Preaching in a Pandemic: Online worship during the lockdown

Is the medium the message?

James A. Hendricksen

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Abstract

Purpose: The COVID-19 pandemic that began in 2020 brought with it the enforced closure of in-person services for congregations in Canada, which resulted in many of the same congregations moving to online worship services. The purpose of this study is to explore what happened with this transition, how it was received and what might be learned from this experience. In addition, this study further explored these results using some of the methodologies developed by Canadian scholar Marshall McLuhan. Finally, these learnings have been applied to developing initial guidelines for hybrid church, a combination of in-person and online services.

Design/methodology/approach: This study used a mixed-methods methodology. Data was collected separately from those producing the services and those who watched or attended these services. The study employed two online surveys and a focus group to gather data which was then analyzed using standard statistical tools and qualitative coding and analysis. Further probes were conducted using McLuhan's methodology and Media Ecology frameworks, which resulted in three tetrads being constructed for the various iterations of online worship.

Findings: There were three main platforms used to provide online services, the most common of which was YouTube, followed by Facebook Live and then Zoom. There were challenges presented by the sudden need for these services and a general lack of experience and guidance for those producing the services. Nevertheless, these services were well received, and the majority of users reported that they felt like worship. It was also discovered that people were more likely to invite someone to view an online service than invite someone to an in-person service. One of the most controversial aspects of the services was an issue related to the provision, or lack thereof, of digital Communion. Finally, there was good support for these services continuing after the pandemic ends.

Research limitations/implications: This was an exploratory study and used a convenience sample, limiting the general applicability of the results to a broader population. Future studies could employ a different sampling methodology to get a more reliable sample. Further research could also be conducted into how these services were affected by platform, technology, denominational norms, location, and the availability of good internet access. Finally, there will also be a need for studies post-pandemic regarding the pandemic's long-term effects on both in-person and online worship and the experience and effects of hybrid worship.

Practical Implications: This research provides a baseline of knowledge concerning the broad range of approaches congregations used while initiating online worship. It provides information about who accessed the services, when they accessed them, what technical challenges were presented, along with what was missed most and least about in-person worship during the pandemic. This information has been used to provide some guidance for moving forward post-pandemic with hybrid worship services. Much of this information also can be applied to other forms of online worship. Additionally, analysis using McLuhan's probes and tetrads offers some insight into how these services might be better understood from a Media Ecology perspective.

Originality/value: There is very little research into the widespread provision of online services by local congregations during a pandemic; this research helps to partially fill that gap. It also provides a level of baseline knowledge upon which other studies can certainly be constructed.

Keywords: online, internet, hybrid, virtual, worship, church, religion, Christian, Communion, tetrad, McLuhan, medium is the message, figure, ground, laws of media, RSST, media ecology, pandemic, Facebook, YouTube, Zoom,

Chapter 1: Introduction

March of 2020 marked the beginning of an unplanned experiment. Across North America and many other parts of the world, churches began providing online worship services. This novel practice was not the result of a desire for innovation or improvement but rather a consequence of COVID-19 lockdown measures implemented to control the newly declared pandemic. Almost overnight, pastors became reluctant producers, and members became viewers of these online services.

The sudden shift to online worship also created numerous challenges and obstacles. One of these obstacles was a lack of access to appropriate equipment and technology. Everyone was locked down almost simultaneously, leaving many scrambling to purchase the technology needed for online meetings and streaming. It became nearly impossible even to buy a webcam for a reasonable price. This situation forced many congregations to borrow equipment, adapt existing technology, or find another creative solution for online worship. For some, this meant that the extent of their technology was a cell phone propped up on a music stand. While it worked, it was certainly not ideal. When better technology was again available, congregations faced the dilemma of investing money in technology they did not necessarily plan to use after the pandemic.

No one knew how long the lockdown would last. Many expected it to be weeks or maybe a couple of months. Few predicted it would drag on for at least 18 months. What started as a stop-gap emergency service became a new normal. Patterns shifted and continue to change as churches reopen. No one knows when this pandemic will end; at the time of writing, churches in

Alberta have been cleared to return to pre-pandemic procedures; however, a fourth wave is looming on the horizon.

Moving church online has created a number of controversies, many of which remain unresolved. One such challenge has been raised by the practice of providing or withholding the sacrament of Holy Communion in an online environment.[1] Previously, this was not seen as a significant problem as the context was different, and it only affected a relatively small number of people. The sacrament was available during in-person worship, and those who were unable to attend these services could receive the sacrament in their homes either from a pastor or layperson appointed for this purpose. However, the pandemic changed this; the sacrament was no longer available because there were no in-person services, which raised the issue. While this subject is not the main focus of this project, it is included as one of the topics explored by this research.

The pandemic has created a demand for online services where previously there existed limited opportunity or desire. Now a market has essentially been created for these services, and there is every indication that some churches will continue to provide online church services for the foreseeable future. Thus, the previous paradigm of in-person-only worship has been irrevocably changed, the fullness of which is yet to be determined.

Purpose of the Study

A momentous challenge experienced by the vast majority of congregations and pastors was a significant lack of education and experience with the software, hardware and general lack of knowledge about how to go about setting up and operating a live streaming system. It was a

[1] Different denominations have different practices and beliefs about the sacraments and so this was not a universal problem, however, it did effect many denominations including the ELCIC who were the primary subjects of this project.

steep learning curve for many, and not everyone was entirely up to the task. However, this seems a somewhat universal experience as other researchers have uncovered similar findings (H. Campbell & Osteen, 2021, p. 5).

Because much of this is relatively uncharted territory, there has been a general lack of scholarly research and analysis of the widespread employment of online worship services. There is also little existing guidance or literature that might have been used to prepare congregations for the switch to online services. Lacking this guidance and under significant pressure to move quickly to provide these services, many congregations simply improvised a solution and began some form of online service.

The situation, while challenging, has certainly not been entirely bad. Many congregations have been able to do some very creative things with their online worship services. These services have also enabled more people to participate in worship services at times convenient for them. As a result, some congregations are reporting higher viewer numbers than their previous attendance averages. People have also reported that some people are viewing the live stream who rarely, if ever, attended in person. This evidence has supported the call for the continuation of these services, at least in some locations, following the pandemic.

Uncertainty, it seems, has become the norm during the pandemic. However, a picture has begun to emerge about what has been happening in churches during this time. The research seeks to identify how congregations met this challenge, what can be learned from this experience, and how this knowledge might be used to inform future online services and the emerging forms of hybrid church.

Literature Review

This is not the first time that the church has engaged in online worship experiments. The literature review chapter will briefly examine some of the church's history with various forms of broadcast media and the internet. While online services are new for many people, the church actually has a relatively long history of involvement with broadcast media and the internet. However, as this literature review indicates, these programs or services have not generally been associated with individual congregations or at a scale found during the pandemic.

This paper will examine two primary streams associated with internet-based church experiments; one that tried to build entirely online or even virtual church communities and one that extended existing church programming to the internet (or other broadcast media).

The second part of the literature review looks at Canadian scholar Marshall McLuhan both as a person and his work in media studies. Many people will recognize McLuhan's name and some of the aphorisms he coined, like "the medium is the message," "global village," and perhaps the lesser-known "Affluence creates poverty" (M. McLuhan, 1999, p. 93). McLuhan has proved to be a controversial figure and yet remains a powerful voice in the realm of communications and media scholarship. Moreover, he proved to have a somewhat uncanny ability to predict the future path of technology and humanity's use of it.

Some of the religious dimensions of Marshall McLuhan's life will also be explored. Many are unaware that he was a devote Roman Catholic convert. His body of writings contains reflections, letters, and articles on a variety of religious subjects. While he did not publicly say much about his religious beliefs, they certainly influenced his life and writings.

This capstone project will make use of many of McLuhan's ideas and techniques in an attempt to discern something of what this shift to online worship might mean. For example, is

McLuhan's often quoted "the medium is the message" aphorism applicable, and what might be learned by employing it in this context?

This analysis will employ some of McLuhan's favourite ideas, more specifically the roles of media ecology, the alphabet effect, figure and ground, hot and cool media, the four laws of media and the accompanying construction of tetrads. As McLuhan often suggested, the result will not be a definitive answer but rather a deeper exploration or probe. Nevertheless, much information is to be garnered from this process that will shed some much-needed light on the subject.

Methodology

The absence of available research in this area presented an excellent opportunity for some exploratory research. This research used a mixed-methods approach to establish this baseline and employed both surveys and a focus group. First, producers and viewers of these online services were surveyed to find out what kinds of services were provided along with their reaction to these services. Second, information was gathered about what was learned and how we might use this information to improve these services in the future. Finally, a focus group was formed to further explore some of the topics covered in the surveys, along with a few subjects not previously covered.

The data was then examined to offer some conclusions about what was learned from this research, how that might be applied to improving both the services themselves and our understanding of how they may be operating in their media environments.

Researcher's Relationship to the Material and topic

My educational and professional interests have very much informed my approach to this research and analysis. I have been an ordained minister in the Evangelical Lutheran Church in Canada (ELCIC) for twenty-six years and currently serve as senior pastor of an Alberta congregation. In addition, I have a history in production and media that dates back to my early days in high school, where I was involved in many theatrical productions and ran the local Amphitheatre. My undergraduate years saw more work in the theatre, along with sound and lighting for live music productions. I also spent some time as a radio announcer at a small local radio station in the town where I grew up. This experience was instrumental in my work to revive, rebuild and manage the campus radio station during my undergrad years.

During this time, I also was introduced to the world of live television production. I worked with the local cable provider to produce live college hockey games. I also assisted at a church who were pioneers in broadcasting their services using volunteers, and worked on a few other productions. This work was mostly done using analogue equipment, which, while it differs from today's digital environment, still operated under many of the same principles and was instructive as we moved into the world of digital production.

This background, combined with a desire to reach millennials, brought about our early move to begin live streaming services about a year prior to the pandemic. While this gave us a head start over most congregations, it still has been a tremendous learning curve as we learned to operate under these new conditions. We have been open and closed a few times since the pandemic started; each change has required another readjustment.

This research then is not simply an academic exercise for me. I have tried to maintain a reasonable level of objectivity in this work but may not have always been successful in this

endeavour. Nevertheless, I believe that this is essential work and will assist the church in what I expect is the inevitable transition to some form of hybrid church. While not all will make this transition, I hope those who attempt it will benefit from this research.

Summary

The pandemic created a significant challenge for congregations forced into some form of online worship. However, it also presents an incredible opportunity for research that has never been done. Building on the history of research into the church and the internet, this research seeks to explore what happened during the pandemic, what can be learned, and how this might impact the future of online worship services. In addition, this paper will explore something of the "what does this mean" questions using the ideas and techniques of Marshall McLuhan. It will then explore how these findings might inform the emerging hybrid church developments. Finally, this paper will conclude by exploring some limitations of this research and suggestions for future work in the area.

To establish a context for this research, this paper will first turn to the existing literature to provide a foundation for this study.

Chapter 2: Literature Review

Introduction

The COVID-19 pandemic of 2020 brought many disruptions, including the enforced shutdown of in-person worship services. Churches have been closed during a pandemic before; for example, during the Spanish Flu Pandemic of 1918-1919, some churches were required to close for two weeks (Ott, Shaw, Danila, & Lynfield, 2007). This time, public health orders closed churches to in-person worship for several months. Churches' responses to these changes have varied significantly, with the vast majority adapting to these limits while a few others rejected the constraints and fought against the restrictions (Gjelten, 2020).

While many of these restrictions were problematic, the pandemic also created the opportunity for creative solutions to arise. One innovation that allowed churches to continue operating was moving to pre-recorded or live-streamed church services via the internet. Unfortunately, many of these congregations moved ahead with little or no theoretical grounding into how this new medium might affect the delivery of these services. Discovering what was attempted, how it was received, what was learned, and the implications of these findings for future online and in-person services, along with an exploration of how McLuhan's Media theory might be used to explore these findings, is the focus of this research. This chapter seeks to ground this research within the overall context of other relevant research and media theory.

This first section of this chapter will include a brief explanation of the questions that framed the literature review process and a summary of the search methodology. The second section will explore a brief history of religious broadcasting, starting with radio and ending with the internet. This will be followed by an exploration of some of the theoretical approaches used to study media and religion, along with examples of this work. The next section of this chapter

will look at McLuhan, his life, and some of his significant influences, followed by an examination of some of his applicable work and theories. Finally, the last part of this section will include a review of how some of his work has been used by others, followed by a brief conclusion.

Literature Review Research Questions:

In preparation for the literature review, four questions were developed that helped frame the initial search parameters and focus the study. These questions also informed the final research questions and helped structure the research. The first part of this review looks at the research dealing with the intersection of church and media, primarily the internet. The second part looks at Marshall McLuhan, the influence of religion on his life and work, his media theories, and how they might be applied to our findings.

> **LRQ1:** What can we learn from the literature about how the church has engaged with the internet (and vice versa), the history of this engagement, what trends can be identified, and what did other researchers uncover?
> **LRQ2:** What Theoretical approaches and methodologies have been identified in these studies?
> **LRQ3:** What literature is available that relates to Marshall McLuhan, the influence of his Catholicity, and what aspects of his work might apply to this research?
> **LRQ4:** How have McLuhan's theories and tetrad analysis tools been applied in other research?

Search Methodology:

A relatively straightforward research methodology was employed in this literature review. The research began with multiple keyword searches using the Ebscohost search tool available through the University of Alberta Library. Further searches were done by accessing the ATLA religion database, JSTOR, the Social Sciences Citation Index, Google Scholar, Academia.edu

and a few other social science databases. Once an initial core of articles was retrieved, they served as a primary resource to identify other authors working in the field and related articles. Further searches were conducted as required, particularly as new information, potential sources and relevant keywords were identified.

Initially, keyword searches were used to discover something of the range and depth of available material. Some of the initial words used, in a variety of combinations, were: online, internet, religion, church, worship, broadcast, Christian, McLuhan, tetrad, and medium is the message. I initially started with two or three words, beginning with pairs like internet-religion or online-church. I didn't find it necessary to exclude many words, except for words from previous pairings that might be returning previously discovered articles. From there, a snowball approach was used; once one article was discovered, I looked for other articles by the author(s), other related articles, or keywords that arose from this article. I also scanned the bibliography or reference sections of helpful articles for relevant materials.

Another somewhat surprising resource came in the form of Academia.edu. I initially began to access this source because that was the only place where online copies of some articles could be located. Subsequently, the algorithm then started sending me daily emails suggesting other articles based on ones I had accessed. While this was sometimes annoying, it also provided some excellent articles I may not have otherwise encountered.

One challenge I experience while researching and writing this paper was the closure of libraries due to COVID precautions. This made accessing older print material or some books a challenge, and some I was not able to access in a timely manner. Regardless, I was able to secure more than enough material to satisfy the needs of this paper.

Eligibility Criteria:

As one might expect, there is a relatively small pool of published research dealing with the church and the internet. Given this reality, the two most critical factors for eligibility were relevance to the subject and the material's overall quality. Thus, priority was given to recent articles from peer-reviewed journals, followed by books, dissertations, published conference proceedings, and edited collections of articles. Additionally, some of the sources considered came from smaller journals, newspaper (online or print) stories, papers published on Google Scholar, Academia.edu, and some grey literature.

Electronic Media and Religious Practice

The beginning

There is a long history of religious programming in Canada dating back to the earliest years of radio broadcasting. In the1920's, several religious groups, including "Baptist, Catholic, Christian Alliance, Jehovah's Witnesses, Missionary Alliance, Presbyterian/Methodist interests began operating radio stations across the country" (Zolf & Taylor, 1989, p. 156). However, a problem arose when one of these groups used their platform to attack other religions, causing a host of complaints. By 1928, this problem had become so acute that the government revoked the licences of the offending stations. As Zolf and Taylor note, "These revocations marked the beginning of a 60-year prohibition on the issuing of broadcasting licences to religious groups or to stations whose primary objective was the dissemination of a narrowly defined religious view" (p. 157). However, this prohibition did not halt religious broadcasting as both private and public broadcasters filled the void by providing religious content as part of their overall programming lineup. While some stations still provide free airtime to local churches, much of the religious

content now comes as paid religious broadcasts which, have proven to be an essential source of income for many stations (Zolf & Taylor, 1989).

This environment meant that there were limited opportunities for local congregations to engage in these activities as there were many barriers to entry into this market, including the high cost of airtime. However, some made deals with local cable, TV or radio stations to provide some of their required local or Canadian content.

Along with these local broadcasts came the paid programming of radio and tv evangelists, which was eventually followed by specialty cable channels and broadcast networks. While some of these broadcasts still exist today, Bekkering (2011) did find that a number of these televangelists or megachurches either switched to web broadcasting or were able to expand their ministries reach using the technology afforded by the internet. Naggar (2014) demonstrates how a similar pattern exists within the Muslim faith.

Wiesenberg (2020) reports that as the internet grew and developed, so did the church's use of it; however, this use rarely extended much beyond basic websites and email. One of the often-reported findings in his study was that local clergy did not feel equipped or prepared to use social media or other digital media for communication. Instead, survey results suggested face-to-face communication and print technology (like local newsletters) were favoured, although there was also some use of digital communication tools.

There certainly have been other creative uses of the internet by some congregations and denominations. One such experiment by the Episcopal Diocese of North Carolina used video and social media to teach the Eucharistic doctrines of Real Presence and Sacrifice (Rice, 2015). While this may not seem very novel now, it was presented when this type of education was almost exclusively offered only in-person. Another example by Golan and Martini (2018)

explores Catholic monastic webcasts concerning pilgrimages, how these videos can impact the pilgrimage experience, and can even become a pilgrimage surrogate. Finally, in another article, Golan and Stadler (2016) take an ethnographic approach to examine how a Jewish ultra-Orthodox movement used three key websites to distribute religious content over the internet.

Religious Impact of Television

As the more or less direct predecessor of online worship services, Television broadcasts raised a number of criticisms and concerns. A conference paper by Neuendorf, Abelman, & Kalis (1987, p. 17) suggests that,

> These criticisms have fallen Into three major categories: (1)that televised religion has a negative impact on church attendance; (2) that televangelists, through solicitations of funds, reduce contributions to local churches; and (3) that televised religion has a political component which unduly influences viewers' political attitudes and orientations.

While this paper is written from an American context, a significant portion of the larger religious broadcasts were available in Canada either on cable or over-the-air broadcasts. A summary of their work concludes that watching religious TV does not erode church attendance and that people who viewed religious TV tended to be generous givers in their own congregations. Their conclusions about the political aspects of religious TV were inconclusive, in part because of the changing religious climate at the time the article was written. They noted that many conservative religious broadcasters were also engaged in significant off-air political activities.

While any further exploration of religion and TV is beyond the scope of this paper, it is interesting to note that it suffered many of the same challenges encountered by the emergence of online worship services. Neuendorf et al. report a general lack of research in the area, which, in part, led them to conclude, “More than any other type of television programming, religious fare is the least understood and the most prone to misconceptions about its prevalence, popularity and

impact" (p. 26). At this point, online worship also seems to suffer from some of the same challenges.

Digital Church Evolution

Along with adaptations of traditional programming to an online context, the internet saw the development of various experimental online church communities. Some of these were stand-alone, non-geographic or non-physically established communities that existed only in the online world. Others were extensions of existing brick-and-mortar ministries into the online realm.

Campbell and Evolvi (2020) provide some context and insight into the emerging field of scholarship known as digital religion studies and begin by outlining four main areas or "waves" of research. The first wave started in the mid-1990s and sought to describe the emergent phenomena of digital religion. The second wave, situated in the early 2000s, was one in which scholars started to conceptualize digital religion from a historical and social perspective. It considered the internet on more realistic terms than perhaps first imagined and asked questions about the implications and authenticity of digital religion. The third wave began in the late 2000s and examined the interconnectedness of online and offline settings. It also began to recognize the internet's growing embeddedness into everyday life. The current and fourth wave looks at people's media practices in daily life and examines the connections between online and offline venues. Campbell and Evolvi also note that research has begun to look at matters related to the existential, ethical and political aspects of digital religion and issues like gender, race, class, ethnicity, and sexuality. Some of the theoretical approaches to digital religion identified by Campbell and Evolvi include mediation, mediatization, religious social shaping of technology, and hypermediation, which will be detailed later.

Some of the earliest work in this area was conducted by Helland (2005), who notes that many of these early participation attempts were text-based, some were interactive, and others mostly provided information or collected information like prayer requests. Some offered rituals or liturgies like Holy Communion or other special services. Sometimes these were performed by following text prompts, while others provided religious services over chat. Jenkins (2008) explores one of these online experiments that started as a net magazine called shipoffools.com. It evolved in 2003 to "The Ark: Internet reality gameshow," a project that placed 12 "arkmates" from around the world on a virtual ship for one hour a day for 40 days. Each participant had an online avatar they could control as they moved around the ark, made gestures, and interacted with other arkmates. Other people could log in and watch what went on in the ark. Up to 4000 people per day logged onto the site to watch the action or explore the ship. The next phase of this work came in the form of the "Church of Fools," and the 3D online church launched in May 2004. The church allowed members to join, create an avatar and interact (including specific religious actions) with each other and the environment. Others who wanted to observe but not be seen were allowed to enter as "ghosts." The experiment was well received. It included the participation of real clerics (even a Bishop), who preached and led services. In 2006 the church moved to new software and changed its name to "St Pixels." It existed as a website until 2012 when the church moved to Facebook. It eventually ceased operations in 2018 (although the website is still accessible).

Hutchings (2012) begins to explore the virtual world with a case study of both "St Pixels" (Church of Fools) and "Church Online," which is part of Lifechurch.tv a "multisite" Evangelical megachurch based in Oklahoma. LifeChurch.tv is a hybrid of physical buildings, satellite ministries and an online campus. This ministry has some similarities to traditional televangelism;

however, it benefits from significantly reduced broadcast costs and additional online features. This model also affords them international exposure, which they accomplish with the assistance of volunteer translators.

The history of religion and the internet in many respects parallels the developmental trends of the internet itself. As the internet evolved and enthusiasts hyped every new innovation, there was often an accompanying religious response. For example, when virtual communities like Second Life were being touted as the next great thing, there was an attempt to use this platform for religious purposes. As some of these platforms and services waned, so did the religious use of them. New avenues opened, and new attempts were made to exploit them for religious purposes. In this respect, religious groups have approached the internet in the same way previous media platforms were approached and used. While all these media are different, they have all been used to promote and share religious interests.

Theoretical Approaches to the Study of Media and Religion

The study of media and religion can be approached in a variety of ways, and viewed through a number of theoretical lenses. Given this reality, Lundby (2012) suggests five possible approaches to this study:[2]

1. Technological determinism – e.g. McLuhan, who employs a philosophical methodology.
2. Mediatization of religion – e.g., Hjarvard, who employs survey methodology.
3. Mediation of meaning – e.g., Hoover, who employs ethnography.
4. Mediation of Sacred forms – e.g., Lynch, who uses cultural sociology.
5. Social shaping of technology – e.g., Campbell, who employs case studies.

[2] Only the three most relevant approaches (1, 2 & 5) will be explored in this paper.

At least one additional focus needs to be added to this list in the concept of media as environments, which has come to be known as *Media Ecology*. This will be covered later in the chapter as we more fully explore McLuhan's work.

Technological Determinism and Social Constructivism

There is some debate about whether or not McLuhan was a technological determinist, even if an unwitting one. According to Balka (2000), the underlying premise of technological determinism is the idea that technology is the driving force of social change. It includes the belief that technology is a self-acting force – that creates or provides materials for new ways of life. Balka also notes that there are two technological determinism streams, one that suggests our behaviours are determined (caused) by technology; the other suggests we are conditioned by technology and adapt goals to fit the technological environment.

Balka proposes that one can read McLuhan in a social constructivist way. Social constructivism differs from technological determinism in its assertion that society and technology are seen as mutually shaping phenomena. It is understood that changes occur because real people make both conscious and unconscious decisions about the design of technology, which result in the technological systems that take one form or another. In this regard, designers can (perhaps unwillingly) simultaneously shape both technology and social change. Balka argues that McLuhan can be read in a way that recognizes both the propensity of technology to order social interactions in certain ways and acknowledges that the process of technological and social change are inextricably linked.

Mediatization of Religion

Hjarvard (2008) presents a framework to conceptualize the ways that media may change religion. He notes that this is a complex subject, and there may not be a uniform impact on religion in different contexts and cultures. To assist in the process, Hjarvard uses three metaphors, initially proposed by Joshua Meyrowitz (1996):

1. **Media as conduits** – transport symbols and messages across distances from senders to receivers (like traditional TV).
2. **Media as languages** focuses on how media format the messages and frame the relationship between sender, content and receiver (i.e. a movie like The Exorcist or a computer game like World of Warcraft).
3. **Media as environments** – the ways media systems and institutions facilitate and structure human interaction and communication (i.e. one to many like TV or multidirectional, as may be possible on the internet).

Within this framework, Hjarvard proposes that mediatization, in the case of religion, is how "media – as conduits, languages and environments – facilitate changes in the amount, content and direction of religious messages in society at the same time as they transform religious representations and challenge and replace the authority of the institutionalized religions. Through these processes, religion as a social and cultural activity has become mediatized" (p. 14). Hjarvard (2016) refines this concept further by suggesting that mediatization is a process through which religious beliefs, agency, and symbols are increasingly showing up in various media genres and are being influenced by those media. This banal form of religion is often supported by popular culture and found in a multitude of media references (i.e. film and TV depictions). Like the concept of life after death, many religious ideas can be held by the majority of the population, who may not see themselves as belonging to any particular denomination or faith group. These ideas are then not necessarily learned in church but from popular culture and the mediatization of religion.

Religious Social Shaping of Technology (RSST)

Campbell (2007b, p. 191) begins her paper with an interesting observation, "Since Samuel Morse posed his famous question 'what hath God wrought?' in the first telegraph conversation, communication technology has been infused with spiritual undertones." *Religious Social Shaping of Technology* (RSST) is what some might consider a more specific instance of a *Social Shaping of Technology* approach, which views technological change and user innovation as a social process. Campbell (2007b) demonstrates this effect by examining the Amish communities' response to the telephone and later by the Ultra-Orthodox Jewish communities' work towards the development of the 'Kosher' cell phone.

One of the logical extensions of this work is an examination of the changing nature of authority in online religious contexts (H. Campbell, 2007a). This particular question is relevant for all religious groups regardless of their understanding of authority and how it is determined or enacted. RSST, in its most recent iteration, considers four areas that inform religious groups' negotiation with new technologies. According to Campbell (2020, p. 7), these include:

(a) tradition and history of a religious community;
(b) its values and principles;
(c) the acceptance, rejection, or innovation of technology by a group; and
(d) its discourses regarding the use of technology.

Hutchings (2015) uses the RSST approach to examine "the Anglican Cathedral of Second Life." This project is interesting because a private individual started it and then was able to gain the participation of the Anglican Church in New Zealand. The author notes that the Cathedral has been shaped by engagement with two very different cultures, Anglican and virtual, and has been able to form a unique ministry as a result.

Hutchings also reports on other online specialty ministries like Koinonia Church, a Second Life group for those rejected from their faith communities for sexual orientation and

related issues. Conservative users are also developing niche sites; their offerings range from JenClothing, an LDS site for "modest dressing" to sites promoting "end times" theology and apocalyptic messages.

Campbell and Grieve (2014) demonstrate that religion is present in many places in the digital realm, including some unexpected ones like computer games. One of the significant insights they present is that many people's attitude towards digital gaming reflects an implied version of secularization theory, in that "digital media are seen as the epitome of modernity and therefore imagined as anathema to religious practice" (H. A. Campbell & Grieve, 2014, p. 4). The authors note the intersection between games and religion, even to the point of one game being sued for copyright violation for depicting the destruction of a Cathedral. Well beyond that, however, the authors demonstrate that there are many religious themes and content expressed in these games, and some even suggest they go well together because they exhibit shared qualities and encourage similar conditions.

A key takeaway from this article is the recognition that the internet has allowed for a renegotiation of boundaries between religious institutions, leaders, members and even questions regarding what constitutes a religious group.

Other research dealing with other religions was not included in this paper as this research is primarily limited to the context of Christian churches. There is also additional literature on other related topics; however, it too was deemed to be beyond the scope of this paper.

Online Church or Church Online?

Hutchings (2017), in a follow-up article to his earlier ethnographic study of the online church, notes that with one exception, all are in decline or closed. Church of Fools eventually

closed in 2016. Some of the archives are still available online, but the community no longer holds active events. The Anglican Cathedral of Second Life remains where it was, on a hill, although the site and church have been simplified. It no longer has a Bishop associated with it and operates with an acting "lay pastor." Events have declined considerably, along with community participation. This decline raises questions about whether the internet has simply left these churches behind, or perhaps was there something fundamentally wrong with the idea in the first place?

Life.Church (previously lifechurch.tv) reports that their church online experience was growing, at least at the time of the article. Hutchings notes that while online church seems to be in decline, church online appears to be growing. Often viewed as extensions of existing ministries, more churches are now offering live streaming of their services and other online events.

Helland (2005) first identified the continuum of online religion and religion online; while the extremes may be endpoints of a continuum, the vast majority of sites offer something in between these extremes. While the earliest experiments leaned in the direction of online religion, there appears to have been a shift towards the other end. Hutchings offers the following possible explanation for this shift.

> Online churches never managed to win over their theological critics, either: fears of online competition, disembodied relationships and uncommitted digital consumers remain just as prevalent in 2016 as they were in 1996. It is possible that the shift from online church to church online reflects a sense that online churches failed to live up to their perceived potential. They did not attract the young, and they did not persuade the Christian majority, and so their institutional sponsors have moved on in search of something new. (Hutchings, 2017, p. 257)

Boulton (2015) identifies the internet as an attractive and emerging mission field, especially for a younger demographic. He describes some of the complex ways "missionaries"

engaged in the virtual world of Second Life and other similar platforms to proselytize. Their primary goal was to convert the real-world person behind the avatar. He also found that often people participating in online religious activities are already involved in some form of religious life. They often choose to participate in an online community that met their needs but was not available near their home. Freedom to engage people, regardless of geographic location, seems to be one of the potential strengths of online churches and one of the forces driving existing religious groups to add an online component to their ministries.

Digital Challenges to Religious Practice and Authority

Helland (2005) also points out that the internet has, much in the way the reformation did, removed the necessity for an intermediary priest/religious officials/hierarchy and instead often relies on volunteer participants' involvement. He notes that many of these early attempts were text-based. Some were interactive, while others provided information or collected special needs like prayer requests. This heavy reliance on volunteers may partially explain their declining popularity. Without the support of established churches and paid staff, these services may simply not be able to sustain themselves over an extended time.

The rise of church online brings with it a number of issues relating to authority. As Campbell (2007a) points out, the question of authority in religious engagement online involves multiple layers. For Campbell, there are four levels of authority at play in online contexts: religious hierarchy, structure, ideology and text, regardless of religious affiliation.

An example of this is provided by Schiefelbein-Guerrero (2020), who looks at the issue of celebrating Holy Communion online. A debate over whether it was proper or valid to celebrate the sacrament in a digital environment. Some argued that it was only proper when gathered in

person; others argued that pastoral concerns about denying the sacrament to those who desired to participate took precedence. Clergy Facebook and other chat groups erupted with arguments; letters were sent, calls were made, none of which led to any clear consensus. Part of the challenge arises from the reality that many of these issues have no discernable ways of external validation (how does one detect "real presence" in the communion elements?). In some denominations, Bishops simply prescribed what was to be acceptable practice. Other denominations left it up to pastors and congregations to decide how to approach the subject until official guidance could be prepared. While such a document may yet be produced, the nature of the internet is such that there is little to stop someone from offering this service on the internet.

This conflict demonstrates some of the challenges associated with religious authority and oversight on the internet. There are questions of jurisdiction, practice and authority in this matter, and currently, very little policy or research to support any such policies. There may be consequences for rostered members of a denomination, but for those outside this process, little can be done to regulate them or the practice. The lack of licenses to broadcast or even broadcast standards documents, such as those required for radio or TV, make this an even more complicated issue and for which there may be limited solutions.

This brief tour through some of the history of religious organizations and broadcast media has demonstrated a long and varied association. It is also evident that there has also been a logical progression into new media forms as they developed. These articles have provided a reasonably comprehensive overview of the available literature that applies to this research. It is now time to turn our attention to Marshall McLuhan and examine some of his contributions to the subject matter and how his work can be helpful as we more fully explore the possible implications of online church.

McLuhan – Figure and Ground

In his catechetical writing, Protestant reformer Martin Luther had a pattern of introducing a concept and then asking, "what does this mean?" followed by an answer. When examining what effect live-streaming has on a congregation or even the act of worship, one can equally ask – what does this mean? While there are undoubtedly many empirical questions one could ask, they alone cannot fully answer the question. However, if one probes the subject using Marshall McLuhan's aphorism – *the medium is the message*, and in doing so asks the question, "what does this mean?" something interesting might be discovered.

McLuhan has purportedly already answered this question, at least in part. In an address to the National Religious Broadcasters in 1970, he noted that “the only perfect union of the medium and the message had occurred in the person of Jesus Christ"(Armstrong, 1979), but implied that TV does the second-best job” (Neuendorf et al., 1987, p. 1). One might be tempted to suggest that McLuhan was simply speaking to his assembled audience, but as one delves deeper into McLuhan’s religious convictions and identity, this suggestion becomes less likely. McLuhan was a deeply religious man, even if he rarely revealed this side in public. His faith did play a role in his work, although the extent of which is a matter of debate.

This section will now briefly review some of the details of McLuhan’s life and work. Doing so allows for an examination of some of the tools or probes McLuhan developed and used in his work. McLuhan very much loved to explore topics in what was considered by others to be somewhat unconventional ways. For example, he was generally less concerned with the content of media, which was the usual domain of others, and instead was interested in probing the

influence of the medium itself and its effect on the content. The probes he used are designed to make one look at issues in a different, often more philosophical, way.

One of McLuhan's important tools or concepts was figure and ground, especially in his later writing. In a simplified way, we can say that *ground* is concerned with context and *figure* concerned with content. While these concepts will be discussed more fully later on, we will initially use them to frame our discussion of McLuhan himself and his contributions to the field of media studies.

McLuhan – Ground

While many people are familiar with at least some of the most popular elements of McLuhan's work, most people are unaware that he was also a devout convert to the Roman Catholic Church. Edan (2003) points out that while McLuhan was careful to compartmentalize his work from his faith, at least in public, he was undoubtedly influenced by his faith and his reading of theological works. Edan suggests that one can see, for example, the influence of Chesterton in his use of analogical arguments and Aquinas in his idea of media as extensions of the human body. Other concepts, where his religious sensibilities, the influence of other thinkers, and his own theories converge, can be found in his ideas of "figure and ground," the church's captivity to literacy (the Gutenberg tyranny), and his ideas of space and transformation.

Osicki (2012) suggests that McLuhan was not only influenced by Aquinas and Chesterton but also Canadian Jesuit theologian Bernhard Lonergan. In particular, Lonergan's account of human consciousness proceeding through four levels. The author's interest is in the parallels between McLuhan’s and Lonergan's ideas of how sensory data is used to construct conceptual concepts. He concludes the paper with a suggestion that "perhaps the time has come for the study

of media–of the internet, and all other electric/electronic media–to become a branch of theology. That would see religion looking at McLuhan and McLuhan looking at religion." (p. 356)

Schuchardt (2011) presents his arguments for the extensive role McLuhan's faith played in his life, work, and theories. Of particular interest is his discussion of John 1:1-3 with respect to McLuhan's – medium is the message assertion. The Greek word used in John 1 for "word" is logos, which also figures prominently in McLuhan's later work. Related to this work is McLuhan's assertion that the only media that does not come in a pair, of which one acts as the content of the other, is the electric light, which has no content. This idea is later manifest in a dialectic of light, and false light, which McLuhan suggests is Satan. All of this influences, for example, McLuhan's idea of perception, which for him was only possible for the true medium, the incarnate Christ.

Chrystall (2007) highlights some of McLuhan's thoughts and opinions about other contemporary theologians like Pierre Teilhard de Chardin, Kavanaugh and Kung. The level of influence these authors have is debatable, with McLuhan often rejecting much of their work, and yet, other authors find that their influence shows up in his theorization. Further to this, Chrystall writes about Aquinas's influence on McLuhan's use of "figure" and "ground." It was as a result of some of this work that McLuhan shifts "the medium is the message" into "the user is the content" (p. 472) and the idea that environments shape the occupants.

Chrystall also provides some insight into McLuhan's relationship with, and critic of, the Roman Catholic hierarchy and some of his thoughts about Orthodox and Roman Catholic models of church authority and their relative differences with respect to oral/visual influences. Among the other important contributions this dissertation makes is his observation of McLuhan's shift in

the 1970s to right-left hemisphere brain science as an attempt to support his theories with a more empirical basis and increased scientific relevance.

These articles have helped shed light on the profound influence that religion played in McLuhan's life and work. There is considerably more information available than I included here as a broader discussion of this aspect of McLuhan's life is beyond the immediate scope of this work.

McLuhan – Figure

McLuhan has long been a controversial figure in Canadian academia. Deshaye (2019) explains this in terms of McLuhan's use of metaphor and its effect on his original audience and how subsequent audiences have viewed and interpreted this use. Reference is made to McLuhan's celebrity in the 1960s, his detractors, his waning popularity, and his later comeback. The author suggests that his use of metaphor was perceived to be countercultural and appealing to the youth of the '60s, who later became teachers and reappraisers. In addition, McLuhan's metaphors constituted media as a social dynamic and agent of societal change, which appealed to many who desired such change in academia and the world in general. The article also takes note of McLuhan's traumatic brain injury and subsequent surgery, which resulted in a general and persistent decline in his health, reduced capacity, and may have been partly responsible for an increasing dismissive public.

Jonas (2020) claims McLuhan's importance lies not in his predictions about media ecology or the future but rather in his observations. He also reminds us that, for all his work on media, he was still a professor of English Literature. His various literary explorations often looked to the past to observe and understand the current and coming contexts. As Jonas notes,

"by stressing the importance of media as an agent of change, McLuhan rewrote the history of communications without altering or challenging its evolutionary narrative" (p. 8). Digital Epistemology can be applied in such a way as to approach digital culture as a lens that shifts the focus from the technology itself to the artworks, the order of things, and archives. Used this way, it can be applied in a way that respects the aesthetic, genres, and art of previous generations. In short, as Jonas notes, "digital epistemology means a *shift of the figure/ground relationship of digital culture"* [emphasis original] (p. 9). In *The Gutenberg Galaxy* (1962), McLuhan uses the notion of interface in a way that coincides with this idea of digital Epistemology. The interface becomes, for McLuhan, an intersection between historical and contemporary discourses.

Knosala and Kuzior (2018) present some excellent insight and analysis of McLuhan's thinking and the roots of his philosophy. In particular, the authors detail Vico and Bacon's influence on McLuhan and how the desire to reunite cognition, the senses, and language is present in McLuhan's work. At the root of this is McLuhan's rethinking of the role of perception in the process of cognition, more specifically, the relationship between senses and the mind. Human perception depends on cultural influences, and therefore the role of language and media then become critical aspects of this analysis. The authors also clarify what McLuhan understands by the ancient art of grammar, which, in its broadest sense, is not concerned with parts of speech but rather the interplay between perception and thinking.

Furthermore, these grammatical arts cultivate an approach in which the division between science and art is absent. The philosopher who broke this unity, for McLuhan at least, was Socrates, whom McLuhan claims broke the connection between head and heart. This idea then becomes more fully developed in the idea of Logos and its connection to wisdom and speech. From Cicero, through the character of Crassus, the authors suggest that McLuhan took the idea

that wisdom is knowledge embodied in speech, which they suggest was the genesis of "the medium is the message."

Knosala and Kuzior then draw a link between Francis Bacon and McLuhan's use of the aphoristic style, which allows one to keep knowledge in a state of emergent evolution. The authors further suggest that McLuhan's understanding of the cyclical run of history comes from Giambattista Vico's philosophical work. This idea would then make its way into the understanding of the tetrad. The authors also note that the tetrad has no underlying theory but rather serves as a heuristic device, a set of four questions that can be asked about any human artifact.

Curtis (1983) notes that McLuhan's Catholicism was a universalizing tendency in his thought. He also notes McLuhan's tendency to use dichotomies, which often resolve into binary pairs (hot/cool, Literate/Oral, etc.). Curtis wants to widen these binaries and shows how technology has, for example, blurred many of these lines, making their effect less universal.

Gow (2004) explores McLuhan's use of spatial metaphor. The primary forms of spatial metaphors for McLuhan are visual space and acoustic space. Gow goes on to describe one of the significant challenges to understanding McLuhan's metaphors, at least at the beginning, is that they were new and not yet incorporated into common parlance. Gow demonstrates how these primary structural metaphors of visual and acoustic space are further developed into dialectics and ultimately become part of McLuhan's Laws of Media and form the basis for the tetrad structure. One of the challenges with McLuhan's spatial metaphors is that they often do not correspond to more literal or sensory constructs often associated with them. For example, electricity and quantum physics become properties of acoustic space, or in perhaps a more confusing category, tonal is ascribed to the visual space and atonal to the acoustic. Once one is

able to grasp the non-literal associations of these categories and instead accept McLuhan's use of them, they become potentially powerful tools for orientation in McLuhan's spatial realm.

Logan (2020) extends and reverses some of McLuhan's work into the digital age. McLuhan was well known for his ideas about the extensions of man, most notably that all media are extensions of some human faculty – psychic or physical. He further extends this idea into the next phase, which suggests, as Culkin (1967, p. 70) wrote, "we shape our tools, and thereafter they shape us," which becomes a reality in the age of the algorithm. The media we consume becomes the fuel for the algorithm, which in turn learns how to manipulate us by our own data. This extends beyond McLuhan's understanding that the user is the content because the digital media system is also now interpreting the users of the system.

These articles have been beneficial in revealing the depth of McLuhan's connection to the various thinkers that influenced his work. This connection helps root his work firmly in the traditions that preceded him while at the same time, moving them forward.

McLuhan - Key concepts

McLuhan was well published and provided numerous examples of his ideas, probes culminating his Laws of Media and Tetrads (1964a, 1964b, 1964c, 1964d, 2003, 2013, 2017; 1967; 1988). While many people talk about McLuhan's media or communication theory, he was more than reluctant to use these descriptors. His son and eventual co-author Eric suggests that this was the older McLuhan's response to the question of his theory. "Look, I don't have a theory of communication. I don't use theories. I just watch what people do, what you do" (E. McLuhan, 2008, p. 26). Despite McLuhan's objections, others have classified some of his work as theory. These articles present examples of how some of his work and thinking have been applied in other

diverse contexts. In particular, we will examine Media Ecology, the Alphabet effect, Formal Cause, Hot and Cool media, Figure and Ground, Reversals, and the Laws of Media which culminate in the construction of Tetrads.

Media Ecology

McLuhan situated his media studies in concert with other academic fields and traditions. Logan helps put this in context as he explains,

> "McLuhan's use of terms like environment and ecology borrowed from biology represents an integral part of McLuhan's philosophical approach that encompasses a generalist's approach of interdisciplinarity or multidisciplinarity. The depth and learning of the expert is valued as long as it does not exclude the learning and ideas of other experts." (2016, p. 137)

Logan goes on to further refine that idea by suggesting, "McLuhan's understanding that a multidisciplinary non-specialist approach is the only way to create new knowledge parallels his notion of the effects of media on each other and that to understand any medium, one has to understand all the media that it interacts with" (p. 138). Similarly, the only way to discover patterns of interplay between a society and its technology is to include other disciplines. This understanding is exhibited in many sections of *Understanding Media*, including the sections on games, Ads, and automation, the last of which includes this quote "Any subject taken in depth at once relates to other subjects" (p. 460). This understanding eventually led to the pairing of media and ecology into the concept of media ecology, which Logan suggests may have been coined by McLuhan, but Neil Postman's work added to its legitimacy (2016). Logan further explains the importance of this work and its connection to McLuhan "media ecology entails a study of the social, cultural and psychic impacts of media, independent of their content, thus embracing McLuhan's defining one-liner: the medium is the message" (2016, p. 137)."

Early evidence of McLuhan's work in, and thinking about, media ecology can be demonstrated in this McLuhan quote from 1967, "Environments are not just containers, but are processes that change the content totally" (M. McLuhan, McLuhan, & Zingrone, 1997, p. 275). In essence, media ecology can be understood as a discipline that regards both environments as media and media as environments (Corey Anton, 2017). Anton further suggests, "Not only do different environments and social places set the stage for likely or appropriate interaction, but also, less obviously, communication technologies become environments in their own right." Given this possibility, we are able to examine how both in-person and online church can be understood as media environments, each in their own right.

Media Ecology, grounded as it is in McLuhan's work and thinking, provides an excellent lens or theoretical approach to our research. It allows us to use McLuhan's tools to explore how the different aspects and disciplines of this study interact and potentially create their own new environment(s).

Alphabet Effect

In 1977 McLuhan and Logan suggested, in a paper entitled *Alphabet, Mother of Invention*, that the alphabet explains why Western thought patterns are highly abstract, compared with Eastern thought (Robert K. Logan, 2017). They postulate that in the rather restricted geographic region between the Tigris-Euphrates river system and the Aegean Sea in the period spanning 2000 BCE and 500 BCE, a group of innovations developed that constitute the basis of Western thought. As Logan notes,

> These innovations included the phonetic alphabet first invented by the Series or Kennites living in the South Sinai desert, codified law developed by the Babylonians, monotheism inaugurated by the Hebrews, abstract theoretical science and deductive logic first introduced by the ancient Greeks (Robert K. Logan, 2017, p. 1).

It is important to understand that McLuhan and Logan did not suggest a direct causal connection between these innovations; rather, they suggested that these "innovations created an environment that supported their mutual development"(Robert K. Logan, 2017, p. 1). Here we see demonstrated the power of a media ecology to shape and define reality in a way not generally recognized. It is this environment that forms the basis for the discussion of figure and ground.

In *Laws of Media* (1988), Eric and Marshall McLuhan further elucidate some of the relevant qualities of the alphabet, in particular, the recognition that "The sounds and sign of the phonetic alphabet are in no dynamic relation or interplay; one simply stands for the other. Both are abstracted from all meaning or relation" (p. 18). There is no external relationship between the shape of a letter and the sound it recalls. In a similar manner, oral speech can be broken down into its smallest recognizable sonic parts, which also have no direct meaning or relation. When, however, these sounds or shapes are put together in the correct context, they become signs and symbols, which are then able to represent words, concepts, and grammar and syntax of other languages.

> By means of a continuous linear sequence of signs, the bare sounds that compose speech are re-presented and re-cognized through a single sense in isolation. From this static, connected figure-detached-from-ground character, the alphabet derives its other great power of abstraction, that of translating into itself (as an abstract, unmodified/unmodifying container) the sound-systems of other languages. (p. 18)

While these concepts and ideas are interesting and certainly had an influence on the development of both Christian and Jewish religious thought and practice, it is the relationship of figure and ground that is our primary concern.

> The most remarkable quality of the alphabet is its abstractness of various kinds. From the patterns of separation, of sensibilities, and of figure from ground, with the subsequent suppression of ground, comes the character of stasis, one of the four features of visual

> space. When figure and ground are in interplay, they are in dynamic relation, continually modifying each other. Thus, stasis of the figures can only be achieved by detaching them from their ground, and is the necessary result of detachment. (P. 18)

Once the patterns and symbols of speech or writing have been mastered, they receive little attention in common usage. One generally speaks or writes without thinking about the symbolic basis of language. Instead, one focuses on the content carried by these sound bits or shapes. The content then becomes figure, and the oral or visual space are ground. The ground recedes into the background, often to the point that it becomes subliminal, while the figure moves to the fore. Even though figure and ground may not share equal prominence, they still interact and influence each other. When circumstances prescribe, they well may reverse, with one supplanting the other at the fore.

Formal Causes

Formal cause, one of Aristotle's four causes (material, efficient, formal, and final), forms a significant part of McLuhan's approach to understanding media (C. Anton, 2012). As Anton notes, "The four causes account for how something comes into being as well as what makes something the particular thing that it is" (2012, p. 4). An example of this, also provided by Anton, is that of a fork. The material cause is concerned with the raw materials from which the fork is made (steel, wood, plastic etc.) and how the material will need to be shaped and manipulated into its final form. The final cause of the fork might be its use in the consumption of food. Eating, or even perhaps serving, is the end served of the effect enabled by bringing the fork into existence. Formal cause deals with expectations and identity as Anton explains,

> Formal cause, the subtlest of all because it remains ground rather than figure, comes from expectations and/or the mind of the audience (cf. McLuhan and McLuhan, 2011). That is, someone making the fork must know when it has been successfully made, and people will need to recognize the now formed material as a fork. In those senses, the form of the

> fork, which comes from fulfilled expectations, is a cause of the actual fork in existence. As part of what makes something what it is, formal cause thus deals with something's essence or basic definition; it is what allows something to be what it is and also allows it to be recognized as the thing that it is. (C. Anton, 2012, p. 4)

The idea of formal cause was a key part of McLuhan's approach to studying media. In a letter to John Culkin, he describes it this way,

> My own approach to media has been entirely from formal cause. Since formal causes are hidden and environmental, they exert their structural pressure by interval and interface with whatever is in their environmental territory. Formal cause is always hidden, whereas the things upon which they act are visible. The TV generation has been shaped not by TV programs, but by the pervasive and penetrating character of the TV image, or service, itself. (M. McLuhan, 1999, p. 74)

This idea of formal cause and McLuhan's use of it have received a renewed focus in recent years as other authors examine how this theoretical approach can be applied in other work or how it is sometimes found to be lacking or incomplete. Sutherland (2014, p. 254) for example, contends that McLuhan's ignores "the multitude of ways in which the material configuration of hardware can not only alter the message of a medium but can actually transform this audience itself." Lindia (2018) notes that McLuhan, despite all his work with the idea of alphabets and linguistic systems, seems to miss the formal causes of grammar, although his ideas or theories can be used to explain their development. She then goes on, in McLuhan style, to layout the unintended consequences of materials and objects beginning with clay tablets and ending with the QWERTY keyboard and the smartphone's role, or unintended consequence of the emoji. Finally, Logan (2013) argues that although McLuhan doesn't use the language of emergence, his use of formal cause moves in the direction of emergence and not technological determinism, as others have suggested. While these last articles move well beyond the scope of this paper, they are helpful in establishing something of the importance of formal cause to McLuhan's work.

Hot and Cold Media

McLuhan often classified media into hot and cool, depending on certain qualities of media. One of his more famous examples is his assignment of cool to television and hot to movies (M. McLuhan, 1964d). McLuhan rated media as hot or cool depending on how much user participation was required to engage with the media. McLuhan postulated that television, because of its low resolution, required more of the user, making it cool. If the resolution was high definition, like movies, less user input was required, and thus it was labelled a hot medium.

It should be noted that McLuhan, at least at the start, was writing about television in the mid-sixties. At that time, television was certainly of a much lower resolution than film, but that certainly has now changed along with the demise of celluloid film. Digital technology has evened the playing field with respect to resolution, although some of the other characteristics McLuhan noted about the nature of television remain.

One needs to be aware when discussing McLuhan's use of hot and cool media, that he uses these ideas as a form of probe, or as a tool to examine an idea or artifact. For McLuhan, the point was not to find the definitive answer, but rather to explore the topic. As Gow suggests, "McLuhan's method was characteristic of what he might have referred to as a *cool* technique that invokes metaphor to encourage participation, eschewing the idea of absolute truth and rewarding constructive, creative thought" (2004, p. 186).

Practical application of these ideas have found their way into a wide variety of applications. Conway and Ouellette (2020) have taken this concept and applied it to the field of video games. Along with what the authors call the taxonomy of hot and cool, is an application of McLuhan's law of reversal. In the case of video games, it is possible for a cool game to become hot, or vice versa, depending on the user experience. The effects of player proficiency, game

literacy, and a clear understanding of the game's goals and mechanics, or lack thereof, can cause a reversal. A hot game can become cool, or a cool game can become hot. In this article, the authors also demonstrate how video game designers can utilize the hot and cool frameworks to "conceive how particular features can result in a number of effective, cognitive and social impacts, depending upon their relative Heat or Coolness" (p. 1223). While video games are not our domain, some of these ideas are relevant for our context.

Figure and Ground

Much of McLuhan's later thinking involves the key concept of figure and ground. Many of his famous aphorisms rely on his understanding of figure and ground and their relationship to each other. Ground, for McLuhan, is the context, or environment, in which something is situated or operates. Logan explains it like this,

> He [McLuhan] believed that to understand the meaning of a figure one must take into account the ground in which it operates and in which it is situated. The true meaning of any "figure," whether it is a person, a social movement, a technology, an institution, a communication event, a text, or a body of ideas, cannot be determined if one does not take into account the ground or environment in which that figure operates. The ground provides the context from which the full meaning or significance of a figure emerges. The concern with the figure/ ground relationship is consistent with McLuhan's emphasis on interface and pattern rather than on a fixed point of view (R. Logan, 2011, p. 2).

McLuhan's famous aphorism "*The medium is the message*" is based on this idea. The message or the content is the figure; the medium is the ground from which the content is dispensed. McLuhan, on many occasions, commented that people have trouble understanding him because he begins with ground whereas, many others focused on the content or figure. He begins with effects and works round to causes, when others take the opposite approach (R. Logan, 2011).

Laws of Media and the Tetrads

The last book McLuhan worked on was *Laws of Media: the new science* (1988, p. 5). The book was published posthumously by his son Eric who also co-authored the book. According to Eric, the book originally started as a requested revision to the earlier book *Understanding Media: the extensions of man* (M. McLuhan, 1964c) but eventually grew into a new work. In this book, McLuhan outlines his four laws of media and the tetrad form, used as probes to explore various ideas.

Key to the construction of tetrads are the four laws of media:

1) What does the artifact **ENHANCE** or intensify or make possible or accelerate? This can be asked concerning a wastebasket, a painting, a steamroller, or a zipper, as well as about a proposition in Euclid or a law of physics. It can be asked about any word or phrase in any language.
2) If some aspect of a situation is enlarged or enhanced, simultaneously the old condition or un-enhanced situation is displaced thereby. What is pushed aside or **OBSOLESCED** by the new 'organ'?
3) What recurrence or **RETRIEVAL** of earlier actions and services is brought into play simultaneously by the new form? What older, previously obsolesced ground is brought back and inheres in the new form?
4) When pushed to the limits of its potential (another complimentary action), the new form will tend to reverse what had been its original characteristics. What is the **REVERSAL** potential of the new form? (M. McLuhan & McLuhan, 1988, pp. 98-99)

The answers to these four laws, or questions, posed of an artifact are then plotted into appositional tetrad form as indicated below. McLuhan notes that the tetrads are tentative and that there is no right way to read a tetrad as the parts are simultaneous (1988, p. 129).

(gloss)		(gloss)
ENHANCES	REVERSES INTO	
RETRIEVES	OBSOLESCES	
(gloss)		(gloss)

Logan (2011) describes the figure/ground relationship as depicted in the tetrad as follows,

> The medium that enhances some human function and is the subject of the first law is the figure. The medium that is obsolesced and the medium that is retrieved are the ground. And the new medium into which the medium of the first law flips into is a new figure. So the LOM has two figures and two grounds (p. 7).

Tetrads can be quite flexible and can be presented as alternate versions, which should be considered simultaneously as versions of each other. An example of this is McLuhan's two versions of visual space (1988, pp. 204-205). It is even possible to form a chain when one tetrad's reversal (or retrieval) provides the subject of the next tetrad.

Working it out – Applications of McLuhan's Work

There have been many and varied applications of McLuhan's work over the past fifty-plus years. What follows are a few examples of the application of his work in a variety of contexts and media forms.

Theologian and biblical translator Eugene Peterson (1969) takes up McLuhan's call to release the Apocalypse[3] from its enslavement to print. He encourages preachers, pastors, and teachers to return to hearing as a primary means of communication. He notes how the book was originally an oral (aural) work and that to treat it as a literary work distorts the original message and draws attention to matters that detract from the overall message it is trying to convey.

Miles (1996) applies McLuhan's fourth law as an analysis tool for the CD-ROM multimedia game Myst. While he doesn't construct a complete tetrad, he observes that Myst retrieves an earlier form. Miles notes that in adding the fourth law, McLuhan fulfills and completes Hegel's triadic of thesis, antithesis, and syntheses. He observes that the fourfold process was derived from Harold Innis's work and McLuhan's work on James Joyce's Finnegan's

[3] Now more commonly referred to as the Revelation to John, or more simply Revelation.

Wake. Joyce admitted that his novel was inspired by Giambattista Vico's "New Science" and its cyclical stages of history. This point apparently was not lost on McLuhan, whose Laws of media are referred to as "the new science." The fourth stage in Vico's work is "return," which parallels McLuhan's fourth law. Myst works well with this analysis as it is a modern adaptation of the ancient mythic pattern and takes inspiration from many earlier books. Books also feature prominently in the work, which works with the fourth law in that this new form of multimedia adventure hearkens back to the old form that inspired it – the epic adventure. Its retrieval of the age of linear print is both figurative and literal, and it, as McLuhan suggests, is common, and romanticizes the earlier era it is retrieving.

McLean (1998) makes fairly extensive use of many of McLuhan's ideas and probes in her analysis of *The X-Files*. In it, she makes use of Terrence Gordon's description of probes, which explains that the "point of probes and their humour, jest, paradox, and irony is not to 'finish' the hole that the drill makes. Rather, it is what the drill 'churns up' that matters" (p. 4). McLean notes that McLuhan considered TV a cool medium because it requires participant input to fill in the gaps. In McLuhan's day, TV was at a much lower resolution than today's modern high-definition TV's and yet, at least in the case of *The X-Files*, it remains an intentionally cool medium. Not only is the show representative of cool media, but the main characters of Mulder and Scully are also treated as cool characters. McLean also notes that as TV shows become increasingly like motion pictures, the medium heats up. Along with this, it can be noted that the internet has superseded TV and has become the new hot media. In contrast, TV has been reprocessed into a "harmless consumer commodity," lacking the disdain and criticism it once received.

There were at least three other interesting and relevant articles that exhibited some form of tetrad analysis.[4] Schaefer and Steinmetz (2014) report on the phenomena of citizens capturing police activities, ranging from the mundane to more intense and violent interactions, and then rebroadcasting them on the internet. It is understood to be a form of counter-surveillance and is viewed as democratic action capable of raising awareness and creating change. Buterman (2017) uses McLuhan's media effects and tetrad for an analysis of the new Alberta Birth Certificates. Memarovic (2016) uses several of McLuhan's techniques or probes to explore and analyze the effects of networked public media displays. The author employs the metaphors of figure and ground, the rear-view mirror, and constructs a tetrad.

These articles have helped demonstrate how one might apply McLuhan's work to a variety of subjects. They were useful to exhibiting how some of McLuhan's other concepts, like "Hot and Cool Media," can be applied in a digital environment. They also helped demonstrate the broad appeal of McLuhan's work, as it has been applied in a wide variety of subjects and fields.

Summary

In this chapter, we have explored some of the history of religious broadcasting and engagement with the internet. The long-standing trend, since the very early days of broadcasting, has been that religious groups have found a variety of ways to use these various media forms to promote their messages, brand and content. The advent of the internet furthered this trend, with a variety of projects broadly falling into the two overarching categories of online church or church

4 The articles are briefly listed here, see appendix one for a more complete description of the articles and the accompanying tetrad.

online. The pandemic accelerated or expanded what might have occurred naturally, at least to some degree, which was the move to some form of digitally mediated worship.

Following this was an examination of theoretical frameworks and research on relevant trends for the study of media and religion. While several possibilities were presented, the framework that seems best suited to our research is media ecology. This framework is a fundamental part of McLuhan's work and thinking and will allow for the construction of tetrads as part of the analysis of the research findings.

Also explored were some of the details of McLuhan's life, religious identity and participation, and other influences. This was instructive as it exposed the range of McLuhan's influences and revealed some of his potentially limiting biases. His loyalty as a convert to the Roman Catholic church limited, or negatively biased, his reading of other non-Catholic religious scholars. While the ultimate effect on his overall body of work is the subject of debate, it is nevertheless part of his identity and school of influence.

A brief overview of some of McLuhan's relevant ideas and thinking was then explored. The body of McLuhan's work is so extensive that it is hard to determine what is of particular relevance to any one topic, as much of it can be applied to almost any discussion. Included in the summary here was a discussion of Media Ecology, Alphabet Effect, Formal Cause, Hot and Cold Media, Figure and Ground, Laws of Media and Tetrads. Following this, we presented some concrete examples of how people have used McLuhan's work to explore and analyze a variety of subjects.

With this background information, it is now possible to move on to research methodology and questions.

Chapter 3: Research Methodology

The COVID-19 pandemic and subsequent public health measures brought about a circumstance where in-person services were cancelled or attendance was significantly curtailed. Before the pandemic, most congregations in North America and Europe had some online presence; however, few went beyond websites or Facebook pages. The pandemic restrictions significantly changed this baseline participation rate and resulted in churches of all shapes, sizes and technical ability starting to provide some kind of online worship presence. The solutions provided by individual congregations ranged from little or no presence to some who offered weekly or even daily devotional offerings to still other congregations providing complete services but without a congregation present. In their attempt to provide online services during the pandemic, congregations turned to various online platforms to host their programming, including some combination of YouTube, Facebook and Zoom.

One of the problems this research seeks to remedy is that there has been little or no research into what happened with the provision of these digital services, what platforms were used, how they were produced, and how they were received. The circumstances of the pandemic, despite being problematic in so many ways, also presented an excellent opportunity to study the phenomena that could not otherwise be created. This study used a mixed-methods approach to collect data during the pandemic at a time when some of the restrictions were being lifted.

Information was gathered using both surveys and a focus group in an attempt to collect data from the broadest possible group while at the same time allowing for some qualitative depth to the answers. The data was collected separately from both content producers and those using this content. For simplicity, the people involved in creating, producing, and managing these

online services are referred to as producers. The people watching, interacting with, and essentially consuming this content are referred to as users. While this is undoubtedly an oversimplification of each of these groups' varied roles and actions, the language is simply to demarcate the differing roles of each and not necessarily to describe their function or contributions.

The data, once collected, was examined to determine what aspects of these changes were most helpful, what worked best in which contexts, and what changes might become more permanent after the restrictions are lifted. Finally, these results were explored using various aspects of McLuhan's media ecology, particularly the laws of media and tetrads. Tetrads were created that explore what might have been enhanced, retrieved, obsolesced, and what, when pushed, it might reverse into.

Research Questions

This research's context and interest is the delivery of services from local parishes to their members and other interested parties. There is little research that specifically examines this question and none that explores it from a pandemic context in which no communities were allowed to meet in person. This research asks four related questions.

1) What forms of online worship were attempted, how were they produced, and what platforms were employed?
2) What were the experiences of both participants and presenters for these services? What was learned from these experiences?
3) What are the implications for the future of online services and participation in both online and in-person services?

4) How can we understand this data within the framework of Marshall McLuhan's media ecology?

This first question, dealing with what forms of online worship were attempted, will help determine the format, range and frequency of online services. It will also explore some of the platforms used and how the services were produced.

The second question explores the experiences of both participants and presenters for these services. This question will help establish a measure of how the presenters felt about the preparation and delivery (or absence of the same) of these services and how members received them. Particular attention is paid to assessing what worked best within which contexts and learnings that can be generalized across multiple platforms or contexts. Are there, for example, any best practices that can apply in various contexts, are there any pitfalls to be avoided moving ahead, and are there minimum standards or qualities of a generally acceptable broadcast?

The third question asks, what are the implications for future online services and what implications might there be for continued participation with in-person services? Anecdotally, we know that some people have expressed unqualified support for online services, and some have noted they appreciate the convenience of watching when they have time and in the more casual atmosphere of their homes. These preferences, along with a continued threat of COVID-19, may continue impacting the future of both online and in-person services; this question is intended to help explore these issues.

Finally, some of the work of Marshall McLuhan will be employed in an effort to better understand this data and how various factors of the media ecology may play a role. Seeking a broader input into how McLuhan's work might be used to explore this material, four questions related to the Laws of Media were added as an optional section to the producers survey and the

focus group discussion. While this provided some interesting responses, those providing the data generally lacked the background knowledge of McLuhan's work which limited the usefulness of their responses.

Research Design

A *mixed-methods sequential exploratory* approach was used in this study. An excellent rationale for using this methodology is provided by Nataliya V. Ivankova, John Cresswell and Sheldon Stick:

> The rationale for mixing both kinds of data within one study is grounded in the fact that Libby neither quantitative nor qualitative methods are sufficient, by themselves, to capture the trends and details of a situation. When used in combination, quantitative and qualitative methods complement each other and allow for a more robust analysis, taking advantage of the strengths of each (Ivankova, 2006, p. 3).

This mixed-methods approach is well suited for this research because it allows for a larger sample size than would be possible with a strictly qualitative study. In addition, it provides an acceptable solution to some of the challenges presented by the geographically diverse population and the current social distancing requirements.

The exploratory approach was deemed fitting for this research, given a number of determining factors. First, as DeCarlo (2018, p. 164) notes, exploratory research is an appropriate form for initial research when there is little existing research or for researchers seeking to discover the "lay of the land." Second, this research begins to fill a gap in the literature as it seeks to discover what happened with congregations moving to online worship during the pandemic. It then further seeks to explore some of what was learned during this experience and what this might mean moving forward after the pandemic.

The research was initially designed to make use of two surveys and two focus groups. One survey targeted producers of online worship services, a group consisting primarily of pastors

or other church professionals. The second survey targeted users or consumers of the online services. In addition, there was one focus group comprised of content producers who had experience with the various platforms used and who were geographically located across the country. A second focus group for users was planned; however, it has not yet been conducted due to time and resource constraints. However, it may be completed and included in a subsequent publication.

Sampling

This research employed what would most accurately be considered a convenience sample, although it included both *purposive* and *snowball* sampling elements. Because participants voluntarily participated and there were no controls with respect to who could participate in the surveys, it is perhaps most correctly considered a convenience sample. The surveys were advertised using direct emails to ELCIC congregations, in notices sent from the synodical offices of the ELCIC, on special clergy groups on Facebook, and through general social media posts. Congregational leaders were asked to share this information with their congregations. In addition, those receiving the notices were encouraged to forward the notices to people they thought might be interested and on their social media feeds which added to the snowball effect of the sample. The *purposive sampling* element is included because the surveys directly targeted rostered leaders (clergy) and congregational members of the Evangelical Lutheran Church in Canada (ELCIC). As Denscombe (2010, p. 35) notes, purposive sampling allows the researcher to select people with whom the researcher already has some familiarity and who may possess specific knowledge subject matter. Because worship styles, organizational structures, ecclesiastical regulations and governance structures vary significantly across

denominations and faith groups, it was decided to primarily focus on one denomination. The ELCIC was chosen because congregations use a similar organizational structure and follow similar ecclesiastic and governance patterns. A variety of worship styles and practices exists within the denomination, but all share a common core of values and traditions. In addition, I had access to these clergy and congregations and am familiar with the standard practices of this faith group.

Recruitment for the initial survey was done through notices in church publications and email lists. These lists included congregations, clergy and other interested laypeople. Synodical Bishops' agreed to promote the project and advertised the surveys in their bi-weekly information emails. All active ELCIC congregations with available email addresses were sent information about the surveys, how they could participate, and they were asked to share the information with their congregational members. There were approximately 350 email addresses included on this list.

The focus group made up of people who produced the content was selected to provide a representative sample of participants who used different social media platforms and technologies and had varying technological expertise levels. In addition, the planned focus group consisting of people in the user category, will be selected to provide a representative sample of participants who watched services from different congregations demonstrating the broader experience of all users.

To populate these various focus groups, I solicited recommendations from colleagues along with my contacts. In addition, I also provided an optional "contact me" section of the surveys, which could assist in identifying those persons who are willing to provide more information or participate in a focus group.

Ethics Approval

The Research Ethics Board at the University of Alberta reviewed the plan for this study. Ethics approval was subsequently granted, and all research complied with the Research Ethics Board protocols and procedures.

Research Design Phases

The mixed-method sequential explanatory design consists of two distinct phases: quantitative, followed by qualitative (Creswell, 2009, p. 211). Ivankova *et al*. provide us with an excellent summary of the rationale for using a two-phased, mixed-methods approach:

> The rationale for this approach is that the quantitative data and their subsequent analysis provide a general understanding of the research problem. The qualitative data and their analysis refine and explain those statistical results by exploring participants' views in more depth (Ivankova, 2006, p. 5).

This study employed this commonly used methodology. The two phases were implemented chronologically, but there was not a significant amount of time between them. However, they were not concurrent because data from the first phase was used to inform and refine the questions for the second phase. In addition, this sequential format allowed data to be gathered on missed or underexamined topics in the first phase of the study.

Quantitative Data Acquisition and Analysis

The quantitative data for this research was gathered from two online surveys, which were developed and hosted on LimeSurvey.org. The first survey targeted content producers (clergy and other church staff). It looked at what kinds of services were offered, how prepared or unprepared producers were to provide this content, what platforms were used, the experience and

feedback gained, what lessons were learned, and what will assist in the development of best practices. The other survey queried those who were participating in the online content (audience or congregation). This survey asked demographic questions, user experience questions, the pros and cons of their online experience, and issues related to their future attendance at live in-person services.

This data was analyzed using basic statistical methods. Included are the descriptive statistics of mean, median, mode, and measures of distribution where applicable. These quantitative instruments were used to identify any patterns or relationships between variables like familiarity with technology, participation rates, openness to online worship, and access to the internet and available technology levels.

Qualitative Data Acquisition and Analysis

The qualitative data for this research was gathered from two primary sources. First, both surveys contained several questions which provided qualitative data. Generally, these were received in the form of comments included with the survey question. The second source for this data was the focus group. The focus group included in this data set consisted of participants who were content producers and who represented the various platforms. This group was also made up of participants from across the country, adding a geographic element to the mix. This focus group met using the Zoom platform. The meeting was recorded and then transcribed with the assistance of Otter.ai software. This transcription, along with my notes and reflections were the source material for the qualitative analysis of the focus group data.

I moderated the session and facilitated the focus group discussion using a semi-structured approach. Questions were prepared in advance; however, the group was also free to engage

subjects that arose during the meeting. The goal was to discover what elements of the online services were most helpful to people, what aspects they found ineffective or unhelpful, and explore how they could be more valuable in the future.

Qualitative portions of the survey data were coded using a combination of open and focused coding. The goal of coding is to condense large amounts of data into more manageable and meaningful bits of information. The coding process involves identifying themes across qualitative data by reading and rereading the textual data until themes begin to emerge (DeCarlo, 2018). The beginning phase of coding is often referred to as initial or open coding and involves identifying themes in the text or transcript. Next, these codes are used to mark other instances of these themes present in the material. NVivo software was used to code and analyze the data, and so coding was accomplished by entering codes into the software as they arose from the text and then tagging other parts of the text that correspond to these codes. The second stage of coding is often referred to as focused coding. This involves combing and refining the initial coding into more distinct themes and is intended to help identify, categorize and explain the larger segments of data (Charmaz, 2006).

Data for this research was primarily coded by survey question. The distinct aspects of each question coded meant new codes were developed for each question, although there were some overlapping codes. No coding was done to analyze individual respondents. However, where appropriate, answers were sometimes examined by platform or other relevant categories. The exploratory nature of this research meant that most codes were related to respondents' shared experiences, reactions, or opinions. Data from the Focus group was used to further explore many of the topics covered in the survey and provide additional data on subjects not covered by the survey questions.

Conclusion

This research was designed to explore the results of the switch from in-person worship services to some form of online delivery as a result of health restrictions related to the COVID-19 pandemic. Using a mixed-methods approach, this research worked to discover something of the variety of services provided during the pandemic, how they were produced, what platforms were used and how users received them. This approach allowed for data to be collected from a larger group than might otherwise be possible while at the same time providing more in-depth responses than strictly quantitative data might provide.

Two surveys and a focus group were used to gather this data. Respondents were recruited using direct emails, social media notices, and notices sent from the synodical offices of the ELCIC. The surveys collected both qualitative and quantitative data, which was subsequently combined and analyzed.

The next phase of the exploration will be the integration and analysis of the quantitative and qualitative results. These data will be explored using McLuhan's media theory and other related concepts. Finally, these findings will be used to explore the idea of hybrid church, which involves integrating both online and in-person worship into a single event.

Chapter 4: Findings and Discussion

Introduction

The primary research for this project was conducted by asking people to complete one of two online surveys. There were 184 complete responses to the *user* survey and 84 complete responses to the *producer* survey. In addition to these surveys, a focus group consisting of seven people primarily responsible for producing these services, plus the researcher, was conducted. Data from these sources were then analyzed and are presented here, along with an accompanying discussion of the findings.

This chapter is divided into three main sections. The first section will explore the results of the surveys and focus group data. This section provides data and analysis to clarify the first two research questions regarding what happened with regard to the provision of online services and how people responded to these services. Next, some statistical information about the respondents will be presented, including how they participated in the services, what they did and didn't miss about in-person services, and finally, how they felt about the services overall.

The second section of this chapter will deal with a deeper analysis of the online services using some of the ideas and probes of Canadian scholar Marshall McLuhan. This section provides insight into our final research question, which asks how McLuhan's work might be applied to this context. Included is a discussion of hot and cold media, figure and ground, and will culminate with the presentation of some tetrads constructed for online worship.

The final section of this chapter provides some insight into our third research question concerning the implications for the future of online worship. This will be primarily accomplished by presenting some of what was learned from this research and applying it to a discussion of hybrid church.

Hybrid church is an amalgamation of in-person and online services and offers a distinct possibility for the primary way some congregations will operate post-pandemic. Combining both platforms into one event brings with it a set of unique challenges that need to be managed somehow. Many of the learnings discussed in this chapter also apply to current online services and can possibly inform and improve them.

First up is an exploration of who the survey respondents were.

Survey Respondents

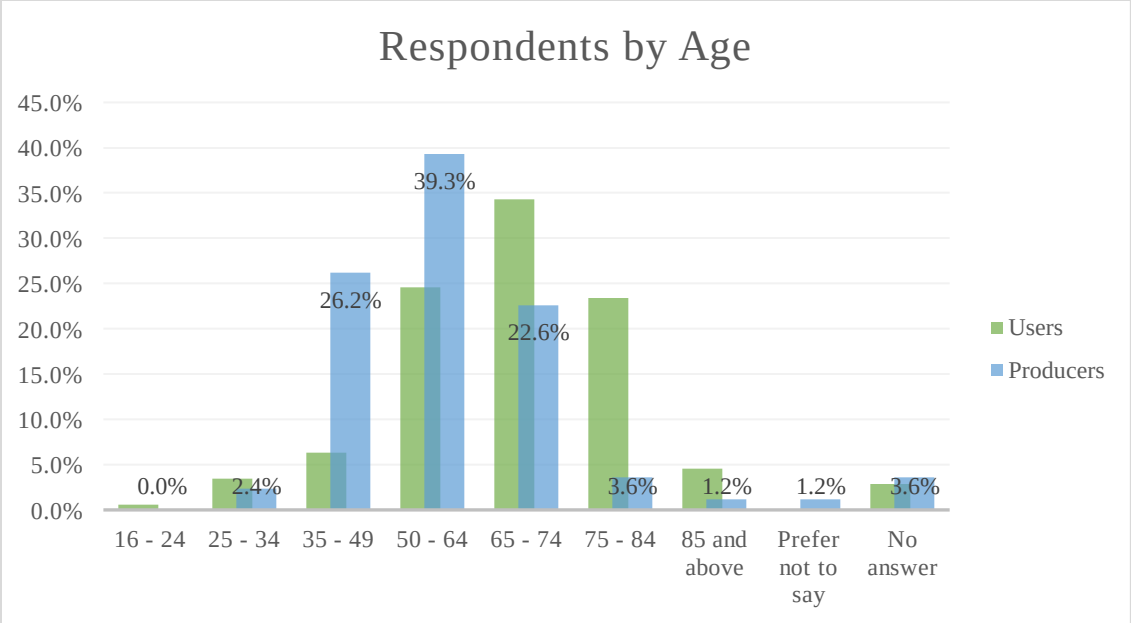
Statistical information was collected at the end of both surveys regarding age, gender, community size, internet speed and level of technical knowledge. The results have been broken down by users and producers for the sake of comparison. In the age category, it is significant, even if not unexpected, that producers tended to be younger than users. While the age range was wider among users, many producers were still actively employed, which helps to explain this finding. It was also interesting to note that eight of the users were in the eighty-five plus category. Any notion that elderly people could not, or did not, access these services is false; however, this survey cannot predict the ratio of how many users in any category could, or could not, access these services.

Table 1: *Age Ranges of Producers and Users*

Age	Producers		Users	
Answer	Count	Percentage	Count	Percentage
16 - 24	0	0.00%	1	0.57%
25 - 34	2	2.38%	6	3.43%
35 - 49	22	26.19%	11	6.29%
50 - 64	33	39.29%	43	24.57%
65 - 74	19	22.62%	60	34.29%
75 - 84	3	3.57%	41	23.43%
85 and above	1	1.19%	8	4.57%
Prefer not to say	1	1.19%	0	0.00%
No answer	3	3.57%	5	2.85%
Sum	84	100.00%	175	100.00%

This chart provides the actual number of respondents along with their relative percentages. As might be expected, the users present a broader range of ages. It is also interesting that almost 5% of users were in the 85 and above category, along with one producer. The following figure graphically illustrates the distribution pattern of these groups.

Figure 1: *Graph Illustrating Distribution Pattern of Age Ranges*



This graph illustrates how the producer numbers skew right, to the younger range. The users present a more normal distribution, although the entire graph shifts toward the older end of

the spectrum. Another interesting note is that both samples, more or less, follow a normal distribution pattern.

The next category was gender and here we see an interesting pattern with the majority of producers identifying as male, and the majority of users reporting as female.

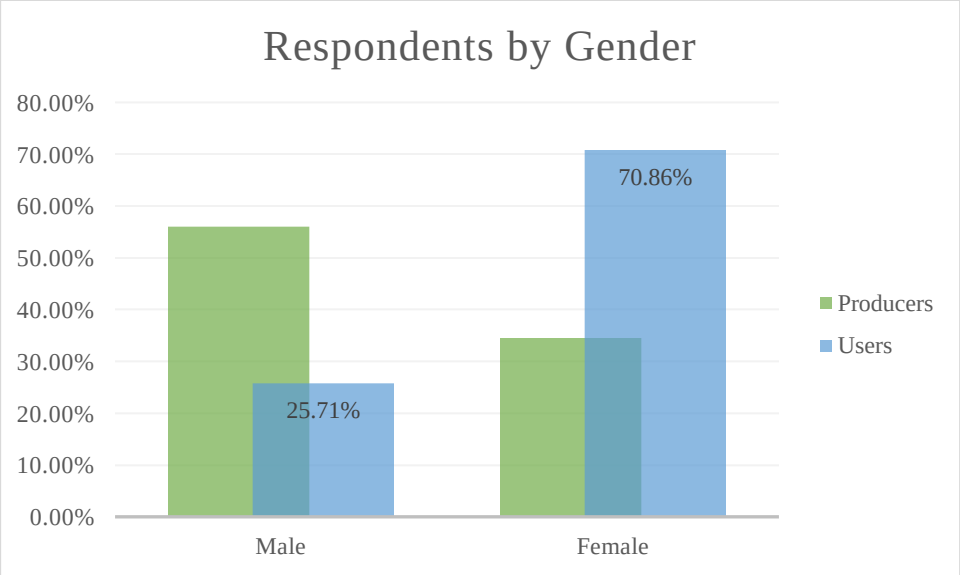
Table 1: *Gender Representation of Producers and Users*

Gender	Producers	Users
Male	55.95%	25.71%
Female	34.52%	70.86%
Non-binary	0.00%	0.00%
Prefer not to say	4.76%	0.57%
No answer	4.76%	2.86%

This finding would also be fairly consistent with the distribution ratios of male and female on the roster of professional church workers and persons attending worship. While actual numbers would vary depending on denomination and congregation, the pattern is certainly recognizable. The fact that no persons indicated a non-binary preference may be due to the possibility that this could be considered as identifying information. Given this possibility, these persons may simply have indicated that they prefer not to say or simply didn't answer the question.

This graph visually demonstrates that the gender profile of each group is essentially a reversal.

Figure 2: *Graph Illustrating Distribution Pattern of Age Ranges*



The next three questions show a somewhat remarkable parallel distribution between both groups. The numbers, when expressed as overall percentages, are almost equal when compared between users and producers.

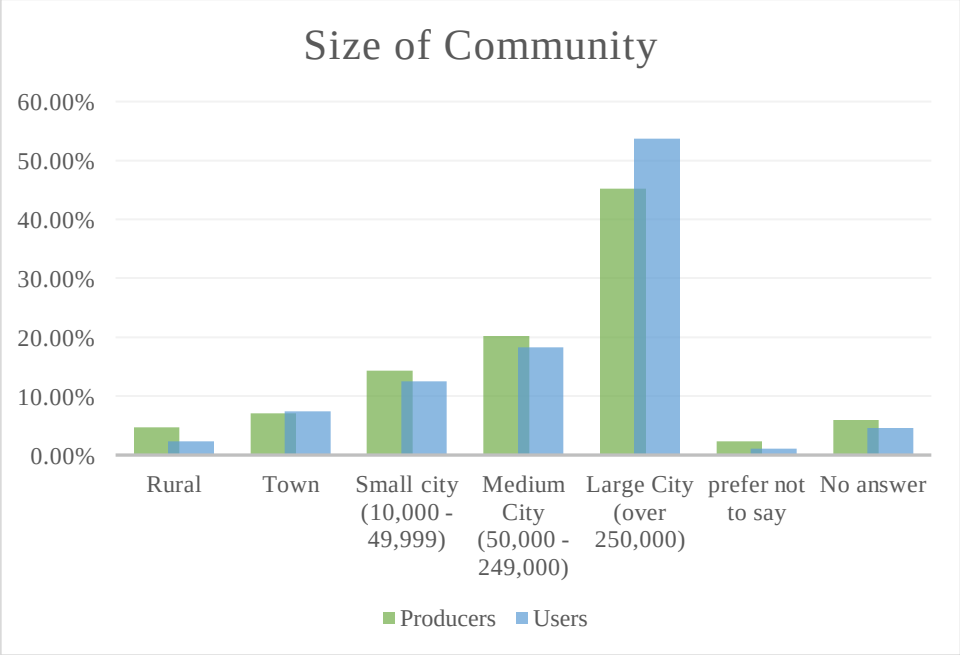
Table 3: *Community Size of Producers and Users*

Size of Community	**Producers**		**Users**	
Answer	Count	Percentage	Count	Percentage
Rural	4	4.76%	4	2.29%
Town	6	7.14%	13	7.43%
Small city (10,000 - 49,999)	12	14.29%	22	12.57%
Medium City (50,000 - 249,000)	17	20.24%	32	18.29%
Large City (over 250,000)	38	45.24%	94	53.71%
prefer not to say	2	2.38%	2	1.14%
No answer	5	5.95%	8	4.57%
Sum	84	100.00%	175	100.00%

This question asked about the size of community in which the people live or the congregation was situated. Like the general population the numbers have a left skew and trend towards the larger sized communities. The rural numbers may be somewhat smaller in this

sample as a result of more limited access to the internet. It has been anecdotally reported that this was an issue for at least some rural congregations and members.

Figure 3: *Graph Illustrating Distribution Pattern of Community Size*



This graph shows a similar pattern of representation and the left skew of the data. While not conclusive, this data would suggest that both samples represent comparable populations in terms of community size.

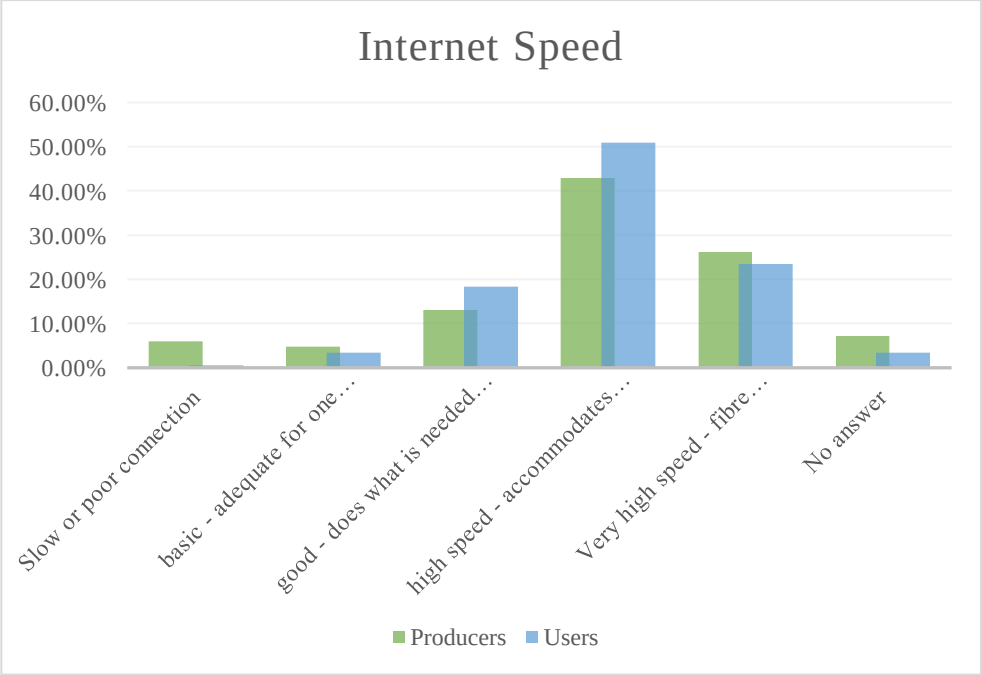
Internet speed also follows a similar pattern with both groups presenting similar results.

Table 4: *Community Size of Producers and Users*

Internet Speed	Producers		Users	
Answer	Count	Percentage	Count	Percentage
Slow or poor connection	5	5.95%	1	0.57%
basic - adequate for one person at a time	4	4.76%	6	3.43%
good - does what is needed but not overly fast	11	13.10%	32	18.29%
high speed - accommodates multiple users	36	42.86%	89	50.85%
Very high speed - fibre optic speeds or equivalent	22	26.19%	41	23.43%
No answer	6	7.14%	6	3.43%
Sum	84	100.00%	175	100.00%

The graph also presents a fairly normal distribution with the mode falling into the high speed category. One interesting observation from this data is that when measured as an overall percentage of respondents in each category, users reported having a higher percentage of faster speeds than producers, although only by a small amount.

Figure 4: *Graph Illustrating Distribution Pattern of Internet Speed*



This graph demonstrates shows how the users pattern skews slightly more to the left than the producers, although both patterns are remarkably similar.

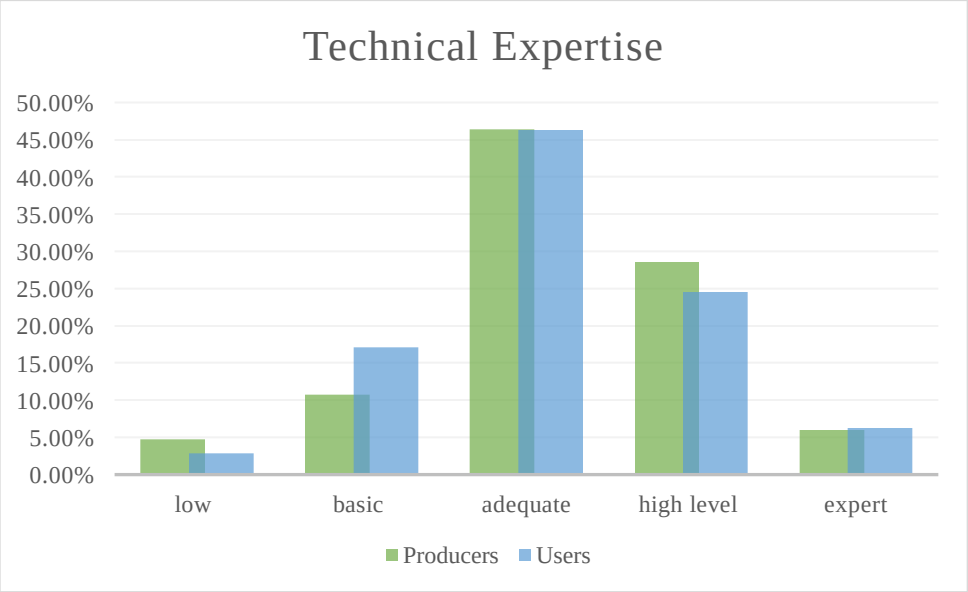
The final question in this section, has to do with overall technical expertise.

Table 5: *Technical Expertise of Producers and Users*

Technical Expertise	Producers		Users	
Answer	Count	Percentage	Count	Percentage
low - I often need assistance	4	4.76%	5	2.86%
basic - I can use the computer for basic tasks	9	10.71%	30	17.14%
adequate - I am fairly competent and can often figure things o	39	46.43%	81	46.28%
high level - not an expert, but quite knowledgable	24	28.57%	43	24.57%
expert - power user who often helps others	5	5.96%	11	6.29%
No answer	3	3.57%	5	2.86%
Sum	84	100.00%	175	100.00%

Like the previous two examples this one also show a remarkable similarity between the two groups. It may have been interesting to enquire about technical expertise before and after COVID, however that data was not collected.

Figure 5: *Graph Illustrating Distribution Pattern of Technical Expertise*



This graph illustrates the remarkable similarity between these two groups of respondents. The other data trend that may be relevant is a slight skew to the left, with slightly higher numbers indicating a high level of expertise over basic knowledge. This may reflect that both users and

producers of online services tend to be more familiar with the internet than those who, for whatever reason, did not avail themselves of the services. Unfortunately, this research is insufficient to answer that question; however, it may be a subject of future research.

This statistical summary presents some baseline information about the respondents of this survey. While it is impossible to say for sure, the data does seem to indicate a that a reasonably representative sample has been obtained, certainly all the categories are represented even if the ratios may not entirely reflect the broader population.

Your Experience May Vary

The fine print of many advertisements contains some form of the statement "your experience may vary." Mileage ratings for vehicles include such a disclaimer because there is no way to control for driving habits and conditions. One of the things that this research identified is that there was significant variance in how online church was organized, produced, distributed and received. Even within platforms, there was considerable variance. There were many reasons for this variability, including, but not limited to, access to technology, available resources, producer knowledge and experience, ideological position and even the overall motivation level of users and producers. Given this discrepancy, it must be noted that individuals reported on their own unique experiences and not that of a typical product or standardized sample. While there indeed were trends and commonalities, context ultimately determined both the user and producer experience.

User Participation

Users were asked to report on how frequently they participated in some form of online worship. About 70% of people accessed online services once a week, with approximately 14% of

people accessing services more than once a week with a similar number accessing services fewer than weekly, ranging from few times a month to monthly or very occasionally.

Table 6: *User Participation Frequency of Participation in Online Worship*

More than once a week.	24	13.71%
Weekly	122	69.71%
A few times a month	19	10.86%
About once a month	6	3.43%
Very occasionally	6	3.43%

About 60% of people reported that the frequency of attending was similar to their previous attendance pattern, with approximately 19% reporting higher participation levels and about 17% watching a less. Overall, 80% of respondents reported equal or higher attendance and in pre-COVID conditions, with only 17% reporting at least a small decrease. This number may be somewhat misleading as those with limited access to technology or the internet, may not be adequately represented in this sample.

Table 7: *Comparison of Online Participation Compared with Prior In-person Worship Frequency*

Much Less	14	8.00%
A little less	16	9.14%
About the same	106	60.57%
A little more	21	12.00%
A lot more	13	7.43%
No answer	5	2.86%

Many respondents also indicated that they also watched other services, with approximately 18% watching at least weekly. A further 21% reported watching at least once a month, with an additional 38% watching very occasionally.

Table 8: *Frequency of Watching Other Online Worship Services*

More than once a week.	7	4.00%
Weekly	24	13.71%
A few times a month	25	14.29%
About once a month	13	7.43%
Very occasionally	66	37.71%
Other	27	15.43%
No answer	13	7.43%

Platform Usage

One of the common variances in online services was the platform(s) used by churches to distribute the service for users. Both users and producers reported that YouTube was most common platform offered and watched. This was followed by Zoom and then Facebook live. Some congregations used multiple platforms, using one platform live and then reposting on their website or YouTube. Others offered regular services, prerecorded or live, on YouTube but also offered services of Holy Communion on Zoom. While some producers reported starting on one platform and moving to another, most indicated that once they started on a platform they stayed with that same platform.

Table 9: *Platforms Used or Experienced*

	Home congregation		Users experienced		Producer Used	
YouTube	124	70.86%	144	82.29%	43	51.19%
Facebook	13	7.43%	36	20.57%	13	15.48%
Zoom	18	10.29%	47	26.86%	18	21.43%
Google Meets	0	0	2	1.14%	0	0
Other	13	7.43%	17	9.71%	6	7.14%
N/A	7	4%	0	0	4	4.76%

Apart from these responses, users also indicated that they watched TV (a few churches broadcast on cable or local TV channels), Twitch, and pre-recorded services uploaded to the church's website or a google drive.

YouTube was clearly the most popular platform, followed by Zoom and Facebook. Smaller congregations were more likely to use zoom for worship. Zoom also offered the most interactive possibilities. Congregations who used Zoom also reported having fellowship time before and after services. The primary reason producers initially chose Facebook as a platform was an existing presence and familiarity with its use. Producers and users also reported that they liked the ability to comment and add emojis during the service. While this occasionally resulted in people accidentally postings emojis in error without knowing how to delete them (e.g. accidental sad or angry face), the general response was positive. YouTube also allows for comments, although this feature was not widely used. YouTube has the added benefit of being available on the most devices, including computers, phones, tablets and smart TVs. Being available on the broadest assortment of platforms may have increased access; however, it made commenting somewhat less attractive, as it was not accessible on all devices and was not displayed over the video like on Facebook. One other feature that made YouTube attractive for some users and producers was the option to display closed captioning. One challenge with this feature was that it was not generally available live. It was, however, available after the live video had been processed by YouTube and showed on the church's YouTube channel.

The four leading platforms were also assessed for suitability for online worship services, the results are shown in the following charts.

Table 10: *Platform Suitability Data*

Users	**YouTube**			**Zoom**			**Facebook**			**Google**		
Answer	Count	%	Sum	Count	%	Sum	Count	%	Sum	Count	%	Sum
1 Very Suitable	83	54.3%	74.5%	21	33.3%	57.1%	13	26.0%	54.0%	0	0.0%	0.0%
2 Suitable	31	20.3%		15	23.8%		14	28.0%		0	0.0%	
3 Neutral	13	8.5%	8.5%	13	20.6%	20.6%	8	16.0%	16.0%	3	42.9%	42.9%
4 Unsuitable	9	5.9%		6	9.5%		9	18.0%		1	14.3%	
5 Very Unsuitable	17	11.1%	17.0%	8	12.7%	22.2%	6	12.0%	30.0%	3	42.9%	57.1%
No answer	22	12.6%	0.0%	112	64.0%	0.0%	125	7.4%	0.0%	168	96.0%	0.0%
Arithmetic mean	1.99			2.44			2.62			4		
Standard deviation	1.37			1.38			1.37			1		
Sum (Answers)	153	100.0%		63		100.0%	50	100.0%	100.0%	7	100.0%	100.0%

Producers	**YouTube**			**Zoom**			**Facebook**			**Google**		
Answer	Count	%	Sum	Count	%	Sum	Count	%	Sum	Count	%	Sum
1 Very Suitable	21	34.4%	60.7%	13	29.6%	57.1%	7	23.3%	50.0%	3	42.9%	42.9%
2 Suitable	16	26.2%		16	36.4%		8	26.7%		0	0.0%	
3 Neutral	11	18.0%	18.0%	6	13.6%	20.6%	8	26.7%	26.7%	2	28.6%	28.6%
4 Unsuitable	6	9.8%		3	6.2%		4	13.3%		1	14.3%	
5 Very Unsuitable	7	11.5%	21.3%	6	13.6%	22.2%	3	10.0%	23.3%	1	42.9%	28.6%
No answer	23	27.4%	0.0%	40	47.6%	0.0%	54	64.3%	0.0%	77	96.0%	0.0%
Arithmetic mean	2.38			2.39			2.6			2.57		
Standard deviation	1.36			1.35			1.28			1.62		
Sum (Answers)	61	100.0%		4		100.0%	30	100.0%	100.0%	7	100.0%	100.0%

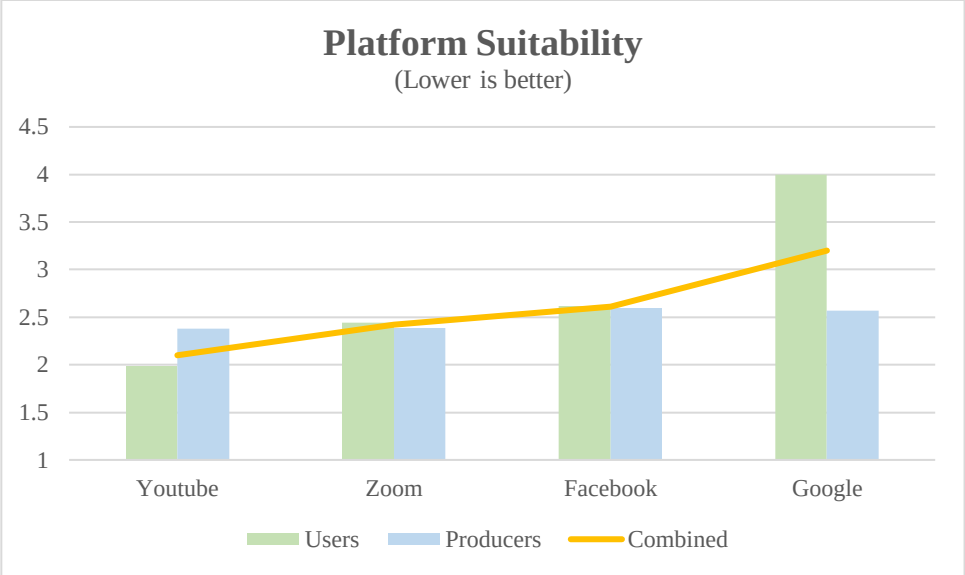
Combined	**YouTube**			**Zoom**			**Facebook**			**Google**		
Answer	Count	%	Sum	Count	%	Sum	Count	%	Sum	Count	%	Sum
1 Very Suitable	104	48.6%	70.6%	34	31.8%	60.7%	20	25.0%	52.5%	3	21.4%	21.4%
2 Suitable	47	22.0%		31	29.0%		22	27.5%		0	0.0%	
3 Neutral	24	11.2%	11.2%	19	17.8%	17.8%	16	20.0%	20.0%	5	35.7%	35.7%
4 Unsuitable	15	7.0%		9	8.4%		13	16.3%		2	14.3%	
5 Very Unsuitable	24	11.2%	18.2%	14	13.1%	21.5%	9	11.3%	27.5%	4	28.6%	42.9%
No answer	45	17.4%	17.4%	152	58.7%	58.7%	179	69.1%	69.1%	245	94.6%	94.6%
Arithmetic mean	2.10			2.42			2.61			3.29		
Standard deviation	N/A			N/A			N/A			N/A		
Sum (Answers)	214	100.0%	100.0%	107	100.0%	100.0%	80	100.0%	100.0%	14	100.0%	100.0%

These charts show the data for users (green), producers (blue), and a combined rating (yellow). The combined rating is not an average of the two groups percentages, but is calculated by merging the raw data from both groups.

Users rated all the platforms as more suitable than producers; however, the ratings were generally similar. YouTube received the most suitable rating, followed by Zoom and Facebook. Google meets was only rated by a few people, and it was judged to be the least suitable platform; however, this may be due to low usage and familiarity.

This graph illustrates the relative difference between the platforms as indicated by users, producers, and then a combined rating.

Figure 6: *Graph Illustrating Distribution Pattern Platform Suitability Ratings*



This graph visually displays the arithmetic mean for each category.
The scale goes from 1 – very suitable to 5 – very unsuitable.

This graph demonstrates that YouTube was rated as the most suitable platform, and Google was rated as the least suitable platform, at least by users, although producers rated it similarly to the other platforms.

Devices used to access these services.

Users were asked which devices they used to access the online services. This chart displays the result

Table 11: *Devices Used to Access the Online Services*

Laptop computer	92	52.57%
Desktop computer	41	23.43%
Tablet (iPad etc.)	64	36.57%
Smart Phone	31	17.71%
TV (smart TV or attached streaming device)	58	33.14%
Audio only via telephone	0	0.00%
Other	3	1.71%

Note: respondents could select more than one answer which is why the total percentage exceeds 100%, which indicates that people accessed these services using more than one device.

The primary device used by just over half the respondents (52.6%) was a laptop computer. This was followed by a tablet (36.6%) and then a TV (33.1%). Desktop computers followed this (23.4%), with smartphones accounting for a minor portion of users (17.7%). Items in the "other" were not that unique, with one being listed as a Chromebook and one referred to the addition of an extra screen to view the bulletin. It is worth noting that YouTube is the only platform accessible via all indicated devices, including smart TVs, potentially providing the largest picture and best sound quality. No one reported using a telephone to listen to services on Zoom, although this feature was used for some meetings.

Quality of Online Services

Both producers and users were asked to rate the quality of the picture, sound, onscreen graphics and words, along with the overall quality of the online services. Both groups gave similar responses and ratings, as indicated in the following table.

Table 12: *Platform Quality Data*

Users	Picture Quality			Sound Quality			On Screen Graphics/Words			Overall Rating		
Answer	Count	%	Sum	Count	%	Sum	Count	%	Sum	Count	%	Sum
1 Very Good	84	50.9%	72.1%	44	26.4%	59.9%	58	39.5%	68.0%	58	35.2%	67.9%
2 Good	35	21.2%		56	33.5%		42	28.6%		54	32.7%	
3 Neutral	12	7.3%	7.3%	33	19.8%	19.8%	20	13.6%	13.6%	19	11.5%	11.5%
4 Poor	17	10.3%		23	13.8%		9	6.1%		16	9.7%	
5 Very Poor	17	10.3%	20.6%	11	6.6%	20.4%	18	12.2%	18.4%	18	10.9%	20.6%
No answer	10	5.7%	0.0%	8	4.6%	0.0%	28	16.0%	0.0%	10	5.7%	0.0%
Arithmetic mean	2.08			2.41			2.23			2.28		
Standard deviation	1.39			1.2			1.36			1.33		
Sum (Answers)	165	100.0%		167		100.0%	147	100.0%	100.0%	165	100.0%	100.0%

Producers	Picture Quality			Sound Quality			On Screen Graphics/Words			Overall Rating		
Answer	Count	%	Sum	Count	%	Sum	Count	%	Sum	Count	%	Sum
1 Very Good	26	32.5%	73.8%	22	27.5%	66.3%	24	35.3%	69.1%	21	26.9%	66.7%
2 Good	33	41.3%		31	38.8%		23	33.8%		31	39.7%	
3 Neutral	12	15.0%	15.0%	15	18.8%	18.8%	7	10.3%	10.3%	16	20.5%	20.5%
4 Poor	7	8.8%		11	13.8%		6	8.8%		7	9.0%	
5 Very Poor	2	2.5%	11.3%	1	1.3%	15.0%	8	11.8%	20.6%	3	3.9%	20.6%
No answer	4	4.8%	0.0%	4	4.8%	0.0%	16	19.1%	0.0%	6	7.1%	0.0%
Arithmetic mean	2.08			2.23			2.28			2.23		
Standard deviation	1.03			1.04			1.35			1.07		
Sum (Answers)	80	100.0%		80		100.0%	68	100.0%	100.0%	78	100.0%	100.0%

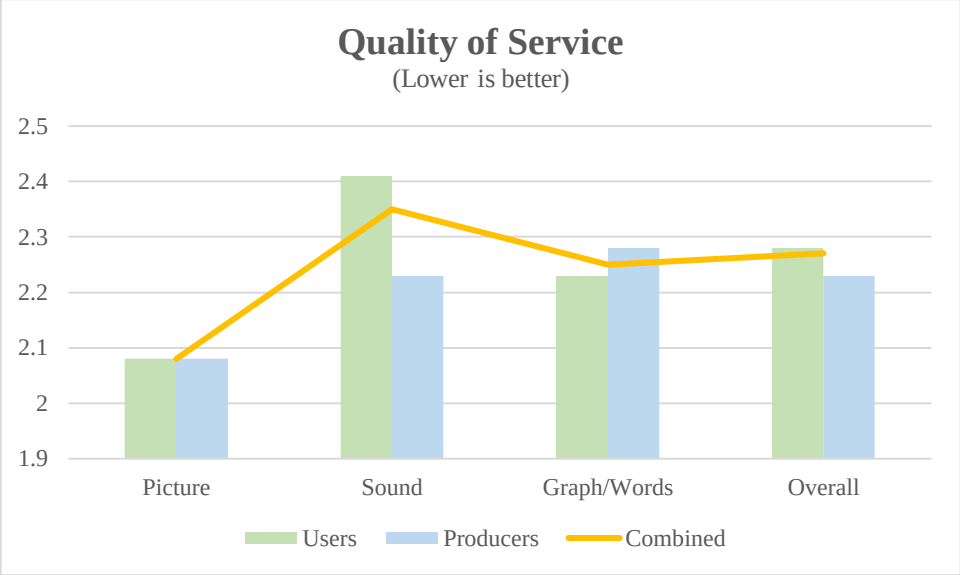
Combined	YouTube			Sound Quality			On Screen Graphics/Words			Overall Rating		
Answer	Count	%	Sum	Count	%	Sum	Count	%	Sum	Count	%	Sum
1 Very Good	110	44.9%	72.7%	66	26.7%	61.9%	82	38.1%	68.4%	79	32.5%	67.5%
2 Good	68	27.8%		87	35.2%		65	30.2%		85	35.0%	
3 Neutral	24	9.8%	9.8%	48	19.4%	19.4%	27	12.6%	12.6%	35	14.4%	14.4%
4 Poor	24	9.8%		34	13.8%		15	7.0%		23	9.5%	
5 Very Poor	19	7.8%	17.6%	12	4.9%	18.6%	26	12.1%	19.1%	21	8.6%	18.1%
No answer	14	5.4%	5.4%	12	4.6%	4.6%	44	17.0%	17.0%	16	6.2%	6.2%
Arithmetic mean	2.08			2.35			2.25			2.27		
Standard deviation	N/A			N/A			N/A			N/A		
Sum (Answers)	245	100.0%	100.0%	247	100.0%	100.0%	215	100.0%	100.0%	243	100.0%	100.0%

These charts show the data for users (green), producers (blue), and a combined rating (yellow). The combined rating is not an average of the two groups percentages, but is calculated by merging the raw data from both groups.

Overall the quality of services were rated as good or very good by 67% of respondents, with 14% neutral and 6% giving a poor or very poor rating. Video quality was given the highest rating with 73% rating it good or very good. Audio quality received the poorest score with 60% rating it good or very good, 10% were neutral and 18% rated it poor or very poor. Audio quality

ratings also showed the biggest discrepancy between producer and user ratings with users rating it lower.

Figure 7: *Graph Illustrating Quality of Service Ratings*



This graph visually displays the arithmetic mean for each category. The scale goes from 1 – very Good to 5 – very Poor.

Common Times Online Services Watched

Online services brought with them the possibility of participating at alternative times. Depending on the platform, this could be while it was originally live or at a later time. Users were asked to indicate when they usually watched these services. Producers were asked to indicate when they thought users were watching the services. The producers' scores are calculated based on their responses for how likely they thought people were watching at the listed times.

Table 12: *Times Services Were Accessed*

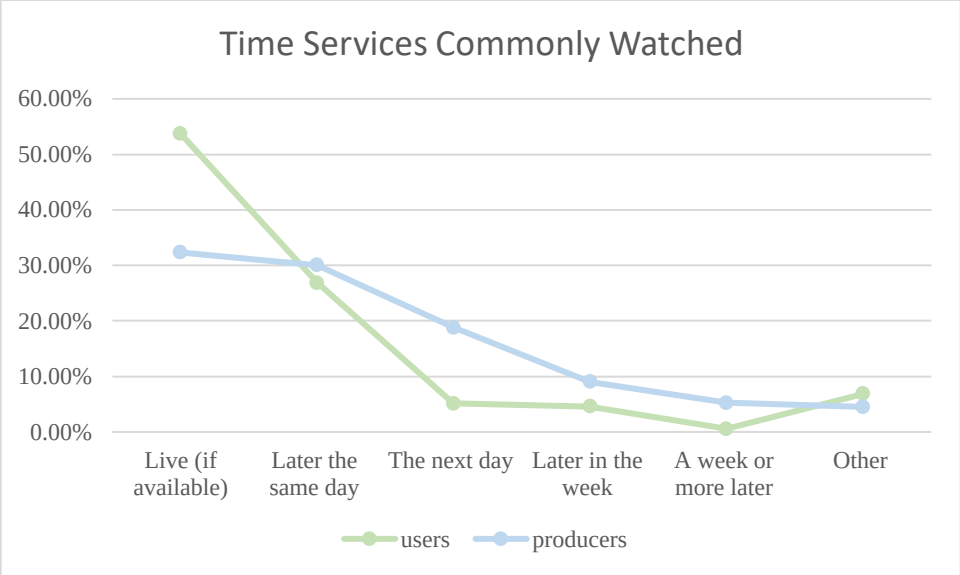
Time of Watching	users	producers
Live (if available)	53.71%	32.33%
Later the same day	26.86%	30.08%
The next day	5.14%	18.80%
Later in the week	4.57%	9.02%
A week or more later	0.57%	5.26%
Other	6.86%	4.51%

The platform used was highly determinate in this area, with over 90% of users accessing these services through Zoom or Facebook, indicating that they participated live. This makes sense as neither of these services provided automatic archiving as YouTube provides. However, some churches did make archival copies available, often on YouTube or the church's website.

Users cited a number of reasons for watching at alternative times, including work schedules, being away, other scheduling conflicts, or simply as a matter of convenience. There were also other reasons; for example, those users who used the closed captions provided by YouTube were forced to wait until YouTube processed the file and reposted it on the church's YouTube page. This process could take several hours or even as long as a day. During this time, it was often challenging for users to find the initial recording of the live service as it did not appear on the church's main YouTube page until processing was complete. While this was often a source of frustration, there was little churches could do to change this as none reached the minimum subscriber count to warrant a higher level of service from YouTube.

The following graph provides a visual representation of data collected concerning when services were watched.

Figure 8: *Graph Illustrating Times Services Accessed*

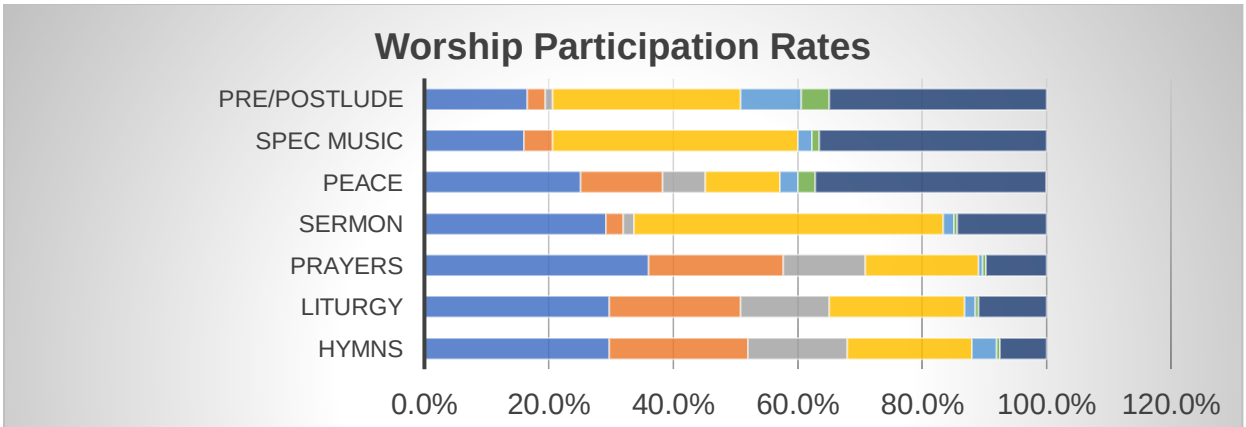


The graph shows that apart from the higher number of users reporting that they watched the services live, both users and producers followed a similar curve.

Service Participation

Users were asked about how they participated in the online worship services. These responses are summarized in the chart below.

Figure 9: *Graph Illustrating Worship Participation Rates*



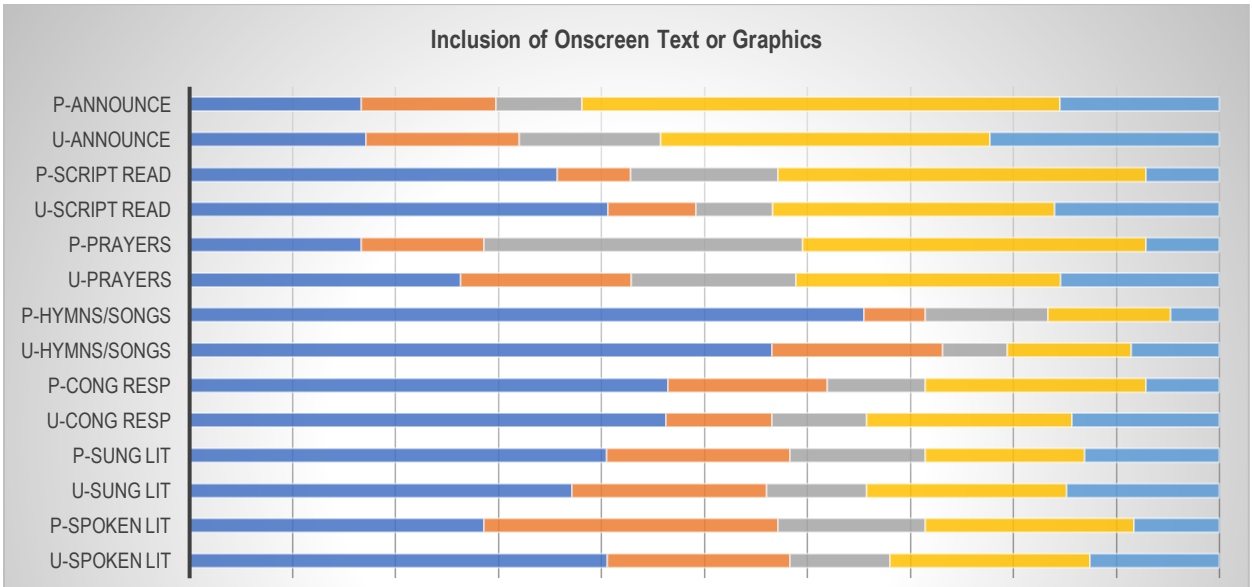
	Hymns	Liturgy	Prayers	Sermon	Peace	Spec Music	Pre/Postlude
Fully participated	29.7%	29.7%	36.0%	29.1%	25.1%	16.0%	16.6%
Spoke/sang most of the responses/songs	22.3%	21.1%	21.7%	2.9%	13.1%	4.6%	2.9%
Spoke/sang some of the responses/songs	16.0%	14.3%	13.1%	1.7%	6.9%	0.0%	1.1%
Mostly just watched	20.0%	21.7%	18.3%	49.7%	12.0%	39.4%	30.3%
I sometimes skipped these parts	4.0%	1.7%	0.6%	1.7%	2.9%	2.3%	9.7%
I mostly skipped these parts	0.6%	0.6%	0.6%	0.6%	2.9%	1.1%	4.6%
No answer	7.4%	10.9%	9.7%	14.3%	37.1%	36.6%	34.9%

Most people generally report engaging with most of the service. The parts of the service garnering the least participation were the prelude and postlude. While some people just watched the service, many others report a reasonably high level of engagement. The prayers, liturgy and hymns showed the highest levels of participation, which is to be expected as they provide the most significant opportunity for participation. By their very nature, the other categories have limited opportunity for participation beyond watching and listening, which was reflected in the results. Perhaps most significant of all is the finding that people skipped very little of the service parts, except for the prelude and postlude, which some people also often skip during live services.

Use of Onscreen Text and Graphics

Both users and producers were asked about the inclusion of words and graphics onscreen during the live stream events. Respondents were asked to rate how often these were used for various parts of the service. These parts included: spoken responses as part of the liturgy, sung responses as part of the liturgy, other congregational responses, hymns and songs, prayers, scripture readings, and announcements. Users were asked to indicate what they saw; producers were asked to indicate what they usually included. These results are displayed below.

Figure 10: *Graph Illustrating Inclusion of Onscreen Text or Graphics*



	U-Spoken Lit	P-Spoken Lit	U-Sung Lit	P-Sung Lit	U-Cong Resp	P-Cong Resp	U-Hymns/Songs	P-Hymns/Songs	U-Prayers	P-Prayers	U-Script read	P-Script read	U-Announce	P-Announce
Always	40.6%	28.6%	37.1%	40.5%	46.3%	46.4%	56.6%	65.5%	26.3%	16.7%	40.6%	35.7%	17.1%	16.7%
Often	17.7%	28.6%	18.9%	17.9%	10.3%	15.5%	16.6%	6.0%	16.6%	11.9%	8.6%	7.1%	14.9%	13.1%
Occasionally	9.7%	14.3%	9.7%	13.1%	9.1%	9.5%	6.3%	11.9%	16.0%	31.0%	7.4%	14.3%	13.7%	8.3%
Never	19.4%	20.2%	19.4%	15.5%	20.0%	21.4%	12.0%	11.9%	25.7%	33.3%	27.3%	35.7%	32.0%	46.4%
No answer	12.6%	8.3%	14.9%	13.1%	14.3%	7.1%	8.6%	4.8%	15.4%	7.1%	16.0%	7.1%	22.3%	15.5%

This graph shows both producer (P) and user (U) responses.

Words to the hymns or songs were most frequently included, followed by congregational responses, sung liturgy and scripture readings. The least frequently included words were related

to announcements and prayers. Responses were comparable between both users and producers, and while there was a variance, they trended in a similar manner.

Missed the most and least about in-person worship during the pandemic

Respondents were asked to indicate what things they missed the most and least about not being able to attend in-person worship. These responses were then coded and categorized with the following results.

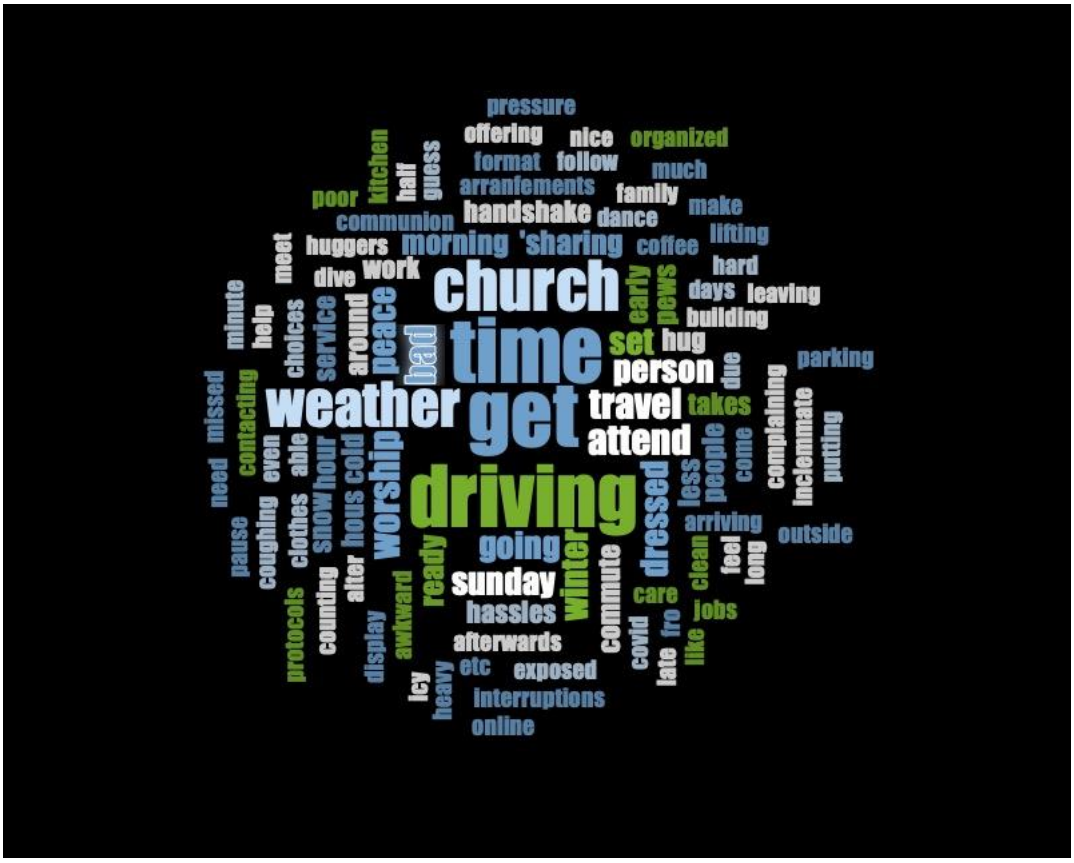
Things missed the least when unable to attend services

Travel and associated travelling time was the single biggest item reported in this category, with 32 users providing this response. This category included travel during inclement weather, total travel time and simply even having to leave the house. The next highest response was "getting dressed," with ten respondents providing a form of this answer. Following this was a version of "fixed time of worship," with eight respondents suggesting they like the freedom to attend when they have time better than the fixed time of in-person worship. Five respondents indicated they did not miss having to do their volunteer church jobs. Four suggested they did not miss leaving home, and another four reported not missing the sharing of the peace (particularly the hugging). Three responded with not missing the pews or chairs. Other responses included not missing the exposure to sickness (not just COVID but also cold and flu etc.), the stiff format or length of service, and one even suggested they did not miss trying to figure where to sit.

A word cloud of the total number of responses is provided below. It gives a visual rendering of people's responses to this question. It should be noted that these word clouds may distort some of the data as qualifiers, such as "not" or "sometimes," are not included. Regardless,

they help illustrate trends and popular themes but should not be considered pure indicators as they are presented without their immediate context.

Figure 11: *Word Cloud illustrating things not missed about worship during the lockdown*



This word cloud presents the most commonly cited words in the "not missed" category. It should be noted that these words have been removed from their original context and may be missing modifiers or context that could change their original meaning. Frequency is associated with size, larger words were used more often.

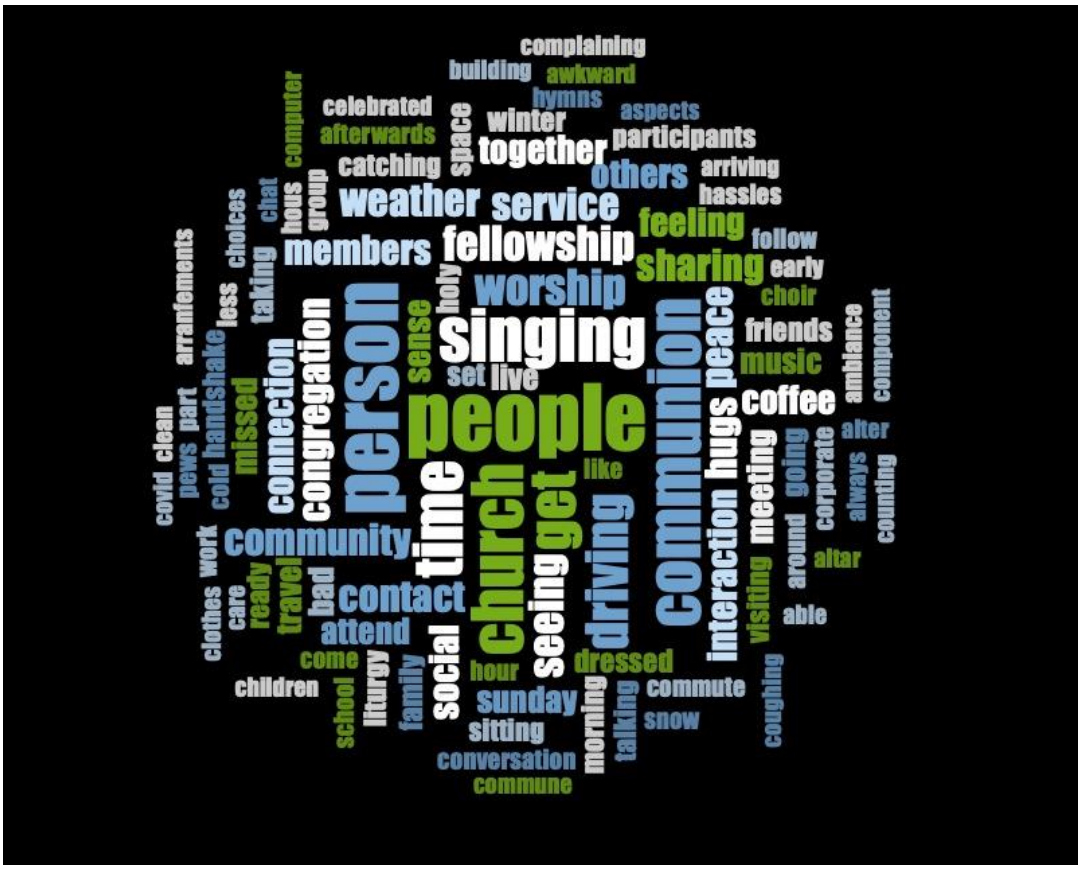
Things missed the most when unable to attend services

When asked about what they missed about attending worship, the single largest response was community and the subcategory of socializing. Fifty-seven respondents suggested they missed some aspect of being together in community, and an additional 24 comments were coded as more specifically missing various aspects of socializing. A further 24 people indicated missing in-person Holy Communion, followed by 20 indications of missing singing together. The next

most significant category, with 11 responses, was “sharing the peace” (with some specifically mentioning hugging), and then nine comments related to missing the feeling of being in church. Other categories included five indications of missing live music and four missing the liturgy.

A word cloud has also been prepared for this question and should be taken with the same cautionary note as the previous example.

Figure 12: *Word Cloud illustrating things missed about worship during the lockdown*



While much of what people said was predictable, there were some surprises in the data. Overall it makes sense that people largely missed the company and community of others. This is not something that can be replaced with online worship; however, if done correctly, some measures can be taken that help to alleviate some of this challenge.

Holy Communion

One of the controversies that arose during the provision of online services was the provision of Holy Communion for people using a digital platform. Holy Communion practices have often been the subject of past controversies, including issues like the age of communicants, offering alternatives to bread and wine to those with specific health or addiction-related concerns, frequency of celebration, style of distribution, and so forth. Some of the comments are reminiscent of these past disputes, although they represent a relatively small number of the overall comments. Unfortunately, there seem to be no solutions acceptable to all persons, and this particular version of the issue is no exception.

This is also one issue that varies from denomination to denomination, as their underlying theological positions are different. For some denominations, Holy Communion is only symbolic, while on the other extreme are the Roman Catholics and their doctrine of transubstantiation. My particular denomination, the ELCIC, falls somewhere in the middle with our understanding of "real presence," which is more than symbolic but also less than what one might expect with transubstantiation. Likewise, the frequency of Holy Communion being offered can vary significantly from denomination to denomination and congregation to congregation. Some offer weekly or even daily Communion; others range from bi-weekly to monthly to quarterly or even less. Finally, the issue of who can preside over the celebration of Holy Communion also varies from denomination to denomination and is also a source of continued debate and challenge.

Further to that, denominations differ on who gets to decide on the practice. For some denominations, Bishops or other members of a denominational hierarchy can impose a rule; in other cases, congregations can decide for themselves what their practice will be, whether that practice is consistent with denominational practices or not. In this case, the issue arose without

much warning. So there was inadequate time for the creation and implementation of policy documents, leaving many congregations to decide for themselves how they were going to proceed. Our purpose here is not to resolve the issue but rather to report on what happened and provide some commentary on how this issue may play out.

To better understand the provision of digital Communion, it is necessary to set the issue in context. Historically this did not seem to present a problem, even for those congregations who already live streamed or broadcast their services as Communion was available for any who were able to attend services, and those who were not able to attend (sick or shut-ins) could be provided communion in the home as necessary. Holy Communion was often part of the broadcast or streamed services, but people at home were generally not invited to participate. When COVID caused the closure of churches, the situation changed and required a reexamination of the practice(s).

One other thing to consider before we present the data is the question of what to call this practice. Some have taken to calling it "Virtual Communion," as some people call anything that happens online virtual. I find this problematic as I think it is inaccurate, could inherently contain a particular bias and may reflect issues related to the domestication of digital communication technology. As previously noted in the literature review, there are virtual churches like those on Second Life that only exist virtually (no bricks and mortar). Some of these churches have offered (and may continue to offer) what can be more correctly called Virtual Communion. In these cases, your avatar can go to a digital church and "receive" Communion. In this case, there are no actual physical elements used (like bread and wine), and there is often no physical person presiding over the event. These events, lacking IRL (in real life) components, in my estimation, warrant the name "Virtual Communion."

The current situation is somewhat different as there is an actual presider, and physical elements (usually bread and wine or grape juice) are used, even if the communicants themselves supply them. What is different is that the words spoken and images shown are transmitted digitally to the communicants. Hence, my preference for the terms digital communion or online communion as the primary descriptors for this action. While this may be an oversimplification of a somewhat complex issue, it is nevertheless an important discussion.

It should be noted that due to the uncertainty associated with the length of the pandemic and circumstances surrounding congregational closures, there were some modifications to communion practices throughout the pandemic. At the beginning, some pastors felt the closures would be weeks or months and therefore decided to practice what some called a "fast" from Holy Communion until regular procedures could begin again. When it became clear that the pandemic would be much longer, a number of congregations decided to implement digital communion or provide alternate means for people to receive the sacrament.

Both producers and users were asked similar questions relating to these communion practices. With respect to the question of did you or your home congregation offer online Holy Communion, the following responses were provided.

Table 13: *Digital Holy Communion Availability*

	producers	percentage	users	Percentage
Yes	53	63.1 %	119	68.0 %
No	27	32.1 %	45	25.7 %
Unknown	N/A	N/A	2	1.1 %
No Answer	4	4.7 %	9	5.1 %

When users were asked if they participated in these communion services, either through their own or another congregation (we know anecdotally and from comments in the data that some people did attend other congregations who were offering Holy Communion online), 52.6% responded yes, 40.6% responded no, and 6.29% did not answer the question. When producers

were asked if they offered an alternative to online communion, 53.6% said yes, 33.3% said no and, 13.1% did not answer the question.

Users and producers were also asked if Holy Communion should be offered as a possibility post-COVID, albeit in a slightly different manner. These tables provide a summary of the results:

Table 14: *Producer Responses to Should Online Holy Communion Continue?*

Producers	**Should Online HC Continue**		
Answer	Count	Percentage	Sum
1 Strongly Agree	25	33.8%	52.0%
2 Agree	14	18.2%	
3 neutral	11	14.3%	14.3%
4 Disagree	14	18.2%	
5 Strongly Disagree	12	15.6%	33.8%
No answer	7	8.3%	8.3%
Arithmetic mean	2.64		
Standard deviation	1.49		
Sum (Answers)	77	100.0%	

Table 15: *User Responses to Should Online Holy Communion Continue?*

Users	**Should Online HC Continue**	
Answer	Count	Percentage
Yes	87	49.7%
No	24	14.3%
Unknown	46	26.3%
No answer	17	9.7%
Sum (Answers)	174	100.00%

When these results are combined with the results of the comments, a few patterns and themes start to emerge.

One of the most frequent comments provided in the data relates to the communal aspect of Holy Communion. Those choosing not to offer or participate often cited the lack of a gathered community as the reason, such as reflected in this comment, “Theologically I believe we need to

be in community to experience the real presence during the meal." Given this, it is no surprise that Zoom was presented as the most acceptable medium for Holy Communion. It was synchronous and included the visible presence of a community, even if gathered digitally. Some churches opted to provide additional Zoom Holy Communion services, even if Zoom was not their usual platform. This was the practice of at least one Anglican diocese, as evidenced by this comment, "We were not permitted to do online communion except through zoom. This was a directive from the local Anglican bishop."

Those supporting the practice often raised pastoral concerns related to the need to continue providing Holy Communion for those who wanted to receive during the pandemic. This appeared to be one way to accomplish this task. One such comment related to this aspect was, "With so much being lost we decided to include this right from the beginning. People sent in pictures of their home communion and very much appreciated that we continued to offer it. It was important to continue to be nourished by this important sacrament in this pandemic." Theological arguments for the adoption included, "The decision was based on faith that the presence of God is not bound by time or space."

It was also noted that practices changed over the course of the pandemic, with more churches opting to provide this service as the pandemic dragged on. For example, a couple of producers commented that they initially had theological concerns but eventually "got over it" and offered digital Holy Communion. Another, after examining various documents and practices, ultimately concluded, "the justice issue of offering to some and not others moved us to online communion." Finally, another offered this response "Initially, no. But after a couple of months, it was requested. Then we started, and it proved very meaningful for people. More meaningful than we imagined."

The other theme that became evident was that there is a considerable amount of uncertainty about this practice, which was particularly apparent in the user responses. Furthermore, the lack of formal or official guidance from a Synodical or National church body seemed to add to this uncertainty, at least in some cases.

One of the factors at play here may be the issue of the domestication of technology. While we may be primarily familiar with the concept of domestication with respect to animals, be they pets or livestock, it can also apply to technology. As Berker et al. note, “Domestication, in the traditional sense, refers to the taming of a wild animal. At a metaphorical level, we can observe a domestication process when users, in a variety of environments, are confronted with new technologies” (Berker, Hartmann, Punie, & Ward, 2006, p. 2). In this case, video streaming technology is relatively new for most people. It has yet to become fully domesticated and is not entirely understood or trusted. All new forms of media bring with them uncertainty and the inevitable dire predictions of disaster, like some predicated would come with telephones, television, computers, and the internet. Once domesticated, many of these technologies cease to present much of a threat; however, that does not mean there will not be ongoing issues. Berker et al. explain it as follows.

> The process of domestication also implies, at a symbolic level, that in the long run, technologies, like pets, can become part of the family. Some technologies continue to 'disobey,' some only from time to time, and many become an integral part of everyday life. When the domestication of technologies has been 'successful,' the technologies are not regarded as cold, lifeless, problematic and challenging consumer goods at the root of family arguments and/or work-related stress, but as comfortable, useful tools - functional and/or symbolic - that are reliable and trustworthy. This is often the case with the phone, radio and television. They have all lost their magic and have become part of the routine. However, just as young puppies (and older dogs) can cause damage in the household and arguments between family members, the domestication of technological artefacts is seldom complete. In that incomplete process, the dynamic between 'domesticator' and the 'domesticee' constitutes and recreates the mediated environment. It is not just about adapting technologies to people, but also about people creating an environment that is

> increasingly mediated by technologies. Re- and de-domestication processes can take place - adapting and morphing to meet the changing needs of users, the constitution of households and workplaces. (Berker et al., 2006, pp. 2-3)

At this point, it is impossible to determine how much of a role domestication may play in this issue; however, it is undoubtedly a factor in the overall conversation about online services. COVID has certainly accelerated the pace of domestication of digitally mediated connections like Zoom or Facetime. Ultimately, time will be required to determine if, how, when, and how widespread these technologies become domesticated.

I think it would be fair to state that no one thinks this is the best way to offer Holy Communion or that it should replace in-person offerings; however, it does provide a possible means to accomplish this task under challenging circumstances. One such comment related to this was, “We felt that mediated communion (we preferred that term to virtual communion), while not ideal, was still an important thing to offer as a foundational sacrament for our church.”

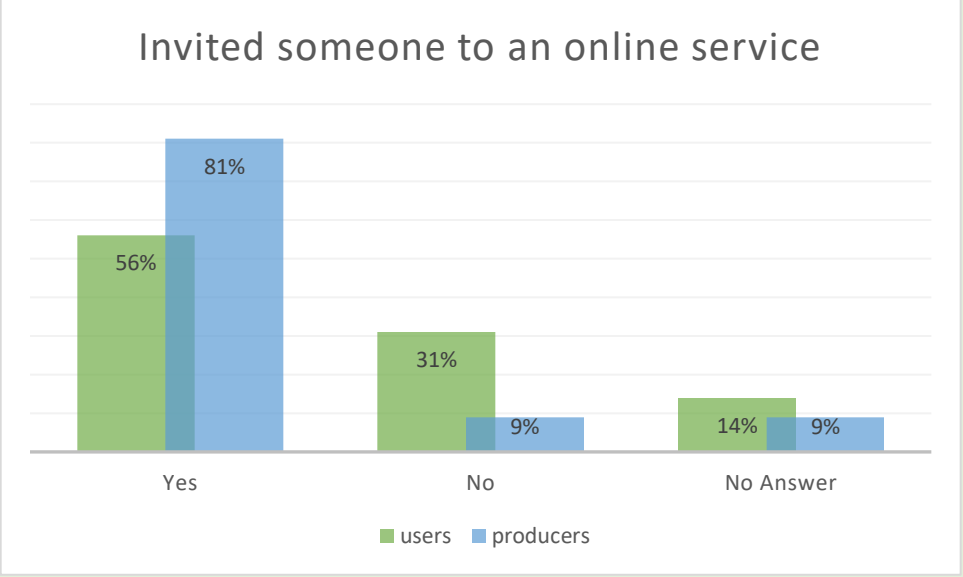
While some might expect that the issue will disappear when in-person church returns to some semblance of normal, this is an increasingly unlikely scenario. Churches will certainly reopen, but indications are that not everyone will return on a regular basis for a variety of reasons. This raises the genuine possibility that a significant number of churches will move to some form of hybrid worship, which will again return the issue to the fore.

Missional Considerations

One of the surprising developments of moving church online was the increased willingness of congregational members to invite or inform others about the online worship possibilities. This runs counter the experience of many mainline protestant denominations whose members are often reluctant to invite others to attend worship. Another surprising development

was the engagement or re-engagement with online worship services from people who had stopped entirely or rarely attended in-person services. The following responses illustrate this finding.

Figure 13: *Invitations Offered for Online Services*



Users responses to whether or not they invited someone to an online service. Producers were asked if they knew of others who invited people to online services.

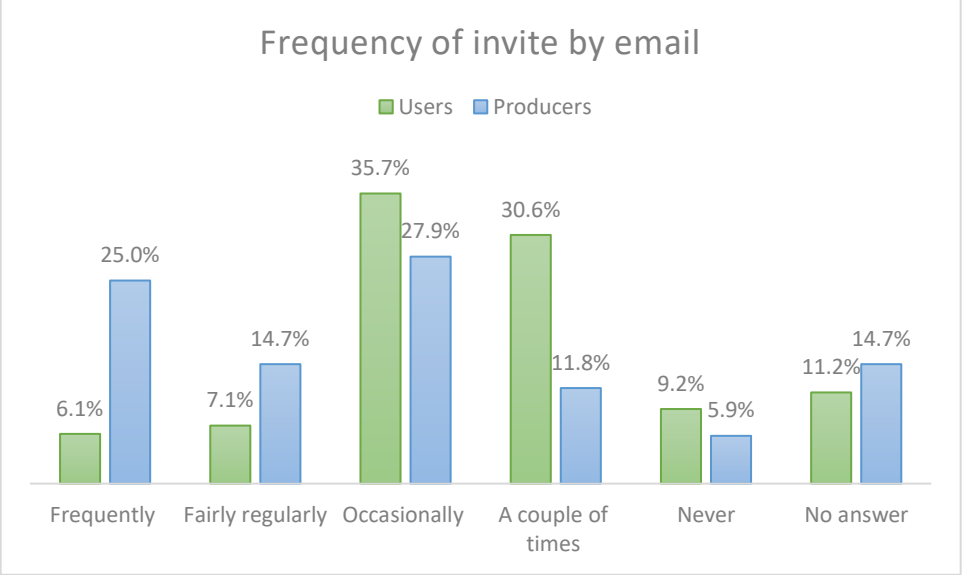
When asked if they forwarded a link or otherwise suggested someone else tune into their congregation's services, 56% of respondents indicated yes, 31% said no, and the remaining 14% did not answer the question. When producers were asked if they knew of congregational members forwarding links or otherwise suggesting someone tune into the services, 81% responded that they knew of members who did, 9% did not know of anyone, and 9% did not respond to the question.

This question was then explored further by asking respondents about ways they may have invited someone or advertised the online services. More specifically users and producers were

asked if they forwarded a link via email, reposted a link or information on Facebook, or directed someone to a church website for live-streaming information.

The results of these questions are presented in the following charts.

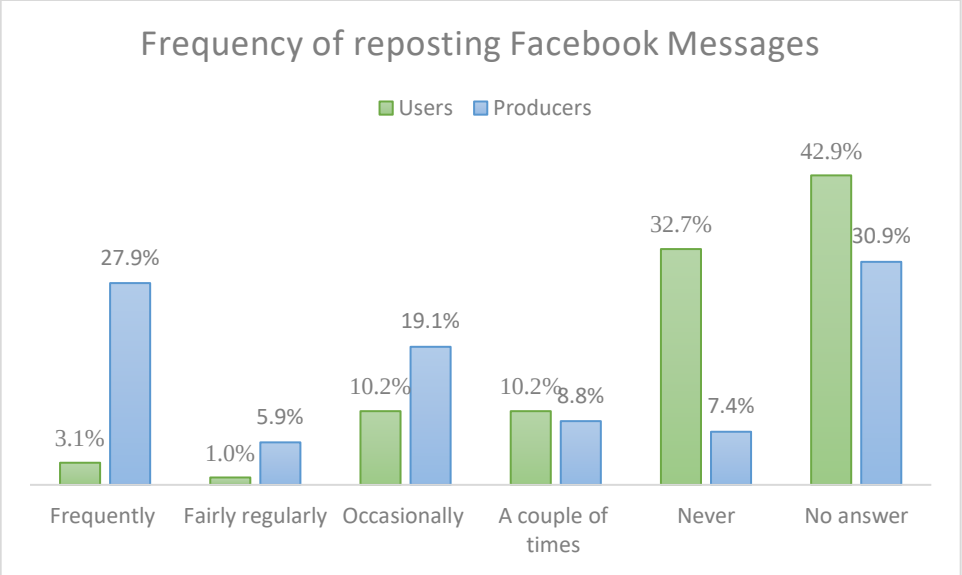
Figure 14: *Invitations offered via email*



As the graph indicates, producers were more likely than users to invite others to attend these services. However, there is evidence that users also invited people to attend these services by email, although with a reduced frequency.

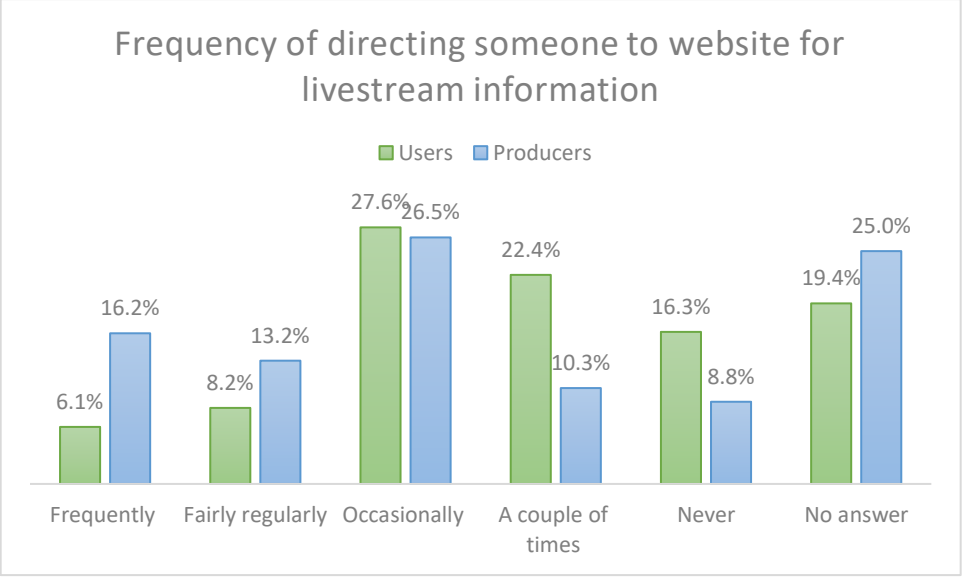
This following graph shows the data for reposting invitations or information about these services on Facebook.

Figure 15: *Invitations offered by reposting of Facebook*



As in the previous graph, producers were more likely than users to invite others to use Facebook to promote these services. But, again, there is evidence that users also invited people to attend these services by reposting on Facebook, still with a reduced frequency. This finding may be influenced by the reality that not everyone uses Facebook or has an account with them.

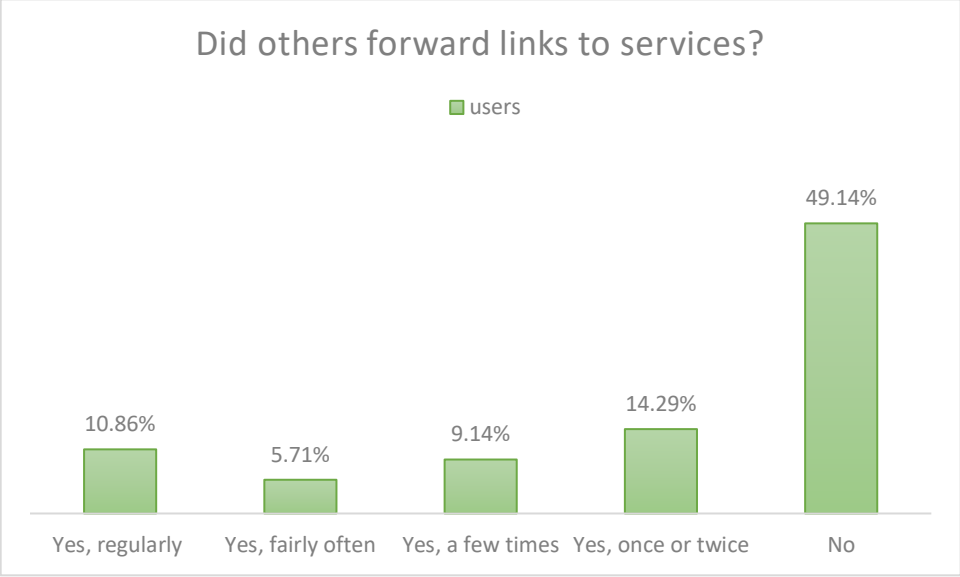
Figure 16: *Invitations offered by directing to a specific website*



As expected, producers were more likely to have shared this information. Again, the pattern is similar to the email question, which makes sense as these activities do not require special accounts or the need to post on publicly accessible platforms.

Additionally, users were asked if they received information advertising or otherwise promoting the services. They were then asked for comments about how did they received this information. The results of that question are captured in the following chart. It should be noted that because frequency indicators further subdivided the "yes" answer, it may appear as if the dominant answer was "no." In fact, the yes and no answers were almost equally divided if the frequency subdivisions were removed.

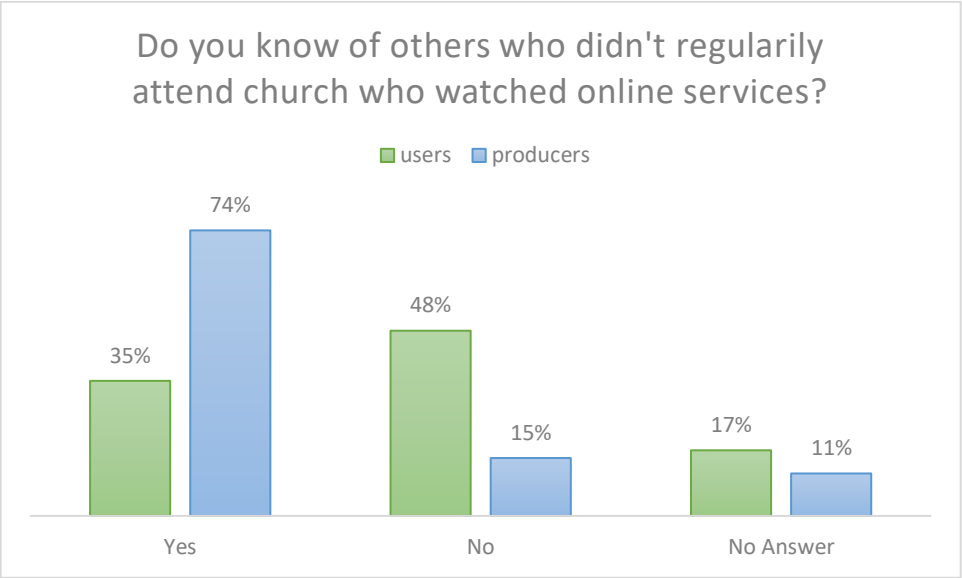
Figure 17: *Users reporting seeing posts or links about services*



Users reported seeing this information on their Facebook feeds, in the YouTube suggested videos section, on Twitter posts, information lists or denominational websites or some form of email (direct email, forwarded by someone, or an email newsletter).

Finally, for this section, both users and producers were asked if they knew of anyone who didn't regularly attend church who watched the online services. They were then asked for more information about this in an optional comments section.

Figure 18: *Responses regarding non-regular attenders watching the online services*



Comments for these questions included some from those for whom this was their lived experience as expressed in this comment, "This was me! I attended infrequently before online services. Now I rarely miss." Others reported that their spouses or other family members living in the same household started watching. Some described watching along with friends or relatives, including those from some distance away. While often not in the same location, some indicated watching the service and then discussing parts of it later.

Several comments indicated that a frequent source of visitors to the service were former members who had moved away. Online services provided a way for them to reconnect with their former congregations.

Another common reason for attending online is some form of anxiety. This may have been social anxiety or anxiety related to health concerns; regardless, respondents indicated that the online services allowed these people to attend with significantly reduced anxiety.

One other primary source of viewers who were not previously attending was shut-ins or residents of some form of care facility. Most of these people were unable to attend in person; however, adding online services allows them to attend again.

This was one of the areas where the platform used also made a difference. Those using Zoom were generally able to see and identify these visitors. Those using Facebook were also more likely to be able to identify visitors as long as real names or other identifying information was provided. For congregations using YouTube, identifying visitors was a greater challenge. If a visitor did not leave a comment or communicate in some other way (email etc.,), there is no way to identify them. Viewer statistics provided by YouTube can sometimes provide clues by indicating geographic regions of viewers; however, these can be inaccurate if software is used to hide or otherwise obscure IP address information.

This research cannot provide much detail concerning the circumstances or motivation of users, apart from those disclosed by respondents. However, the mere presence of these viewers has potential implications for the future of live streaming and hybrid services. If online services can reach viewers who are otherwise unwilling or unable to attend, that alone provides a basis for their continuance.

Future Livestreaming Possibilities

Both groups were asked four equivalent questions related to the possibility of future live streaming services post-pandemic. The first question was (A), “Do you think your congregation

will continue with online services when COVID-19 restrictions are lifted?" The second was (B), "Do you think it is important for *your* congregation to continue providing online services?" The third question was (C), "Do you think *any* churches should continue to provide online services following COVID-19?" The last question was (D), "If your congregation doesn't offer online services after COVID-19, would you consider watching another church's online services?" The producer questions were essentially the same with the substitution of "recommending" for "watching."

A summary of the responses to these questions is included below.

Table 16: *Responses related to future live streaming possibilities*

Users	**(A) Will your cong cont LS**			**(B) Is this important?**			**(C) Any Church LS**			**(D) Watch another LS**		
Answer	Count	%	Sum	Count	%	Sum	Count	%	Sum	Count	%	Sum
1 Yes definitely	57	35.2%	71.0%	106	64.2%	81.2%	107	66.5%	83.2%	42	26.9%	46.8%
2 Possibly	58	35.8%		28	17.0%		27	16.8%		31	19.9%	
3 Maybe	33	20.4%	20.4%	20	12.1%	12.1%	21	13.0%	13.0%	32	20.5%	20.5%
4 Probably Not	9	5.6%		8	4.8%		3	1.9%		40	25.6%	
5 Definitely Not	5	3.1%	8.6%	3	1.8%	6.7%	3	1.9%	3.7%	11	7.1%	32.7%
No answer	13	7.4%	7.4%	10	5.7%	5.7%	14	8.0%	8.0%	19	10.9%	10.9%
Arithmetic mean	2.06			1.63			1.56			2.66		
Standard deviation	N/A			N/A			N/A			N/A		
Sum (Answers)	162	100.0%		165	100.0%		161	100.0%		156	100.0%	

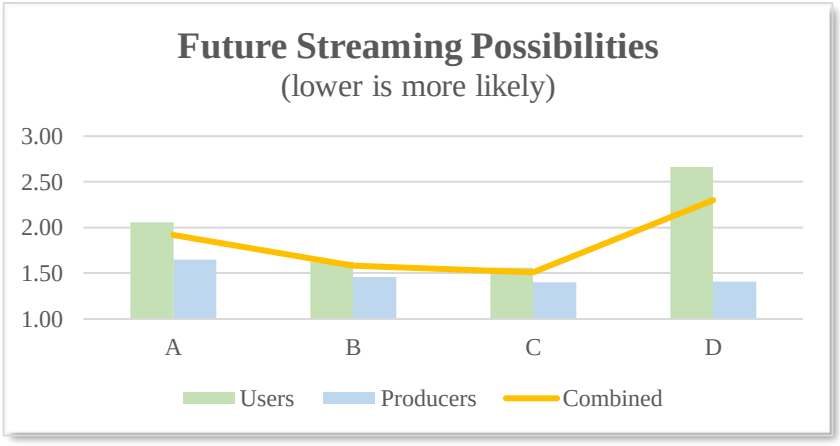
Producers	**(A) Will your cong cont LS**			**(B) Is this important?**			**(C) Any Church LS**			**(D) Recommend other LS**		
Answer	Count	%	Sum	Count	%	Sum	Count	%	Sum	Count	%	Sum
1 Yes definitely	50	63.3%	81.0%	58	72.5%	87.5%	55	68.8%	91.3%	44	68.8%	90.6%
2 Possibly	14	17.7%		12	15.0%		18	22.5%		14	21.9%	
3 Maybe	9	11.4%	11.4%	6	7.5%	7.5%	7	8.8%	8.8%	6	9.4%	9.4%
4 Probably Not	5	6.3%		3	3.8%		0	0.0%		0	0.0%	
5 Definitely Not	1	1.3%	7.6%	1	1.3%	5.0%	0	0.0%	0.0%	0	0.0%	0.0%
No answer	5	6.0%	6.0%	4	4.8%	4.8%	4	4.8%	4.8%	20	23.8%	23.8%
Arithmetic mean	1.65			1.46			1.40			1.41		
Standard deviation	N/A			N/A			N/A			N/A		
Sum (Answers)	79	100.0%		80	100.0%		80	100.0%		64	100.0%	

Both users and producers reported a high expectation that their congregations will continue to live stream, with 81% of producers and 71% of users responding positively. Both groups (producers at 87% and users at 81%) also believe that it is important for their

congregations to continue to provide these services. Those numbers climb even higher when asked if any churches should live stream, with 91% of producers and 83% of consumers responding positively to this question. The last question reveals a more significant divergence of responses. Only 47% of users suggested they would watch another church's service if theirs was not live streamed. In comparison, 91% of producers indicated that they would recommend another service if they could not provide their own.

It is important to remember that these responses indicate intentions and not observed behaviour. While there may be good intentions for congregations to continue live streaming, there may not be sufficient resources to continue these services on a regular basis. Also, because the pandemic was not over when this research was conducted, it is impossible to predict when and how often congregational members will return to in-person services. Regardless, these results certainly indicate a strong desire to continue live stream services in some fashion in some congregations.

Figure 19: *Future live streaming possibilities*



This graph visually displays the arithmetic mean for each category.
The scale goes from 1 – Yes Definately to 5 – Definitely Not.

This chart presents the mean score for each of these questions on future live streaming possibilities. All responses fall into the yes definitely-possible range. This includes the user

responses to the question of their likelihood to attend another congregation's services if their church does not offer any, which falls into the possibly-maybe range. Overall, there seems to be considerable interest in continuing these services in some form or another.

Other Online Programs and Services Offered

The primary focus of the research was the online worship services, most commonly held on Sunday morning, at least pre-pandemic. While this was the most common online offering, there were also some other note-worthy online experiments. One of these was a regular YouTube offering on Fridays during the summer in which the pastor would read a story intended to engage tweens. Grandparents were encouraged to send it to grandchildren and engage them in conversation about the story. Part of this program included a Facebook group where people could interact with each other around these stories.

Another pastor started a short daily Lenten devotion based on the Revised Common Lectionary. This pastor would film the short daily video, often while walking outside. Originally it was design for one season of the church year, but then got extended during COVID and about 145 episodes were produced. As well, this pastor's congregation had a tradition of soup and bread during Advent, which then moved online during COVID. Both of these practices were well received.

In a similar manner another pastor decided to do a live daily office on Facebook live. These usually took some form of a morning or evening prayer service. These services went on without fail for well over a year, ending around the time the pastor left his congregation. One of the noteworthy aspects of this was the use of the *Facebook giving fund* to solicit donations to various charities. This idea for alms giving started during Lent and continued on as a regular practice. The general pattern was that the first person to donate on any given day got to suggest

the charity for the next day. Somewhere over 75 charities were supported and over $25,000 was raised.

Along with these there were also special “coffee times” arranged, usually on Zoom and with the primary purpose of connecting people during the pandemic. There were also educational programs, bible studies, confirmation classes and meetings, again primarily on Zoom. Respondents indicated that there were also cooperative programs developed and shared between congregations including a variety of Sunday School and Vacation Bible School programs. Additionally, there were a number of congregational services that were cooperatively prepared by different congregations. These were sometimes special services like Good Friday, at other times they were prepared to fill in for pastoral vacancies or holidays, others simply were offered to give pastors and producers a break during the pandemic. While the pandemic proved to be challenging in so many different ways, it also inspired some very creative solutions and programming, some of which will likely extend well beyond the pandemic restrictions.

Connection to In-person Worship

One of the lingering questions with regards to online worship, in whatever form it is presented, is how does it relate to more traditional in-person worship. Respondents were asked a number of questions associated with this topic, the clearest of which asked them to rate how much these services felt like worship. A significant number of respondents (58%), rated online worship as feeling like or very much like worship. Just under 15% reported it did not feel much, or at all like, worship.

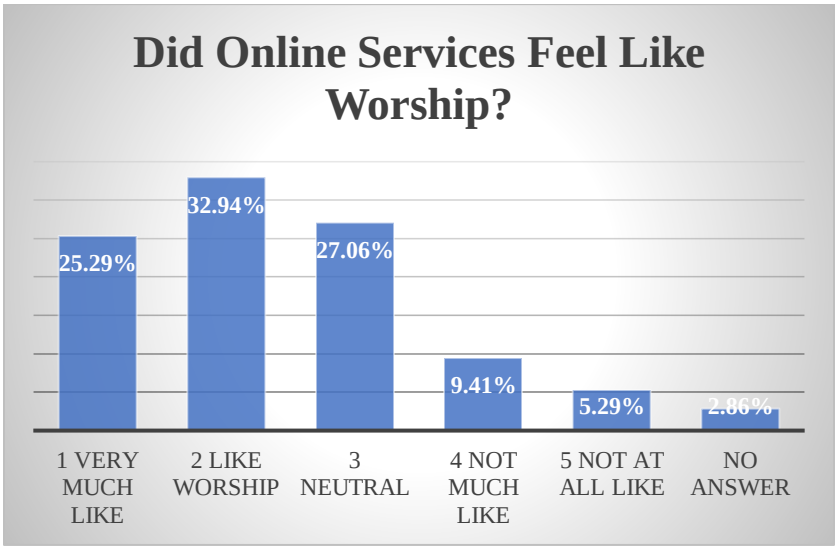
The following table summarizes the user responses to this question.

Table 17: *User responses to "Did it feel like worship"?*

Users	**Did it Feel Like Worship**		
Answer	Count	Percentage	Sum
1 Very much like	43	25.29%	58.24%
2 Like worship	56	32.94%	
3 Neutral	46	27.06%	27.06%
4 Not much like	19	9.41%	
5 Not at all like	9	5.29%	14.71%
No answer	5	2.86%	0.00%
Arithmetic mean	2.36		
Standard deviation	1.12		
Sum (Answers)	170	100.00%	100.00%

This graph illustrates the right skew of the data which demonstrates that the majority of respondents either positively identified these services as worship or were at least neutral about them.

Figure 20: *Responses regarding "Did online services feel like worship?"*



Anything Else to Share?

Respondents were given the opportunity to share other thoughts about online services in a generic "anything else you would like to share" question. When coded, it was revealed that the single most expressed comment was some form of "a needed service," with 13 comments coded in this category. The next most common comment was that they liked the online services, with 11 people sharing some form of that comment. Six people expressed gratitude for the services, and five commented on the missional possibilities they saw inherent in the online platform(s). Four people recognized that these services required resources of both time and technology. Four others commented that they like having the ability to watch multiple services. Three noted that there was a need for access to the words, preferably on screen. Three comments related how meaningful the services were to them, and two noted they felt a connection to God in the experience. Two expressed that the services were okay during the pandemic, while two others suggested that this was a possible way to renew the church.

When producers were asked the same question, they predictably had a somewhat different set of responses. At 18 comments, the single largest code was related to resources. There was recognition that these services required a variety of resources, including both technology and personnel. A related set of comments noted that not all congregations or users had equal access to resources which could be problematic. The second-largest code category, at 17 responses, expressed some form or sense that this was a worthwhile endeavor. The next category of responses (12) was related to the experience that producers felt stretched thin and or acknowledged that the work took a considerable amount of energy and generally more than traditional worship services and planning. Five users commented that the pandemic finally pushed them to start some form of online worship, which they had been planning or discussing

previously with no success. A combination of seven respondents commented that they planned to continue online or Hybrid worship services post-pandemic. A few talked about the challenges of the performative aspects of these services. while others expressed that they were tired of preaching to just a camera. One commented that they were skeptical about the value and reach of these services, and another suggested that there was a danger of feeding into consumer culture by providing these options.

The following word cloud has been created from the coded producer comments for this question and provides an interesting visual summary of these comments.

Figure 21: *Word Cloud illustrating items noted in the "Something else to share?" category*

This word cloud presents the most commonly cited words in the "something else to share" category. As before, It should be noted that these words have been removed from their original context and may be missing modifiers or context that could change their original meaning. Frequency is associated with size, larger words were used more often.

Research Summary

This research has provided a reasonably comprehensive picture of what happened, at least with respect to the respondent's contexts. The sampling methodology does not allow one to conclude that this is a representative sample; however, it does present a meaningful sample of the congregations and users represented. The data provided results indicating that most respondents accessed the services weekly and that this was about the same as their attendance rate for in-person services. Sunday morning was indicated as the most common time to watch the services. YouTube was the most commonly used platform, followed by Facebook Live and Zoom. YouTube was also rated as the most suitable platform for these services, but there was not a significant difference between the platforms in this regard.

Laptops were the most commonly used devices to access these services, and respondents generally rated the quality as good. Sound was identified as the most troublesome issue with respect to quality, and video was rated as the highest-ranked quality. Respondents indicated that they participated in most aspects of the service, with the pre/postlude being the most skipped part of the service and the hymns and songs rating the highest participation levels.

When asked about what they missed least and most about worship during the pandemic, respondents indicated that travelling was missed the least and community and socializing was missed the most. Some of the items named, like "sharing the peace," were listed in both categories indicating some of the complexities of personal preference and experience.

The provision of Holy Communion in a digital environment turned out to be another complex and controversial topic. A novel issue with the onset of COVID meant that there was little existing policy or precedence for this practice. Like many other aspects of online worship,

many congregations improvised their own standards for this practice as many of these churches await further guidance from denominational offices.

In a somewhat surprising development, there were found to be positive missional elements to these services and users' willingness to invite others to participate. This took a number of forms, from people watching who didn't, or only rarely, participated in in-person worship. Respondents also indicated a greater willingness to invite or share links to the services with others, something they were less likely to do with in-person services.

When asked if they thought these services should continue post-COVID, the vast majority of respondents indicated that they wanted them to continue. This result was true for both producers and users. While resource availability, be it technical, human or financial, may be the ultimate determinate of the future of many of these services, indications are a significant number will continue in some form.

Finally, users were asked if online services felt like worship to them. In a somewhat surprising result, 58% said that it did, and a further 27% were neutral. Less than 15% suggested that it didn't feel like worship. There is certainly something going on with these services that so many people responded that yes, it felt like worship and not simply another show on TV or YouTube. In order to process this aspect of these services, we turn to our next section, an exploration of this material using the work of Marshall McLuhan.

McLuhan, Media Ecology, Church and Live Streaming

Before one can begin to discuss the phenomena of online church services, one must begin with an exploration of how church and worship services may fit into McLuhan's media ecology and worldview. As we noted previously, media ecology refers to study that regards both

environments as media and media as environments (Corey Anton, 2017). Anton further suggests, "Not only do different environments and social places set the stage for likely and/or appropriate interaction, but also, less obviously, communication technologies become environments in their own right." Given this possibility, we are able to examine how both in-person and online church can be understood as media environments, each in their own right.

The examination of both in-person and online church media ecologies, as illuminated by McLuhan's work, will require an application of several different aspects of McLuhan's writing and thinking. We will briefly consider how the ideas of Formal Cause, Hot and Cool media, Figure and Ground, Reversals and the laws of media can be applied to both in-person and online church.

Formal Causes

As we prepare to more deeply examine the effects of moving worship services online, it will be helpful to briefly explore the question of what makes a worship service recognizable as a worship service, especially when it is removed from its traditional context? Formal cause, one of Aristotle's four causes (material, efficient, formal, and final), is helpful in this respect. You may recall from our earlier discussion that formal cause deals with the ideas of expectation and identity, and figures notably in McLuhan's approach to understanding media (C. Anton, 2012).

The question of recognition and identity is central to the question of online versus in-person worship services. In particular, how is it that people are able to make the determination that something is a worship service even when it occurs outside of its normal context or usual environment? It is not simply a question of context, as people are easily able to discriminate between, for example, a concert that takes place in a church sanctuary and a worship service,

even though the two may share similar features. Likewise, people are similarly able to determine that a service held outside around a campfire pit can be worship, even though it is in a vastly different environment than a church sanctuary. All of this begs the question – what allows people to identify a worship service both inside and outside of its usual context? Clues to that answer may be found in our upcoming discussion of figure and ground.

Hot and Cold Media

McLuhan sometimes classified media into hot and cool, depending on certain qualities of that media. As McLuhan notes in *Understanding Media*, "A hot medium is one that extends one single sense in "high definition." High definition is the state of being well filled with data"(2003, p. 39). By contrast, a cool medium is of low definition because so little is given, and so much has to be filled in by the listener.

When contrasting online and in-person church services with respect to hot and cool media, a case can be made that online church is cool media and in-person worship is hot. This assessment is not simply based on resolution, for it is technically possible to film and stream in high definition, even if that was not common practice. Instead, it is based on the reality that online church is missing much of the visual, acoustic and even olfactory elements of in-person worship. It takes more work on the user's part to recreate or reconstruct these elements of worship that are generally not part of online services.

On the other hand, context may reverse these indications of hot and cool. In making a case for online worship as hot, one could claim that in contexts where there were good cameras, sound, and skilled operators, the medium can perform as hot. With decent cameras and sufficient bandwidth, it is possible to display content in more detail than one could achieve in person.

Video closeups of speakers, well-balanced sound, timely presentation of words for songs and liturgy, and smooth transitions can produce a high definition or medium populated with a high rate of detail and data. If these are not present or poorly executed, the experience could quickly shift from high to low. In a similar manner, in-person worship can present a very rich environment filled with sights, sounds, and smells, providing an experience filled with a high rate of data. However, this environment could also fail to provide decent quality sound, present poor or obstructed visuals, and offer any number of distractions. In this case, the medium would cool off and require more input from the user.

Categorization of hot and cool, while providing a good basis for discussion, may not be overly helpful in our analysis. However, as Conway and Ouellette (2020) point out, in the case of video games, by controlling for various hot and cool elements in video games, the designers can shift the gameplay experience. In a similar manner, by attention to issues like sound quality and camera angles, it may be possible to shift the user experience and overall response to the medium. This may be an important consideration when congregations are trying to build or maintain an audience. The discussion may also be significant when discussing matters related to hybrid church, as attention to these details in both the online and in-person environments can have an impact or influence on the user experience.

Figure and Ground

An exploration of the factors of figure and ground form a principal part of our probe of online versus in-person church. Therefore, a primary consideration of this discussion needs to begin with exploring what constitutes the ground of in-person worship? One of the challenges for this question is the reality that the answer to this question may well vary with the denomination

or congregation being considered. Therefore, this paper will consider the more liturgically based protestant denominations that still offer worship based in the western rites, more specifically, like those found in the ELCIC or the Anglican Church of Canada.[5] For these churches, the ground can be considered to be the visual, acoustic, tactile, and olfactory aspects of the space in which worship is presented.

Each of these aspects of the ground contributes to what forms the archetype of what one might expect to find in a worship space. Visually there are recognizable features such as the presence of an altar, a cross, candles, art, liturgical vestments and paraments, all of which contribute to the visual identity.

The following three photographs show the chancel area of three different Lutheran churches. They represent three different architecture styles and contexts.

Figure 22: *Tradition style Lutheran Church with furnishings dating back to an earlier renovation*

This church represents a more traditional style with furnishings that were part of the older building before renovations. The altar is in the middle with a rood screen attached, the lectern is on the left, and the pulpit is on the right; also pictured are candles, altar book stand, paraments (white for the church season), and a baptismal font.

[5] There are many other churches that would fall within this definition, as would the Roman Catholic church. Within these traditions there can also considerable variance from congregation to congregation, however, there would be more similarity here than difference.

Figure 23: *Modern Lutheran Church*

This church is a newer style building with chairs and furnishings; everything, except for the organ, are moveable. The altar is on the platform in the middle (this one has six sides), the lectern/ambo is on the left, the paraments are green (seasonal colour), there are also candles, an altar book stand, banners and a baptismal font.

Figure 24: *Lutheran Church in Lima, Peru*

This church is in a poor neighbourhood on the edge of Lima, Peru. While it is a bit harder to see, the reading station is on the left, the altar is in the centre with candles, there are a couple of crosses, a stand for the altar book/bible, coloured paraments (green for the season), and banners.

Despite their apparent differences, they are all recognizable as the chancel area of a worship space/sanctuary. They all have an altar, paraments, a place for the altar book or bible, candles, a place (or two) for reading – lectern/ambo and/or pulpit, a cross, and often other visual arts like banners. While they are all different, they are instantly recognizable as worship spaces by anyone familiar with Lutheran Churches. Many of these elements would be familiar to many, but not necessarily all, Christian traditions.

There are also the tactile elements, that while they may vary from place to place, each forms part of the overall sense of place. For example, the presence of wood of the pews and altar furnishings, stone floors, water in the baptismal font, and even articles like the presence of hymnbooks all contribute to the tactile nature of the space. Worship spaces in these traditions also have a familiar smell to them, often the product of candles, flowers, old books and even, in some cases, incense.

When we start to consider how these spaces might be understood in relation to McLuhan's work, it is important to be reminded that according to McLuhan, "each of man's artifacts is, in fact, a kind of word, a metaphor that translates experiences from one form to another" (1988, p. 3). Related to this is McLuhan's insistence that regardless of what one considers an artifact or media, be they tangible or physical like forks, tools, vehicles or computers; or things of 'software' like theories, philosophical systems, music, and so forth. All are, according to McLuhan, "equally artifacts, all equally human, all equally susceptible to analysis, all equally verbal in structure" (p. 3). The *Laws of Media* provide a new way, hence the description "The New Science," to explore and exegete these "words." According to McLuhan, in the new paradigm, "the accustomed distinctions between arts and sciences and between things and idea, between physics and metaphysics, are dissolved" (p. 3). This context is important when

we start to ask how space is defined and, by extension, what might constitute figure and ground for in-person worship, online worship, and their relationship?

For McLuhan, the concepts of visual and acoustic space became very important, especially as he worked out his laws of media. One of the challenges presented is that he often uses these words conceptually or metaphorically in his later work, which can differ from how they might be traditionally understood, which can be confusing. Visual space, for McLuhan, is an artifact and a side effect of the phonetic alphabet. He argues in *Laws of Media* that a transformation from visual space to acoustic space began in ancient Greece, and although it took 2000 years to complete, it has been reversed in only a few decades. These two forms of space, visual and acoustic, are implicated in the categorization of figure and ground.

McLuhan, in the introduction to *Laws of Media*, speaks of the concepts of figure and ground having arisen out of Gestalt psychology, although they have been broadened to embrace the whole structure of perception and consciousness. All situations, according to McLuhan, "comprise an area of attention (figure) and a very much larger area of inattention (ground). The two continually coerce and play with each other across a common outline or boundary or interval that serves to define both simultaneously" (p. 5). The shape of one conforms to the other, and as McLuhan claims, "figures rise out of, and recede back into, ground" (p. 5).

The acoustic space is what McLuhan, in his tetrad on the same subject, refers to as the "resonant interval between figure and ground" (1988, p. 160). The acoustic space, in many ways, carries the figure, the spoken words, the spoken and sung liturgies, and even the sense of space that the resonance provides all contribute.

Much of what constitutes the ground of in-person worship recedes into the background and is not directly attended to by congregants. Nevertheless, these factors contribute to the

overall experience of worship and also directly affect their presentation. As any experienced worship planner will tell you, the space or ground in which worship happens greatly impacts the preparation, production, and presentation of worship. The acoustic environment, like the presence or absence of "ring time," will influence the style and tempo of music that will work well in a space. The physical space and placement of items and pews will dictate, at least to a certain extent, what shape and forms (where is preaching possible, is there space for a choir, etc.) of presentation are possible. The ground, while often assumed, is an active participant in the presentation of worship for an in-person event.

For online worship, most of what forms the ground of in-person worship is physically absent. The visual, acoustic, tactile and olfactory aspects of in-person worship are absent. As McLuhan notes,

> In the order of things, ground comes first and the figures emerge later… The ground of any technology or artifact is both the situation that gives rise to it and the whole environment (medium) of services and disservices that it brings into play… 'The medium is the message.' Once the old ground becomes the content of a new situation it appears to ordinary attention as aesthetic figure. (1988, p. 5)

In the case of live streaming, one can see how this might work itself out. The old ground of in-person worship becomes the new figure of online worship. At some point, this new figure will displace the others and become the new online ground. As McLuhan notes, "figures rise out of, and recede back into, ground" (1988, p.5). McLuhan gives the example of attending a lecture to demonstrate this, one's attention will "shift from the speaker's words to his gestures, to the hum of the lights or to the street sounds, to the feel of the chair or to a memory or association or smell. Each new figure in turn displaces the others into ground" (p. 5). With online worship, a ground is created, which may include the new physical space of home, or wherever one might regularly participate in the service. Some of the elements that formed the ground of in-person

worship are present in the video, but all are mediated by the production team. You only see or hear what is presented to you on screen. If the technology works, the medium can become transparent and resides as a subliminal, or inattentive, part of the experience. The medium or technology, in this case, can be understood as part of what McLuhan would call the acoustic environment, and thus operates as ground.

McLuhan gives an example which demonstrates the potential power of this idea. “On the telephone or on the air, it isn’t messages that travel at electric speed: the sender is sent, minus a body, as information and image, and all the old relationships of speaker and audience tend to be reversed” (1988, p. 109). If we apply this same thinking to online church, we find that it is the church that is sent, minus the physical attributes. The phone, as McLuhan suggests in the tetrad about it, allows someone to be in more than one place at a time, or as he puts it, “…the mythic world of the discarnate, disembodied intelligences: you *can* be in two places at once” (1988, p. 153). Given the possibilities of the internet, which allows multiple connections at the same time, it allows the church to be anywhere and everywhere at once. In a reversal of in-person worship, church comes to you – you don’t go to it. Physical location is no longer a defining or exclusionary factor.

All of this is great until the technology fails or in some way draws attention to itself, which then immediately flips the figure and ground. The technology is no longer transparent or subliminal. It can become the focus and overshadow the intended content. This can happen instantaneously, literally at electric speeds. Once the challenges have been resolved, the figure and ground can again reverse, and the technology can once again become environmental and acoustic.

The figure and ground characteristics of online worship help explain the finding that despite the absence of many of the factors that constitute the ground for in-person worship, the majority of our survey respondents indicated that online worship felt like, or very much like, worship. The possibility that the old ground of in-person worship is formative for the new figure of online worship, which then can become the new ground, is significant. The addition of technology that allows the church to be sent to users wherever and whenever they want is also significant. Online church then is sent church, and it is still recognizable as worship, despite these changes, because it retains much of the forms, music, liturgy, and order of in-person worship. The former figure has become the ground; it is the familiar form and shape that makes worship recognizable and valid. The old ground has become part of the figure as it is displayed as part of the content now delivered in a new medium. This reversal of figure and ground becomes a key aspect of the tetrads for online worship. While each has some distinct features, the reversal of figure and ground is common to them all.

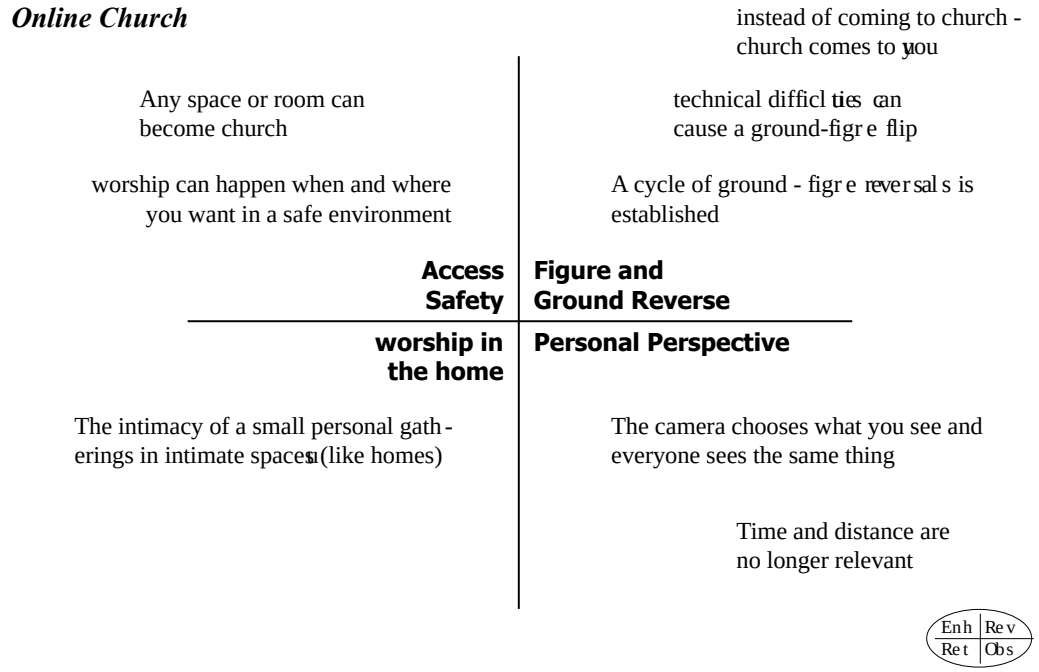
The Tetrads

The laws of media in tetrad form, McLuhan notes, "reveal some of the subliminal and previously inaccessible aspects of technology. To the extent that these observations reveal the hidden effects of artifacts on our lives, they are endeavours of art…" (1988, p. 109). Tetrads are explorations and all, according to McLuhan, are tentative. There is no right way to read a tetrad as the parts are simultaneous; however, "when 'read' either left-right or top-bottom (Enhance is to Retrieve as Reverse is to Obsolesce, etc.), or the reverse, the proportions and metaphor- or word-structure should appear (1988, pp. 129-130). Consider these tetrads as probes, ways of exploring that which might not otherwise present itself.

Online Church Tetrads

Here are three tetrad proposals for online worship, the first is a generic version, and the next two are specific versions for YouTube and Zoom church. They can be considered alternate forms of the same tetrad, simply reflecting the more specific details of the two alternate platforms.

Figure 25: *Online worship tetrad*



In this tetrad for online church, we see the reversal of figure and ground as discussed earlier. The old figure has become the new ground and contains within it portions of the old ground. A new ground has been fashioned from the forms and patterns of the previous figure. The content of the figure, the words preached, songs sung, and prayers spoken continue, but their shape, patterns, and liturgical form have now created a new ground. The old ground has now been incorporated into the new ground and displayed, as content, in the new figure. We also see that the medium can, when it fails to operate transparently, cause a reversal. Technical challenges

can become the new figure and centre of attention until resolved. Finally, as noted above, we see the reversal that in online worship, the church is being "sent out" rather than requiring people to "come in" to the building.

Below this reversal, we see the obsolescence of personal perspective as the camera now controls the point of view. One could frame this, as McLuhan might, in terms of the online church; everyone now sits in the same seat, and it is always available. In a related matter, online church obsolesces the need for multiple services to accommodate larger attendance numbers as there is always room for more in the online church. We also see the obsolescence of distance and time in this tetrad. Because the viewer is no longer physically present in the worship space, distance has become irrelevant. You can view the service from anywhere in the world, as long as you have the necessary equipment and internet access. Time is also potentially obsolesced, as the archival of these services allows viewers to pick the time when viewing is most convenient for them. Of course, time is still relevant if you want to watch the service live, but this is a viewer choice and no longer a requirement.

Some of the things enhanced by online worship are safety and access. There are few limits to accessing online worship, which allows for potentially far-reaching communication and mass outreach. Additional resources may be required for promotion and marketing, but many other constraints are removed by moving church online. Of course, not all churches desire this broad reach; however, it is theoretically possible if desired.

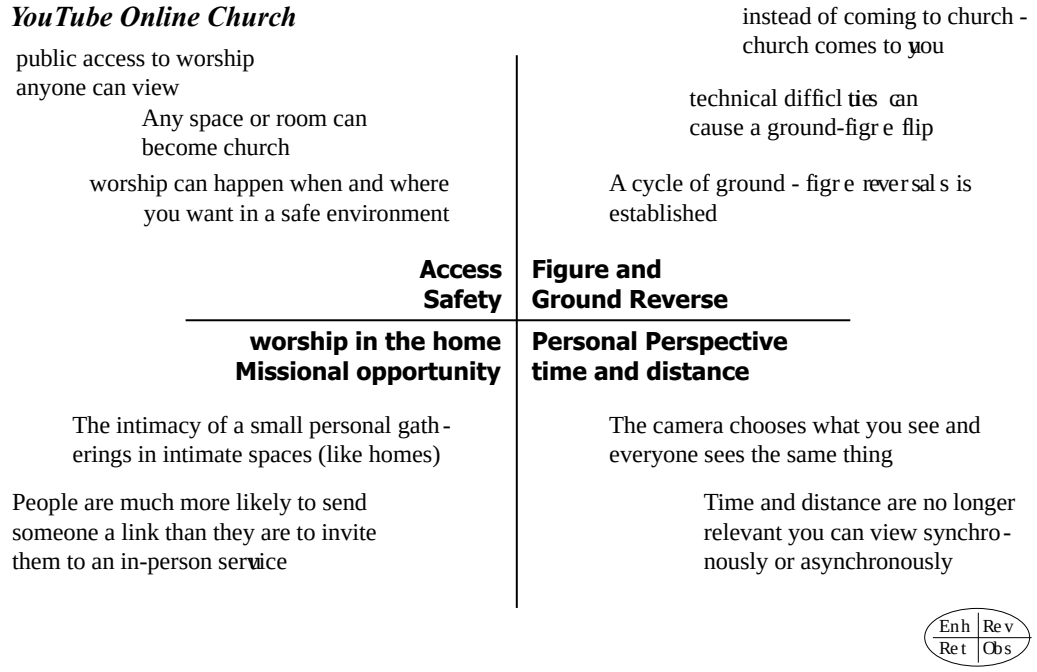
Safety, at least with respect to pandemic conditions, is also enhanced. For example, you cannot contract COVID while watching an online service by yourself at home. Also restricted are other forms of physical contact that some may find uncomfortable, like, for example, hugs at the time for sharing of the peace.

Some of the potential retrievals include the return of worship in the home. This was certainly a feature of certain Jewish religious celebrations, like Passover, which were intended to be observed in the home. The early Christian church also often met in people's homes. Home devotions and prayer was a regular part of many people's religious journey, although that tradition, along with general church attendance, has been on the decline. Another possible retrieval could be considered as the online church can promote a more single-sided communication pattern. The potential is there for the viewer to simply be a passive receptor of what is offered on screen and not an active participant. The survey data showed that this was not the dominant trend (at least not what was reported); however, viewers may have overrepresented their participation rates. This more one-sided approach could be seen to retrieve the days when church was not offered in the vernacular language of the people, and they were expected to simply attend without understanding what was being communicated.

Alternate Online Church Tetrads

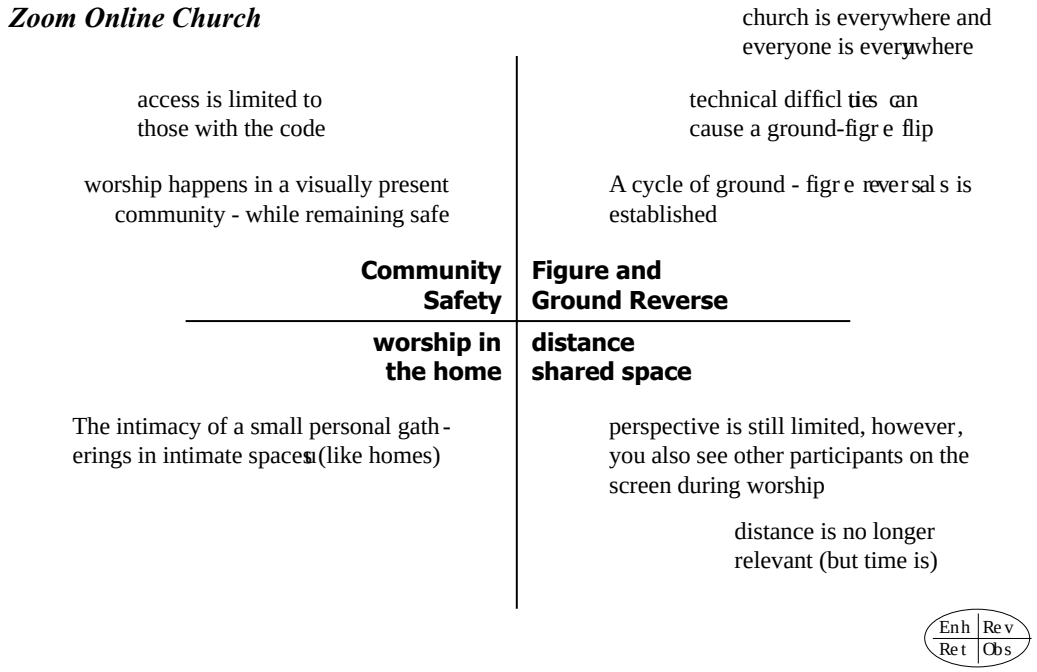
These two tetrads are alternatives to the original online church tetrad on which they are based. Therefore, the greater comparison will be with each other rather than with the original. In this manner, the differences are made more apparent. The first alternate tetrad is the YouTube online tetrad. It is this tetrad that represents the most significant number of viewers.

Figure 26: *YouTube online worship tetrad*



As previously noted, the reversal of figure and ground is repeated in all these tetrads. Time and distance are both included as most producers archived worship services on the site for at least a few weeks. Personal perspective remains the same as with online church, as does worship in the home. Added to the retrieval law of media is a missional component which retrieves earlier witness or evangelism programs. An interesting revelation found in the survey data is that members were much more likely to invite someone to view online worship than in-person worship. The enhance portion of the tetrad includes the most significant public access to these services as they are searchable and generally available to all viewers. While it is possible to restrict access or make these videos private, that was not the norm (but may have been done in certain circumstances).

Figure 27: *Zoom online worship tetrad*



The tetrad for Zoom online worship contains a few unique items. In general, access is limited on Zoom to those who have been provided with an access code. It is also possible to require viewers to be admitted to the services, reinforcing the possibilities of limited access. There is also a slight change to the reversal of the church being "sent out." The church is still being sent out, but so are the users. Instead, there is a meeting, albeit electronically, in which anyone who allows their camera and microphone to be accessed can attend with each other. No one physically leaves their space but instead are sent to a common place or meeting via the medium of Zoom. This feature also shows up in the enhancement portion in that worship happens within a visually present community. Even when the service may have been spotlighted and given visual dominance, it is possible to see at least a few other participants in the gallery. This ability to see each other while remaining physically distanced (safe) was described as an important feature of the platform for those churches that decided to use it.

Distance was included in the obsolesced category, but time was removed. Zoom is a synchronous platform and cannot be used asynchronously. It is possible to record Zoom meetings and make them available after the event; however, doing so removes most of the advantages of the Zoom platform and essentially flips it over into a YouTube-like online church.

There is undoubtedly more that could be added to these tetrads; such is their nature. However, they have proven helpful as a tool to explore this online worship question. As churches return to in-person worship, a new question is being asked – what about hybrid church, the dual presentation of worship in both in-person and online formats? This certainly adds another wrinkle to the question, however, one that is beyond the scope of this paper.

McLuhan Summary

In *The Gutenberg Galaxy*, McLuhan suggests, "When technology extends ONE of our senses, a new translation of culture occurs as swiftly as the new technology is interiorized" (M. McLuhan, 1962, p. 47). While not necessarily a direct correlation, this possibly describes much of the church's situation in light of the widespread introduction of online church. As the technology becomes interiorized or domesticated, a culture change is occurring. Already it is possible to say that online church has received widespread acceptance. While some are only tolerating it while awaiting the return of in-person worship, others have indicated this has become their method of choice for attending church. It is perhaps a bit early to predict the post-pandemic worship patterns, but undoubtedly some congregations will continue to provide online worship for the foreseeable future.

There is an appreciable difference between online and in-person worship; however, there is also a significant relationship, with a new figure growing out of the previous ground,

eventually becoming its own ground. While their contexts are different, they are bound by these shared aspects of figure and ground. The medium, when working well, allows the figure to move forward while the ground carries it. Technology problems, actually in either context, can reverse figure and ground and bring the distraction to the forefront until resolved when the medium can return to ground. This interaction of the two spaces, at least partly, allows online worship to be recognizable and still regarded as legitimate worship by the majority of respondents. This suggests that the forces of Formal Cause, as evidenced by the artifact being recognized for what it is, have been sufficient to maintain the recognition of these services as legitimate and valid.

While it is beyond the scope of this paper to apply this same question to additional queries like the validity of the digital celebration of Holy Communion during online worship, a similar approach might be employed. For example, what makes Holy Communion identifiable as Holy Communion? It might be interesting to construct a tetrad to probe this question further, even if McLuhan himself was hesitant to probe these deeply religious artifacts.

In a related question, it is interesting to note that McLuhan, in *Laws of Media,* only lightly touches on the tactile sense. For McLuhan, audile and tactile spaces are inseparable, with figure and ground being held in equilibrium. Tactility is the space of the bounding line and interval. As McLuhan notes, “when we touch something, we contact it and create an interaction with it: we don’t connect with it, else the hand and the object would become one” (1988, p. 6). McLuhan notes that, in *Laws of Media,* they can only offer a discussion of visual and acoustic space. While it is beyond the scope of this work, it is interesting to ponder the potential implications of tactile space with respect to online worship. For example, can accessing particular objects like candles or even the elements of Holy Communion in the home allow for a deeper interaction? Can touching and consuming these objects within the context of a service

further increase the contact between in-person and online worshippers? McLuhan does not answer this question, save to recall that this is also part of the artist's role as the ‘antennae of the race’ (p. 6).

Perhaps the most significant revelation of our probe is the reversal of figure and ground between in-person and online church. This reframing of ground has implications for how future online worship might be presented and received. It also has implications for the expected implementation of so-called hybrid church services offered simultaneously to in-person and online participants. There is a potential conflict of figure and grounds here that may require some effort to resolve; however, these will need to be evaluated to see their full effects post-implementation.

The construction of tetrads also supplied some other important information with respect to what might be enhanced, retrieved and obsolesced. Also important to note is that the different platforms offer a somewhat different experience for the user; matching the best platform for the context will be an important aspect of their success.

Perhaps the best way to summarize our work with McLuhan’s ideas is to let his own words speak for themselves.

> So in that sense nothing is ever going to prevent the Christians from congregating. But the forms in which they congregate and organize their activities and help one another – those are capable of indefinite transformation. (M. McLuhan, McLuhan, & Szlarek, 1999, p. 86)

Technology, spurred on by the pandemic, has undoubtedly redefined what it means for Christians to gather for worship and the work of the church; regardless, they are gathering even if in new and different ways. The eventual lifting of restrictions and a return of at least some, but not all, people to in-person worship will create a need for a new, possibly hybrid, form of worship. This is the subject of our next section.

Hybrid Church Considerations

The third part of our research question inquired, "What are the implications for the future of online services and participation in both online and in-person services?" This is the subject to which we now turn our attention with a discussion of *hybrid church*.

McLuhan, in *Understanding Media,* provides some helpful insight as we begin this exploration. He suggests that,

> "These media, being extensions of ourselves, also depend upon us for their primary interplay and their evolution. The fact that they do interact and spawn new progeny has been a source of wonder over the ages. It need baffle us no longer if we trouble to scrutinize their action. We can, if we choose, think things out before we put them out." (1964c, p. 73)

The sudden onset of the pandemic allowed little time for most congregations to figure out how they might best accomplish the task of providing online services. The lifting of restrictions, not necessarily a speedy process, allows for some study and contemplation before proceeding; we can think things out before we put them out, as McLuhan suggests. This section offers some advice gleaned from the research and my own experience producing this content and consulting with other congregations as they engage in this process.

As lockdowns are being lifted, the experience of many congregations who have offered some form of in-person worship is that of still having many members uncomfortable or unable to return to in-person worship. This, along with the relative popularity of online services, has given rise to discussions about the possibility of dual presentation or hybrid worship. Generally, hybrid worship refers to the simultaneous or synchronous presentation of a worship service in both in-person and online formats. There are options to asynchronously present these services as well; however, if they are recorded live at the in-person service, they experience many of the same challenges.

Context Still Matters

There is no one-size-fits-all strategy that will work for every context. However, when it comes to hybrid worship, context matters; while some general principles and observations have fairly broad relevance, the specifics will still vary from place to place. Given this disclaimer, we will proceed with our discussion.

Balance

While seemingly obvious, it should nevertheless be noted that in-person and online worship services, while similar, are not the same. Each has specific requirements, some of which may be in direct conflict with one another. Successful presentation of a hybrid service will require both cooperation and accommodation of both those in attendance and at home. Finding an acceptable balance between both in-person and online needs will also be necessary.

An example of this balance can be found with respect to where the presenter focuses their attention. In an online-only presentation, the presenter can look more or less directly at the camera with the effect of seeming to address the home audience directly. In in-person services, the tendency is to scan the congregation while occasionally making eye contact with those present. Depending on the camera angles used, this can leave the home viewer feeling excluded and more of an observer than a participant. The reverse is also possible with the speaker presenting to the camera and ignoring the assembled congregation. While it can present a challenge, this problem can be somewhat mitigated by careful attention to camera placement, viewing angles, and the presenter's intentionality to include both audiences.

Platforms

Each of the three platforms primarily employed by congregations during the pandemic are still viable options for hybrid services. However, moving to a hybrid model may shift the relative value each platform presents. For example, Zoom was favoured by many small congregations because they could see each other on-screen and converse before and after the service. While this is still possible in a hybrid service, it is perhaps less effective as this feature is not available to those attending in person. Thus, those connecting on Zoom will only have the ability to connect with each other and not necessarily with those attending in person.

Similarly, Facebook may lose some of its interactivity as those attending (or presenting) in person will have limited access to view the comments and emojis sent during the service.

YouTube is perhaps affected the least by the switch to hybrid services. While it was possible to comment on YouTube during the services, this was not generally a widely used feature. This may partly be due to its availability in a broader range of devices, not all of which support this feature.

Local context will determine the platform that is best suited to a congregation's needs. History may also play a role here, with congregations opting to continue using what they already know, even if it may no longer be the best match for hybrid services.

Cameras

Cameras can present some potential challenges to hybrid services, depending largely on the type of cameras used and their placement. Mobile cameras work well for online services but can be distracting or can potentially cause sightline issues when used during in-person services.

PTZ (point, tilt, zoom) cameras permanently fixed above the congregation and remotely operated can alleviate many of these concerns if acceptable locations can be found.

When looking for good mounting locations, it is important to consider sightlines, potential visual displays that may interfere with these locations and overall height. Enough height must be given to avoid being blocked by members, but not too much so as to avoid looking down too much on presenters. My congregation uses PTZ cameras mounted above the congregation on an existing ledge over the glass doors. While this generally is a good location, we also discovered that when readers, particularly those of limited stature, looked down to read off the lectern, the on-camera view primarily showed the top of their heads and not their faces. This was not a significant problem in in-person worship as the people are seated lower and are generally still able to see their faces; however, the camera presents the user at home with a different perspective.

One of the solutions we tried was a teleprompter made out of a spare video projector, which allowed us to read the text while looking up. The teleprompter screen was placed near the camera during online services, which easily allowed the presenter to speak to the camera. This has become a permanent part of our toolbox and has proved effective in both in-person and online contexts. It is not without its challenges, especially with new users, but it has proven to be relatively effective.

Traditionally teleprompters are mounted on the front of cameras or on reflective screens near the presenters. This is probably not an option for most congregations, but innovative solutions, like a projector mounted at the back, can provide effective solutions.

Sound

This research suggests that sound can be one of the most challenging aspects of both online and hybrid services. In no particular order, the significant challenges are syncing audio and video so that sound matches the movement, providing appropriate mixes for both in-person and online audiences, and providing the online viewers with consistent and high-quality sound.

In a somewhat counterintuitive way, the simpler systems may have fewer problems syncing audio and video than a more complex system. A simple iPad using a built-in microphone will have few if any, problems in this regard. A system with multiple cameras and video sources may present the most significant challenges but also provides the most flexibility. A problem can arise when the audio arrives at the host computer before the video. Our system uses Ethernet-based (NDI) cameras. This system generates a delay of about 200 milliseconds or 1/5 of a second. This may not sound like a significant amount, but it certainly presents a noticeable and often annoying delay. This can be corrected using software like Vmix or OBS, but it does need attention. This also means that using these cameras to present live video within the church comes with a delay making it generally unsuitable for any closeup shots. Other challenges can be presented when using prerecorded video. In this case, the audio and video will arrive together, and no delay is needed, which means it needs to take a different path than live audio. Again, this can be accommodated, but it does require attention.

The second challenge arises from the reality that a different audio mix is often required for in-person and online participants. For those within the building, some things, like an organ (if the church is equipped with one), do not require any amplification through the church's sound system. It will need to be miked so it can be heard online; however, it should not be included in the live mix, which can present a challenge for some sound systems. There are many technical

solutions to this problem, depending on existing equipment and budget; however, many will add a layer of complexity to the overall system. As well, it may require the purchase and employment of additional microphones. This can present a challenge for volunteers who previously may only have been required to turn mics on or off. Again, a solvable situation, but one that will require effort and attention.

The issue is potentially further complicated by issues of sound quality. Using the aforementioned organ or pipe organ example, it is hard to approximate the live sound of this instrument with a microphone. Given adequate and appropriate digital processing, an entirely acceptable version can be produced, but this may require additional equipment and audio skills. Like the other issues, there are many possible solutions to these problems, given sufficient resources. Unfortunately, these resources may not be readily available in all circumstances.

Sound and audio certainly are essential aspects of both the in-person and online worship experience.

Staging and Blocking

Typically one refers to staging and blocking more in the production of a play than a service of worship; however, in hybrid worship, these can also be important considerations. While there have always been specific locations within the church associated with various parts of the service, for example, reading by the lectern or presiding over communion from behind the altar, with hybrid services comes the additional consideration of sightlines and camera angles. What might work fine for in-person services may not work well on camera, and vice versa. Care and attention must also be given to how one moves from one place to another so as not to cross

in front of an active camera and still be ready in time. COVID has added an additional layer when constraints of physical distancing also have to be factored in.

As with the other considerations, there will always be contextual concerns unique to a specific location or service. However, the most significant learning here is that it is easy to overlook the importance of figuring out what spaces work well for both in-person and online services and optimizing their use.

Pacing and Dead Air

One of the significant differences between online and in-person worship is the overall pace of the service. In general, things need to move faster online with fewer pauses and breaks for transitions to occur. This does not mean that people need to speak or sing faster, but rather that the service needs to move along without interruption. This has many implications for things like receiving the offering or the distribution of communion. Both of these can take a significant amount of time, and if there is nothing else happening at the same time, like music or some other presentation, it can become incredibly boring for those at home and may result in the loss of viewers. This is not to say that these things cannot happen, but there must be an adequate plan to fill the time for online viewers.

Similarly, it can be quite acceptable to permit periods of sustained silence in person; when presented online, however, these can become “dead air” events and create an uncomfortable situation for those watching the service. These events can happen quite unintentionally; for example, the time it takes for a person to get up out of their seat, move to the front, find their page and begin reading the text. This is not usually a big problem for in-person worship but can seem like it takes forever when watching online, especially if part of this action

takes place off-camera. While it is not hard to rectify this situation, it takes planning and attention to detail to accomplish. It is also possible to have periods of silence, for example, when a minute of silence is observed for Remembrance Day or to honour someone who has died; however, these need to be planned and announced as such. Again, these periods of silence can be helpful and effective if planned and handled appropriately.

Inclusion of Onscreen Text

Survey respondents have indicated the inclusion of onscreen text as a valuable part of online worship. These words are usually available in print form during in-person services, either in a bulletin or hymnbook. While many congregations provided bulletins or other related materials that could be downloaded, many people could not or did not regularly access or print these services. This meant that if responses or music were included as part of the service, their ability to participate was reduced or eliminated. This was also true for those who might be guests who were not regularly a part of these services and may not have known how to access these materials. Many respondents remarked that they greatly appreciated the inclusion of onscreen text.

There are many ways to accomplish the inclusion of these printed materials depending on the equipment available. They can, for example, be provided on PowerPoint slides and included in the stream or provided as overlays in programs like vMix or OBS. If these materials are included in printed form, care must be taken to ensure the proper copyright licensing is obtained.

Holy Communion

As mentioned above, the issue of Holy Communion in a digital context has been a contentious one. While it may disappear for those congregations who will not continue online services after the pandemic, it will remain for any congregations who wish to offer hybrid services. It will be hard for any congregation practicing some form of digital communion to withdraw that provision when in-person services resume. As more than one person noted, it becomes a justice issue when some are offered the elements while others are denied.

Assuming that Holy Communion will be a part of hybrid services, some practicalities are to be considered. One of these concerns how the elements, bread and wine or their equivalents, will be distributed and consumed. In a traditional setting, depending on the context, members of the congregation will be invited forward to receive the sacrament after the consecration of the elements. In typical Lutheran churches, this usually happens in one of three ways. One is that the communicants come to the altar and receive the elements by table (the people gathered around the altar at one time), and once everyone gathered around the table has received the sacrament; they are dismissed with a blessing. The second often referred to as semi-continuous, is when people come to the altar to receive the sacraments and return to their seats once they have received the elements, then when all have communed, the whole congregation is blessed together. The third option is continuous when members line up at a station to receive the elements in a continuous fashion, again followed by a singular blessing for the entire congregation at the end.

During COVID, many congregations who offered digital communion asked members to prepare their elements at home, and then everyone would then commune at the same time. Those

in attendance would receive the elements in their seats, and all would commune, more or less synchronously.

While any of these particular forms of distribution are possible, the consideration becomes one of time and attention. In particular, the issue is what happens during the distribution. Watching rows of people moving to the front to receive communion does not necessarily work well for those watching online. Generally, something somewhat more engaging needs to be included during this time. On the other hand, one advantage of having everyone commune together is that everyone is more or less on the same schedule, and it does not leave much time to fill.

Including those who choose to stay online

There are many reasons why someone may wish or be required to remain home when in-person services are once again available. Some of these may vary, like work or travel schedules. Others may be longer-term, like health or mobility concerns. Regardless of the reasons, consideration should be given to including these people as volunteers in hybrid services. For example, during the pandemic, some congregations arranged for members to prerecord parts of the service like readings and prayers, which were then included in the services. This had multiple benefits, including allowing people to continue to be active participants in the services and see other congregation members. Practices like this could continue in hybrid services where the context allows for this or other options.

Along these lines, many congregations also encouraged members to record musical selections for use during the online services. This could also be continued, particularly as there

may be concerns with singing in larger groups in indoor environments. Other creative uses of video may also be employed to maintain visible contact with congregational members.

The pandemic, while devastating in so many ways, has also birthed many creative endeavours. Hybrid services present an opportunity for more creative thinking and engagement that might not otherwise be considered. Communications technology can become another tool in the congregation's toolbox. As mentioned before, striking the proper balance may hold the key to the successful implementation of hybrid services, which could quite conceivably become a regular part of many congregations' service offerings.

Summary

In *The Medium is the Massage,* McLuhan suggests, "Our official culture is striving to force the new media to do the work of the old" (M. McLuhan & Fiore, 1967, p. 94). There is some wisdom in this thought. It is not advisable or desirable to simply present in-person worship online without attention to each as related artifacts or mediums. Instead of assuming they are the same, it is vital to consider the needs of each and forge something new that works in both environments.

This last section has considered some, but not all, of the implications of moving to some form of hybrid worship. There are many factors to attend to, and undoubtedly some compromises will need to be made. However, attention to technical considerations like camera use and placement, sound management and control, pacing and staging of services, and conveniences like onscreen words will go a long way to creating a successful endeavour.

The pandemic has changed many things, some temporarily and others more permanently; the church is no exception. While no one knows what will happen tomorrow, it is not

unreasonable to expect that hybrid services will, at least for some congregations, become the norm. While there are always challenges with change, there are also opportunities; while also potentially challenging, hybrid services present some significant opportunities. The idea that the church can come to you, wherever and whenever you are available, is significant. It potentially messes with the structures of power and authority, but that is not always bad.

This chapter has presented the findings of this research and, in doing so, has revealed, at least for our respondents, what happened as congregations moved to online worship, how it was received, what was learned, how might we think about this in terms of McLuhan's work. Finally, it suggested ways to improve existing services and how we might move forward with the possibility of hybrid services. Our next chapter will wrap things up with a conclusion, suggestions for further research and some concluding remarks.

Chapter 5: Conclusion

At least one person commented on the title of my research surveys concerning the line "Preaching and a Pandemic" The person commented that there were very few questions about what they determined to be preaching, which they understood to be primarily about sermons or homilies. For me, as an ordained minister of twenty-six years, preaching is about the proclamation of the Word in all its forms, not simply the presentation of a sermon. It is in this light that the research was conducted and analyzed. If one understands preaching to be about proclamation in all its forms, then the presentation of worship and, in this case, the medium used to do that, matters.

It is, at least in part, my way of acknowledging that I believe McLuhan was right in his understanding of "the medium is the message." This is true in multiple ways, not the least of which is the realization that one can preach the world's best sermon, but if no one hears it, then what does it matter? The differences between the various platforms also suggest that these are not neutral or transparent technologies. They each offer somewhat unique qualities that can enhance or degrade communication. McLuhan's understanding of media ecology, including hot and cool, figure and ground, laws of media and tetrads have proved to be faithful allies as we probed some of these questions. Moving forward, there are many possibilities for digital media to become a vital part of hybrid worship. There will undoubtedly be challenges, but there are also possibilities, many of which we are only beginning to discover.

This research set out to explore what happened when many churches moved to online worship due to the closure of worship spaces to in-person worship. This chapter will provide a summary of these findings, comment on possible future directions for research, and then offer some concluding remarks.

Summary of Findings

Four basic research questions guided this research. At its most basic level, the first asked what happened when the pandemic forced many congregations to start providing online worship. The data gathered showed that congregations jumped into the digital world with very little preparation and used what was readily available to provide some form of online service. The three primary platforms used were YouTube, Facebook Live, and Zoom. Each offered a somewhat different experience. Zoom was best suited to smaller churches and was the most interactive. Facebook Live provided some interactivity and a wider potential audience. YouTube was the most commonly used platform for either live services or uploads of prerecorded and edited services. A wide variety of technology was used, from a single phone or tablet set on a music stand to a multi-camera setup and digital production capability. These services were primarily produced by staff, with varying levels of volunteer input, although there were also instances where volunteers performed the majority of the work. Very few people were prepared initially; however, after an often steep learning curve, they were able to produce a reasonable online service.

The second question asked about the experience of both users and producers and what was learned. Overall, the users reported a positive experience and that online worship felt like worship for them. They generally felt the overall quality was good, with video quality rated highest and sound quality rated lowest. The most common time users engaged with the service was on Sunday morning, but they also accessed services throughout the week when they were available. Most reported a high level of participation in the services, reporting that singing and praying were at the top of that list, and pre/postlude was at the bottom. Holy Communion was a

controversial topic and offered a variety of responses and participation levels. Both users and producers indicated a high level of support for the continuation of online services post-pandemic.

The third research question wondered about what might happen moving forward and how this research's learnings might be applied to future services. This question was mostly answered with respect to the possibility of hybrid worship services, an amalgamation of both online and in-person services. Using both the data gathered from the surveys, the focus groups and my experience producing these services and consulting with other congregations, we provided suggestions and things to think about when considering hybrid worship. The thoughts included questions of balance, context, cameras, sound, onscreen text, staging, blocking, Holy Communion, and some thoughts about including those who choose to remain online.

The last question asked about the possibility of employing the work of Marshall McLuhan to probe our data and construct some tetrads. This section used a number of McLuhan's ideas and concepts, including hot and cool media, in which we presented a couple of options and discussed how these concepts could be potentially used to vary the user experience. The study also provided a fairly extensive discussion of figure and ground. It considered was what might constitute the ground of both online and in-person worship, how they may be related, and how they may reverse. Also considered was McLuhan's idea of visual and acoustic space and how they might play a role in these discussions. Three probes were constructed, a general one for online worship and one each for YouTube and Zoom. These tentative probes each explored instances of the four laws of media by suggesting what might have been enhanced, retrieved, reversed, and obsolesced in each of these examples. Again, McLuhan proved to be very helpful as we sought to uncover something of what might be hidden in the ground of each of these media platforms.

Very little existing research looks at the phenomena of widespread employment of online worship services by congregations. There is some research on how some larger religious groups were engaged in online worship, but before the pandemic, there were very few congregations involved in this work. This research begins to fill that gap, at least with respect to the survey respondents. Other research is underway, but very little has been completed or published as of the time of writing. Nevertheless, the exploratory nature of this work provides a reasonable basis for further study. As a result of this study, several questions were raised that would benefit from further study; a few suggestions follow in the next section.

Limitations and Suggestions for Future Study

There are several limitations to this research, beginning with the sampling methodology employed. A convenience sample was the only economically feasible methodology for this particular research as it was self-funded. If resources were available, a direct survey of a broader sample of churches and viewers could potentially present a more representative sample of what occurred. This could correct any sampling bias that might have occurred when, for example, people who are overly optimistic or pessimistic about using this technology are overrepresented in the data.

These surveys did not ask any questions about the religious denomination of the user or producer. This made it impossible to sort out responses for some of the questions that had a denominational component that was potentially significant. Respondents occasionally self-reported this information, but future surveys might offer better controls for this information.

This research was conducted while the pandemic was still in effect; a future post-pandemic survey could offer insight into the situation that this survey cannot provide. One such

area of interest is the possibilities and challenges provided by the possibility of hybrid church. In addition, a post-pandemic survey could provide better insight into shifts in in-person worship preferences and attitudes toward online church when it is no longer strictly needed.

Initially, this research was designed to include a focus group of users; however, time and resource constraints did not allow for that to be completed in time for this paper. So instead, I would like to gather that group and more fully explore the question of what made online worship feel like worship and what might be done to make it feel more, or even less, like worship. This will be an important question as congregations move forward with online, and possibly hybrid, worship services.

Concluding Thoughts

This research has provided information regarding what happened when churches rapidly moved to online worship due to pandemic restrictions. Unfortunately, there has been very little research to date in this regard, and this paper begins to fill that gap. It is an exploratory study and, as such, answers more of the “how” and “what” questions than the “why” questions, which will require further research.

Marshall McLuhan provided a number of the ideas and probes with which some of these mediums and artifacts were explored. In keeping with McLuhan’s philosophy, the exploration was more the point than producing definitive answers. As is often the case with McLuhan, one discovery or insight leads to more questions. Thus, there is more exploring to be done, but the journey thus far has been fruitful.

In 1968 McLuhan was reported to have said, "Come into my parlor," said the computer to the specialist” (M. McLuhan et al., 1997, p. 296). The statement is a play on words of the

opening lines of Mary Howitt's poem, "Come into my parlour' said the spider to the fly." While the original intent was perhaps to suggest some nefarious business, we can shift it again into something a little more optimistic. Perhaps, Come into my parlor, said the computer to the church, is a better rendering. Indeed, the medium of online worship has allowed this to happen. The church has come, without physical attributes, to the living room (or whatever room) of the congregation. McLuhan framed it this way, "The hybrid or meeting of two media is a moment of truth and revelation from which new form is born" (M. McLuhan et al., 1997, p. 278). Hopefully, this paper has shed a little light on this newly emerging form.

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Appendix A: Tetrad Examples

Logan (2020) extends and reverses some of McLuhan's work into the digital age. McLuhan was well known for his ideas about the extensions of man, most notably that all media are extensions of some human faculty – psychic or physical. Logan then applies this logic (or perhaps more correctly analogic) to *digital media* producing a new tetrad:

> • **enhance** interactivity, access to information, and two-way communication;
> • **obsolesce** mass media, such as television and newspapers;
> • **retrieve** community; and
> • when pushed far enough, they flip or **reverse** into hyperreality or the loss of contact with nature and our bodies. (p. 4)

Schaefer and Steinmetz (2014) report on the phenomena of citizens recording police activities, ranging from the mundane to more intense and violent interactions. It is understood to be a form of counter-surveillance and is viewed as democratic action capable of raising awareness and creating change. The method of delivery is the internet using various platforms.

- **enhances** or intensifies how the viewer experiences political messages through speed of delivery and exposure,
- **retrieves** the importance of the storyteller or narrator,
- renders previous media increasingly **obsolete**, yet opens up new avenues for commercial dominance, and also Indymedia
- creates additional **reversals** or other problems for video activism, such as the mass proliferation of surveillance and formatting discussion in counter-productive ways.

Buterman (2017) uses McLuhan's media effects and tetrad for an analysis of the new Alberta Birth Certificates. The tetrad Butterman produces can be summarised as follows (Format: law: gloss - aspect):

- **Enhance**: Recognition of individual contingent upon collection of arbitrary data by the state – rationalisation.
- **Reverse**: Identification document(s) treated as sacrosanct You are whom the state says you are – fetish

- **Retrieve**: Individual tied to land; place of birth exerts substantial control over opportunities – serfdom
- **Obsolesce**: Personal attestation of identity no longer relevant - narrative

Memarovic (2016) uses several of McLuhan's techniques or probes to explore and analyze the effects of networked public media displays. The author employs the metaphors of figure and ground, the rear-view mirror, and constructs a tetrad. The author determines that with respect to figure and ground, the ground or context were the public spaces that housed the displays, and the figure or effect was the interactions (people accessing the displays), secondary interactions (people watching others using the displays) and exchanges between people as a result of interacting with the screens. The rear-view mirror idea was used to explain some of these interactions and introduced the possibility of people leaving their mark on the spaces in various ways. The simplified version of the tetrad they constructed could be shown as:

- What Processes Does a Media **Amplify**? - casual/chance encounters and social interaction between passers-by and local community members.
- What Does the Media **Make Obsolete**? Static "special features" of public spaces such as fountains and sculptures that served to trigger social interaction.
- What Does It **Retrieve** From the Past, Something That Was Obsolesced**?** Local community interaction and exchange within community members.
- What Does the Media **Reverse** Into When Pushed to the Extreme? TV/real-time audio-visual, a platform used for self-promotion (similar to Facebook) in public spaces, or even something similar to social networking service that creates place profiles and connects places.

Appendix B: User Survey

From this research, we wish to learn something about your experiences participating in online worship. We would like to know what your congregation attempted to provide, how you felt aboutit and how well it met your needs. We would also like to know some of what you appreciated about these services and what changes, if any, you would like to see in future presentations. Finally, we would like to know what effect these services have had on your attitudes toward online and in-person worship and how this experience might shape your plans concerning online or in-person worship.

Principal Investigator: Rev. Dr. James Hendricksen

Supervisor: Dr. Gordon Gow

Invitation to Participate: You are invited to participate in this research study about the impacts of congregationsmoving to online services during the COVID-19 pandemic. You are being asked to complete this survey designedfor people who regularly watched or participated in online services. The survey will take approximately 15-20 minutes to complete.

Purpose of the Study: From this research we wish to learn something about your experiences participating in online worship. We would like to know what your congregation attempted to provide, how you felt about it and how well it met your needs. We would like to know some of what you appreciated about these services and what changes, if any, you would like to see in future presentations. Finally we would like to know what effect these services have had on your attitudes toward online and in-person worship and how this experience might shape yourfuture plans with respect to online or in-person worship.

Benefits: There are no direct benefits or compensation available to you for participating in this study.

Risks: There are no risks to you associated with participating in this study.

Confidentiality and Anonymity: The information that you will share will remain strictly confidential and will be usedsolely for the purposes of this research. The only people who will have access to the research data are myself and my supervisor. Your written answers

may be used verbatim in presentations and publications but neither you (nor your organization) will be identified.

Results of the survey will be published in pooled (aggregate) format. Anonymity is guaranteed since you are notbeing asked to provide your name or any personal information.

Data Storage: Electronic copies of the survey will be encrypted and stored on a password protected computer inthe researchers home office.

Voluntary Participation: You are under no obligation to participate and if you choose to participate, you may refuseto answer questions that you do not want to answer. Should you choose to withdraw midway through the electronic survey simply close the link and no responses will be included. Given the anonymous nature of the survey, once you have submitted your responses it will no longer be possible to withdraw them from the study.

Information about the Study Results: Results of the study, when available, may be obtained by contacting theresearcher at the contact information mentioned herein.

Contact Information: If you have any questions or require more information about the study itself, you maycontact the researcher at the numbers mentioned herein.

Ethics Review: The plan for this study has been reviewed by a Research Ethics Board at the University of Alberta.If you have any questions regarding your rights as a research participant or how the research is being conducted you may contact the Research Ethics Office at 780-492-2615.

Consent: Completion and submission of the survey means your consent to participate.

Participation: If you wish to participate in this study, please complete the online survey by clicking the **next** buttonbelow.

University of Alberta Ethics ID: Pro00107874

There are 45 questions in this survey.

1. How often did you watch/participate with an online service?

❗ Check all that apply
Please choose **all** that apply:

- ☐ More than once a week.
- ☐ Weekly
- ☐ A few times a month
- ☐ About once a month
- ☐ Very occasionally

2. How does this compare to your regular worship attendance pattern.

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ Much Less
- ◯ A little less
- ◯ About the same
- ◯ A little more
- ◯ A lot more

3. Did you watch services from other congregations as well?

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ More than once a week.
- ◯ Weekly
- ◯ A few times a month
- ◯ About once a month
- ◯ Very occasionally
- ◯ Other

4. What Platform did your home congregation use for on-line services? (select best answer)

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ YouTube
- ◯ Facebook
- ◯ Zoom
- ◯ Google Meets
- ◯ Other

5. What platform(s) did you watch services on? (select all)

Check all that apply
Please choose **all** that apply:

- ☐ YouTube
- ☐ Facebook
- ☐ Zoom
- ☐ Google Meets
- ☐ Other:

6. Please rate on a scale of 1 - 5, how suitable the platforms you used were for online worship. (1 very suitable - 5 very unsuitable)

Please choose the appropriate response for each item:

	1	2	3	4	5
YouTube	○	○	○	○	○
Facebook	○	○	○	○	○
Zoom	○	○	○	○	○
Google Meets	○	○	○	○	○

7. On what kind of device did you access the online services (check all that apply)?

Check all that apply
Please choose **all** that apply:

- [ ] Laptop computer
- [ ] Desktop computer
- [ ] Tablet (iPad etc.)
- [ ] Smart Phone
- [ ] TV (smart TV or attached streaming device)
- [ ] Audio only via telephone
- [ ] Other:

8. What did you like most about the platform your congregation used?

Please write your answer here:

9. What did you like least about the platform your congregation used and what problems, if any, did you encounter trying to use it?

Please write your answer here:

10. Please rate the quality of the following aspects of your congregation's online services. (1 very good - 5 very poor)

Please choose the appropriate response for each item:

	1	2	3	4	5
Picture Quality	○	○	○	○	○
Sound Quality	○	○	○	○	○
Use of on-screen graphics or words	○	○	○	○	○
Overall quality of the online services	○	○	○	○	○

11. When did you most commonly watch the services?

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Live (if available)
- ◯ Later the same day
- ◯ The next day
- ◯ Later in the week
- ◯ A week or more later
- ◯ Other

12. What factors played a role in determining what time you watched the service?

Please write your answer here:

13. What were some of the things you liked best about online worship services?

Please write your answer here:

14. What things would you like to see changed or improved about the online worship services?

Please write your answer here:

15. What did you miss the ***most*** about not being able to attend in person?

Please write your answer here:

16. What did you miss the ***least*** about not being able to attend in person?

Please write your answer here:

17. On a scale of 1 - 5, how much did the online services feel like worship to you? (1 very much like worship - 5 not at all like worship)

Please choose **only one** of the following:

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5

Holy Communion and Other Religious Services

This section asks some questions about online Holy Communion and other Religious services (eg. funerals).

18. Some congregations provided Holy Communion as part of their online services, please indicate your experience with these services.

Please choose the appropriate response for each item:

	Yes	Uncertain	No
Did your congregation offer Holy Communion as part of their online services?	◯	◯	◯
Did you participate in online Holy Communion (with your congregation or another)?	◯	◯	◯
Do you think online Holy Communion should be offered as a possibility post-Covid?	◯	◯	◯

19. Do you have any comments you would like to share about online Holy Communion?

Please write your answer here:

20. These questions relate to online funeral services.

Please choose the appropriate response for each item:

	Yes	Uncertain	No
Did your congregation offer access to online funeral services?	○	○	○
Did you watch/participate an online funeral service?	○	○	○
Were you part of a group (eg. family) needing to plan an online funeral?	○	○	○
Were you part of group (eg. family) that decided to delay funeral/memorial service until post COVID restrictions?	○	○	○
If the need to make arrangements for a funeral during COVID restrictions arose for you – would you consider having a live-streamed funeral?	○	○	○
Do you think livestreaming funeral services should be offered post COVID?	○	○	○

21. Do you have any comments you would like to share about online funeral services?

Please write your answer here:

Service Dynamics

These questions relate to content and how it was presented during online worship services.

22. Who were regular presenters in your congregation's online services? (select all that apply)

Check all that apply

Please choose **all** that apply:

- [ ] Pastor(s)
- [ ] Regular Musician(s) (organist, pianist, etc.)
- [ ] Special music presentations by members
- [ ] Special music presentations by others
- [ ] Other Staff
- [ ] Lay Scripture readers
- [ ] Lay Worship Assistants (prayers etc.)
- [ ] Sunday School Children
- [ ] Youth
- [ ] Other:

23. Was there an opportunity for members to submit audio/video content for these services (readings from home, special music, prayers, announcements, etc.)?

Please choose **only one** of the following:

◯ Yes
◯ No

If yes, please give some examples.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '23 [c2]' (23. Was there an opportunity for members to submit audio/video content for these services (readings from home, special music, prayers, announcements, etc.)?)

Please write your answer here:

24. Did you provide any of this content?

Please choose **only one** of the following:

◯ Yes
◯ No

If yes, please give some examples.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '25 [c3]' (24. Did you provide any of this content?)

Please write your answer here:

25. Please answer these questions about the creativity expressed in the online services you observed.

Please choose the appropriate response for each item:

	Very creative	Somewhat creative	average	not very creative	not creative at all
Overall, how creative were the online worship services?	○	○	○	○	○
How creative was the liturgy?	○	○	○	○	○
How creative was the use of space?	○	○	○	○	○
Was there creative use of technology?	○	○	○	○	○

26. Did worship provide any opportunities to connect with others?

Please choose **only one** of the following:

◯ Yes
◯ No

If yes, please briefly describe.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '28 [c5]' (26. Did worship provide any opportunities to connect with others?)

Please write your answer here:

27. How did you participate at home? (check all that apply)

Please choose the appropriate response for each item:

	Hymns	Liturgy	Prayers	Sermon	Sharing of the peace	Special Music	Prelude/Po
Fully participated	○	○	○	○	○	○	○
Spoke/sang most of the responses/songs	○	○	○	○	○	○	○
Spoke/sang some of the responses/songs	○	○	○	○	○	○	○
Mostly just watched	○	○	○	○	○	○	○
I sometimes skipped these parts	○	○	○	○	○	○	○
I mostly skipped these parts	○	○	○	○	○	○	○

28. Did your congregation provide words on the screen for the following? (check all that apply)

Please choose the appropriate response for each item:

	Always	Often	Occasionally	Never
Spoken parts of the liturgy	◯	◯	◯	◯
Sung parts of the liturgy	◯	◯	◯	◯
Congregational responses	◯	◯	◯	◯
Hymns/Songs	◯	◯	◯	◯
Prayers	◯	◯	◯	◯
Readings from Scripture	◯	◯	◯	◯
Announcements	◯	◯	◯	◯

29. Did your congregation provide worship resources via their website or email?

Please choose **only one** of the following:

◯ Yes

◯ No

Which of the following were provided?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [c8]' (29. Did your congregation provide worship resources via their website or email?)

Please choose the appropriate response for each item:

	How often were these provided?						How often did you make use of them?			
	Weekly	Monthly	Occasionally	Rarely	Never		Often	Sometimes	Rarely	Never
Bulletin/Order of Service	○	○	○	○	○		○	○	○	○
Sermon	○	○	○	○	○		○	○	○	○
Sunday School Materials	○	○	○	○	○		○	○	○	○
Devotional Materials	○	○	○	○	○		○	○	○	○

Future Plans

These are questions regarding some of your thoughts and preferences around what might happen post COVID-19 restrictions.

30. Thinking about what might happen after COVID-19, please answer the following questions:

Please choose the appropriate response for each item:

	Yes definitely	Possibly	Maybe	Probably not	Definitely not
Do you think your congregation will continue with online services when COVID-19 restrictions are lifted?	○	○	○	○	○
Do you think it is important for your congregation to continue providing online services?	○	○	○	○	○
Do you think any churches should continue to provide online services following COVID-19?	○	○	○	○	○
If your congregation doesn't offer online services after COVID-19, would you consider watching another church's online services?	○	○	○	○	○

31. Did you forward a link or otherwise suggest someone else tune into your congregations services?

Please choose **only one** of the following:

○ Yes

○ No

How often did you forward these invitiations?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '35 [d2]' (31. Did you forward a link or otherwise suggest someone else tune into your congregations services?)

Please choose the appropriate response for each item:

	Frequently	Fairly regularly	Occasionally	A couple of times	Never
I forwarded an email with a link.	○	○	○	○	○
I reposted a Facebook message with a link.	○	○	○	○	○
I suggested someone go to the website to find the livestream information.	○	○	○	○	○

32. Did others (apart from the church itself) forward links so you could watch their services? If so, please tell us a bit about it in the comments (eg. they forwarded emails, forwarded Facebook posts, or called me on the phone to share this information). Please do not include names or personal information!

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ Yes, regularly
- ◯ Yes, fairly often
- ◯ Yes, a few times
- ◯ Yes, once or twice
- ◯ No

Make a comment on your choice here:

33. Do you know of anyone who doesn't regularly attend church who watched the online services?

Please choose **only one** of the following:

- ◯ Yes
- ◯ No

Can you tell us more about this in the comments (please do not include names or personal information)?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '38 [d4]' (33. Do you know of anyone who doesn't regularly attend church who watched the online services?)

Please write your answer here:

34. Is there anything else you would like to share with us about your experience(s) with online worship services?

Please write your answer here:

Items for Statistical Purposes

These questions will assist us in analyzing the data.

35. What is your age range?

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ 16 - 24
- ◯ 25 - 34
- ◯ 35 - 49
- ◯ 50 - 64
- ◯ 65 - 74
- ◯ 75 - 84
- ◯ 85 and above
- ◯ Prefer not to say

36. What is your gender?

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ Male
- ◯ Female
- ◯ Non-binary
- ◯ Prefer not to say

37. What size of community is your church located?

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ Rural
- ◯ Town
- ◯ Small city (10,000 - 49,999)
- ◯ Medium City (50,000 - 249,000)
- ◯ Large City (over 250,000)
- ◯ prefer not to say

38. How fast is your internet speed?

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ Slow or poor connection
- ◯ basic - adequate for one person at a time
- ◯ good - does what is needed but not overly fast
- ◯ high speed - accommodates multiple users
- ◯ Very high speed - fibre optic speeds or equivalent

39. How would you rate your level of technical expertise?

Choose one of the following answers
Please choose **only one** of the following:

- ◯ low - I often need assistance
- ◯ basic - I can use the computer for basic tasks
- ◯ adequate - I am fairly competent and can often figure things out
- ◯ high level - not an expert, but quite knowledgable
- ◯ expert - power user who often helps others

Thanks so much for taking the time to complete this survey. You assistance is greatly appreciated.

31.07.2021 – 23:32

Submit your survey.
Thank you for completing this survey.

Appendix C: Producer Survey

From this research, we wish to learn what forms of online worship were attempted, how they were produced, what platforms were engaged, the technology employed, and the level of technological expertise of the production team. In addition, we would like to know something about what might have worked well, what challenges were encountered and how they were mitigated and what lessons were learned. Finally, we would like to explore your opinions regarding how these changes may shape the future of both online and in-person worship post-pandemic.

UNIVERSITY OF ALBERTA

Principal Investigator: Rev. Dr. James Hendricksen

Supervisor: Dr. Gordon Gow

Invitation to Participate: You are invited to participate in this research study about the impacts of congregations moving to online services during the COVID-19 pandemic. You are being asked to complete this survey designed for people involved in the production of these online services. The survey will take approximately 25-40 minutes to complete.

Purpose of the Study: From this research we wish to learn what forms of online worship were attempted, how were they produced, what platforms were engaged, the technology employed, and the level of technological expertise of the production team. In addition we would like to know something about what might have worked well, what challenges were encountered and how they were mitigated and what lessons were learned. Finally we would like to explore your opinions regarding how these changes may shape the future of both online and in-person worship post pandemic.

Benefits: There are no direct benefits or compensation available to you for participating in this study.

Risks: There are no risks to you associated with participating in this study.

Confidentiality and Anonymity: The information that you will share will remain strictly confidential and will be usedsolely for the purposes of this research. The only people who will have access to the research data are myself and my supervisor. Your written answers

may be used verbatim in presentations and publications but neither you (nor your organization) will be identified.

Results of the survey will be published in pooled (aggregate) format. Anonymity is guaranteed since you are notbeing asked to provide your name or any personal information.

Data Storage: Electronic copies of the survey will be encrypted and stored on a password protected computer inthe researchers home office.

Voluntary Participation: You are under no obligation to participate and if you choose to participate, you may refuseto answer questions that you do not want to answer. Should you choose to withdraw midway through the electronic survey simply close the link and no responses will be included. Given the anonymous nature of the survey, once you have submitted your responses it will no longer be possible to withdraw them from the study.

Information about the Study Results: Results of the study, when available, may be obtained by contacting theresearcher at the contact information mentioned herein.

Contact Information: If you have any questions or require more information about the study itself, you maycontact the researcher at the numbers mentioned herein.

Ethics Review: The plan for this study has been reviewed by a Research Ethics Board at the University of Alberta.If you have any questions regarding your rights as a research participant or how the research is being conducted you may contact the Research Ethics Office at 780-492-2615.

Consent: Completion and submission of the survey means your consent to participate.

Participation: If you wish to participate in this study, please complete the online survey by clicking the **next** button below.

University of Alberta Ethics ID: Pro00107874

There are 62 questions in this survey.

1. Were you providing any kind of online worship presence before the pandemic?

Please choose **only one** of the following:

◯ Yes
◯ No

Please give a brief explanation of what you were providing.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '1 [a1]' (1. Were you providing any kind of online worship presence before the pandemic?)

Please write your answer here:

2. How prepared were you to move to online worship? (1 very prepared - 5 totally unprepared)

Please choose **only one** of the following:

◯ 1
◯ 2
◯ 3
◯ 4
◯ 5

3. What Platform did you primarily use for on-line services? (select best answer)

Choose one of the following answers
Please choose **only one** of the following:

- ◯ YouTube
- ◯ Facebook
- ◯ Zoom
- ◯ Google Meets
- ◯ Other

4. What made you choose that platform(s)?

Please write your answer here:

5. Please rate on a scale of 1 - 5, how suitable the platforms you used were for online worship. (1 very suitable - 5 very unsuitable)

Please choose the appropriate response for each item:

	1	2	3	4	5
YouTube	○	○	○	○	○
Facebook	○	○	○	○	○
Zoom	○	○	○	○	○
Google Meets	○	○	○	○	○

6. What did you like most about the platform your congregation used?

Please write your answer here:

7. What did you like least about the platform your congregation used and what problems, if any, did you encounter trying to use it?

Please write your answer here:

8. If you could pick any available platform (no barriers to cost etc.) what would you choose and why?

Please write your answer here:

Equipment and more technical details

This section examines some of the equipment and technical aspects of what you used in your online worship services.

9. What types of camera(s) did you use for your service? (general description is fine eg. iPhone, PTZ camera, webcam, camcorder on a tripod, etc.)

Please write your answer here:

10. What did you use for audio feed/equipment for your online service(s)? (general description is fine eg. audio feed from soundboard, iPhone mic, etc.)

Please write your answer here:

11. What software did you use to produce you online services?

Please write your answer here:

12. Did you use volunteers to produce your online services? You can provide brief details about their participation in the comment section.

Comment only when you choose an answer.
Please choose all that apply and provide a comment:

- ☐ Volunteers were primarily responsible for the production.
- ☐ Volunteers assisted with getting the system setup
- ☐ Volunteers helped by operating sound, cameras or a switcher
- ☐ Volunteers occasionally assisted with production
- ☐ Volunteers were minimally involved

Other:

13. On a scale of 1 to 5, approximately what ratio of staff to volunteers did you use to produce your online services? (1 all staff - 5 all volunteers)

Please choose **only one** of the following:

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5

14. Did you hire any consultants or outside assistance to develop or run your online services?

Please choose **only one** of the following:

◯ Yes
◯ No

Please briefly explain.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '15 [f6]' (14. Did you hire any consultants or outside assistance to develop or run your online services?)

Please write your answer here:

15. What were the biggest technical challenges you experienced? (briefly explain)

Please write your answer here:

16. Please rate the quality of the following aspects of your congregation's online services. (1 very good - 5 very poor)

Please choose the appropriate response for each item:

	1	2	3	4	5
Picture Quality	○	○	○	○	○
Sound Quality	○	○	○	○	○
Use of on-screen graphics or words	○	○	○	○	○
Overall quality of the online services	○	○	○	○	○

17. On a scale of 1 to 5, please rate how likely were people to watch your service at these times? (1 very likely - 5 very unlikely)

Please choose the appropriate response for each item:

	1	2	3	4	5
Live (if available)	◯	◯	◯	◯	◯
Later the same day	◯	◯	◯	◯	◯
The next day	◯	◯	◯	◯	◯
Later in the week	◯	◯	◯	◯	◯
A week or more later	◯	◯	◯	◯	◯
Don't know	◯	◯	◯	◯	◯

18. Did you provide for online Sunday School or Christian Education Time?

Please choose **only one** of the following:

◯ Yes
◯ No

If so, please briefly explain when these happened, what platform was used, and how classes operated.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '20 [f8]' (18. Did you provide for online Sunday School or Christian Education Time?)

Please write your answer here:

Service Dynamics

These questions relate to content and how it was presented during online worship services.

19. Who were regular presenters in your congregation's online services? (select all that apply)

Check all that apply
Please choose **all** that apply:

- [ ] Pastor(s)
- [ ] Regular Musician(s) (organist, pianist, etc.)
- [ ] Special music presentations by members
- [ ] Special music presentations by others
- [ ] Other Staff
- [ ] Lay Scripture readers
- [ ] Lay Worship Assistants (prayers etc.)
- [ ] Sunday School Children
- [ ] Youth
- [ ] Other:

20. Was there an opportunity for members to submit audio/video content for these services (readings from home, special music, prayers, announcements, etc.)?

Please choose **only one** of the following:

- ◯ Yes
- ◯ No

If yes, please give some examples.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '23 [c2]' (20. Was there an opportunity for members to submit audio/video content for these services (readings from home, special music, prayers, announcements, etc.)?)

Please write your answer here:

21. Did you have members participate in worship leadership in other ways?

Please choose **only one** of the following:

◯ Yes
◯ No

If yes, please give some examples.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '25 [c3]' (21. Did you have members participate in worship leadership in other ways?)

Please write your answer here:

22. Who was primarily responsible for organizing this content (eg. Staff or volunteers)?

Please write your answer here:

23. COVID restrictions potentially provided some opportunities for creativity in various aspects of worship. Please answer these questions about the creativity expressed in your congregation's online services.

Please choose the appropriate response for each item:

	Very creative	Somewhat creative	average	not very creative	not creative at all
Overall, how creative were the online worship services?	○	○	○	○	○
How creative was the liturgy?	○	○	○	○	○
How creative was the use of space?	○	○	○	○	○
Was there creative use of technology?	○	○	○	○	○

24. Can you provide any examples of creative worship experiences you provided?

Please write your answer here:

25. Did worship provide any opportunities to connect with others?

Please choose **only one** of the following:

◯ Yes
◯ No

If yes, please briefly describe.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '30 [c5]' (25. Did worship provide any opportunities to connect with others?)

Please write your answer here:

26. Did your congregation provide words on the screen for the following? (check all that apply)

Please choose the appropriate response for each item:

	Always	Often	Occasionally	Never
Spoken parts of the liturgy	◯	◯	◯	◯
Sung parts of the liturgy	◯	◯	◯	◯
Congregational responses	◯	◯	◯	◯
Hymns/Songs	◯	◯	◯	◯
Prayers	◯	◯	◯	◯
Readings from Scripture	◯	◯	◯	◯
Announcements	◯	◯	◯	◯

27. Did your congregation provide worship resources via their website or email?

Please choose **only one** of the following:

◯ Yes

◯ No

Which of the following were provided?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '33 [c8]' (27. Did your congregation provide worship resources via their website or email?)

Please choose the appropriate response for each item:

	How often were these provided?						How often did people make use of them?			
	Weekly	Monthly	Occasionally	Rarely	Never		Often	Sometimes	Rarely	Never
Bulletin/Order of Service	○	○	○	○	○		○	○	○	○
Sermon	○	○	○	○	○		○	○	○	○
Sunday School Materials	○	○	○	○	○		○	○	○	○
Devotional Materials	○	○	○	○	○		○	○	○	○

28. Did you make use of any of the Synod or National Church provided sermons?

Please choose **only one** of the following:

○ Yes
○ No

Please indicate how often and what parts you used.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '35 [c9]' (28. Did you make use of any of the Synod or National Church provided sermons?)

Please write your answer here:

Holy Communion and Other Religious Services

This section asks some questions about online Holy Communion and other Religious services (eg. funerals).

29. Did your congregation provide Holy Communion as part of their online services? (Please briefly explain why or why not.)

Choose one of the following answers
Please choose **only one** of the following:

◯ Yes

◯ No

Make a comment on your choice here:

30. Did you provide for Holy Communion in another way during the restrictions? (If yes, please briefly explain.)

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Yes
- ◯ No

Make a comment on your choice here:

31. Do you think online Holy Communion should be offered as a possibility post-Covid (1 Strongly agree – 5 Strongly disagree)

Please choose **only one** of the following:

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5

32. Do you have any brief comments you would like to share about online Holy Communion?

Please write your answer here:

33. These questions relate to online funeral services. Please check to indicate yes.

Comment only when you choose an answer.
Please choose all that apply and provide a comment:

☐ Did your congregation offer access to online funeral services? (approximately how many)	
☐ Did you officiate at any online funeral service(s)? (approximately how many)	
☐ Did you have families that decided to delay funeral/memorial service until post COVID restrictions? (approximately how many)	
☐ Do you think livestreaming funeral services should be offered post COVID?	

34. Do you have any comments you would like to share about online funeral services?

Please write your answer here:

35. Did you do any other Pastoral Acts like Baptisms or Weddings during COVID restrictions?

Please choose **only one** of the following:

◯ Yes
◯ No

Briefly explain how these were accomplished in compliance with the restrictions.

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '43 [b8]' (35. Did you do any other Pastoral Acts like Baptisms or Weddings during COVID restrictions?)

Please write your answer here:

Future Plans and Mission

These are questions regarding some of your thoughts regarding what might happen post COVID-19 restrictions and some of the missional aspects of online worship.

36. Thinking about what might happen after COVID-19, please answer the following questions:

Please choose the appropriate response for each item:

	Yes definitely	Possibly	Maybe	Probably not	Definitely not
Do you think your congregation will continue with online services when COVID-19 restrictions are lifted?	○	○	○	○	○
Do you think it is important for your congregation to continue providing online services?	○	○	○	○	○
Do you think any churches should continue to provide online services following COVID-19?	○	○	○	○	○
If your congregation doesn't offer online services after COVID-19, would you consider recommending another church's online services for those who can't attend??	○	○	○	○	○

37. If your congregation continues to provide these online services how do you think this might effect in-person attendance numbers?
(1 significant decrease – 5 significant increase)

Please choose **only one** of the following:

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5

38. Do you know if members of your congregation forwarded a link or otherwise suggested someone else tune into your congregations services?

Please choose **only one** of the following:

- ◯ Yes
- ◯ No

How often did you forward these invitiations?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '47 [d2]' (38. Do you know if members of your congregation forwarded a link or otherwise suggested someone else tune into your congregations services?)

Please choose the appropriate response for each item:

	Frequently	Fairly regularly	Occasionally	A couple of times	Never
Forwarded an email with a link.	◯	◯	◯	◯	◯
Reposted a Facebook message with a link.	◯	◯	◯	◯	◯
Suggested someone go to the website to find the livestream information.	◯	◯	◯	◯	◯

39. Do you know of anyone who doesn't regularly attend church who watched the online services?

Please choose **only one** of the following:

◯ Yes
◯ No

Can you tell us more about this in the comments (please do not include names or personal information)?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '49 [d4]' (39. Do you know of anyone who doesn't regularly attend church who watched the online services?)

Please write your answer here:

Learnings

These questions probe a bit deeper into the experiences and learnings from COVID restrictions and online services.

40. If you could start over what are some of the things or pitfalls that you would avoid? Please provide a short summary (approximately 2-3 things).

Please write your answer here:

41. What are some of the improvements you would like to make and what would be required to make that happen (again a brief summary of approximately 2-3 things)?

Please write your answer here:

42. Is there anything else you would like to share with us about your experience with online worship services?

Please write your answer here:

Items for Statistical Purposes

These questions will assist us in analyzing the data.

43. What is your age range?

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ 16 - 24
- ◯ 25 - 34
- ◯ 35 - 49
- ◯ 50 - 64
- ◯ 65 - 74
- ◯ 75 - 84
- ◯ 85 and above
- ◯ Prefer not to say

44. What is your gender?

❗ Choose one of the following answers
Please choose **only one** of the following:

- ◯ Male
- ◯ Female
- ◯ Non-binary
- ◯ Prefer not to say

45. What size of community is your church located?

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Rural
- ◯ Town
- ◯ Small city (10,000 - 49,999)
- ◯ Medium City (50,000 - 249,000)
- ◯ Large City (over 250,000)
- ◯ prefer not to say

46. How fast is your internet speed?

Choose one of the following answers
Please choose **only one** of the following:

- ◯ Slow or poor connection
- ◯ basic - adequate for one person at a time
- ◯ good - does what is needed but not overly fast
- ◯ high speed - accommodates multiple users
- ◯ Very high speed - fibre optic speeds or equivalent

47. How would you rate your level of technical expertise?

Choose one of the following answers
Please choose **only one** of the following:

- ◯ low - I often need assistance
- ◯ basic - I can use the computer for basic tasks
- ◯ adequate - I am fairly competent and can often figure things out
- ◯ high level - not an expert, but quite knowledgable
- ◯ expert - power user who often helps others

Thinking Deeper (optional Section)

Here are a few deeper questions that might take a bit more time to answer. They are optional, but we would appreciate you input on some or all of them.

48. Were there any parts of worship, or the worship experience, that were enhanced by moving online?

Please write your answer here:

49. Can you think of a time in the church's past history that might have paralleled, or otherwise related to this experience?

Please write your answer here:

50. As we think about worship post-pandemic, how might it be different as a result of this experience?

Please write your answer here:

51. Will online worship make any parts of our services or ministry obsolete?

Please write your answer here:

Thanks so much for taking the time to complete this survey. You assistance is greatly appreciated.

01.08.2021 – 00:16

Submit your survey.
Thank you for completing this survey.