & Practice to Improve Learning* 60 (2016): 517–518.

^{14.} Brown and Green, Virtual Reality, 518.

This method does not offer much support for a more ambitious approach to teaching using VR. Users would only be able to view VR videos and pictures and utilize apps that have been tailored for a VR experience. Phones are not equipped with the proper processing power to render and display a classroom environment in which individuals can move freely and be represented by avatars. That kind of functionality is exclusive to the alternative approach.

Complex Approach

There are also options for hardware that one can use to bring others into a virtual world in a more immersive way through dedicated VR headsets. VR headsets come in two different types. The first are those that receive their power from the computer to which they are connected, such as the HTC Vive, Valve Index, and Oculus Rift S. The PC to which these headsets are connected supplies the power and processing for the device. As a result, the PC needs to have relatively updated and capable hardware, such as a graphics card and processor that can handle rendering 3D space and motion input from the headset and controllers. The other type of VR headset is newer and is largely in existence due to the nature of how quickly technology is adapting and evolving. This kind of headset is self-contained. It can process and display content on its own without needing any kind of power from an external source (other than the need to charge the internal battery), such as the Oculus Quest and the updated Quest 2. Generally speaking, the headsets that rely on a high-end PC's graphical capabilities can offer the user the most graphical fidelity, but Oculus's Quest series is by no means a major downgrade. Since the release of the Quest, Oculus has implemented functionality for those headsets also to plug into a computer and run VR applications like a PC-dependent headset.

There are also several other important considerations for this approach. The first major consideration is the price point. Just a few years ago, VR headset setups alone would run the user over \$700, and that would not be taking into account the graphically-capable PC that was required to run it. The PC itself would also run the cost up another \$800 to \$1500 in the financially conservative range. After price considerations, there are also the limitations of physical space and cable management. "In addition to the computing power required to run smoothly, the device also needs to be tethered to a local computer by large cables that run from the back of the headset. These cables can be limiting to the user by creating a tripping hazard and space limitations."¹⁵ This is why the Oculus Quest series of headsets are so appealing in this field. Their price point is more attractive from the start, as the Quest 2 at launch starts at \$299, with no requirement to purchase a computer that can run content on it. This also eliminates the need for cable management as well as the need to set up sensors that some older VR headsets require to track the user's movements. The cameras built into the Quest and Quest 2 are capable of tracking the user's place in space. Spatial considerations must also be made if the instruction for VR is going to take place in person at a school. An individual space of at least six feet by five feet for VR use is often recommended.

VR's Best Fit

As a final important consideration, and as already stated above, a Christian pastor or educator must clearly define their intention when considering the direction of VR in their context. The one

^{15.} Hannah Pope, "Virtual and Augmented Reality in Libraries," *Library Technology Reports* 54 (2018): 12.

who is looking to teach God's truths in new ways will have to consider their applications carefully, as they are not spelled out.

As a general guiding principle, it would seem that the best place for VR in education and worship is letting it provide access to experiences that are otherwise too difficult, expensive, or time-consuming to access. In their systematic review of virtual reality in education, Sam Kavanagh et al make an important observation. "While VR can be used to simulate infeasible activities, it can also be used to simulate the access of limited resources. In VR, where the objects we can include are relatively limitless, these limited resources can include not just resources in the traditional sense, but scientific equipment and even the labs containing them."

Certain lessons within classrooms sometimes just aren't feasible due to the means available to the school or the teacher. When it comes to teaching on any subject matter, there always comes a time when the "needs" of the lesson must be considered. For instance, one teacher might often ask himself, "What setting or resources will be required to bring the main point across to the students?" The answer to this question could either direct the teacher to run to the aid of VR or to stay far away from it.

When VR is used to fulfill a purpose that is not necessarily a "need," it can be quickly seen as gimmicky and unnecessary. Any initial interest will quickly be lost. The flare attached to the idea of virtually stepping into one's home congregation may be lost on a healthy member of the congregation who is blessed with the opportunity to regularly attend, but the added immersion may mean the world to a shut-in suffering from a condition that has kept them physically out of their church for years. A VR catechism class will seem tacky and pointless if the headset leads to yet another classroom environment, but it can be exciting and memorable if

^{16.} Sam Kavanagh et al., "A Systematic Review of Virtual Reality in Education," *Themes in Science & Technology Education* 10 (2017): 92.

the student can stand on the Mount of Olives as the pastor recounts the events of Maundy
Thursday. As educators seek to apply VR to their ministries, they should look to what VR can
add or enhance, not supplement.

PART II: DIRECT APPLICATIONS FOR VR

With some of these principles in mind, a pastor can begin to see the potential riches of experience that VR can provide for the ones they serve. The following is by no means an exhaustive list of applications with this technology, but it can serve as a launching point for individual contexts. And that is perhaps the most important factor when considering future applications for VR. This should be seen as an evolving process. There may be things that I mention that will not work well at all for many, but there may also be greater hidden applications that come to light later. On the surface level, one can see areas of application involved with homiletics, worship, evangelism, and education.

VR in Homiletics

Bethany Lutheran Theological Seminary in Mankato, MN has put VR to great use in their homiletics department. In their curriculum, they use a dedicated VR headset which is plugged into a computer running a program called *Virtual Orator*. This program certainly has a lot to offer, given its \$300 price tag.

The student stands behind a virtual pulpit to which their notes can be uploaded and used, and a screen for visual aid presentations can be included to the side. As the student speaks, the program listens and analyzes his vocal patterns to assess how interesting and engaging his delivery is. Inflection, volume modulation, vocal modulation, pitch, and speed are all recorded and assessed along a timeline. This way a student can identify areas of the sermon in which things may have either dragged or been too dynamic for too long. Additionally, because the student is wearing a headset, eye contact with various areas of the audience can be measured, and a "heat map" produced showing where he looked too often or not often enough. Time spent looking down, looking away, or

focusing on notes can be measured and assessed as well, allowing for free delivery to be taught and encouraged. 17

Not only does VR allow the students to preach to a more crowded setting with a little less stress and anxiety for a first-time preacher, but it also takes this data and converts it into objective points of data that can be analyzed and approached for further teaching opportunities.

Benefits of VR in Homiletics

In a small writeup for *Gospel Outreach with Media*, Brian Klebig, a member of Bethany's faculty, notes some benefit that warrants serious consideration. He points specifically to the benefit of speaking to a crowd in general, whether real or virtual.

When practicing alone, the tendency is to focus on the words that are being said rather than *how* those words are being said. Attempting to get around this by speaking dynamically to an empty room takes a special kind of crazy that can be difficult to adopt and embarrassing when caught doing! Accordingly, there are a number of forces that tend to push toward rehearsing in a colder fashion. Seminary students are men who feel so strongly and passionately about the gospel that they have dedicated their lives to its proclamation, so having rehearsal options that push them toward a less dynamic presentation can be counter-productive.¹⁸

In a setting where a large congregation may be too stressful for some who are not yet confident in their public speaking prowess, VR gives people a starting point. The main argument for VR in this arena is support for the fact that learning can be more effective early on if the stress is "dialed back" a bit. "After all, if mind-numbing terror was advantageous to learning outcomes, we'd hold class in shark tanks. Needless to say, a situation in which students do not have a

^{17.} Brian Klebig, "Seminary's VR "PRAy" Lab for Sermon Practice," *Gospel Outreach with Media*, https://2020.gowm.org/sessions/klebig/.

^{18.} Klebig, "Seminary's VR "PRAy" Lab"

chance to truly rehearse in a reduced-anxiety scenario makes it far more difficult to train a future pastor to speak and speak well."¹⁹

Drawbacks of VR in Homiletics

While implementing this method of teaching homiletics, one should also be aware of the negatives as well. The major point to address is the fact that public speaking in VR requires the preacher to practice a sort of suspension of disbelief. VR can be an excellent starting point for those more anxious about preaching, and it can also be good for addressing a necessity for a good setting to preach, but at the end of the day, the speaker knows they are preaching to a computer program, not actual people. There is something integral to the natural stress that one's body experiences as one preaches to an actual crowd. Students do well to spend time honing their skills and learning how to handle this stress and cultivate it into their own unique preaching style. It is not entirely unfair to say that preaching in VR might delay this process ever so slightly.

There is also caution that should be exercised when interpreting the data that *Virtual Orator* can output. Klebig concedes, "We tend to fill our pews with the flesh, blood, and souls of living children of God. The computer can look at the markers that are generally indicative of interesting, engaging speech, but in the end, it is always useful to have a real human put some context on the machine's output."²⁰ Thankfully, the sermons that are preached in this VR program can be recorded and analyzed with the help of professors and peers. But the raw data

^{19.} Klebig, "Seminary's VR "PRAy" Lab"

^{20.} Klebig, "Seminary's VR "PRAy" Lab"

that is displayed by this program will not, in and of itself, make a student a stronger preacher.

This experience must then be applied later as the students grow in their ability to preach to peers and congregations.

Ultimately, I believe that VR's rightful place in its application to homiletics exists somewhere at the very beginning. It can be an effective and welcoming starting point for first-time preachers, but it should be used as a tool to get oneself acquainted with preaching to actual people. It serves its purpose well as a means to an end. Experienced preachers will probably have more difficulty preaching to a virtual crowd than those with little-to-no experience, although there is a good amount of information that they could glean from a program such as *Virtual Orator*. VR allows its users to slow down and focus on the basics. Students preparing to preach their first sermon may be able to focus more on their delivery if they are preaching to a virtual crowd, rather than to a more intimidating crowd of real-life peers, professors, or churchgoers.

VR in Worship

It does not just have to be pastors that benefit from the use of VR in their training. The congregation can also benefit as well. This brings to mind what it means for a church to worship virtually. Even before the time of the COVID-19 pandemic, many churches had not been shy about offering their church services virtually, whether over the radio, local cable TV channel, Facebook, or live stream, and for good reason. It would be overly-rigid and harsh of a standard to claim that the church simply cannot exist outside of the physical building in which a group of people meets. The Wisconsin Synod, as well as many other Christian denominations, understand that a specific church can conduct a ministry that is not confined to the walls of the sanctuary.

There must always be thought given to the ultimate purpose of why people gather under the name of a specific earthly church. The ending purpose is not to simply gather, but to establish and strengthen a community of believers who are secure of their salvation in Christ. "The church does not exist merely to signify; but rather it *effects* what it signifies. In other words, the church as a concrete assembling of the people of God is to effect fellowship among Christians and with God. Any community that claims to be church ought to be judged with reference to this principle." How does this relate to a church's use of VR? There is a strong evangelical imperative that Jesus has given his people to go out into the world and spread the message of salvation won. Christians have been blessed throughout the ages with many varying means of doing so.

As far as applications to worship go, the main issue with worshiping in VR is the fact that it will not necessarily be the "full experience." The Word of God is perfectly communicable in a virtual space, as in a physical space, but other aspects of the Lutheran service will fall by the wayside. The sacraments, singing, and other liturgical responses are tricky areas to deal with, with various difficult elements to compensate for. These difficulties come from practical issues such as latency and lag between users, to key doctrinal issues of whether or not the sacraments can be administered virtually.²² But as for the implementation of VR, there are two main roads to take. The church can take a more-traditional, small step forward and set up a 360-degree camera, and film the service that way, or the full worship service can be performed exclusively in VR for those using dedicated VR headsets.

^{21.} Kam Ming Wong, "Christians Outside the Church: An Ecclesiological Critique of Virtual Church," *Heythrop Journal* 49 (2008): 824.

^{22.} For the purposes of this paper, I will not be covering the doctrinal issues involved with virtual communion. This is an entirely different and vast topic of discussion that is being studied by many, including the WELS Conference of Presidents, who have since issued a statement advising against the practice.

Traditional Services Recorded for VR Users

The simpler approach of these two is to record the current service. As far as work for the pastor goes, he does not really need to change much about his service. The only major noticeable change is the presence of a camera somewhere among the congregation. Putting it simply, the camera records a video like any other, but the video file that it creates can be manipulated. Even in a computer's media player or on YouTube's browser page, one can click and drag the viewpoint around to observe aspects of the video that were outside of the starting point's initial field of view. When these videos are viewed on any modern smartphone, the phone's built-in gyroscope can "look around" in the video while the user is physically moving the phone around. With the simple addition of a headset that can hold the phone to the user's eyes, any smartphone user suddenly has access to a wealth of VR environments. One of these environments just might happen to be their home congregation.

Benefits and Drawbacks for This Approach

This method is going to have unique advantages and disadvantages in various contexts. With this approach, the advantages are tied up with its simplicity as well as its familiarity. Even for people who are relatively uncomfortable with technology, the process mainly consists of simply inserting the phone into a headset and hitting play on a video. Once that is accomplished, the hard work is over. Other than getting used to wearing a headset, the member is placed inside of a familiar setting, surrounded by familiar faces, and hearing familiar voices. This method is also

easier to implement. Even for those who do not own smartphones, it would not be a terrible financial expense for the church to buy both a phone-holding headset and a phone to use for this purpose. It would be very possible for an elder or member of an outreach committee to go and bring the church's equipment to shut-ins to let them view last Sunday's worship service (given that COVID restrictions have come to an end).

But there are still disadvantages to consider as well. Since all that the users are doing is essentially watching a video, there is no more genuine sense of participation than if the member had just watched the video on a web browser. The user can sing along with the hymns if he or she should so desire, but there is no genuine interaction with the environment outside of looking around in a 2D space that is doing a convincing job of appearing as a 3D space. There is another small issue to consider when it comes to the placement of the camera. Naturally, there will be members who might feel uncomfortable, or at the very least distracted, with the fact that they are sitting next to a 360-degree camera that is actively recording them. The presence of such a camera will need to be transparently communicated so that those near it do not feel embarrassed that their appearance and singing are potentially visible and audible to a virtual worshiper.

Worship Within a VR Ecosystem

The other way to incorporate VR is to actually use a dedicated VR headset and perform a modified worship service entirely within a VR ecosystem. This puts more of an equipment requirement upon the pastor and members that wish to participate. Both the pastor and individual members must own either a headset that can run its own applications, such as Oculus's Quest line, or a headset plus a mid-to-high-end PC that can run and display VR applications to a

headset such as an HTC Vive or Valve Index. When all users are set up and in the same session of whichever app was chosen, the pastor can then begin a worship service that centers around teaching the Word.

Benefits and Drawbacks of this Approach

The benefit of this approach is that worship is now tailored to the experience of the VR user. They are no longer as passive of an observer as in the previous method. They are specifically being ministered to in a dimension that will feel more personal than just watching a video. The real-world/virtual-world distinction may be less of a barrier than people assume, as Jim Blascovich and Jeremy Bailson point out in their work on the concept of "virtual life."

The distinction between real and virtual is relative. Humans contrast what is usually considered "grounded reality"—what they believe to be the "natural" or "physical" world—with all other "virtual realities" they experience, such as dreams, literature, cartoons, movies, and online environments such as Facebook or *Second Life*. This contrast allows us to avoid being mired in the unending debate over what constitutes reality.²³

The risk of people "getting lost" in a virtual world and losing their grip on reality is more of a risk in a science fiction novel, not with an average congregation member. People are able to naturally distinguish between a "real" and a "virtual" experience while still appreciating the message being communicated by the medium. VR has an excellent chance to work if the participants are willing to give the experience a try. There is ample opportunity to share the beauty and depth of the knowledge of the Lord in his word even in a virtual setting, as so many are accustomed to in this time of pandemic restrictions.

^{23.} Jim Blascovich and Jeremy Bailenson, *Infinite Reality: Avatars, Eternal Life, New Worlds, and the Dawn of the Virtual Revolution*, (New York: HarperCollins, 2011), 3.

The drawbacks here still echo some of the issues in the simpler method. Participation is more possible, but the Lutheran liturgy may experience some severe growing pains as a pastor seeks to adapt it to a virtual setting. Congregational singing is going to be off-putting due to latency between all the users, and liturgical responses would also be difficult to manage, suffering from a similar malady. The experience would be better if it were focused less on the participation of the individual members, and more on presenting the Word in new and creative ways. Having a cantor lead singing responses as a soloist could be a possible solution to some issues of liturgy. Finding solutions to these matters will be a dynamic process that will evolve as the technology and software continues to evolve as well. The greatest element of worship that can benefit from technology is the Word itself. Within the ecosystem of VR, there is a wealth of options to present the Word of God. The setting around the users can be changed, and visual aids can be prepared for the sermon that were not previously possible to adequately show to members in an in-person worship service, such as changing the virtual setting to the bank of the Jordan while preaching about John the Baptist.

The earlier, overarching principle mentioned with VR applies here. VR works best when it provides someone access to something that they would not otherwise be able to experience. For churches considering using 360-degree cameras and phones to provide virtual worship services, they should consider implementing that heavily into ministry to shut-ins. Shut-ins have not been able to physically set foot inside of their home congregations for months or even years. It might be an incredibly comforting experience for them to be able to virtually "sit" in church again. A pastor and congregation should consider what it might mean to a long-standing member that has been a shut-in for a while to see the flowers on the altar that week, their favorite artwork on the wall, or the faces around them, both familiar and new. There is a chance that this would

add to their experience, that this would help them to receive the Word in a way that feels more familiar rather than through a computer screen or audio recording.

VR in Evangelism

Others could also benefit from efforts to incorporate worship practices into VR. Much of the same principles in place for VR's use in worship can apply to reaching out to the lost as well. If a church is operating a website, it might be beneficial to put up a 360-degree video option. This gives potential visitors a means of "stepping into" a church without actually physically coming. Familiarity with a setting can be a key factor in taking the leap and deciding to join a home congregation. Admittedly, however, the likelihood that this alone would cause a church's new membership to flourish would be a bit of an abnormality. If somebody is hesitant to visit a church in the first place, the chance that they would be willing to watch a worship service in VR is probably about the same as the chance that they would watch a normal service virtually on their computer screen. It can, however, certainly be presented as an option to those who wish to experience this.

If a pastor would try to perform worship services in VR, he would have to adopt a new strategy for reaching the unchurched. At first, it would seem like a great benefit. Advertisements and announcements can be made across multiple platforms, and worship services can be presented at differing specific times for differing platforms in VR, such as VRChat, Rec Room, and AltspaceVR. This is a tactic that is already employed by VRChurch.²⁴ But the pastor should

^{24.} VRChurch.org is a non-denominational effort started by Bishop D.J. Soto. It was started solely as a worldwide, VR church alternative that exists online for its small-yet-growing base of members. A simple Google search of "VR church" is dominated by results that lead to D. J. Soto and his church.

keep in mind the issues mentioned above. One who seeks to minister the Word in VR would be wise to remember that the focus should be on just that: the ministry of the Word. The pastor would face a liturgy that cannot necessarily rely on the prompt responses of those he is serving. He would also face an increased emphasis on making the Word come to life in new and exciting illustrations and applications.

An experience like this would tailor well for the unchurched numbers of this nation who are very immersed in the social dynamic of a globally-connected world of the twenty-first century. Many people have joined a chosen online community and begun to form a sense of identity based on that belonging. "In all of this the internet medium has developed to a level far beyond what its creators envisaged. Rather than just serving us by providing a means of exchanging information, it begins to be a basis from which our self-definition comes. Future understandings of self and community need to take account of this impact computers have."²⁵ Providing access to a church through a VR platform can give some people a very unique and personal sense of community.

There are certainly reasons to be cautious about this approach. One would have to consider the ultimate goal of holding virtual services exclusively for prospective members utilizing VR. There is a genuine risk of losing something that has become integral to the experience of personally showing up to a church. Kam Ming Wong aptly notes that technology can have the potential to overshadow the point of worship.

Apart from new possibilities for deception opened up by disembodied virtual communication, technology becomes an end in itself, with functional prevailing over normative communication. This is why, although virtual church has a sense of community, it does not necessarily develop for its members into a sense of belonging, with feeling connected or investing themselves with the same intensity as they would have done in traditional Christian fellowship. To put it another way, virtual presence that

^{25.} Andrew Lord, "Virtual Communities and Mission," Evangelical Review of Theology 26 (2002): 200.

is bound up with virtual church abstracts a supposed significance from created, material realities.²⁶

A sense of belonging is not the only issue here. There are also fellowship issues as well. "We have entered a dynamic era in which the individual is free to construct her or his religious identity online. In fact, in constructing an online religious-self, the user is able to pick and choose aspects of different religions and denominations, as opposed to having to be a confirmed member of just one religion or denomination."²⁷ Virtual worshipers will not only be greeted by the pastor, but also by fellow worshipers from many different potential beliefs and walks of life.

Wong and McIntosh present legitimate points here, and these are just a couple of examples of worries with the use of this technology. God may be worshiped and glorified virtually, and the gospel may be spread, but are the users of virtual worship methods edified in the long term? When considering an individual pastor's ministry, this opens up discussions on many fronts that are warranted in the topic of virtual reality in worship. How much is physical, in-person worship encouraged? Would a pastor who leads virtual worship services be comfortable becoming a point of contact who links his own virtual visitors who are interested in the teachings of his church to pastors in his synod who are nearby? Is the establishment of a VR church more of a means to an end rather than an individual body of members within the Church? How can a pastor convey to those he teaches how important it is to seek the sacraments offered in-person? These are just some questions that need to be considered so that a pastor could approach this task with a direction in mind and a mission in place.

^{26.} Wong, Christians Outside the Church, 837-838.

^{27.} Esther McIntosh, "Belonging Without Believing: Church as Community in an Age of Digital Media," *International Journal of Public Theology* 9 (2015): 139.

Implimenting effective ministry in VR is not a process that anybody should blindly jump into, but it should not by any means feel "off-limits" to anybody. Clint Schnekloth brings up a valid point when he echoes the concept of a fluid church. "The concept of liquid church offers a third way, one around the forced dichotomy between 'real church' and 'virtual church.' Instead, the church 'goes with the flow' of the Spirit in the freedom of God, because the church is not *here* in one way and *there* in another." Schnekloth's ultimate point in bringing this up in his article is to push for ministers to immerse themselves in the language and culture of a virtual environment, echoing a similar idea with missionaries who go out with the Word to other countries.

This is not a transition that will come quickly within the church. Careful attention needs to be given to the way that worship is communicated through VR. "In the transition to new media, it is often the tendency to focus on the medium itself rather than to embrace the medium as an extension of the message and messenger. New technologies are always self-referential until they no longer are."²⁹ The main focus, as always, needs to remain on God and his Word. Anything that might distract from that should be handled with extreme caution. It is up to the pastor to evaluate at many points in the process how much focus is being placed on the technology, and how much emphasis is given to the Lord.

^{28.} Clint Schnekloth, "Virtual Church," Word & World 32, (2012), 251.

^{29.} Schnekloth, "Virtual Church." 249.

VR in Christian Education

When it comes to worship and ministerial education, there are certainly avenues of approach in which VR can be a useful and beneficial tool. But ultimately, VR's best potential place for application is in education. The usefulness of VR is evident in the way that it can present the material to learners. Christopher Johnson mentions this usefulness in his article for *Teaching Technology & Religion*, in which he writes,

One of the key principles of a well-rounded pedagogy is that, to effectively teach the study of religions in a holistic way, educators should facilitate student encounters with religious persons, places, events, and objects, rather than simply ideas and texts. This helps students see religions as living communities with diverse forms of expression and gives them a chance to apply course material to their own experiences of various traditions, bringing the material to life in a way that lectures, textbooks, images, and videos cannot. Many instructors address this using course field trips or independent student visits to religious sites as a basis for further analysis.³⁰

Students have a much greater chance of remembering and applying what was taught in Catechism and Bible studies if the material is presented in a way that presents the material with added depth and meaning. As stated earlier in the discussion on media ecology, students are living in a time in which media is greatly affecting the way that they learn. VR provides students a way to take presented information in through multiple extremely beneficial means. "We have three kinds of learners: the audio, the visual, and the kinesthetic. [VR] puts you in all three immediately, so that you get every learner that way."³¹

Throughout the writing of this thesis, I had the opportunity to observe the work of Missionary Michael Hartman and Pastor Rob Guenther, as they have been seeking to break into the world of VR and apply it to our practices in Christian Education. They noted that there were

^{30.} Christopher D. L. Johnson, "Using Virtual Reality and 360-degree Video in the Religious Studies Classroom: An Experiment," *Teaching Theology & Religion* 21, (2018), 228.

^{31.} Guenther, interview.

two primary settings in which VR could be used to teach: in-person and online. Pastor Guenther's work focused more on the in-person, VR classroom experience, while Missionary Hartman set his sights more on the online aspect as they collaborated.

Use of VR for In-Person Instruction

Throughout a trial run of using VR in the classroom, Pastor Guenther incorporates one day out of his three-days-a-week catechism class to Christianity in media. This sometimes includes the use of exploration of an environment using a VR headset. The process he is initially using is limited to the use of one headset for his class of seven catechism students. In this process, the student in VR can broadcast their view onto a screen that the class can see, as each student is eventually able to take a turn throughout the course of the curriculum. His eventual goal is to allocate enough funding and grants to be able to supply each student with an Oculus Quest 2, so that participation can be spread out across the class, instead of making the other students become passive observers of somebody using VR.

What would this instruction method look like? If adequate space has been allocated and every student was connected to the same VR program, an educator could walk his class through a virtual space that applies to the current lesson, such as taking a virtual tour of Jerusalem, Nazareth, or Bethlehem while studying the life of Christ. And this method does not just have to apply to Catechism instruction. One can also see the potential for Bible studies and further Christian education in a more involved setting.

I don't think you can teach Revelation without throwing a whole lot of pictures up on the screen of dragons and beasts and women with stars in her head. And then to make this immersive? I'm positive John never forgot any of those things that he saw from that day on because they just must have been burned into his memory. If we can do that for our

people with God's word, this is the tool to do it! If you could be in a scene in Revelation and just watch it for five minutes, take the headset off, and now let's talk about what we just did. It's amazing where this could go!"³²

These are just minor examples of ways to apply this instructional technology. Traditional classroom lectures, discussions, and activities can then reinforce the material that was experienced in VR.

Benefits of In-Person VR Use

There is rich blessing in what students can potentially learn through this media. Johnson noted in his article that there is a further drive for engagement with the material when the students are presented with situations in a VR setting.

From an instructor's perspective, the student survey comments and the assignment submissions themselves reveal that 360-video and VR can be helpful in meeting the learning outcomes when framed by appropriate assignments and questions. While ethnographic films and documentaries can serve some of the same functions as VR, such as linking student experience with course material and the application of theories to specific situations, the unique characteristics of VR described in previously mentioned studies seem to hold true here as well: it can foster increase empathy, a sense of virtual presence, personal engagement and participation with the material, and a perceived decrease in distance between viewer and the virtual world and its inhabitants.³³

If students can connect more with the material in a new and engaging way through the use of VR, it should be strongly considered as an option as hardware and virtual materials become more widely available. Stories about Jesus will stick out more in the minds of students because they have "been" there, virtually speaking. Jesus and the land in which he lived become more "real" to somebody who might have just seen them as mere stories.

^{32.} Guenther, interview

^{33.} Johnson, "Using VR," 234.

Drawbacks of In-Person VR Use

Logistically speaking, the benefit of maintaining traditional teaching is that many classrooms are built with an infrastructure that easily supports lecture teaching. Effective learning while using VR can only happen when the greater majority of the students in the class can actively use VR headsets and engage in the activity. That is going to take a classroom that is set up with ample space in order to prevent injury or potential damage to equipment. This problem is only complicated if the class is using headsets that require a connection to a computer, as the space limitations would be further accentuated by the absolute mess of cables that are required.

There is also plenty of patience that will need to be had, as is almost always the case with the use of technology. Someone who is looking to familiarize themselves with VR must also be ready to tackle the ensuing technical issues head-on.

In terms of technical issues, six students experienced dizziness, double-vision, or could not see so close to their face; four students had trouble fitting their phone into the viewer; one student found that working and living outside of Fond du Lac made checking out and using the viewers inconvenient; another student thought that the prerequisite of having a smartphone and data plan could be a barrier to some students. A few students complained that the technology seemed to work better with Apple products than Android devices, that the quality of some of the videos was poor, or that the quality of the VR viewers needed to be improved to get the full experience. One student thought it was difficult to concentrate on the video and learned more from the audio, while others felt it was a considerable improvement on traditional video. Another student's phone broke during the semester, which made it difficult to complete the assignments.³⁴

These are some of the issues that came up when the educator was looking to use the "relatively simple" method of using phones and viewers, and it may potentially not be any easier with standalone VR headsets. Students must be taught how to navigate menus and software. There is a

^{34.} Johnson, "Using VR," 234.

learning curve involved that must be taken into account, and depending on the technical proficiency of the teacher and their students, it can be difficult to overcome at times.

Physical and technical limitations are not the only downside. It is also worthwhile to note that positive student interaction is not absolutely guaranteed. Pastor Guenther spoke to this specifically. "One of the challenges for me that surprised me is that not all the kids were into it. They're like, 'No thanks. I don't want to put that thing on my face.' I thought they'd all be excited for the tech being tech natives, but I had two students of my seven who don't want anything to do with it. They'll watch it on the screen. That was a surprise to me." VR is still unknown territory to many, and as a result, there will be many who will not be so eager to adopt it until it becomes more commonplace.

Use of VR in an Online Setting

The other way to implement VR in education is to use it almost as an enhanced Zoom or Skype call. Users can connect to VR lobbies from the comfort of their own homes and virtually meet each other online. Their faces may not be visible, as people are accustomed to in current video call software, but they will be able to see each other's in-program avatars. Missionary Hartman presents a potential situation that a pastor could face. "What I envision with this is that you could do a Bible study. Let's say it's Wednesday night Bible study, and Pastor X is going to lead the Bible study and the members can connect from their homes and hold the Bible study there on the

^{35.} Guenther, interview.

Mount of Olives."³⁶ The setting in which the lesson takes place can be centered around the content. A virtual space for a small time of study can be prepared for the class.

This method would be a welcome change of pace for circumventing pandemic restrictions, but even outside the situation caused by COVID-19, this is a ministry opportunity that has the potential for excellent use as VR becomes a more commonplace aspect of people's lives. It has the potential to provide "the best of both worlds" for virtual learning.

Benefits of Online VR Education

It is important to note, that at the time of writing this thesis, VR is still growing, and it will only continue to grow at a faster pace. It is inching ever closer to widespread availability like that of smartphones, but by late 2020, it still is not there yet. Five years later, however, that may be entirely different. The positive aspects of this assume a relatively widespread acceptance of VR and the availability of the hardware. With the work that Oculus has done with their headsets, that situation is not as far off as one would assume. "Where [VR] is at today and where it's going to be five years from now is the difference between a flip phone and an iPhone." There is a lot to look forward to with this technology.

This method combines a lot of the positives from the previous method, while also getting rid of some negative factors. VR applications on dedicated headsets are capable of providing unique access to settings that students might not usually get, as well as access to a somewhat traditional classroom setting. A calm environment in which a group can gather and chat gives the

^{36.} Michael Hartman, interview with the author, November 6, 2020.

^{37.} Guenther, interview.

opportunity to base a VR experience in a bit of familiarity for those who are hesitant. This setting also allows the pastor to share the gospel in one of the most tried and true methods: Bible storying. This is a method with which many educators can excel in preaching the gospel. One simply shares a story of the Bible and then can ask simple comprehension questions at the end. This is a method that has the potential to work very well in VR.³⁸

From a logistics perspective, this takes a bit of strain off of the pastor. He only needs to set up his own space, he doesn't have to worry about any other spaces or wires that would otherwise be needed for in-person instruction. He may need to walk people through how to connect from their homes, but a lot of nitpicky factors are taken off of his shoulders.

When it comes to evangelism efforts Missionary Hartman also pointed out that outreach efforts excel when they make use of locally available means of communication.³⁹ This principle can be evident in the success of *Academia Cristo*. Their focus has been on using smartphones, and they have reaped the benefits from that. If the previously mentioned prediction on the availability of VR is remotely true, then churches all over can soon benefit from this means of communication as well.

If educators can make unique virtual education opportunities somewhat convenient for their learners, dealing with initial technical difficulties and commonplace user error may well be a battle worth fighting.

^{38.} Hartman, interview.

^{39.} Hartman, interview.

Drawbacks of Online VR Education

Other issues must first be understood before a pastor dives in to an online education ministry remotely through VR. Some of the financial and logistical burdens are relieved from the teacher and their institution, but some of that burden transfers to the students. Right now, it would be unreasonable to expect the majority of a student base to have ready access to VR. The same consideration must also be made for a decent internet connection. Depending on the area in which a pastor serves, that may be an unfortunate determining factor that speaks to its current unviability.

Access to resources and good broadband infrastructure aside, other drawbacks come to the front. The platform in which these VR classes will take place exists within an already established and unique culture. Many people use VR to play games and watch movies, so the gospel has a bit of competition like it does in the real world. Many people who are familiar with VR are already used to being inundated with media that seeks to captivate the senses, and a virtual Catechism class or Bible study may seem to be more tedious compared to alternative options. "So it isn't simply a matter of 'does a student have access to technology?', we must ask what that access looks like—a cellphone with a limited data plan or a MacBook Pro connected to a fiber-optic network. We must ask too 'what does a student get to *do* with technology?' 'What do they *do* on their own accord?', sure, and 'what do schools *expect* them to do?'**⁴⁰ If a student is used to using VR to play games, educational activities grounded in VR may be subject to a student's mentality that treats it as a game.

This method also struggles in the social arena. VR interaction finds itself in this unique "middle ground" between video calling and meeting somebody face-to-face. On the one hand,

^{40.} Audrey Watters, "Ed-Tech's Inequalities," *Hack Education* 8 April 2015, http://hackeducation.com/2015/04/08/inequalities.

body language is slightly more pronounced than just looking at somebody on a screen. VR hardware and software can render hand gestures and posture in minor ways that add authenticity to interactions that one may have. But other nonverbals suffer. Facial expressions are lost entirely, as the users are replaced with virtual avatars that they have chosen. This also brings up another issue that a pastor or teacher may have to deal with in VR: the appropriateness of individuals' chosen avatars. Depending on the chosen program, users can have either a limited or nearly-unlimited choice in the representation of their virtual presence. AltspaceVR is on the tame end of the spectrum, allowing users to customize basic features of one model, such as hair, eye color, and clothing. Programs such as VRChat exist on the other end of the spectrum. Users can upload and select from many custom uploaded avatars. There is a video that exists in which Virtual Church pastor D.J. Soto virtually baptizes a fellow VR user. Soto uses a standard avatar, but the user being baptized is a character from a Japanese anime, and his friend and witness looking on bears the resemblance of Winnie the Pooh. 41 It would be all too easy for others to come with custom avatars that ultimately distract from the message that is being proclaimed.

With all of these methods, drawbacks can be managed in some way, but it is up to the leader to be ready to meet these challenges and solve them in a way that puts the focus on Christ and the edification of his people. An educator must always look at innovative ways of presenting his material with a servant's heart that seeks to glorify the Lord and benefit his students.

^{41.} Syrmor, "Real Pastor In Virtual Reality Baptizes An Anime Girl," YouTube Video, 10:54, May 19, 2019, https://www.youtube.com/watch?v=N_88DBmdnNA.

Concluding Thoughts on VR Applications

The most difficult part of any process is almost always getting started. If a church should wish to incorporate VR into their worship or education programs for the first time, they have to be willing to fail. That is part of how media works. Humans take in stimuli, evaluate, and adapt well. We as a church body need to be willing to give this idea a chance to adapt. Some of the ideas mentioned may ultimately lead to failed projects, while others may greatly impact others' ministries for the better. A few failed projects could teach us enough about how to use this technology well. Experienced and thoughtful use of VR could end up being a huge benefit towards ministry efforts in many different places.

PART III: A SCRIPTURAL EVALUATION OF VR IN MINISTRY

Applications for the use of VR in a ministerial setting abound, but we should also hear what the Lord has to say about adapting our teaching to further share the message of the gospel. This brings to mind two separate discussions. The first is a consideration of how the church uses and adapts to media in general. The second revolves around the social nature of the church and how that correlates with virtual means of communication, preaching, and teaching.

The Church's Use of Media

Clint Schnekloth pointed to the example of Paul, specifically looking to his words to the Corinthians when he says, "I do not want to seem to be trying to frighten you with my letters. For some say, 'His letters are weighty and forceful, but in person he is unimpressive and his speaking amounts to nothing.' Such people should realize that what we are in our letters when we are absent, we will be in our actions when we are present." (2 Cor 10:9–11 NIV). He points to the way that Paul was communicating the efficacious word of God to these people. Schnekloth asserts, "A letter or other media we make use of to extend ourselves is not a vehicle through which 'real' ministry is accomplished but is *itself* the ministry. Churches that 'get' this use digital media *as* ministry, rather than as tools to communicate *about* ministry." The overall point is that VR, while itself offering very new ways to experience and teach the gospel, is nothing new.

^{42.} Schnekloth, 249.

Careful reading of the Bible does not necessarily support the assertion that the truth expressed by Jesus in Matthew's gospel is something that must only be understood physically. When Jesus says, "For where two or three gather in my name, there am I with them," (Matt 18:20) we have understood that to not only mean worship in a physical capacity. Virtual presence can be used to "add-on" to the scope of face-to-face ministry. The New Testament contains a wealth of evidence to the fact that the apostles appropriately conducted "remote" ministry through correspondence with their beloved companions and congregations across Rome, Greece, and Asia Minor. Paul makes this point clear in both of his letters to the Corinthians that his "virtual" presence in the form of his letters is not a cheapened presence. "So when you are assembled and I am with you in spirit, and the power of our Lord Jesus is present" (1 Cor 5:4). "By the humility and gentleness of Christ, I appeal to you—I, Paul, who am "timid" when face to face with you, but "bold" toward you when away" (2 Cor 10:1). Paul acknowledges his differing natures while away or in-person, but he is still the same Paul, and it's still the same gospel message. Jesus himself also asserts in John's gospel, "God is spirit, and his worshipers must worship in the Spirit and in truth" (John 4:24). It is clear in the Bible that it is the heart that matters, not the strict form of worship. This does not cheapen the value of in-person ministry of the pastor, as we see Paul also long for in his letter to the Romans when he says, "God, whom I serve in my spirit in preaching the gospel of his Son, is my witness how constantly I remember you in my prayers at all times; and I pray that now at last by God's will the way may be opened for me to come to you" (Rom 1:9-10). Whether virtual or in-person, God desires the hearts and minds of his people. The church has found many God-pleasing ways to adapt media to benefit the teaching of the gospel. It is only a matter of time before VR becomes a logical next step.

But we do not see proof of this in Scripture alone, we also see this evident in the history of the church. Andrew Pettegree, in his book *Brand Luther*, looks in depth at the topic of Luther's ministry and the people and technology that surrounded him then. He remarks on how Luther's ministry was deeply and effectively impacted by the available media of his time as the movable-type printing press gained popularity in its use. "None of this was as it should have been. In 1517 the church hierarchy was very confident of its ability to close down the hubbub around Luther. The usual channels, a confidential letter to persons of influence, underpinned by a judicial process in Rome, should have sufficed to silence a turbulent priest."43 Luther received an immeasurable amount of assistance not only from the people with whom he surrounded himself but also from the technology of the time. It was only in the unique context in which he lived that his writing prowess had the effect it did. "Luther could not have been a force in the German church without his instinctive, towering talent as a writer. This was his most astonishing gift to the Reformation and to the German print industry. After Luther, print and public communication would never be the same again."44 The Christian Church benefited immensely from a radically different use of media and technology, and it can keep benefiting as that technology continues to changes.

From letters to printed documents to emails to video calls, Christians have always found ways to convey the message of the gospel in ways that are appropriate for people. It is a part of not only our Lutheran heritage but our heritage as Christians that we are always adapting with the world and the way it communicates. As the Lord's royal priesthood, we prayerfully consider

^{43.} Andrew Pettegree, *Brand Luther*, (New York: Penguin, 2015), x.

^{44.} Pettegree, Brand Luther, 338.

all of the ways in which we can serve him and others by proclaiming the Word by whatever means necessary.

The Church's Need for Social Platforms

There is another good way that VR can serve for the benefit of the Church. It comes from how one sees the very use of VR. Hartmann comments, "If you think about the online digital world we live in, there's really, I think, two primary ways you use it. One is informational and the other is social." One can certainly go online and look up Bible passages to their heart's content, but the Lord has hardwired us human beings to solidify meaning and apply what we learn within social circles. The "church" experience will mean more to somebody if they have friends with whom they can share the experience. This is where VR can supply an answer to a need that has been somewhat unanswered in many churches' response to the COVID-19 pandemic: the desire for social interaction.

The social aspect of VR technology is especially in Oculus' ecosystem of headsets. Some may see it as a potential negative, given that Facebook is the owner of Oculus. This brings to mind issues of personal data privacy. Despite the lack of trust that many might share, Facebook has set a goal to put VR into the hands of many as they seek to make it more widely available. Social media is becoming more and more integrated with the VR experience. This has huge implications for the way that a church or school conducts its ministry. It doesn't have to end with the message. "Social media is, in the end, social. One does oneself a huge disservice if one posts a sermon and then vanishes into the ether of social media. The entire purpose is to continue the

^{45.} Hartman, interview.

conversation in hopes that further conversation might lead to transformation."⁴⁶ With the ability to socialize in VR space, a pastor can maintain a lightly more personal relationship with people who previously could only watch his services and read his posts.

Christians understand this need for a shared social experience not only from a fundamental human need but also from the pages of Scripture. "I am a friend to all who fear you, to all who follow your precepts" (Ps 119:63). Paul's letters are filled with language that he was not walking in his faith alone. He not only rejoiced in the opportunity for close companionship and personal relationships with other Christians but also greatly encouraged loving Christian fellowship among the people to whom he wrote (Col 4:10–15, Rom 16, Eph 6:21–22, 1 Cor 16:5–18, 2 Thess 1:3–4). This is not a complicated notion for Christians to grasp. It is clear that our lives of faith in this world benefit from direct interaction with others. VR may not be a perfect replacement, but it does offer an alternative in which people can meet others face to face. This form of fellowship may have drawbacks, but it is still social. This still is God's people meeting together to hear the Word and praise God. VR by no means detracts from the mission of the Church in this regard.

^{46.} Tripp Hudgins, "Preaching Online," Anglican Theological Review, 101, (2019): 82.

CONCLUSION

There is cause for both a word of encouragement and a word of caution when it comes to using VR within worship and educational practices. VR has the potential to greatly enhance virtual ministry. Worship becomes more social when one can see other worshipers as avatars worshiping around them instead of simply watching an uploaded service video on a church's website. The classroom environment can benefit from a unique shared experience among the students. Students taking a virtual class will be able to see each other in virtual "space" and interact in a slightly more traditional way, instead of looking at a collage of faces via a Zoom call. This technology allows users to experience things and meet people that they otherwise would not have been able to see without the assistance of modern technology.

But we must be careful to not let this media create and encourage excuses for neglecting in-person fellowship between believers. VR provides a good opportunity for unique social interaction with other users, but it is not superior to face-to-face meetings. The technology of VR is still incapable of accurately conveying all nonverbal cues, and obviously, there is no opportunity for physical touch, such as a warm handshake or sentimental hug. As we push towards the end of this pandemic, it would be unwise to assert that VR is inherently superior to traditional worship and teaching methods.

I echo once more the thoughts expressed earlier when it comes to how best to apply VR. It works best when it provides access to something otherwise inaccessible. VR is an incredible tool with so much untapped potential. The church can stand to benefit much from learning to speak more fluently the language of a technologically advanced twenty-first-century world. We would be wise to start considering it as a viable tool for continuing to spread the gospel.

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