

**“Sing Gently as One”: The Effect of Technology on Experiences of Belonging in Virtual  
Communities**

BY

Jillian Kneeland Hirst

A Study

Presented to the Faculty

Of

Wheaton College

In Partial Fulfillment of the Requirements for  
Graduation with Departmental Honors in Sociology

Norton, MA

May 2021

## **Acknowledgements**

First and foremost I would like to thank my advisors, Professor Javier Trevino and Professor Karen McCormack for always pushing me to think bigger and for walking with me through every stage of not just this project, but through my whole time at Wheaton. I would also like to extend my utmost gratitude to Professor Justin Schupp for his mentorship and for always believing in me. I would also like to thank my family and friends for their unwavering support and encouragement throughout this whole endeavor, especially Lola, Rosie, Nellie, Emma, and Em for being my unsuspecting sounding boards. Finally, I would like to thank composer Eric Whitacre and all of the members of Eric Whitacre's Virtual Choir 6 -- Sing Gently, who made this entire study possible.

## Abstract

The social isolation caused by the COVID-19 pandemic has exacerbated the need for virtual communities. Deemed “superspreaders”, choral singers have turned to virtual music making and have created subsequent virtual choir communities. In a music community, such as a choir or orchestra, participants may experience belongingness through music making. But can a sense of belonging be felt when this musical community and the act of making music occurs completely virtually? Prior research has addressed experiences of belonging within virtual communities, but experience of belonging within virtual music communities demands further research. This study explores how technology affects choir participants’ experiences of belonging within a virtual choir community, specifically composer Eric Whitacre’s Virtual Choir 6 – Sing Gently, which is composed of approximately 17,000 participants from 129 countries. To determine the degree of belongingness in Virtual Choir 6, choral singers who have participated in both in-person and virtual choirs were surveyed in order to compare their experiences in the two settings. The results showed that respondents were able to experience belonging in both in-person and virtual choirs through virtual ritualistic participation, as well as interactions facilitated through social media. These results extend applications of Collins’ (2004) *Interaction Ritual Chain Theory* and Small’s (1998) concept of *Musicking* to the virtual context, and have positive practical implications for virtual music making and arts-based community engagement beyond the COVID-19 pandemic.

## **Table of Contents**

<b>I.</b>	<b>Introduction.....</b>	<b>4</b>
<b>II.</b>	<b>Literature Review.....</b>	<b>9</b>
<b>III.</b>	<b>Methodology.....</b>	<b>26</b>
<b>IV.</b>	<b>Results.....</b>	<b>31</b>
<b>V.</b>	<b>Discussion.....</b>	<b>48</b>
<b>VI.</b>	<b>Conclusion.....</b>	<b>55</b>
<b>VII.</b>	<b>References.....</b>	<b>56</b>
<b>VIII.</b>	<b>Appendix.....</b>	<b>62</b>

## **I. Introduction**

In February 2020, the United States declared a Public Health Emergency in response to the rapidly spreading SARS-CoV-2, or what was colloquially known as the Coronavirus Disease (U.S. Department of Health and Human Services 2021). Stay-at-home orders, state mask mandates, social distancing requirements, the world as people knew it turned upside down. Across the world, restaurants, concert halls, movie theaters, and shopping malls were closed to mitigate the spread of the disease. Entire nations came to a complete halt. This pandemic has had drastic effects on all aspects of social life, from severe mental health consequences to broad socioeconomic consequences throughout all sectors of society (Nicola et al. 2020). Sectors such as the performing arts have nearly ceased all in-person activities, as studies were published naming activities such as singing in an in-person choir to be classified as a “superspreader” of COVID-19 (Hamner 2020). As a result of this isolation, people have turned to digital information and communication technologies (ICTs) in order to foster interpersonal connection, and this has resulted in a reliance on virtual communities (Marston, Musselwhite, and Hadley 2020). The integration of virtual communities into everyday social life began long before this pandemic, but scholars must aim to understand the role of technology in experiences of belonging in virtual communities that is situated within a historical frame of social isolation.

The focus of this study is to examine how technology has affected individuals’ feelings of belonging within virtual music communities, using the case of the virtual choir. This study will add to the literature on virtual communities and the sociology of music through exploring individual’s experiences of belonging within virtual communities when gathering in-person is not possible. To understand this, I measured feelings of belongingness among individuals who have participated in both a virtual choir and an in-person choir to understand the difference in

participants' attitudes of belonging. In this study, belonging will refer to the feeling, belief and expectation that one fits in the group, has a place there, and feels accepted by said social group (McMillian & Chavis 1986).

Not much previous empirical research has been conducted on virtual music communities, but preliminary studies has shown that members of other virtual communities—such as the online gaming community--were able to feel a sense of belonging within this virtual landscape (Armstrong 2012; Fancourt and Steptoe 2019; Lysloff 2003; Mohd Affendi 2008). For the purposes of this study, “virtual music communities” will refer to groups of people who share common interests and exchange musical ideas and products through the mediation of digital networks.

Within the context of this study, there are two central ways in which individuals can experience belonging virtually, through *ritual* and *social media*. Individuals who participate in ritual behavior in both a mediated and co-present context feel belonging if they are socialized in the shared norms and histories of the community (Collins 2004; Durkheim 2001; Ling 2008). This study will apply to a virtual context Small’s (1998) theory of *musicking* wherein making music is not a product made by the isolated genius, but a collective ritual which connects all participants in the music community together. Through ritual and social media, members of these communities develop social ties that not only serve as conduits for information, but for emotional support, and these ties are important in individuals’ experience of belonging within the virtual choir community (Hampton 2016; Wellman 2001). Through these theoretical lenses, this study explains how participants of Eric Whitacre’s Virtual Choir 6 experience belonging within the virtual choir and in their experiences within an in-person choir.

To measure individuals' feelings of belonging when participating in an in-person and virtual choir, I surveyed participants of choral composer Eric Whitacre's Virtual Choir 6. Whitacre (2020) describes the virtual choir as a choir that rehearses and performs choral music completely online. This is done by singers recording and uploading their individual videos of themselves singing, which are then synchronized and combined into one single performance to be broadcast. This survey was distributed to members of this 17,000-person virtual choir with participants from over 40 different countries around the world via an anonymized link which was posted on the Virtual Choir 6 -- Official Facebook group. Participants were asked a variety of questions aimed at measuring the ways in which they interacted with members of both choirs and questions that sought to measure their levels of feelings of belonging. Through analyzing the responses of participants of Whitacre's Virtual Choir 6, this study inquires into respondents' levels of perceived feelings of belonging, and examines how respondents interact with other members of these virtual and in person music communities.

In order to understand how individuals construct feelings of belonging within a community, it is necessary to differentiate between community as an objective social fact (Durkheim 1938) and as a subjective experience reinforced through interaction. This study is mainly focused on community as *subjectively experienced* by the individual through interaction (Ling 2008) and emotional investment. As such, the social constructionist epistemology is considered throughout the data collection process.

Of all of the types of virtual community, the virtual choir presents a very nuanced and compelling case that helps to understand how technology affects individuals' feelings of belonging within a virtual community. Group singing and music making have generally had a long-standing role in culture, through both rituals and entertainment. Currently, in in-person

choirs, singers relate singing in a chorus to being connected to something bigger than oneself that creates “A bond that lasts beyond the video or concert completion”(59, White, Woman, USA). This has been shown to facilitate feelings of social cohesion and subsequent feelings of belonging among the members of these choirs. This social cohesion is so great that it manifests in *physical* cohesion, the syncing of singers’ heartbeats (Vickhoff et al. 2013). After the COVID-19 pandemic prevented all in-person singing, singers turned to virtual choir projects, such as Eric Whitacre’s Virtual Choir 6 – Sing Gently, in the dual search of music and ‘social connectivity’/community.

This study fills various gaps in this new area of community literature. Virtual music communities themselves (Armstrong 2012; Lysloff 2003) have remained under-researched and this study will contribute to this field of literature through explaining the construction of feelings of belonging in these virtual landscapes. Preliminary studies that look at the virtual choir as a case of virtual community (Armstrong 2012; Fancourt and Steptoe 2019) have not focused on individuals' perceived sense of belonging and this research aims to add to the literature methodologically through utilizing the survey in measuring feelings of belonging. Additionally, previous studies on virtual communities in general have not taken the comparative approach that considers experiences of community virtually and in person (Lysloff 2003). This study aims to explain virtual community making during COVID-19 and its lasting implications on music making and virtual community building in the future beyond the pandemic as well.

All of the previously mentioned studies about virtual communities have not been conducted during this unprecedented historical time period. This pandemic has posed a difficult problem for the arts sector with the inability to resume in-person programming as a result of the large risk of transmitting the virus (Hamner 2020). Not only has this pandemic caused significant

unemployment increases throughout the performing arts sector (Florida and Seman 2020), but many musicians do not have the group oriented creative outlet that they may have previously experienced through singing in a choir or playing in an orchestra. The inability to perform in person has caused musicians to turn to virtual ensembles and creative projects, and this may be a contributing factor that could affect their feelings of belonging in a virtual music community such as the virtual choir. This study will address the question of how technology affects experiences of belonging in participants on in-person and virtual choirs through the following structure.

In Chapter 2—Review of Literature-- I outline the history of Eric Whitacre’s Virtual Choir projects and the effect of the COVID-19 pandemic on the arts sector. This chapter introduces the primary theoretical framework for this study through a sociological and musicological lens. In Chapter 3—Research Methodology—I discuss the methodologies utilized to survey participants of Eric Whitacre’s Virtual Choir 6. In Chapter 4—Results-- I discuss my findings in the data of the survey respondents. In Chapter 5—Discussion-- I discuss my data analysis within the theoretical framework discussed in Chapter 2 through a musicological and sociological lens. In Chapter 6—Conclusion-- I conclude with the argument that virtual communities that transcend geographical boundaries can still produce feelings of belonging within the individual. I also discuss the implications of this research on community development during the COVID-19 pandemic and beyond through analyzing the role virtual community has to play in developing a sense of community or a feeling of belonging in members of this community.

## II. Literature Review

*I remember those first few days, walking around in a state of shock as the global impact of the COVID-19 virus became clear. As someone who has spent their entire adult life surrounded by singers, I just couldn't believe what I was seeing. Not only was it suddenly dangerous to make music together, singers had been singled out as 'super spreaders', a mortal threat to their fellow choristers. It felt like the entire world had suddenly stopped singing. I remember saying to Claire and Meg, "If ever there was a time to make a Virtual Choir, it is now." - Eric Whitacre, Creator of Virtual Choir 6 -- Sing Gently (Whitacre 2020)*

The COVID-19 pandemic has exacerbated the need for virtual communities and the virtual choir has served to provide not only an avenue of musical participation, but also as a means through which singers can foster interpersonal connection. This study examines how members experience belonging during their participation in an in-person choir and in a virtual choir. It also explains how technology influences belonging within virtual communities in general. As technology becomes increasingly pervasive in social life, scholars are understanding how current digital information communication technologies through virtual social engagement (Ling 2008), has affected feelings of community belonging. This study will refer to digital information and communication technology (ICT) specifically, which is defined as technology that involves equipment for development and use of computer systems, software, and networks for the processing and distribution of data (ex. Internet, cell phones, social networking sites) (Merriam-Webster 2020). One question that has been asked is whether a community can truly be replicated in a mediated virtual landscape (Ling 2008). There have been several studies that have aimed to explore different instances of virtual communities such as the online gaming community (Mohd Affendi 2008) and transnational diasporic communities (Marlowe 2017). But, virtual music communities (Lysloff 2003) have remained under-researched, and this study will contribute to this knowledge by explaining the construction of feelings of belonging in virtual music communities.

This chapter will explore how the virtual choir originated, the effect of the SARS-CoV-2 (Coronavirus) Pandemic on the arts, and its effect on virtual music making. Then this chapter will consider the intersections of community and technology, as well as music and community to understand how individuals experience belonging within in-person and virtual choir communities.

### *The Birth of the Virtual Choir*

Eric Whitacre is an American Grammy Award-winning choral composer famed for his lush dissonant harmonies and his role in popularizing the *virtual choir*. The idea for the virtual choir started in 2009, when a young woman uploaded a YouTube video of herself singing “Sleep”, a choral piece composed by Whitacre on YouTube (Whitacre 2020). Moved by her performance, Whitacre asked other singers to record and upload videos of themselves singing the same song to YouTube as well. Later, he piloted his Virtual Choir One: “Lux Aurumque”, where 185 singers from several countries uploaded videos of themselves singing this song. The videos of individual singers were edited and combined to make an entire *virtual* choir (Whitacre 2020a).

In a 2011 TED talk, Whitacre described the virtual choir as “souls all on their own desert island, sending electronic messages in bottles to each other.” Participants described feeling like they were “part of a worldwide community of people I never met before, but who are connected anyway” (Whitacre 2011). Whitacre gained significant popularity for these projects and has done many projects since his first one in 2010. His most recent project, Virtual Choir 6: Sing Gently, brought together 17,572 singers from 129 countries (Whitacre 2020a). A CBS Sunday Morning story about Whitacre’s Virtual Choir 6 described how “inclusive” a virtual choir can be because anyone can participate regardless of various factors such as age, ability, or geographic location, if they have access to technology so they can submit a video online (Sable, Brady, and Gerard

2020). The creation of the Virtual Choir has broadly expanded opportunities for musicians to musically engage and has created a shared experience that transcends the physical bounds of geography. Through this shared experience, participants facilitated a felt sense of community.

Since the popularization of this project, there have been preliminary psychological studies examining participants of the virtual choir (Francourt and Steptoe 2019). For example, Francourt and Steptoe (2019) looked at levels of perceived social presence and emotional regulation within in-person and virtual choirs. They discovered that compared to participants in in-person choirs, those in virtual choirs had a higher feeling of *social presence*, or the feeling of being with others, which elicits an emotional response and employs emotional regulation strategies such as self-development strategies (e.g., enhanced self-identity, improved self-esteem). Francourt and Steptoe (2019) reinforce current academic understandings by stating how making music with others leads to stronger emotional responses (Juslin and Västfjäll 2008). This is one of the first studies to confirm that a participant can feel a greater emotional response in a virtual choir setting as opposed to an in-person setting. This research contributes to the literature on virtual community as it relates to virtual music making through their case study of Whitacre's Virtual Choir 5.0. Francourt and Steptoes' (2019) neurological approach to measuring emotional responses and social presence must be taken into consideration when trying to understand how individuals experience feelings of belongingness within a virtual setting.

Through using the virtual choir as a manifestation of virtual community, we may be better able to understand how individuals experience belonging within a virtual music context and the virtual environment more broadly.

#### *COVID-19 and The Arts*

*I wrote posts expressing my grief at not being able to sing in person. I got many responses from people who felt the same way. (45, White Woman, Canada)*

In addition to considering how virtual communities have been constructed in the past (Francourt and Steptoe 2019; Lysloff 2003), we must account for the effect of the Coronavirus (COVID-19) pandemic on social life since the spring of 2020. This pandemic drastically altered many aspects of society, from state mandated social distancing and shutdowns to individuals' mental health decline (González-Sanguino et al. 2020; Gao et al. 2020). As a result of organizations such as the World Health Organization (WHO) and US Center for Disease Control (CDC) self-isolation and social distancing guidelines (CDC 2020), COVID-19 has caused many people to try to live their daily lives through a virtual interface, whether that be through working online via a video call or through watching movies with friends online through a chat feature. This pandemic has significantly increased reliance on social interactions through a mediated virtual interface, such as the internet (Marston, Musselwhite, and Hadley 2020). In this way, individuals have used virtual interaction to substitute or replicate in-person communities. Apart from the implications of the pandemic on the individual level, it is imperative to understand the effects of the COVID-19 pandemic on broader social institutions.

Many different industries have suffered because of the pandemic (Nicola et al. 2020). For example, manufacturing and agriculture have experienced increased instability because of a lack of a labor force and an inconsistent demand for products (Nicola et al. 2020). However, it is the service and entertainment industries which have been most severely and widely affected as they are highly dependent on irreplaceable in-person interactions.

In a 2020 report by the Metropolitan Policy Program at the Brookings Institute, it is estimated that in the United States, job losses in the fine and performing arts make up approximately 50% of the total of 2.4 million jobs that were lost by the creative industry overall (Florida and Seman 2020). Many arts organizations have either closed their doors because of an

inability to continue with programming that adheres to CDC Guidelines or have moved all their programming to a virtual interface (see Boston Children’s Chorus 2020). This has also resulted in monetary losses for these organizations as many previous sources of funding are not being collected (Florida and Seman, 2020).

To remedy this, in the spring of 2020, the United States federal government passed the Coronavirus Aid, Relief, and Economic Security (CARES) Act which provided over \$2 trillion to financially support many public and private sectors, from economic stimulus checks for individuals/families to small businesses Payroll Protection Programs (U.S. Department of Treasury 2020). The CARES Act has been instrumental in supporting the US national economy during this time. Even though there has been monetary support for a fraction of small businesses and organizations, factors such as overhead costs (i.e., rent, utilities) and citizen self-isolation and social distancing procedures recommended by the CDC have prevented some small businesses from remaining open (Bartik et al. 2020; Long 2020). Other sectors that have seen losses are within the service and entertainment sectors.

COVID-19 has halted in-person music making, as several preliminary studies have concluded that activities such as singing in a choir puts participants at a high risk of transmitting the virus (Hamner 2020). This has directly prevented singers from participating in in-person choirs and resulted in several choral groups, such as the Boston Children’s Chorus, to move their activities online (Boston Children’s Chorus 2020). With the inability to produce live music, the traditionally live Western classical music community has turned to virtual music making In a CBS Sunday Morning interview, Whitacre exclaimed that “if there was ever a time for one of these virtual choirs, it would be now” (Sable et al. 2020) as singers all over the world began their first virtual performance season.

Previous studies looking at the Virtual Choir (Armstrong 2012; Francourt and Steptoe 2019) and other virtual music communities (Lysloff 2003) have been unable to examine the overwhelming effect of the COVID-19 pandemic on all social life. This pandemic has not only affected society at the micro-interactional level of the social group but also macro-structural level of the economy (Bartik et al. 2020; Long 2020) and the arts. It is imperative to consider the effect of the COVID-19 pandemic on social life in relation to individual's participation in virtual music communities and how they construct feelings of belonging within them.

### **Community and Technology**

Sociologists have long debated what constitutes community. Classical theorists have typically conceptualized community as a group of individuals who live within a certain physical geographical proximity. One classical conceptualization of community was by Tönnies ([1893] 1957), who coined the concepts of *Gemeinschaft* (community) and *Gesellschaft* (society). He describes that in a *Gemeinschaft*, people adhered to the “natural will” of social cohesion (Bryant and Peck 2006). Social cohesion guided by the “natural will” was composed of relationships that were characterized by emotional attachment, intimacy, and shared characteristics, such as a shared religion (Bryant and Peck 2006). It is through this social cohesion that individuals could feel a sense of belonging. Even though *Gemeinschaft* originally referred to agrarian rural communities in relation to the effect of the Western Industrial Revolution, this notion of emotional attachment as a community facilitator continues to be relevant in contemporary studies of co-present and virtually mediated communities (Lysloff 2003).

#### *A New Kind of Community*

During the latter part of the 20th century, sociologists began to adapt their conceptualizations of community to account for a rapidly changing social landscape. Putnam

(2000) asserts that the growth of suburbia has been a motivating factor in the transformation of community. Additionally, Putnam (2000) notes how the lack of public transportation infrastructure in suburban areas has exacerbated the lack of ability to maintain physical community. In response to this changing physical landscape, Wellman (2001) contends that individuals became a part of a “place-to-place” community where an individual’s sense of belonging is derived from social ties that extend beyond one’s immediate geographical location. To maintain these ties, people turned to communication technology, such as the telephone and the internet. Technology was then used to not only maintain relationships formed in the co-present environment, but to form new, specialized informal ones through technology (Wellman 2001).

Accompanying the rise of the mobile phone and the use of other digital technologies, there has been a stark increase in the “personalization of the public” in which our growing attachment to mobile technology has eliminated the need to have awareness of the physical world in which the individual inhabits (Wellman 2001). This personalization has been exacerbated by the growth of targeted advertisements and the simultaneous growth of social media which has further encouraged the growth of weak ties borne from this virtual landscape (Van Dijck 2013). This increase in personalization has caused an increase in what René Lysloff (2003) calls, “cyber places” where she likens a themed web page to a physical place as it is a way for users to gather and “present themselves to the world as a unified whole” (2003:244). The question then arises of what types of ties are people forming over cyberspace?

#### *Digital Technology and Weak Ties*

Weak interpersonal ties play an integral part in the development of social networks and in community development. The strength of an interpersonal tie is a “combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which

characterizes the tie” (Granovetter 1973: 1361). Therefore, Granovetter characterizes a *weak tie* as one in which there is infrequent interaction and a more distant social relationship (e.g., a colleague at work) but is used for sharing information, whereas a *strong tie* integrates more emotional attachment. In his *strength of weak ties theory*, Granovetter (1973) theorizes that it is through the maintenance and the interaction among networks of weak ties, such as, within a professional environment, that a “sense of community” is activated. Hampton (2016) extended this theory to describe the blurring of the division of strong and weak ties within a virtual landscape. Weak ties that are formed via ICTs include the emotional attachment function of strong ties because of the persistent contact and pervasive awareness that SNSs provide (Hampton 2016). Later in this chapter, Hampton’s notions of persistent contact and pervasive awareness will be discussed in the context of social media. It is through the consideration of the function of weak ties in social networks that we may understand how individuals’ feelings of belonging are constructed within virtual and in-person communities.

Wellman (2001) argues that people currently engage in “personalized networks” where individuals develop *role-to-role* relationships where people partake in specialized communities composed of informal, or weak ties that serve as conduits for information and support only within the context of the specific role or subgroup (Granovetter 1973; Wellman 2001). *Role-to-role* community networks consist of likeminded people with similar interests or goals, such as a group of classical singers. In this style of community, they can bond over their shared interests and can build and sustain new relationships through cyberspace. This shared experience through this virtual interface can incite feelings of belonging within the individual.

Since the early 21st century, there has been a growing discourse about whether the rise in technology has become a tool of isolation (Putnam 2000; Turkle 2011). In contention with Putnam’s (2000) assertion of the alienation from the development of meaningful relationships

through technology, Mary Chayko (2008) describes meaningful relationships can occur through considering cyberspace as a *sociomental space*, where people derive a sense of togetherness from being mentally oriented toward and engaged with each other even though they are not in close physical proximity. Chayko (2008) argues that the need to visualize cyberspace as a *sociomental space* is because humans need to utilize spatial imagery to organize and cognitively envision reality. Therefore, people create mental maps of associations to organize our internalized information about our social environment (e.g., memorizing relative locations or the names of other team members). When people form social connections, they develop a group mental map which represents the group “mental space” which people cohabit (Chayko 2008). This develops a collective social world through a group mental map, or a shared cultural reality (Chayko 2008). Through envisioning cyberspace as a sociomental space, we are better able to understand how community is constructed psychologically and can therefore be facilitated through technology.

### *Ritual and Belonging*

Another essential question that must be asked is how exactly can belongingness be achieved through cyberspace? Beauvis and Jenson (2002) argued that an individual’s feeling of belonging is achieved through feelings of social cohesion, and it is during this social cohesion that individuals are able to experience belonging. Ling (2008) distinguishes between two central types of interaction, *co-present* (in-person) and *mediated* (virtual). Co-present interactions are interactions that occur in-person, whereas mediated interactions occur through an additional medium, in this study it will be through information and communication technologies (Ling, 2008). Additionally, Ling continues to describe that belonging within social cohesion can be achieved through mediated *rituals*. He describes a ritual as the mutual focus of a circle of participants and the engendering of a common mood in a bounded group (Ling 2008), and this definition will be used in relation to this study. This common mood can refer to the realization of

a common goal or shared ideals. He argues that one must be entrained in the norms of the specific social group to participate and therefore experience belonging. After acknowledging how individuals can develop a sense of belonging, the question arises of how these feelings of belonging within a community are facilitated within various co-present and virtually mediated landscapes.

Emile Durkheim (2001) argues that ritual fuels the individual's feeling of belonging in a shared experience. Through the specialization of society during the late nineteenth century, people were able to partake in specialized ritual activities, and with their own normative modes of conduct, these activities were the catalyst for feelings of belonging and social cohesion (Durkheim 2001). This is because the ritual is one of the manners in which individuals are exposed to the ideas of a broader social order, like the idea of connecting to something larger than oneself. This acknowledgement of the individual's connection to the broader social order evokes feelings of belonging within the ritual participant.

Another important aspect to feelings of belonging through ritual, is the need for the individual to believe they are part of the group itself (Ling 2008). This belief and embodiment of one's role as a member of this social group is imperative to understand how individuals construct a sense of belonging in a virtual music community specifically. In the virtual choir format, people are recording themselves singing *completely alone*, but simultaneously define themselves as members of a singing group. This relates back to Durkheim's (2001) concept of "collective effervescence" during a ritual, referring to "a high degree of mutual focus... [in which] the participants see that their colleagues are also active participants in ceremony" (Ling 2008). In this sense, an individual's feeling of belonging or social cohesion is achieved through this mutual understanding of participants who are all focusing on the ritual while surrendering their isolated individuality. This feeling of collective effervescence is a common feeling within the classical

music community and normally manifests itself in an emotional reaction (Fancourt and Steptoe 2019). This collective effervescence during a ritual is how social cohesion and individuals feeling belonging is achieved.

Another scholar who expanded on Durkheim's ideas about ritual and belongingness was Randall Collins (2004) in his theory of Interaction Ritual Chains. Collins defines ritual as "a mechanism of mutually focused emotion and attention producing a momentarily shared reality which thereby generates solidarity and symbols of group membership" (Collins, 2004:7). He asserts that within an interaction ritual, if a person is socialized within a group's ritual behavior, social solidarity is achieved through relating to a broader pre-existing social group solidarity. This is important because if an individual can relate their experience in the ritual interaction to experiences within the larger community, an individual may be able to feel a sense of belonging and social solidarity. One limitation of Collins' (2004) notion is these ritual interaction chains could not operate outside of co-present interactions.

Ling (2008) extended Collin's theory and posited that interactional ritual chains can occur in virtually mediated interactions such as in routine telephone conversations among friends. The use of the cell phone can fill in gaps between co-present ritual social interactions and therefore increases an individual's sense of social cohesion through the reinforcement of ritualistic behavior and the use of cultural symbols or totems (e.g., conversation via telephone about a joke made in a previous co-present interaction) (Ling, 2008). But what about virtual communities that only exist within a virtual interface? The following section will specifically explore how social media interactions incite feelings of belonging within its users (Marlowe, et. al 2017; Van Dijck 2013).

*Social Media and Belonging*

The recent growth of social media and other digital information communication technologies (ICTs) can be attributed to the development of Internet 2.0, in which online networking services moved from solely user-driven digital social networking to the services themselves having the ability to connect individuals (Van Dijck 2013). *Social media* is defined as a group of internet-based applications which engineer and manipulate user connections and allow the exchange of user generated content (Van Dijck 2013). To understand the role of social media in developing feelings of belonging in virtual communities, we must consider the analogy of social media as a *facilitator* and *manipulator* of interpersonal connection (Santarelli 2020; Van Dijck 2013; Vincent 2016).

Social networking sites (SNS) such as Facebook, Twitter, Tiktok, and Instagram code relationships between people, products, and ideas into algorithms to recognize and encourage user activity (Van Dijck 2013). In this way, users can input their preferences and dictate their connections, while simultaneously, SNSs are collecting and storing user data to influence media behavior (Van Dijck 2013). This symbiotic relationship can have various implications on users' sense of belonging.

Social media has been a facilitator for interpersonal connection through affording users *persistent contact* and *pervasive awareness* (Hampton 2016). *Persistent contact* has allowed individuals to utilize communication technologies to allow people to develop and maintain their social tie through this medium over time (Hampton 2016).

In recent decades, social media has been proven to serve to develop a sense of belonging within a group or community, whether in a virtual or hybrid based group (Gruzd, et. al 2013; Santarelli 2020; Van Dijck 2013; Vincent 2016; Yu, et. al 2010). On college campuses, social media has been used as a mechanism of acculturation and socialization to increase students'

sense of belonging (Vincent 2016; Yang & Brown 2015; Yu, et. al 2010). But how does this work?

Santarelli (2020) argues that two measures of belonging through social media are relatedness and interaction, where individuals must have repeated exposure to positive interaction and must have a bond or deep level of caring to feel belonging. Santarelli (2020) concluded that active use of social media (e.g., posting, commenting, etc.) and passive use of social media (e.g., Reading but not posting) are both positively associated with relatedness and therefore, belonging. Gruzd et. al (2013) developed similar findings where they concluded that peripheral or central participation in social media groups or trends both provide benefits of social cohesion and belonging. Additionally, they found that connections were more prevalent among members with different professions and occupations within the virtual community (Gruzd et. al 2013). Respondents also developed their network of weak ties which had positive implications for their social capital (Ellison 2007; Granovetter 1973; Van Dijck 2013). In Marlow's (2017) study of college students in New Zealand, engagement with social media developed new virtual ties with other individuals where they interacted solely online, and reported they were able to maintain transnational relationships. By considering how individuals can construct belonging in these different social media-based contexts, we will be better able to situate the role of Facebook in developing feelings of belonging in Whitacre's Virtual Choir 6 community.

Overall, through understanding what constitutes community and how digital information technology has drastically affected the means by and through which individuals can construct feelings of belonging, we are better able to critically analyze feelings of belongingness in the case of the virtual music community of Eric Whitacre's Virtual Choir 6.

## Music and Community

To understand belonging in the virtual music community, it is crucial to understand how notions of musical community and cohesion are created in the physical space. One manner through which this can be understood is through Howard Becker's (1982) notion of the music community as an "art world". Becker defines an art world as "all of the people whose activities are necessary to the production of the characteristic works which that world, and perhaps others as well, define as art" (1982: 34) and each art world has a division of labor, conventions, and cooperative activity. Becker describes the idea that the art product (i.e., theatrical play, choir performance) is a direct result of this cooperation from all members of each art world. This division of labor includes core personnel (i.e., musicians) and support personnel (i.e., ushers of concert hall), and consensus among the core and support personnel is imperative for art production. To act in cooperation with each other, members of the art world must know the specific conventions of their art world. Once socialized in the conventions of the art world, members will have "the subsequent ability to participate as a cooperative link in the art world" (Becker 1982:45). Becker's concept of the Art World contributes to our understanding of making art as a *cooperative social act* as opposed to an act by the isolated artist. Through Becker's perspective, we can understand that within the art world, there is a developed sense of belonging and social cohesion through cooperative activity between the core and support personnel of the art world.

One limitation of Becker's point of view is that he views art as a commodity that requires a network of people to produce. This commodification of the art product has alienated us from recognizing music making as a ritual or communal act. Christopher Small (1998) in his work, *Musicking*, describes that musicking is "to take part, in any capacity in a musical performance,

whether by performing, by listening, by rehearsing or practicing, by providing the material for performance (what is called composing), or by dancing” (1998:9). Small’s perspective of the act of musicking is less concerned with art as a product but more concerned about its creation. Small asserts that partaking in musicking is a ritual act, as he describes ritual as a means through which individuals can explore their relationship with the universe and with all that exists within it through the creation of ideal relationships. He argues that historically, music itself is central to ritualistic practices as it has served many cultural functions, such as its role in religion (Durkheim 2001) and entertainment.

Small (1998) also asserts that musicking produces a series of *ideal relationships* among the participants of the musical experience and between the participants and the music itself.

According to Small, these *ideal relationships* may not include actual relationships, but,

those that we desire to exist and long to experience... During a performance, any musical performance anywhere and at any time, desired relationships are brought into virtual existence so that those taking part are enabled to experience them as if they really did exist (Small 1998:183).

Additionally, it is only through the knowledge of the conventions of the act of musicking that one can construct meaning and can enact these ideal relationships.

Through integrating the ideas of Becker (1982) and Small (1998) we will be able to understand how these ideal relationships are created during musicking and can incite feelings of belonging. Becker (1982) articulates that once an individual is socialized into the art world through learning conventions, individuals are then able to fully participate in the production or consumption of the art product. In this way, Small (1998) contends that all ideal relationships require some form of mediation, or medium through which the relationships are created, and within the context of in-person musicking, these relationships are enacted through language. Through the socialization process into the art world, individuals become aware of their roles in

this ritual of *musicking* and this causes the creation of ideal relationships and therefore a feeling of belonging within the ritual. This study aims to understand how these ideal relationships are enacted during this ritual through technological mediation. Through understanding the musical ritual as the binding force that allows participants to connect, we may be able to understand how individuals construct their feelings of belonging in an in-person and virtual music community. Small's (1998) concept of musicking and Becker's (1982) concept of the art world, are essential in the framing of our understanding of virtual music communities through their ideas of how individuals can construct meaning and develop relationships through in-person musical communities.

## **Conclusion**

In recent years, scholars have begun to examine the undeniable effect of digital technologies on constructions of community (Ling 2008). This relationship between technology and community construction has a subsequent impact on individuals' experiences of belonging in that community. Scholars such as Durkheim (2001) and Collins (2004) describe that it is through ritualistic participation that individuals can experience belonging within a co-present community. One of the primary mechanisms through which these rituals can occur virtually is through social media. Social media and other ICTs have begun to play a large role in facilitating virtual communities and has played a large role in individuals' experience of belonging within various community contexts and has served as a mechanism for acculturation (Hampton 2016; Van Dijck 2013; Vincent 2016).

Within a musical context, Small (1998) contends that individuals experience belonging through ritualistic musical participation, or "musicking", as Small describes as an "activity by

means of which we bring into existence a set of relationships that model relationships of our world...musicking is a way of knowing the world” (1998:50).

Until recent years, most scholarship on the sociology of community has been focused on co-present communities (Durkheim 2001; Tönnies ([1893] 1957). During the twenty-first century, academia has begun to look at how technology has created different means through which people form ties and the conditions under which those relationships occur (Hampton 2016; Ling 2008; Mary Chayko, 2008; Putnam 2000; Wellman 2001). This study aims to reinforce recent findings that music communities can be reproduced within a mediated cyber-interface and that individuals can experience belonging within them (Armstrong 2012).

To understand how individuals experience feelings of belonging in virtual communities, this study will look at the virtual choir as a case example. As scholars are learning more about virtual communities in general, it is imperative to understand how virtual communities are constructed in the music community (Armstrong 2012; Lysloff 2003). These preliminary studies have made important contributions to catalyzing our understanding of how these virtual music communities exist within social life, but this study explores how individuals who participate in these virtual music communities experience feelings of belonging or social cohesion within these mediated interfaces. Through analyzing individuals’ feelings of belonging in a virtual community, we can understand technology’s effect on social life as well as implications for music making during the COVID-19 pandemic, with its social distancing measures, and beyond.

### **III. Methodology**

The aim of this study is to understand the effect of technology on feelings of belongingness within a virtual community. To examine this, this study examines the case of participants of Eric Whitacre's Virtual Choir 6 - Sing Gently. This study focuses on the experiences of choral singers who have participated in both an in-person and virtual choir to explore how their feelings of belonging differ during their participation in co-present and virtually mediated choral ensembles.

This research aims to answer one of the core questions of the sociology of community: how do individuals experience belonging to a community, whether that be in a virtual or co-present context (Collins 2004; Durkheim 2001; Ling 2008)? To explore this, quantitative measures of belonging were constructed to gain insight into the perspectives of 232 individuals who were members of Whitacre's Virtual Choir 6.

In consideration of this study, it was determined that the online survey methodology was suitable for this specific case. One of the motivations for the use of the survey was the opportunity for a breadth of data. To make this study more generalizable, patterns of individuals' experiences of belonging from a wide variety of respondents were examined (Labree 2021). The survey also provided a reproducible data collection instrument for measuring belonging across many members of a community (Babbie 2010).

In order to analyze patterns within this data, cross tabulations and data descriptions were employed. In addition to this quantitative analysis, a thematic coding schema was used in the testimonials of respondents in several open-ended survey questions. This qualitative element added depth to important elements of respondents' individual experience and this nuance must be examined when considering an individual's experience of belonging.

## Survey

The survey consisted of 29 open and closed ended questions that asked respondents about their experiences as a singer during their participation in a virtual choir and in an in-person choir. It also included several demographic questions having to do with gender identification, educational attainment, occupation, race/ethnicity, nationality, and age. The open-ended questions allowed respondents to describe more of the nuances of their experience, such as their perceptions of their own barriers to participation. Of the 17,000 members of the Virtual Choir 6 - Official Facebook Group, 232 responses (N=232) that were included in the data analysis.

To quantify “belonging”, two Likert scale questions were utilized that are based on McMillan and Chavis’ (1986) four-part definition of how an individual can feel a sense of community. These four areas they define are membership (i.e., feeling of belonging), influence (i.e., feeling of mattering), integration and fulfillment of needs, and shared emotional connection (McMillan & Chavis 1986). Respondents rated on a scale on 1-5 (Strongly Agree- Strongly Disagree) on their level of agreement with statements such as whether they believed other members of the virtual/in-person choir had the same love for music as the respondent, or if the respondent believed they could ask another member of the choir for help if they needed it. The same question was used to examine respondent’s experience in Whitacre’s Virtual Choir 6 (Q14) and within an in-person choir (Q16) (See Appendix D).

To quantify the conditions under which individuals construct their feelings of belonging, this study will utilize the social constructionist methodology, which describes that individuals construct their own reality based on their social context and interactions (Berger and Luckmann 1966). Even though this study has operationalized belonging to refer to the feeling, belief, and expectation that one fits in the social group, has a place there, and feels accepted (McMillan &

Chavis 1986), it must be understood that all respondents have varying interpretations of how they feel a sense of belonging. Taking this into consideration, solely quantitative methodologies are unable to encapsulate the nuances of individuals' experiences of belonging, therefore this study's inclusion of open-ended questions aim to dive deeper into the nuance of respondents' experiences of belonging.

### **Sampling**

As mentioned previously, this survey was provided to choral singers who were members of Eric Whitacre's Virtual Choir 6 - Sing Gently and who have also performed with an in-person choir. All respondents selected were over 18 years old as to not collect data from a vulnerable population. Purposive sampling was used to select respondents because in this comparative study of in-person vs. virtual choirs, I picked a specific choir (Whitacre's Virtual Choir 6) and controlled for members who have participated virtually and in-person. I picked this specific choir for two reasons, the creator's cultural significance in the music community and my personal experience as a participant within Whitacre's Virtual Choir 6. I am a Western classical choral singer who sang as a soprano in Whitacre's Virtual Choir as well as various in-person choirs, so my emic perspective within the chorale community drove my selection of this specific choir and sample within it.

To recruit these respondents, I distributed the survey via an anonymized link on the Virtual Choir 6 - Official public Facebook Group with the permission of the Facebook Group administrator. To maximize responses, the link to the survey was posted four times throughout January 2021. In the post where the link was listed, the target sample criteria for respondents was described in the post language as well as the informed consent at the beginning of the survey.

This survey was self-administered, and respondents participated in the survey via the Qualtrics Software.

In this sample, the majority of respondents identified as women (84%). The average age was 50 years old, with the most common respondent age being 67 years old. The majority of these respondents have attained at least a Bachelor's Degree (approx. 85%) and are either working (66%) or retired (21%). Of those who lived in the United States, the majority of respondents identified themselves as White (86%). Thirty-two percent of respondents reported that they did not live in the United States and of those, the majority identified themselves as White, Caucasian, or of European origin. This study had respondents from 31 countries, ranging from the United States to Zimbabwe and Australia (See Appendix E). This geographic diversity attests to the transnational nature of the participants of Whitacre's Virtual Choir 6 and provides interesting perspectives when considering how people experience feelings of belonging.

**Limitations:** *Sample*

There were various limitations to this sample. One limitation was the predominantly feminine perspective, even though having more even gender representation may have affected belonging data, this perspective represents an accurate depiction of the gender identification of the members of the choir more broadly (Whitacre 2020a). Another potential limitation of this sample is the majority White/Caucasian and European perspective. Even though there was limited diversity of respondents' racial/ethnic identities, this follows common trends of people who identify with these racial/ethnic groups' domination within the Western classical music community (DeLorenzo 2012). Regardless of these limitations, these perspectives can still give us a glimpse into the world of how individuals construct feelings of belonging within these virtual and in-person landscapes.

**Limitations: Methodology**

Overall, one of the limitations of utilizing this quantitative survey-based methodology was trying to quantify the concept of belongingness. The survey is inflexible, in that individuals may all have completely different life experiences which alter the ways in which they experience belonging that exist outside of the confines of the survey's operationalization (Babbie 2010). To remedy this at the end of the survey, respondents answered several open-ended questions, and this led to rich testimonials about respondents' experiences as a musician during the COVID-19 pandemic. Another limitation of this methodology was the use of English as the sole language the survey was administered in. Eric Whitacre's Virtual Choir 6 has members from 129 countries, and English may not have been an accessible language for all potential members of the sample. Although, the main language of all the Zoom and YouTube rehearsals was English. This limitation also presents an interesting question for further research on how these members who are non-English speakers experience feelings of belonging in this Western Classical virtual choir community where English is predominantly spoken, as language is the primary means through which the norms or conventions of a community are communicated (Berger & Luckmann 1966).

Overall, the utilization of the survey methodology in this study on the effect of technology on feelings of belonging within participants of in-person and virtual choirs has allowed for the collection of a broad range of experiences within this community and will aid in our understanding of the role of technology in experiences of virtual community in the future.

#### IV. Results

*Both of these groups have given me so much. The in-person group has been a source of strength and compassion and love for me as I cared for my husband the past 5 years. The smaller acapella group that I sing with shifted their rehearsals to my home, so I would not have to leave my husband or find someone to sit with him. They have been my support for the past 5 years. The virtual choir came at a time when I was grieving, not just from the whole pandemic issue, but from the loss of my husband in April. After he died, I couldn't even play the piano, sing, or just listen to music. As a classically trained singer and pianist, music is a very emotional thing for me. In an effort to get me singing again, one of my "singing sisters" and dear friend suggested that I participate with the virtual choir. After about a week of deliberating on this, I decided to give it a try. After doing about 50 recordings, I finally submitted one. Singing with the virtual choir put a song back in my heart. I look forward to singing with my choir again in 2021, I hope.*  
-- 62-year-old, White woman, United States

The role of digital technologies in social life has permeated every aspect of society from shopping online via different trading and marketing sites, such as Amazon, to affecting how communities are developed and maintained (Van Dijck 2013). Within the past century, conceptions of community have grown from individuals experiencing community in proximity to each other to experiencing community through shared emotional attachment through virtual interfaces (Bryant and Peck 2006). During a time when communication technology is argued to isolate more than connect (Turkle 2011), scholars and the public have looked for ways that people have connected through digital media (Chayko 2008; Ling 2008; Lysloff 2003; Wellman 2001; Van Dijck 2013). The emergence of virtual communities has called upon social scientists to learn how they are created, how they differ from in-person or co-present communities, and how individuals find belonging within them.

Virtual communities focused on music are one of many growing areas of mediated social life and provide an interesting window through which to view the differences and development of in-person and virtual communities. Recent decades have witnessed the rise of social media and digital music sharing platforms that have created a new market for music making and sharing. This is seen through the rise of platforms such as YouTube, Soundcloud, and Reddit and

their relevance in virtual communities such as the mod scene, which refers to digital music modules composers create and exchange through music sharing platforms (Lysloff 2003). These platforms have proved integral to the creation of virtual music making practices such as the *virtual choir* which began in 2010 on YouTube (Whitacre 2020a). This virtual music making practice has created a transnational community of singers, many of whom have never met each other in-person. A 43-year-old White woman from the United States describes her virtual experience as a community that is “extremely supportive and very creative beyond words. They are an incredible group of people I would be honored to call friends”. How does this happen? How do individuals feel a sense of community or belonging within this virtual landscape, so much so that they call other community members, friends? What is the role of technology and social media in facilitating this feeling of belonging? These are the central questions this study aims to answer.

This chapter will analyze the survey responses of 232 respondents and their experiences as participants in both an in-person and virtual choir, specifically in Eric Whitacre’s Virtual Choir 6 -- Sing Gently.

### *Defining Community*

To understand how respondents constructed feelings of belonging within a community, they were asked to reflect on what community means to them. When prompted about what the first word that comes to their mind when they hear the word community, responses centered around four different areas, *person centered/interaction* (N=139), *emotional focus/shared mood* (N=85), *physical proximity* (N=19), and *music* (N=7).

Among respondents who described terms about their thoughts on community that were *person centered/interactional*, some examples of these words were, “friends”, “collaboration”,

“exchange”, “fellowship”, and “interaction”. These responses centered around the notion of what constitutes community is individuals who interact with each other. Collins (2004) asserts that individuals who partake in these ritual interactions (interactions informed by ritualistic norms of community) are able to relate to the broader community through connecting to pre-existing social solidarity among the group.

Respondents whose first word described an emotional focus or shared mood responded with words such as “support”, “shared interests”, “*belonging*”, and “connection”. These responses relate to more recent definitions of community that are centered around emotional attachment to others (Chayko 2008; Ling 2008; Lysloff 2003; McMillian & Chavis 1986; Wellman 2001).

Some of the prominent responses in those who described community in relation to *physical proximity* were words such as “church”, “location”, “neighborhood”, and “local”. These responses more closely align with traditional conceptions of community as a group of individuals who live within a close physical proximity to each other (Tönnies [1893] 1957).

When asked this question, several respondents reported words that related to music, such as “choir”, “music”, and “virtual choir”. The use of musical terms when thinking about community points to Small’s (1988) concept of *musicking* or making music as a communal act or ritual, with its own conventions and shared history.

Noting how individuals conceptualize community reveals how they develop their feelings of belonging within a community from their own perspectives. Aside from conceptions of community in terms of physical proximity, the other three conceptions of community--*music*, *emotions/shared mood*, *person centered/interaction*--can be facilitated within a virtual interface.

Therefore, if respondents' conceptions of community can be facilitated in a virtual interface, it may affect their experience of community and belonging within this landscape.

Another way this study determined respondents' perspectives of experiencing belonging within a community is through understanding how important it was for individuals to feel a sense of community with other choir members. Approximately 77% of respondents believe that it is important for them to feel a sense of belonging with other members, whereas 23% of respondents believe it is moderately and slightly important. Based on this data, it is clear that most respondents are engaging in a social group where they feel a sense of community.

By understanding how these respondents define and experience community, we can contextualize their responses about how they have engaged in these virtual and in-person communities. To understand *how* technology affects experiences of belonging within virtual and in-person communities, this analysis will discuss various comparative measures to understand the nuances of experiences of belonging within the context of participants of Eric Whitacre's Virtual Choir 6.

### **Barriers to Participation**

McMillan & Chavis (1986) state that community boundaries establish belonging by determining who is included, and who is not. To understand how these boundaries, or barriers to membership operate in the context of virtual and in-person choirs, respondents answered questions about barriers to participation in a virtual and in-person context.

Respondents described a variety of barriers to in-person choir participation. The main barrier pertained to the restrictions on social gatherings imposed by governments because of the *COVID-19* (N=77). Testimonials also described that *lack of time* (N=69), *work*, and *physical*

*distance* were barriers that prevented their participation in in-person choirs. Within both in-person and virtual choirs, *lack of time* was a major barrier to participation.

Virtual choirs eliminated some of these physical barriers, but these barriers to participation and belonging manifested themselves in other ways within the virtual choir. Based on testimonials, respondents described four main barriers to participation in a virtual choir, *Logistical Barriers* (N=62), *Informational Barriers* (N=33), *Emotional Barriers* (N=23), and *Technological Barriers* (N=22). The major *Logistical Barrier* for respondents to virtual participation was a *lack of time* (N=55). The main *Informational Barriers* to virtual participation were *recording difficulties*. A 60-year-old woman from the United Kingdom described how “recording the performance was a bit stressful due to technical limitations”. Respondents who described *Emotional Barriers* used sentiments such as *feeling isolated*, *feeling alone*, *feeling they lacked confidence*, and *feeling they lacked focus*. Based on testimonials, the major *Technological Barrier* to participation in virtual choirs is a *lack of access to technology or reliable internet*.

#### *COVID-19 and Choir Participation*

It has been widely argued that the COVID-19 pandemic has affected all aspects of social life (González-Sanguino et al. 2020; Gao et al. 2020; Nicola et al. 2020). As a result of CDC social distancing mandates, in-person music making was largely unavailable, and this presented a large barrier to in-person choir participation (Hamner 2020). When asked if respondents participated in an in-person choir prior to March 2020, 93% said that they had. In comparison, 75% of respondents said that they had not participated in a virtual choir prior to March 2020. When asked how many times respondents had participated in one of Eric Whitacre’s Virtual Choir projects, 84% of respondents described that Virtual Choir 6 was their first time participating.

Throughout many of the open-ended questions, respondents described their experiences during the COVID-19 pandemic and how they have used this new virtual medium for music making. Three respondents described Whitacre's Virtual Choir 6 as a "*lifeline*", and as an 80-year-old White man from the United States stated, "Choir is a community. Virtual choir hasn't replaced the joy of singing together, but it has helped to connect with other people during these strange and isolating times". For some respondents, they missed singing while their in-person choir activities were canceled, as a 57-year-old White man says, "I had lost my creative outlets during COVID and was getting depressed about the inability to perform. VC6 [Virtual Choir 6] was exactly what I needed at the time."

Participants additionally described the emotional support that they found through the virtual choir community, a 51-year-old man from Greece described how "The virtual choirs I attended in 2020 and continue to do so in 2021 have proven to be a very significant help to my mental well-being". Eleven respondents described how they believe the virtual choir was vital to their mental health while they were isolated because of CDC social distancing measures. A 59-year-old White woman from the United States said the virtual choir "boosted my spirits in the early days of COVID when I was feeling frightened and overwhelmed". As a result of people using this virtual choir community to cope with the isolation of the pandemic, that may have affected their answers about their experience of belonging in the virtual choir. There were several respondents who described how "virtual choirs can never replace in-person" (61-year-old, White woman, United States) but utilized this virtual choir project as an alternative musical outlet.

Through exploring respondents' perspectives on COVID-19 and its effect on their lives and music making, we are better able to understand how their constructions of virtual belonging may have been different given different sociocultural contexts.

## Belonging

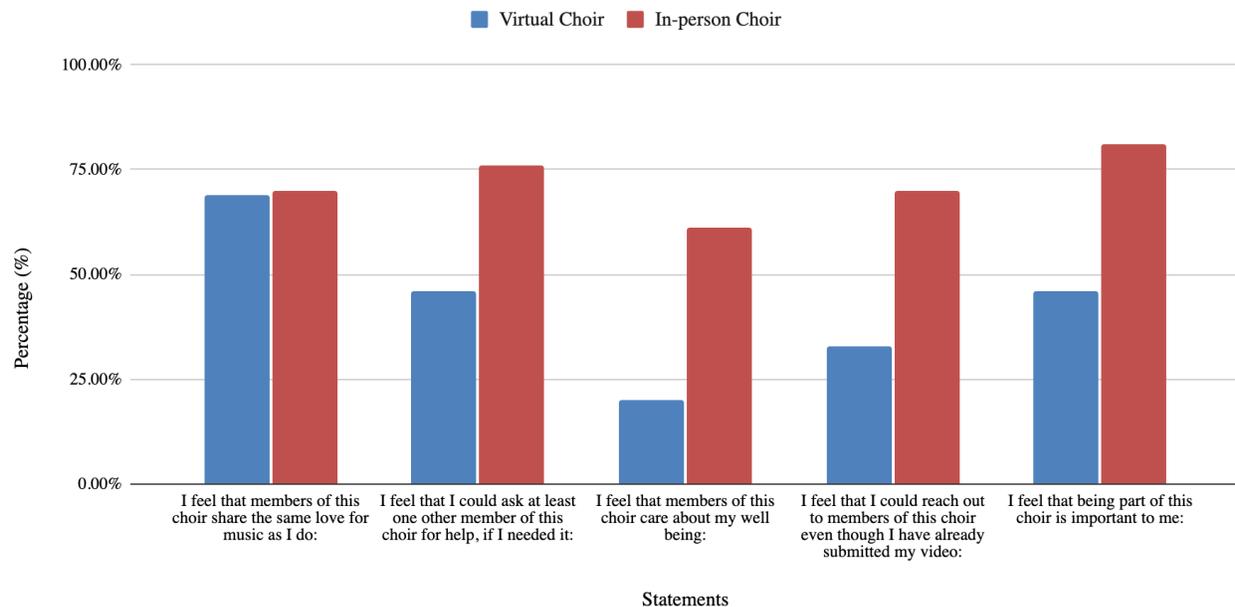
One of this study's central questions is whether community can be replicated in a virtual landscape, and how members experience feelings of belonging within that space. To understand how members experience feelings of belonging, the conditions under which individuals constructed belonging within virtual and in-person choirs must be examined.

Questions 14 and 16 of the survey utilized a 5-point Likert Scale (Strongly Agree-Strongly Disagree) to understand respondents' feelings of belonging to both the virtual and in-person choir.

Figure 1. *On a scale of 1 (Strongly Agree) to 5 (Strongly Disagree), rate your feelings about the following statements about your experience in a virtual/in-person choir:* (Below)

### Percentage of Strong Agreement on Statements Relating to Virtual Choir and In-Person Choir

Q14 & Q16



As mentioned in Chapter 3, belonging was operationalized based on measures that McMillan & Chavis' (1986) use in their theory of sense of community. They describe four

categories that influence an individual's sense of community and therefore, belonging; they are membership, influence, integration and fulfillment of needs, and emotional attachment. These measures will be discussed relative to participants' responses in relation to their levels of agreement based on the statements listed in Figure 1.

When comparing experiences in the virtual and in-person choir (Figure 1), most individuals in the in-person choir strongly agree that, other choir members share the same love of music as they do, they could ask others for help, that other members care about their well-being, that they could reach out to other members after the performance, and that being part of the choir is important to them. Based on this study's belonging measures, individuals feel a greater sense of belonging in the in-person choir than in the virtual choir.

At a broad level, the majority of respondents were able to feel belonging by at least one of the belongingness measures. The majority of members of the virtual and in-person choir believed that other members of the choir shared the same love of music as them. This percentage supports the effect of personal investment by members of the community, because the more invested an individual feels that other members are in the community, the more likely they are to believe their membership is meaningful and valuable (McMillan & Chavis 1986). Additionally, this relates to McMillan & Chavis' (1986) notion of influence, which states that for members to be attracted to the group and experience belonging, they must feel they can influence others in the group. Respondents who agreed that other members of the virtual choir shared the same love of music felt belonging, as a 23-year-old White woman from the United States said, "the virtual choir was so much more welcoming, because I knew that everyone there cared about music as much as I did".

Additionally, approximately 70% of respondents felt they could ask at least one other member of the virtual choir for help. This results in the fulfillment of needs as described by McMillan & Chavis' (1986). Respondents believed that membership in the virtual as well as in-person choir was rewarding (e.g., providing a platform for developing relationships upon which they could ask another for help). McMillan & Chavis suggest that individuals are attracted to groups or group members whose "skills or competence can benefit them in some way" (1986:13). Manifestations of this can be seen when respondents describe how they use the Facebook Group for various types of support, and this will be discussed later in this chapter. Individuals in the in-person and virtual choirs experience belonging because of these rewarding ties.

Over half of respondents reported they agreed that members of the virtual choir cared about their wellbeing, while 35% neither agreed nor disagreed. This also relates back to the notion of the fulfillment of needs because individuals who feel that others care about their well-being may feel the ties with other members may be rewarding, and thus, feel belonging (McMillan & Chavis 1986). Although, for some respondents, the types of ties they were forming with other members may have been weak ties, or informal social relationships that are primarily used for information or support within the context of the social group, and this may have affected individuals experience of belonging as it relates to agreement that others care about their wellbeing (Granovetter 1973; Wellman 2001). It is important to note that conversely, approximately 90% of respondents in the in-person choir believed that other members of the choir cared about their well-being.

Most respondents agreed that they could reach out to other members of the virtual choir after they submitted their video. This demonstrated an increased likelihood of shared emotional

connection and group cohesion because there was a clear closure to events, because if the community's tasks are left unresolved, then social cohesion is inhibited (McMillan & Chavis 1986). In the context of the virtual choir, there was a clear closure of events when participants submitted their videos to be edited and another closure during the premiere of the video. Therefore, respondents were more likely to feel an emotional attachment to the community and that increases their likelihood of experiencing belonging within the virtual choir.

Finally, most respondents agree that being part of the virtual and in-person choirs is important to them. This directly relates to all the measures of belonging based on the theory of sense of community (McMillan & Chavis 1986). To begin, individuals who feel the choir is important to them may feel that they fit into the group and identify as one of the members (Membership). These members may also feel that they have influence over the group and may feel this group is important to them (Influence). Respondents who believe the choir is important to them are more likely to experience their association with this community as rewarding (Integration & Fulfillment of Needs) and are more likely to form an emotional connection to the group through shared culture and history (Shared Emotional Connection). Therefore, based on these measures, individuals who feel that being part of the choir is important to them are more likely to experience belonging within the virtual as well as in-person community.

By situating respondents' experiences of belonging within McMillan & Chavis' (1986) theory of sense of community, we may understand why individuals were more or less likely to agree with the statements provided in the survey. The rest of this section will address various aspects of respondents' experience in the virtual and in-person choirs that may affect their experience of belonging.

*Cross-tabulations: Participation and Belonging*

Figure 3 compared the number of times that respondents have participated in Eric Whitacre’s Virtual Choir Projects to how much individual’s agreed or disagreed with statements pertaining to their perceived levels of belonging. Members who participated in the virtual choir one time had high rates of belonging. The more frequent the participation in Whitacre’s Virtual Choir Projects, the more individuals were likely to agree that the choir was important to them, that they could reach out to other members for help, that other members cared about their well-being, and that they felt they could reach out to other members even after they submitted their video (See Figure 3. Cross-Tabulation Q10-Q14-- Respondents Strongly Agree, *below*). This relationship is not statistically significant ( $p>.05$ ) but is important to consider when discussing the frequency of participation in relation to experiences of belonging.

		Q10: How many times have you participated in one of Eric Whitacre’s Virtual Choir projects?					
		Total	One	Two	Three	Four	More than Four
Q14: Respondents Listing Strongly Agree (1) on feelings about the following statements about experience in a virtual choir:	I feel that members of this virtual choir (Eric Whitacre’s Virtual Choir 6) share the same love for music as I do:)	151.0 69.3%	125.0 68.3%	14.0 82.4%	7.0 77.8%	2.0 40.0%	3.0 75.0%
	1 Strongly Agree (I feel that I could ask at least one other member of this virtual choir (Eric Whitacre’s Virtual Choir 6) for help, if I needed it:)	101.0 46.3%	87.0 47.5%	5.0 29.4%	4.0 44.4%	1.0 20.0%	4.0 100.0%
	1 Strongly Agree (I feel that members of this virtual choir (Eric Whitacre’s Virtual Choir 6) care about my well being:)	43.0 19.7%	34.0 18.6%	2.0 11.8%	2.0 22.2%	1.0 20.0%	4.0 100.0%
	1 Strongly Agree (I feel that I could reach out to members of this virtual choir (Eric Whitacre’s Virtual Choir 6) even though I have already submitted my video:)	71.0 32.7%	59.0 32.2%	4.0 23.5%	4.0 50.0%	1.0 20.0%	3.0 75.0%
	1 Strongly Agree (I feel that being part of this virtual choir is important to me:)	101.0 46.3%	87.0 47.5%	5.0 29.4%	4.0 44.4%	2.0 40.0%	3.0 75.0%

The main comparison in which we can see this is through comparing first-time participants and those who have participated more than four times. Overall, most respondents believed that other members of Whitacre’s Virtual Choir 6 shared the same love for music as they did regardless of the frequency of participation. The majority of first-time participants

agreed that they could ask other members of the virtual choir for help if they needed it. All respondents who participated four times or more Strongly Agreed they could ask other members for help.

When asked how much respondents agreed that other members of the choir cared about their well-being, there was less consensus among respondents. For first-time participants, approximately half of respondents agreed that other members of the choir cared for their well-being while 35% stated they Neither Agree nor Disagree, whereas all respondents who have participated more than four times Strongly Agree that other members of the choir care about their well-being.

When asked how much respondents agreed that they could reach out to other members of the choir even though they have already submitted their video, 71% of first-time respondents agreed. All the respondents who have participated four or more times agreed as well.

The majority of respondents, regardless of the number of times that they have participated, agreed that the virtual choir was important to them. Eighty-five percent of first-time participants agreed that the virtual choir was important to them.

Based on the literature, it has been shown that the more frequently a person participates within the community, the higher their sense of community (McMillan & Chavis 1986). The higher rates of belonging among first-time participants can be explained by the development of role-to-role relationships in virtual communities, where weak ties between individuals are used for support and information but only within the specific context of the group (Granovetter 1973; Wellman 2001). It is through the interactions within a community member's weak tie network that they can activate a "sense of community" or a feeling of belonging to the group. As the majority of respondents identified as first-time participants in the virtual choir, many of the ties

that were being newly formed were through the Virtual Choir 6 Facebook Group, where a 21-year-old White woman from the United States said that “Since I had never been part of a virtual choir, the group helped me figure out a recording setup. I also found it motivating when people would post that they had submitted their videos.” In the case of this respondent, the new weak ties she formed gave this respondent emotional and technological support from a global virtual music community.

The transnational nature of Whitacre’s Virtual Choir 6 also suggests that networks of weak ties that transcend national boundaries may contribute to the experience of belonging within all respondents, but especially explains why first-time participants experienced a sense of community within this virtual context. As mentioned in Chapter 2, respondents of this survey were from 32 different countries (See Appendix E.1), while overall, Whitacre’s Virtual Choir 6 had members from 126 countries (Whitacre 2020b). This has allowed people from around the world to interact with each other via this virtual community and form ties based in the specific context of the virtual choir. One 30-year-old White woman from the United States used the Facebook group to “Meet and connect with people around the world and learn new things about their cultures and to communicate with each other”, while another stated that they loved “hearing from other singers across the world about how they were dealing with the pandemic” (30-year-old, White woman, United States). Later in this chapter, I will discuss the main ways which individuals said how they used social media and how it affected their belonging.

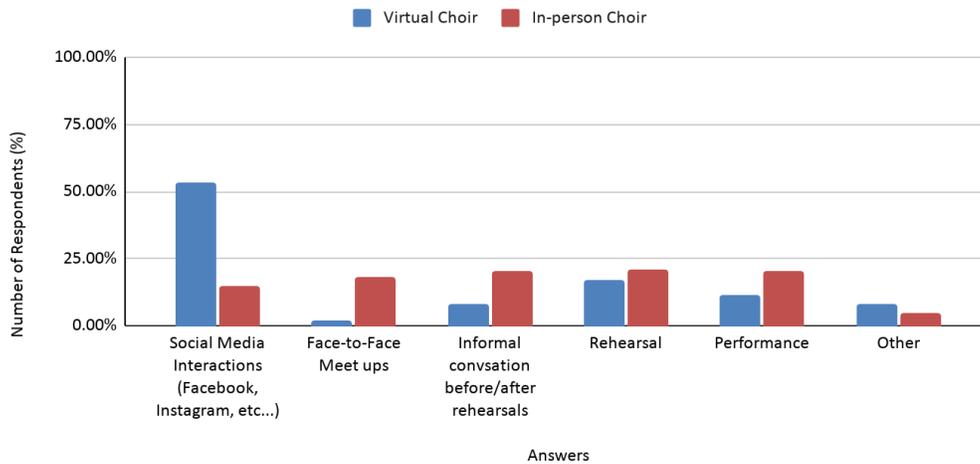
Through comparing the frequency of participation with respondents’ feelings of belonging placed within the context of the effect of weak ties on belonging, we are better able to understand the nuances and perspectives of the manners through which individuals experience feelings of belonging.

### *Interactions within the Choir Community*

In addition to making music, there are other ways in which members of these virtual communities experienced belonging through interaction between choir members. Some of the ways that choir members interact with one another is through *social media-based interactions, face-to-face meet ups, informal conversations before/after rehearsals, at rehearsal itself, and performances.* (See Figure 3, below).

Types of Interactions that helped Respondents connect with other members of choir (%)

Questions 15 +17



When reflecting on their experiences while participating in the virtual choir, 53% of respondents use social media interactions to connect with other members of the virtual choir. Based on this data, social media interactions (via Facebook, Instagram, etc.) have been the main avenue used to reach out to other choir members and this supports this study’s hypothesis based on the prevalence of social media within everyday life (Van Dijck 2013). When reflecting on respondents’ experiences of participating in an in-person choir, respondents relied on many more ways to interact with each other. Approximately 20% of respondents described that they connected with other members through face-to-face meet ups, informal conversations before and

after rehearsals, during rehearsal, and during the performance. Only 15% of respondents in the in-person choir stated that they used social media interactions to connect with others. This is 38 percentage points lower than social media interactions between members of the virtual choir (53%).

Social media has provided an avenue for virtual interaction while simultaneously manipulating virtual social interaction through the implementation of Social Networking Site algorithms. The effect of this facilitation and manipulation can be seen through the large role that social media played in engendering belonging within the members of the Virtual Choir 6 community. This will be explained in the discussion section below.

### **Social Media**

Since the late 20<sup>th</sup> century, social networking sites (SNS) and social media platforms have played an increasingly important role in our day to day lives (Van Dijck 2013). Coinciding with this integration of social media into everyday social life, Eric Whitacre's Virtual Choir 6 created an official Facebook Group to communicate with community members about the project; it also served as a means for individuals to connect with each other and activate a sense of belonging. This section will examine the role of social media, specifically the Eric Whitacre Virtual Choir 6 - Official Facebook Group, in respondent's experience of belonging.

Ninety-four percent of respondents indicated that they were members of the Virtual Choir 6 -- Official Facebook group. Additionally, approximately 90% said that the Facebook group *did* make them feel more connected to other members of the group.

Respondents reported that they utilized this Facebook group in four main ways: *Virtual Interactions (posting/sharing)* (N=124), *Information* (N=99), *Connections* (N=52), and *Emotions/Support* (N= 44).

Respondents described that they used the Facebook group for virtual interaction or liking and commenting on other members' posts. Interestingly, even though there were various respondents who liked/reacted/commented on posts (N=70), there were many respondents who reported they only read the posts (N=54) but did not post themselves (N=17). This supports Gruzd et. al (2013) contention that individuals experience belonging regardless of how they use social media.

Aside from the ability to interact with others via Facebook liking and commenting functions, there were also many respondents who used the Facebook group to access various kinds of information about technological support (N=18), about other choir projects (N=24), or tips for musical technique. In addition to these questions that were posed to members of the Facebook group, many respondents used this social media platform to share music (N=21) or even the videos that they submitted into Whitacre's Virtual Choir (N=9).

There were many respondents who commented on the ability they had to make "acquaintances, connections, and friends from across the world" (50-years-old, White woman, United States). These testimonies were coded as *Connections*. Respondents reported that they used the Facebook group to make connections with people from around the world to talk about their shared experiences about being a musician during the pandemic, being a member of this virtual choir, and to read about the lives of others.

The last way respondents reported using the Facebook group was for various emotional reasons. They used terms such as "encouragement" (N=15) and "support" (N=14). Several respondents described they used the Facebook group to "commiserate" or "express grief" with other members. One respondent describes the "Sharing of feelings, encouragement, building of

relationships. Most importantly, the group gave me courage to submit and share details of our experiences”.

## **Conclusion**

These findings reveal that while rates of belonging are higher within in-person choir communities, members are also able to feel belonging within the virtual choir community. Through understanding how respondents defined community for themselves with focuses on interaction and emotional attachment, it can be concluded that their conceptualizations of community imply that community can exist within a virtual interface (McMillan & Chavis 1986). Through measuring belonging against different variables such as participation and coding different barriers to participation, we can gain a better insight into the nuances that affect individuals' experience of belonging. Additionally, we can also understand these nuances through analyzing the role social media played in members' interactions and therefore, their experience of belonging.

## **V. Discussion**

This study examined the effect of technology on feelings of belonging within a virtual music community. It did so by comparing experiences of members who had participated in both an in-person choir and Eric Whitacre's Virtual Choir 6 – Sing Gently – during the spring of 2020. Based on the data collected, it can be concluded that members' in-person sense of belonging in a music community can be considerably replicated in a virtual interface.

Based on belongingness measures, it was discovered that rates of belonging in in-person choirs were higher than rates of belonging within the virtual choir. Barriers to participation and belonging played a significant role in respondents' ability to participate in-person and virtually, but also affected how respondents utilized the social ties they created through choir participation. Government restrictions imposed on social gatherings due to the COVID-19 pandemic beginning in the spring of 2020, resulted in a greater need for a virtual community. Overall, these restrictions could have affected levels of belonging within the virtual choir. Due to pandemic prohibitions on in-person musical meetings, rehearsals, and performances, members increased their participation in virtual choirs in lieu of normal in-person participation. While participating in the virtual choir, many participants used the Virtual Choir 6 Facebook group to discuss their experiences as musicians. The types of interactions, via social media, face-to-face meet ups, informal conversation, rehearsal, performance, and the frequency of choir participation also affected members' levels of belonging.

Ritual participation at the community and interactional levels reinforced virtual community norms and practices and played a significant role in members' experience of belonging within the virtual choir community. Social media, as the main mechanism of community interaction, impacted individuals' experience of belonging within the virtual

community. The following sociological analysis will explain how choir members experienced belonging in Whitacre's Virtual Choir 6 through *ritual* and *social media*.

### *Belonging through Ritual*

Virtual choirs constitute community through shared practices such as singing techniques and interpreting the conductor's conducting track while recording. At an interactional level, members of the virtual choir connected with each other through these common conventions as well as their shared history and identity as musicians or singers. This study extends Collins' (2004) Interaction Ritual Chain Theory by demonstrating that interaction rituals can occur within a virtual interface. As mentioned in section 2, Interaction Ritual Chain Theory posits that the interaction ritual is an interaction between members of a community who are socialized within the norms of the community, and this interaction will produce a feeling of social solidarity and belonging (Collins 2004). This interaction was chiefly facilitated through members' use of the Virtual Choir 6 Facebook Group. This applies in the specific case of the virtual choir because members do not participate synchronously in a virtual ritual, rather, they sing by themselves while only listening to a conductor track. This means that the interaction ritual that is enacted by the individuals outside of the act of singing is what provides a sense of belonging and social solidarity. This study joins a growing body of literature that contends that this theory applies within the virtual landscape (Ling 2008).

This research also supports Small's (1998) notion of musicking where the ideal relationships which are ritually enacted through the music making allow for connection among participants, the audience, and more broadly, to the universe itself, thereby transcending the physical realm. It is through this transcendence of the physical boundaries that supports the idea

that musicking can occur through a virtual interface and therefore facilitates an individual's experience of belonging within a truly global community.

### *Belonging through Social Media*

This study supported previous research that suggested the use of social media can facilitate feelings of belonging in a virtual community (Gruzd et. al 2013; Marlow 2017; Santarelli 2020). Even though individuals are replicating the musicking ritual virtually, participants' interactions with each other through social media add to feelings of belonging that were produced through ritualistic participation. Social media's role as a facilitator and manipulator of social connection can be seen in this way. A 70-year-old White man described, "the Facebook group plus the rehearsals with Eric brought us together and made it feel like a small group instead of a group of 17,000+". Belonging through social media was facilitated through virtual interactions that were facilitated through the Virtual Choir 6- Official Facebook group. This medium helped to make connections with others, offer and receive support, and share information.

Belonging through social media was accomplished through the creation of mostly weak ties among participants in the Facebook group. The means in which individuals utilized these weak ties (i.e., support, information) challenges Granovetter's (1973) *strength of weak ties theory*. This is because members of the virtual choir have described using the Facebook group for *emotional* support in addition to information-based support. Granovetter (1973) only characterizes emotional closeness as a trait of strong ties. Therefore, within the context of the virtual choir community, the lines between the functions of weak and strong ties have become blurred as these weak ties have begun to hold some of these other functions within a virtual context (Hampton 2011; McCormack 2018). Recent development in ICTs (information

communication technology) has facilitated what Hampton (2016) calls, persistent contact among ties and pervasive awareness of the ties themselves, which has encouraged the different functions of these ties as well as affected individuals' experience of belonging. The COVID-19 pandemic may have affected the types of emotional support used by members of the Facebook group. A 43-year-old White woman from the United States describes that she used the Facebook group to talk about “the ways in which music can ameliorate the stress and anxiety induced by COVID and lockdown”. As a result of this historical context, how this respondent utilized support from the Facebook group changed and therefore affected her experience of belonging.

Additionally, Small (1998) sees making music as an emotionally vulnerable act, and some respondents reported that they benefited from emotional encouragement to post their videos to the Facebook group and the choir in general. Supporting and encouraging members to be vulnerable may affect their experience of belonging within that group. A 70-year-old White woman from the United States describes using the Facebook group to “help others find their confidence to participate”. This emotional support aspect of the Facebook group not only influenced members' experience of belonging but has challenged the dichotomy of the functions of strong and weak ties.

Social media’s role in allowing individuals to surpass barriers to belongingness within a community has been seen in contexts outside of the virtual choir community. This study has supported various preliminary findings in communities of older people living in senior living communities (Winstead et. al 2012) and individuals with disabilities who are living in long term assisted living facilities (Baker et. al 2012). In both studies, individuals were feeling isolated from the broader community or from people in general, and social media provided a medium through which they were able to form and maintain relationships in an online forum. Social

media has functioned in similar ways for members of the virtual choir community which was operating when in-person interactions were largely impossible. Additional research is needed to study how social media affects experiences of belonging within other community contexts.

### *Implications*

This study makes several important contributions to the sociological discipline and beyond. First, it extends Ling's (2008) application of Collins' (2004) Interaction Ritual Chain Theory beyond mediated interactions in co-present interaction, by applying this theory to communities that are entirely virtual. This study also extends Small's (1998) concept of musicking to include *virtual* musicking (Armstrong 2012) by examining how individuals experience belonging during virtual music making. Furthermore, this study supports previous research on the positive correlation of social media and feelings of belonging (Gruzd et. al 2013; Marlow 2017; Santarelli 2020). Finally, it adds to the Sociology of Community literature more broadly because it considers experiences of belonging within in-person and virtual communities in the context of social impediments imposed during the COVID-19 pandemic.

In addition to the study's theoretical implications, there are a couple of practical music making implications. Considering the social distancing restrictions imposed because of the COVID-19 pandemic, virtual music making has emerged as a new way in which arts organizations and educational institutions engage with communities. Regardless of the trajectory of the pandemic, virtual community building is here to stay. This study offers valuable insights into the utility of translocating art into the digital world, as we see experiences of belonging that are comparable to those of in-person choirs.

This study provides data to music making organizations demonstrating that individuals experience a sense of belonging during virtual participation. Even the majority of first-time

participants in a virtual choir experience a level of belonging in which they believe they could ask another virtual choir member for help if they needed it (See Appendix D.1). The continuance of virtual music can provide potentially more accessible mechanisms for music participation and may have implications for community development in this way. Several respondents described facing temporal and spatial barriers to participation in in-person choirs, regardless of the pandemic. One such instance of this is seen in a 27-year-old White woman from the United States who explains, “I live in a rural area and commute two hours each day to work, so I did not have the time or opportunity to join an in-person choir.” By offering virtual programming or virtual alternatives, arts organizations or educational institutions can overcome these in-person barriers to foster a more inclusive music community.

#### *Limitations and Recommendations*

While this study builds upon other preliminary studies about virtual music communities (Armstrong 2012; Francourt and Steptoe 2019; Lysloff 2003), additional research is needed to further explore the construction of virtual music communities and how individuals find belonging within them. Since this study only utilized the survey methodology, further research should be conducted utilizing the in-depth interviews to gain a deeper understanding of the nuance of individuals' experiences of belonging. The generalizability of the results is impacted by the demographic homogeneity of my respondents. Even though the demographic makeup of my respondents represents the normative demographic makeup of these types of projects, belonging could have been affected by certain demographic factors, such as gender, race, class, and ability, that were not addressed in this research. The generalizability of these results is also affected by different barriers to virtual participation such as a lack of access to internet or recording technology, or other factors such as inability to participate because of other social

constraints (socioeconomic status, inability to take time off work). Additionally, the generalizability of the results is limited by the effect of the COVID-19 pandemic. There is a likelihood that levels of belongingness based on the pre-established belonging measures would shift once individuals are able to have the option to participate in virtual as well as in-person choir communities. Therefore, further research is needed to explore the effect of technology on belongingness in virtual music communities after music making restrictions are lifted.

## VI. Conclusion

*The virtual choir was a light in a very dark time.*

*-- 62, White, Woman, United States*

Light. Dark. Connection. Isolation. Music. Silence. Many singers during the COVID-19 pandemic have used music to cope with an unprecedented social landscape. Through participation in this virtual choir, this respondent was not only able to have the opportunity to make music but was also able to connect with other singers from around the world through their experiences as singers in the virtual choir, but also, as people who are experiencing this “dark time”. It was through social media and ICTs that this was able to occur. This creation of the virtual choir community has set an example for future virtual music communities in their ability to create connections between people who may never meet each other in real life but can relate to each other via a shared musical ritual.

This research asked how technology affects individuals’ feelings of belonging within a virtual music community by comparing experiences of belonging among respondents who have participated in an in-person choir and in Eric Whitacre’s Virtual Choir 6. Through utilizing the survey methodology, this study analyzed the perspectives of over 200 participants worldwide and their experiences of belonging within virtual and in-person choir communities. Based on quantitative and qualitative analysis, it can be concluded that respondents are able to experience belonging in both an in-person and virtual choir community through social media and ritual. This research must be considered as ICTs become more entrenched in the fabric of our social lives and through understanding the experiences of participants in Whitacre’s Virtual Choir 6 community, we may better understand belonging in other types of virtual communities beyond unprecedented times of isolation.

## VII. References

- Armstrong, Melanie. 2012. "Musicking in Cyberspace: Creating Music and Fostering Global Community through a Virtual Choir." Master of Arts in Music, Tufts University.
- Babbie, Earl R. 2010. *The Practice of Social Research*. 12th ed. Belmont, Calif: Wadsworth Cengage.
- Baker, Paul M. A., John C. Bricout, Nathan W. Moon, Barry Coughlan, and Jessica Pater. 2013. "Communities of Participation: A Comparison of Disability and Aging Identified Groups on Facebook and LinkedIn." *Telematics and Informatics* 30(1):22–34. doi: [10.1016/j.tele.2012.03.004](https://doi.org/10.1016/j.tele.2012.03.004).
- Bartik, Alexander, Marianne Bertrand, Zoë Cullen, Edward Glaeser, Michael Luca, and Christopher Stanton. 2020. *How Are Small Businesses Adjusting to COVID-19? Early Evidence from a Survey*. 26989. Cambridge, UNITED STATES: National Bureau of Economic Research.
- Beauvais, Caroline, and Jane Jenson. 2002. *Social Cohesion: Updating the State of the Research*. CPRN Discussion Paper. F, 22. Ottawa, ON: Canadian Policy Research Networks.
- Becker, Howard. 1982. *Art Worlds, 25th Anniversary Edition*. 2nd ed. University of California Press.
- Berger, Peter L., and Thomas Luckmann. 1966. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York, NY: Penguin Books.
- Blackstone, Amy. 2012. *Principles of Sociological Inquiry-- Qualitative and Quantitative Methods*. Saylor Foundation.
- Boston Children's Chorus. 2020. "Information Regarding COVID-19 | News | Boston Children's Chorus." Retrieved September 17, 2020 (<https://www.bostonchildrenschorus.org/bcc-news/covid-19>).
- Bryant, Clifton, and Dennis Peck, eds. 2006. "The Sociology of Community." in *21st Century Sociology: A Reference Handbook*. SAGE Publications.
- Cayari, Christopher. 2011. "The YouTube Effect: How YouTube Has Provided New Ways to Consume, Create, and Share Music." *International Journal of Education & the Arts* 12.
- CDC. 2020. "Coronavirus Disease 2019 (COVID-19)." *Centers for Disease Control and Prevention*. Retrieved September 23, 2020 (<https://www.cdc.gov/coronavirus/2019-ncov/index.html>).

- Chayko, Mary. 2008. *Portable Communities: The Social Dynamics of Online and Mobile Connectedness* (Albany: State University of New York Press, 2008), 22. Albany: State University of New York Press.
- Collins, Randall. 2004. *Interaction Ritual Chains*. Princeton University Press.
- Dammers, Richard J. 2012. "Technology-Based Music Classes in High Schools in the United States." *Bulletin of the Council for Research in Music Education* 194.
- Durkheim, Emile. 1938. *The Rules of Sociological Method*. 8th ed. Chicago: University of Chicago Press.
- Durkheim, Emile. 2001. *Elementary Forms of Religious Life*. New York: Oxford University Press.
- Ellison, Nicole B., Charles Steinfield, and Cliff Lampe. 2007. "The Benefits of Facebook 'Friends': Social Capital and College Students' Use of Online Social Network Sites." *Journal of Computer-Mediated Communication* 12(4):1143–68. doi: [10.1111/j.1083-6101.2007.00367.x](https://doi.org/10.1111/j.1083-6101.2007.00367.x).
- Fancourt, Daisy, and Andrew Steptoe. 2019. "Present in Body or Just in Mind: Differences in Social Presence and Emotion Regulation in Live vs. Virtual Singing Experiences." *Frontiers in Psychology* 10:778. doi: [10.3389/fpsyg.2019.00778](https://doi.org/10.3389/fpsyg.2019.00778).
- Florida, Richard, and Michael Seman. 2020. *Measuring COVID-19's Devastating Impact on America's Creative Economy*. Brookings Institute.
- Gao, Junling, Pinpin Zheng, Yingnan Jia, Hao Chen, Yimeng Mao, Suhong Chen, Yi Wang, Hua Fu, and Junming Dai. 2020. "Mental Health Problems and Social Media Exposure during COVID-19 Outbreak" edited by K. Hashimoto. *PLOS ONE* 15(4):e0231924. doi: [10.1371/journal.pone.0231924](https://doi.org/10.1371/journal.pone.0231924).
- González-Sanguino, Clara, Berta Ausín, Miguel Ángel Castellanos, Jesús Saiz, Aída López-Gómez, Carolina Ugidos, and Manuel Muñoz. 2020. "Mental Health Consequences during the Initial Stage of the 2020 Coronavirus Pandemic (COVID-19) in Spain." *Brain, Behavior, and Immunity* 87:172–76. doi: [10.1016/j.bbi.2020.05.040](https://doi.org/10.1016/j.bbi.2020.05.040).
- Granovetter, Mark S. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 78(6):22.
- Gruzd, Anatoliy, and Caroline Haythornthwaite. 2013. "Enabling Community Through Social Media." *Journal of Medical Internet Research* 15(10):e248. doi: [10.2196/jmir.2796](https://doi.org/10.2196/jmir.2796).

- Hamner, Lea. 2020. "High SARS-CoV-2 Attack Rate Following Exposure at a Choir Practice — Skagit County, Washington, March 2020." *MMWR. Morbidity and Mortality Weekly Report* 69. doi: [10.15585/mmwr.mm6919e6](https://doi.org/10.15585/mmwr.mm6919e6).
- Hampton, Keith N. 2016. "Persistent and Pervasive Community: New Communication Technologies and the Future of Community." *American Behavioral Scientist* 60(1):101–24. doi: [10.1177/0002764215601714](https://doi.org/10.1177/0002764215601714).
- Hillery, George. 1955. "Definitions of Community: Areas of Agreement." *Rural Sociology* 20:111–23.
- Juslin, Patrik N., and Daniel Västfjäll. 2008. "Emotional Responses to Music: The Need to Consider Underlying Mechanisms." *Behavioral and Brain Sciences* 31(5):559–75. doi: [10.1017/S0140525X08005293](https://doi.org/10.1017/S0140525X08005293).
- Katz, Mark. 2010. *Capturing Sound: How Technology Has Changed Music*. Berkeley, UNITED STATES: University of California Press.
- Labaree, Robert V. 2021. "Research Guides: Organizing Your Social Sciences Research Paper: Quantitative Methods." Retrieved February 4, 2021 (<https://libguides.usc.edu/writingguide/quantitative>).
- Ling, Richard Seyler. 2008. *New Tech, New Ties: How Mobile Communication Is Reshaping Social Cohesion*. Cambridge, UNITED STATES: MIT Press.
- Long, Heather. 2020. "Small Business Used to Define America's Economy. The Pandemic Could Change That Forever." *Washington Post*, May 12.
- Lysloff, René T. A. 2003. "Musical Community on the Internet: An On-Line Ethnography." *Cultural Anthropology* 18(2):233–63.
- Marlowe, Jay M., Allen Bartley, and Francis Collins. 2017. "Digital Belongings: The Intersections of Social Cohesion, Connectivity and Digital Media." *Ethnicities* 17(1):85–102. doi: [10.1177/1468796816654174](https://doi.org/10.1177/1468796816654174).
- Marston, Hannah, Charles Musselwhite, and Robin Hadley. 2020. "COVID-19 vs Social Isolation: The Impact Technology Can Have on Communities, Social Connections, and Citizens." *British Society for Gerontology*. Retrieved September 23, 2020 ([https://d1wqtxts1xzle7.cloudfront.net/62420979/COVID-19\\_vs\\_Social\\_Isolation\\_the\\_Impact\\_Technology\\_Ageing\\_Issues20200320-17623-1v0k1bl.pdf?1584698173=&response-content-disposition=inline%3B+filename%3DCOVID\\_19\\_vs\\_Social\\_Isolation\\_the\\_Impact.pdf&Expires](https://d1wqtxts1xzle7.cloudfront.net/62420979/COVID-19_vs_Social_Isolation_the_Impact_Technology_Ageing_Issues20200320-17623-1v0k1bl.pdf?1584698173=&response-content-disposition=inline%3B+filename%3DCOVID_19_vs_Social_Isolation_the_Impact.pdf&Expires)

[=1600883624&Signature=HaqJB7kC8mBRa0DsC70SAVq8eOIXfp3iXQz994pEEhbRCwU-3jlQqSOX7CH~u22VOVQmzWDE8g-V-p6sqOq6OO7hvMuqzswY50TDiOY6WUuTI99Y2NTFkF4WhOaE5Z4pD7TaivkKyJXgPPOpINjDjFLgTGKVRqEjx4b94uQ78upElnbKC9fhfZ4hGcRlohBlyZ8GejVIdtv~a~EfGGulFCDU8h0UEakkFjRVmMw9dlzpq3ex57u6jcGalm7hUngQjbkPjnWPuyNMo-Wis6UY-auB-ZxvTeimtCm6WKUTGjYSb4BHDINU132XZAEJc1HuSeq0LRv5ANuOrUhHx1pqq\\_\\_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA\).](https://www.merriam-webster.com/dictionary/information+technology)

- McCormack, Karen. 2018. "Building Community Online and on the Trail: Communication, Coordination, and Trust among Mountain Bikers." *Information, Communication & Society* 21(4):564–77. doi: [10.1080/1369118X.2017.1290128](https://doi.org/10.1080/1369118X.2017.1290128).
- McMillan, David, and David Chavis. 1986. "Sense of Community: A Definition and Theory." *Journal of Community Psychology* 14.
- Merriam-Webster. 2020. "Definition of Information Technology." *Merriam-Webster*. Retrieved October 3, 2020 (<https://www.merriam-webster.com/dictionary/information+technology>).
- Merton, Robert. 1957. *Social Theory and Social Structure*. Glencoe, IL: Free Press.
- Mohd Affendi, Safiz. 2008. "Understanding Virtual Community of Gamers: The Quest for Power in the Social World of EverQuest." Pp. 1714–22 in *Encyclopedia of Networked and Virtual Organizations*, edited by G. D. Putnik and M. M. Cruz-Cunha. IGI Global.
- Nicola, Maria, Zaid Alsafi, Catrin Sohrabi, Ahmed Kerwan, Ahmed Al-Jabir, Christos Iosifidis, Maliha Agha, and Riaz Agha. 2020. "The Socio-Economic Implications of the Coronavirus Pandemic (COVID-19): A Review." *International Journal of Surgery (London, England)* 78:185–93. doi: [10.1016/j.ijssu.2020.04.018](https://doi.org/10.1016/j.ijssu.2020.04.018).
- Putnam, Robert. 2000. *Bowling Alone: The Collapse and Revival of American Community*. Simon & Schuster.
- Rheingold, Howard Lee. 2020. "Virtual Community | Definition & Types." *Encyclopedia Britannica*. Retrieved October 3, 2020 (<https://www.britannica.com/topic/virtual-community>).
- Roehmann, Franz L. 1995. "Technology, Culture, and Music." *College Music Symposium* 35:124–31.
- Rousseau, Jean-Jacques. 1947. *The Social Contract*. edited by C. Frankel. New York: Hafner Publishing.
- Sable, Ken, William Brady, and Nora Gerard. 2020. "The Largest Virtual Choir Ever Assembled." *CBS Sunday Morning*.

- Santarelli, Annie J. 2020. "SOCIAL MEDIA USE & BELONGING." Wake Forest University Graduate School of Arts and Sciences, Winston-Salem, North Carolina.
- Shapin, Steven. n.d. "COVID and Community." *Los Angeles Review of Books*. Retrieved September 13, 2020 (<https://lareviewofbooks.org/article/covid-and-community/>).
- Small, Christopher. 1998. *Musicking: The Meanings of Performing and Listening*. Wesleyan University Press.
- Tönnies, Ferdinand. 1893. *Community and Society*. Lansing: Michigan State University Press.
- Turkle, Sherry. 2011. *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York, NY: Basic Books.
- U.S. Department of Health and Human Services. 2021. "COVID-19 Public Health and Medical Emergency Declarations and Waivers." *Public Health Emergency*. Retrieved April 28, 2021 (<https://www.phe.gov/emergency/events/COVID19/Pages/2019-Public-Health-and-Medical-Emergency-Declarations-and-Waivers.aspx>).
- U.S. Department of Treasury. 2020. "The CARES Act Works for All Americans." *U.S. Department of Treasury*. Retrieved September 23, 2020 (<https://home.treasury.gov/policy-issues/cares>).
- Van Dijck, José. 2013. *The Culture of Connectivity: A Critical History of Social Media*. New York, NY: Oxford University Press.
- Vickhoff, Björn, Helge Malmgren, Rickard Åström, Gunnar Nyberg, Seth-Reino Ekström, Mathias Engwall, Johan Snygg, Michael Nilsson, and Rebecka Jörnsten. 2013. "Music Structure Determines Heart Rate Variability of Singers." *Frontiers in Psychology* 4. doi: [10.3389/fpsyg.2013.00334](https://doi.org/10.3389/fpsyg.2013.00334).
- Vincent, Elizabeth A. 2016. "Social Media as an Avenue to Achieving Sense of Belonging Among College Students." 14.
- Wellman, Barry. 2001. "Physical Place and Cyberplace: The Rise of Personalized Networking." *International Journal of Urban and Regional Research* 25(2):227–52. doi: [10.1111/1468-2427.00309](https://doi.org/10.1111/1468-2427.00309).
- Whitacre, Eric. 2011. "A Virtual Choir 2,000 Voices Strong." Presented at the TED Conference.
- Whitacre, Eric. 2020a. "About the Virtual Choir – Eric Whitacre’s Virtual Choir." *Eric Whitacre*. Retrieved September 13, 2020 (<https://ericwhitacre.com/the-virtual-choir/about>).

- Whitacre, Eric. 2020b. *Sing as One: Ten Years of Eric Whitacre's Virtual Choir*.
- Winstead, Vicki, William A. Anderson, Elizabeth A. Yost, Shelia R. Cotten, Amanda Warr, and Ronald W. Berkowsky. 2012. "You Can Teach an Old Dog New Tricks." *Journal of Applied Gerontology* 32(5):21.
- Yang, Chia-chen, and B. Bradford Brown. 2015. "Factors Involved in Associations between Facebook Use and College Adjustment: Social Competence, Perceived Usefulness, and Use Patterns." *Computers in Human Behavior* 46:245–53. doi: [10.1016/j.chb.2015.01.015](https://doi.org/10.1016/j.chb.2015.01.015).
- Yu, Angela Yan, Stella Wen Tian, Douglas Vogel, and Ron Chi-Wai Kwok. 2010. "Can Learning Be Virtually Boosted? An Investigation of Online Social Networking Impacts." *Computers & Education* 55(4):1494–1503. doi: [10.1016/j.compedu.2010.06.015](https://doi.org/10.1016/j.compedu.2010.06.015).

## VIII. Appendix

### **Appendix A.1 First Recruitment Message sent to Eric Whitacre's Virtual Choir 6 Facebook Group.**

Hey gang, I need your help!

I am a senior music student at Wheaton College MA and for my Honors Thesis research, I have designed a survey to understand the experiences of singers who have participated in both a virtual choir and an in-person choir. This survey is completely voluntary and anonymous and will only take around 5-10 minutes. I have attached the link below!

Your responses and experiences are central to my work and I really appreciate you taking the time to take my survey!

If you have any questions about this survey or about what my thesis entails, feel free to comment or private message me!

### **Appendix A.2 Second Recruitment Message sent to Eric Whitacre's Virtual Choir 6 Facebook Group**

We're over halfway there, but I still need YOUR help!

Hello! I just want to thank everyone who has taken the time to fill out my survey for my thesis research, it means the world to me to hear your stories and experiences.

For those of you who are seeing my posts for the first time, my name is Jill and I am a senior music student at Wheaton College MA and for my Honors Thesis research, I have designed a survey to understand the experiences of singers who have participated in both a virtual choir and an in-person choir. This survey is completely voluntary and anonymous and will only take around 5-10 minutes. I have attached the link below!

Each of your responses brings me closer to my goal!

If you have any questions about the survey or my research feel free to comment/direct message me!

### **Appendix A.3 Third Recruitment Message sent to Eric Whitacre's Virtual Choir 6 Facebook Group**

## LAST CHANCE

To reach my data collection goal, I just need 50 more respondents!

I just wanted to thank everyone again for taking the time to take my survey and share your stories for my thesis research.

If you have participated in Eric's Virtual Choir 6 and have experience with in person choirs, I need your help! There is more information about the survey when you click on the link that I have attached below!

## Appendix B. Informed Consent Form

Data Collection Instrument: Effect of Technology on Feelings of Belongingness

Informed Consent Form:

Purpose:

This project is conducting research to explore your experiences between participating in a virtual choir (Eric Whitacre's Virtual Choir 6) and an in-person choir. Your participation is being sought to contribute to build a database on this topic.

Procedures

This project asks participants of Eric Whitacre's Virtual Choir 6 to provide information about their experiences participating in this virtual choir as well as their previous experience participating in an in-person choir. You have been recruited with the understanding that you have participated in both of these.

The survey will ask questions about your experiences as a choral singer, your participation in Eric Whitacre's Virtual Choir 6, and your participation in an in-person choir. You will spend approximately 15-20 minutes filling out the survey.

My research question examines the similarities and differences of experiences of community within Eric Whitacre's Virtual Choir 6 and your experiences of community within an in-person choir.

The project adheres to protocols that maintain confidentiality of any personal information you may give during the project. All data will be held in a password protected environment. Analysis will be reported at the aggregate level and we will not reveal your name and/or

individual indicators at any time during the dissemination of the data.

Your participation should not pose any risk to you as an individual participant given the nature of the project. There is the possibility that you could feel uncomfortable providing answers to some of the questions asked in the survey. You are not required to answer any question and can stop participating at any time. There are no expected direct benefits to participants.

If you have any questions about the research, please contact Jillian Hirst at Wheaton College: [hirst\\_jillian@wheatoncollege.edu](mailto:hirst_jillian@wheatoncollege.edu). If you have any questions about your rights as a participant, please contact Dr. Meg Kirkpatrick, Executive Secretary of the Wheaton College Institutional Review Board at (508) 286-3642 or by email at [Kirkpatrick\\_meg@wheatoncollege.edu](mailto:Kirkpatrick_meg@wheatoncollege.edu).

Filling in the "Yes" button below means that I am at least 18 years old, I voluntarily consent to participate in this study and that I have read this consent document. Clicking "Yes" means that I agree that the study purpose, nature of my involvement, and risks have been explained to my satisfaction.

Yes

No

## Appendix C. Data Collection Instrument (Downloaded from Qualtrics)

### Belongingness in Virtual vs. In-person Choirs

Start of Block: Default Question Block

#### Q1 Purpose

**This project is conducting research to compare your experiences in participating in a virtual choir (Eric Whitacre's Virtual Choir 6) and an in-person choir. Your participation is being sought to contribute to build a database on this topic.**

#### Procedures

**This project asks participants of Eric Whitacre's Virtual Choir 6 to provide information about their experiences participating in this virtual choir as well as their previous experience participating in an in-person choir. You have been recruited with the understanding that you have participated in both of these.**

**The survey will ask questions about your experiences as a choral singer, your**

participation in Eric Whitacre's Virtual Choir 6, and your participation in an in-person choir. You will spend approximately 10 minutes filling out the survey.

My research question examines the similarities and differences of experiences of community within Eric Whitacre's Virtual Choir 6 and your experiences of community within an in-person choir.

This survey will not collect any identifying information. Aggregate level data will be used to describe patterns identified by responses. Your participation should not pose any risk to you as an individual participant given the nature of the project. You are not required to answer any question and can stop participating at any time. There are no expected direct benefits to participants.

If you have any questions about the research, please contact Jillian Hirst at Wheaton College: [hirst\\_jillian@wheatoncollege.edu](mailto:hirst_jillian@wheatoncollege.edu). If you have any questions about your rights as a participant, please contact Dr. Meg Kirkpatrick, Executive Secretary of the Wheaton College Institutional Review Board at (508) 286-3642 or by email at [Kirkpatrick\\_meg@wheatoncollege.edu](mailto:Kirkpatrick_meg@wheatoncollege.edu).

Filling in the "Yes" button below means that I am at least 18 years old, I voluntarily consent to participate in this study and that I have read this consent document. Clicking "Yes" means that I agree that the study purpose, nature of my involvement, and risks have been explained to my satisfaction.

- Yes (1)
- No (2)

*Skip To: End of Survey If Purpose This project is conducting research to compare your experiences in participating in a vir... = No*

**Q2 When you think of "community" what is the first word that comes to mind?**

---

**Q3 How important is it to you to feel a sense of community with other community members?**

- Slightly important (1)
- Moderately important (2)
- Very important (3)
- Extremely important (4)

**Q4 Would you call yourself a “singer”?**

- Yes (1)
- No (2)

**Q5 Would you call yourself a “musician”?**

- Yes (1)
- No (2)

Page Break

**Q6 Prior to March 2020, did you participate in a virtual choir?**

- Yes (1)
- No (2)

*Skip To: Q8 If Prior to March 2020, did you participate in a virtual choir? = No*

*Display This Question:*

*If Prior to March 2020, did you participate in a virtual choir? = Yes*

**Q7 How many years have you participated in this choir?**

---

**Q8 Prior to March 2020, did you participate in an in-person choir?**

- Yes (1)
- No (2)

*Skip To: Q10 If Prior to March 2020, did you participate in an in-person choir? = No*

*Display This Question:*

*If Prior to March 2020, did you participate in an in-person choir? = Yes*

**Q9 How many years have you participated in this choir?**

---

Page Break

**Q10 How many times have you participated in one of Eric Whitacre's Virtual Choir projects?**

- One (This is my first time!) (1)**
- Two (2)**
- Three (3)**
- Four (4)**
- More than Four Times (5)**

**Q11 Were you a member of the Facebook group associated with this virtual choir (Eric Whitacre's Virtual Choir 6)?**

- Yes (1)**
- No (2)**

*Skip To: End of Block If Were you a member of the Facebook group associated with this virtual choir (Eric Whitacre's Virtu... = No*

*Display This Question:*

*If Were you a member of the Facebook group associated with this virtual choir (Eric Whitacre's Virtu... = Yes*

**Q12 Did being a member of this Facebook group make you feel more connected to members of the group?**

- Yes (1)**
- No (2)**

*Skip To: End of Block If Did being a member of this Facebook group make you feel more connected to members of the group? = No*

*Display This Question:*

*If Did being a member of this Facebook group make you feel more connected to members of the group? = Yes*

**Q13 How did you use the Facebook group to interact with members of Eric Whitacre's Virtual Choir 6? Explain.**

---

End of Block: Default Question Block

Start of Block: Block 1

**Q14 On a scale of 1 (Strongly Agree) to 5 (Strongly Disagree), rate your feelings about the following statements about your experience in a virtual choir:**

	<b>1 Strongly Agree (1)</b>	<b>2 (2)</b>	<b>3 Neither Agree/Disagree (3)</b>	<b>4 (4)</b>	<b>5 Strongly Disagree (5)</b>
<b>I feel that members of this virtual choir (Eric Whitacre's Virtual Choir 6) share the same love for music as I do: (1)</b>	0	0	0	0	0
<b>I feel that I could ask at least one other member of this virtual choir (Eric Whitacre's Virtual Choir 6) for help, if I needed it: (2)</b>	0	0	0	0	0

<b>I feel that members of this virtual choir (Eric Whitacre's Virtual Choir 6) care about my well being: (3)</b>	0	0	0	0	0
--	---	---	---	---	---

<b>I feel that I could reach out to members of this virtual choir (Eric Whitacre's Virtual Choir 6) even though I have already submitted my video: (4)</b>	0	0	0	0	0
--	---	---	---	---	---

<b>I feel that being part of this virtual choir is important to me: (5)</b>	0	0	0	0	0
---	---	---	---	---	---

**Q15 What types of interactions have helped you connect with other participants in the virtual choir (Eric Whitacre's Virtual Choir 6)? Select all that apply:**

- Social Media Interactions (Facebook, Instagram, etc...) (1)**
- Face-to-Face Meet ups (2)**
- Informal conversation before/after rehearsals (3)**
- Rehearsal (4)**
- Performances (5)**

□

Other: (6) \_\_\_\_\_

Page Break

**Q16 On a scale of 1 (Strongly Agree) to 5 (Strongly Disagree), rate your feelings about the following statements about your experience in an in-person choir:**

	<b>1 Strongly Agree (1)</b>	<b>2 (2)</b>	<b>3 Neither Agree/Disagree (3)</b>	<b>4 (4)</b>	<b>5 Strongly Disagree (5)</b>
<b>I feel that members of this in-person choir share the same love for music as I do: (1)</b>	0	0	0	0	0
<b>I feel that I could ask at least one other member of this in-person choir for help, if I needed it: (2)</b>	0	0	0	0	0
<b>I feel that members of this in-person choir care about my well being: (3)</b>	0	0	0	0	0

**I feel that I could reach out to members of this in-person choir even though the performances is over: (4)**

0 0 0 0 0

**I feel that being part of this in-person choir is important to me: (5)**

0 0 0 0 0

**Q17 What types of interactions have helped you connect with other participants in the in-person choir? Select all that apply:**

- Social Media Interactions (Facebook, Instagram, etc...) (1)**
- Face-to-Face Meet ups (2)**
- Informal conversation before/after rehearsals (3)**
- Rehearsal (4)**
- Performances (5)**
- Other: (6) \_\_\_\_\_**

Page Break

**Q22 Are there any barriers that may affect your participation in an in-person choir (ex. Time, Lack of Transportation, etc...)?**

\_\_\_\_\_

**Q23 Are there any barriers that may affect your participation in a virtual choir (ex. Time, Lack of reliable internet, Limited technological knowledge, etc...)?**

---

End of Block: Block 1

Start of Block: Block 2

**Q19 How old are you?**

---

**Q21 Are you currently living in the United States?**

- Yes (1)**
- No (2)**

*Display This Question:*

*If Are you currently living in the United States? = Yes*

**Q28 What is your racial identity? Check all that apply:**

- Black or African American (1)**
- American Indian or Alaska Native (2)**
- Asian (3)**
- Native Hawaiian or Pacific Islander (4)**
- Hispanic/Latinx (5)**
- White (6)**
- Prefer not to say (7)**
- Other: (8) \_\_\_\_\_**

*Display This Question:*

*If Are you currently living in the United States? = No*

**Q29 What country are you currently living in (ex. United Kingdom, Argentina)?**

---

*Display This Question:*

*If Are you currently living in the United States? = No*

**Q30 What racial/ethnic category best describes you (ex. Caucasian, Black)?**

---

**Q20 What do you currently do (ex. student, working, etc...)?**

- Student (1)
- Work (2)
- Unemployed (3)
- Retired (4)
- Other: (5) \_\_\_\_\_

**Q21 What is your highest level of education you have completed?**

- Some High School (1)
- High School Diploma or Equivalent (ex. GED) (2)
- Some College (3)
- Associate's Degree (4)
- Bachelor's Degree (5)
- Master's Degree (6)
- Advanced Professional Degree (7)
- Other: (8) \_\_\_\_\_

**Q26 What gender do you identify with?**

- Woman (1)**
- Man (2)**
- Non-Binary (3)**
- Gender Fluid (4)**
- Prefer not to say (5)**
- Other, please specify: (6) \_\_\_\_\_**

Page Break

**Q22 Is there anything else you would like to share about your experiences in these groups?**

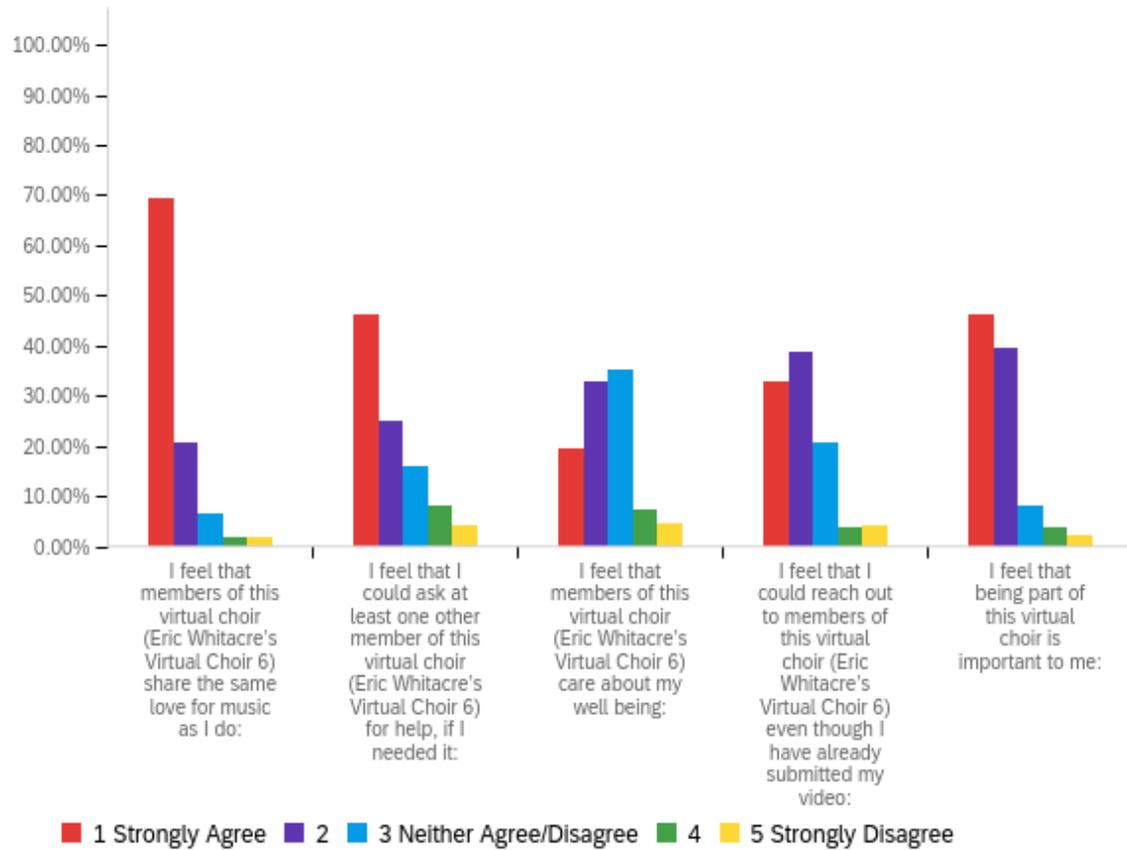
\_\_\_\_\_

**Q23 Thank you for taking this survey! If you have any questions about the research or have anything else you would like to share about your experience, please contact Jillian Hirst at Wheaton College: [hirst\\_jillian@wheatoncollege.edu](mailto:hirst_jillian@wheatoncollege.edu).**

End of Block: Block 2

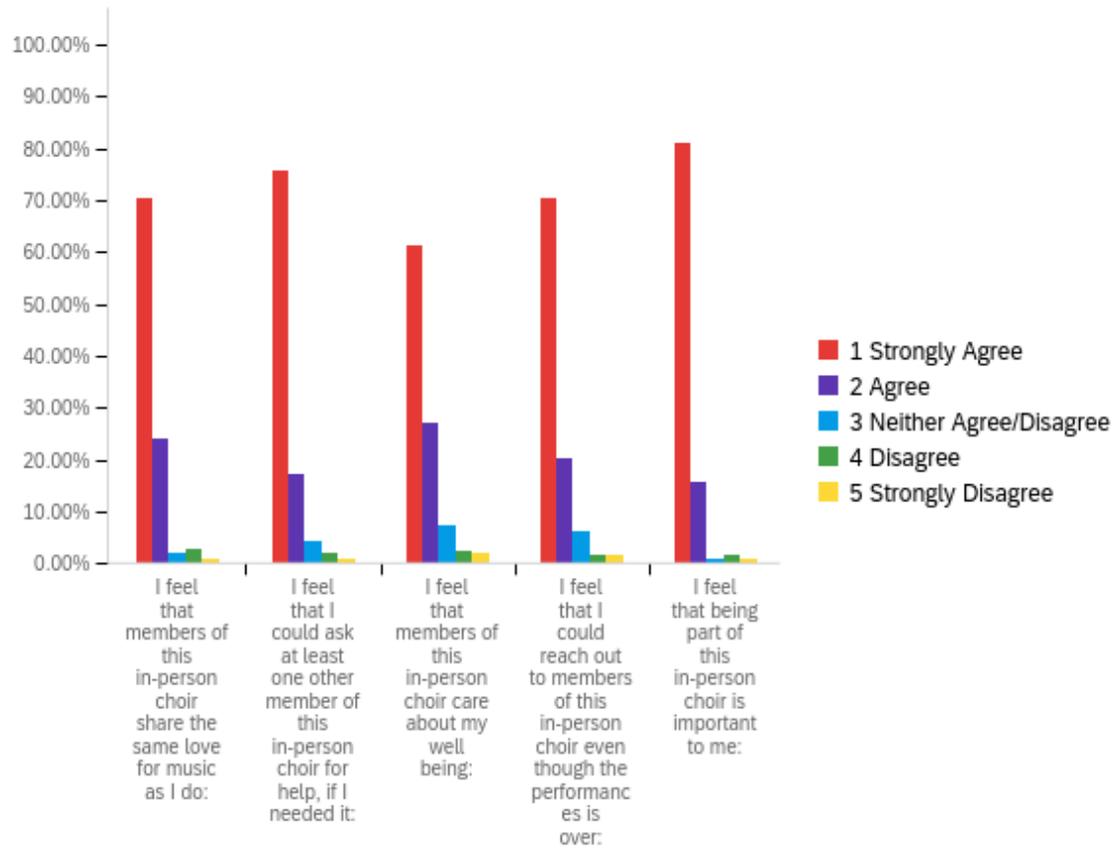
**Appendix D.1 (Q14) Respondent's Levels of Agreement Regarding Experience in Virtual Choir (%)**

Q14 Percent of Respondents' Levels of Agreement with Statements Regarding Virtual Choir Experience



**Appendix D.2 (Q16) Respondent's Levels of Agreement Regarding Experience in In-Person Choir (%)**

Q16 Percent of Respondents' Levels of Agreement with Statements Regarding In-person Choir Experience

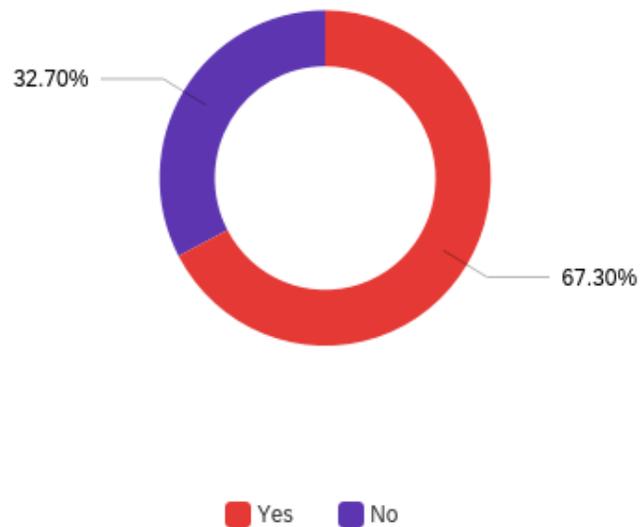


**Appendix E.1 SAMPLE DEMOGRAPHICS: Country of Residence (Other than the United States of America)**

<b>Australia</b>	<b>1</b>	<b>New Zealand</b>	<b>2</b>
<b>Belgium</b>	<b>3</b>	<b>Norway</b>	<b>1</b>
<b>Canada</b>	<b>15</b>	<b>Philippines</b>	<b>1</b>
<b>Colombia</b>	<b>1</b>	<b>Poland</b>	<b>1</b>
<b>England</b>	<b>2</b>	<b>Portugal</b>	<b>1</b>
<b>Finland</b>	<b>2</b>	<b>Singapore</b>	<b>1</b>
<b>France</b>	<b>1</b>	<b>South Africa</b>	<b>1</b>
<b>Germany</b>	<b>4</b>	<b>Spain</b>	<b>2</b>
<b>Ghana</b>	<b>1</b>	<b>Sweden</b>	<b>2</b>
<b>Greece</b>	<b>1</b>	<b>Taiwan</b>	<b>1</b>
<b>India</b>	<b>1</b>	<b>Netherlands</b>	<b>1</b>
<b>Ireland</b>	<b>1</b>	<b>United Kingdom (no specific country within)</b>	<b>10</b>
<b>Scotland (UK)</b>	<b>1</b>	<b>United Arab Emirates</b>	<b>1</b>
<b>Israel</b>	<b>1</b>	<b>Wales (UK)</b>	<b>1</b>
<b>Italy</b>	<b>4</b>	<b>Zimbabwe</b>	<b>1</b>
<b>Japan</b>	<b>1</b>		
		<b>Total Respondents:</b>	<b>67</b>
		<b>Total Countries:</b>	<b>31</b>

**Appendix E.2 Sample Demographics: Percentage (%) U.S. Residents**

Q21 - Are you currently living in the United States?



**Appendix E.3 Sample Demographics: Race/Ethnicity (US Residents) (# of Respondents)**

	# of Respondents	Percentage (%)
<b>Black or African American</b>	1.0	0.7
<b>American Indian or Alaska Native</b>	0.0	0.0
<b>Asian</b>	6.0	4.2
<b>Native Hawaiian or Pacific Islander</b>	0.0	0.0
<b>Hispanic/Latinx</b>	3.0	2.1
<b>White</b>	123.0	86.6
<b>Prefer not to say</b>	5.0	3.5
<b>Other</b>	4.0	2.8
<b>TOTALS:</b>	<b>142.0</b>	<b>100.0</b>

**Appendix E.4 Sample Demographics: Race/Ethnicity (Non-US Residents) (# of Respondents)**

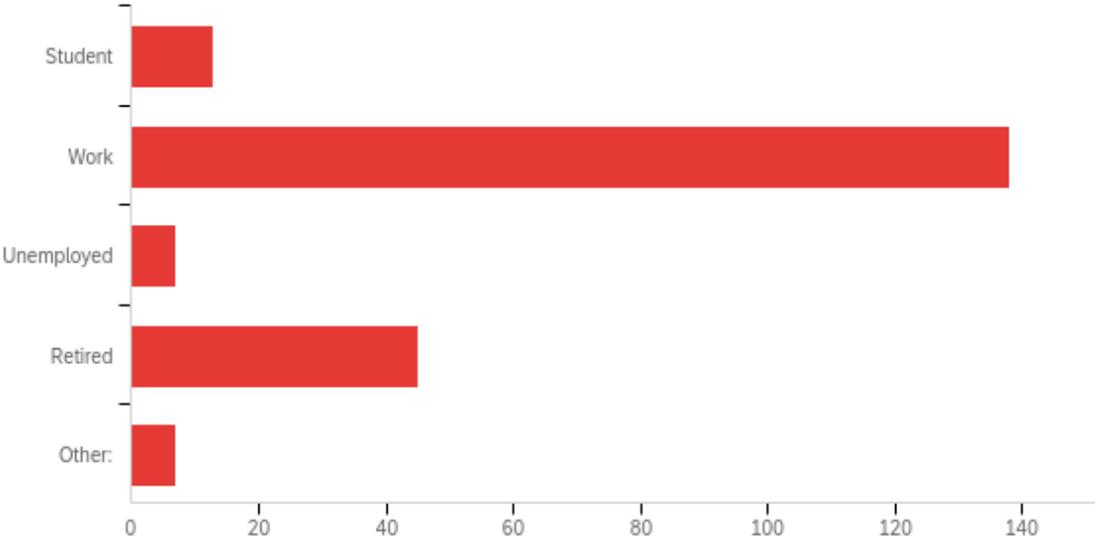
<b>Asian</b>	<b>2</b>
<b>Asian/Pacific Islander/Latino (Filipino)</b>	<b>1</b>
<b>Black</b>	<b>2</b>
<b>Caucasian</b>	<b>31</b>
<b>Caucasian/British</b>	<b>1</b>
<b>East Asian</b>	<b>1</b>
<b>European</b>	<b>5</b>
<b>Hispanic</b>	<b>1</b>
<b>Indian</b>	<b>1</b>
<b>Japanese</b>	<b>1</b>
<b>Latin</b>	<b>1</b>
<b>Mixed-Race</b>	<b>1</b>
<b>Northeast Asian</b>	<b>1</b>
<b>White</b>	<b>8</b>
<b>White/South Indian</b>	<b>1</b>
<b>White/British</b>	<b>3</b>
<b>White/English</b>	<b>2</b>
<b>White/European</b>	<b>1</b>
<b>White/Swedish</b>	<b>1</b>

<b>Appendix E.5 SAMPLE DEMOGRAPHICS: Sample Age (years)</b>
---

<b>Maximum</b>	<b>80</b>
<b>Minimum</b>	<b>18</b>
<b>Median</b>	<b>53</b>
<b>Mode</b>	<b>67</b>
<b>Average</b>	<b>35</b>

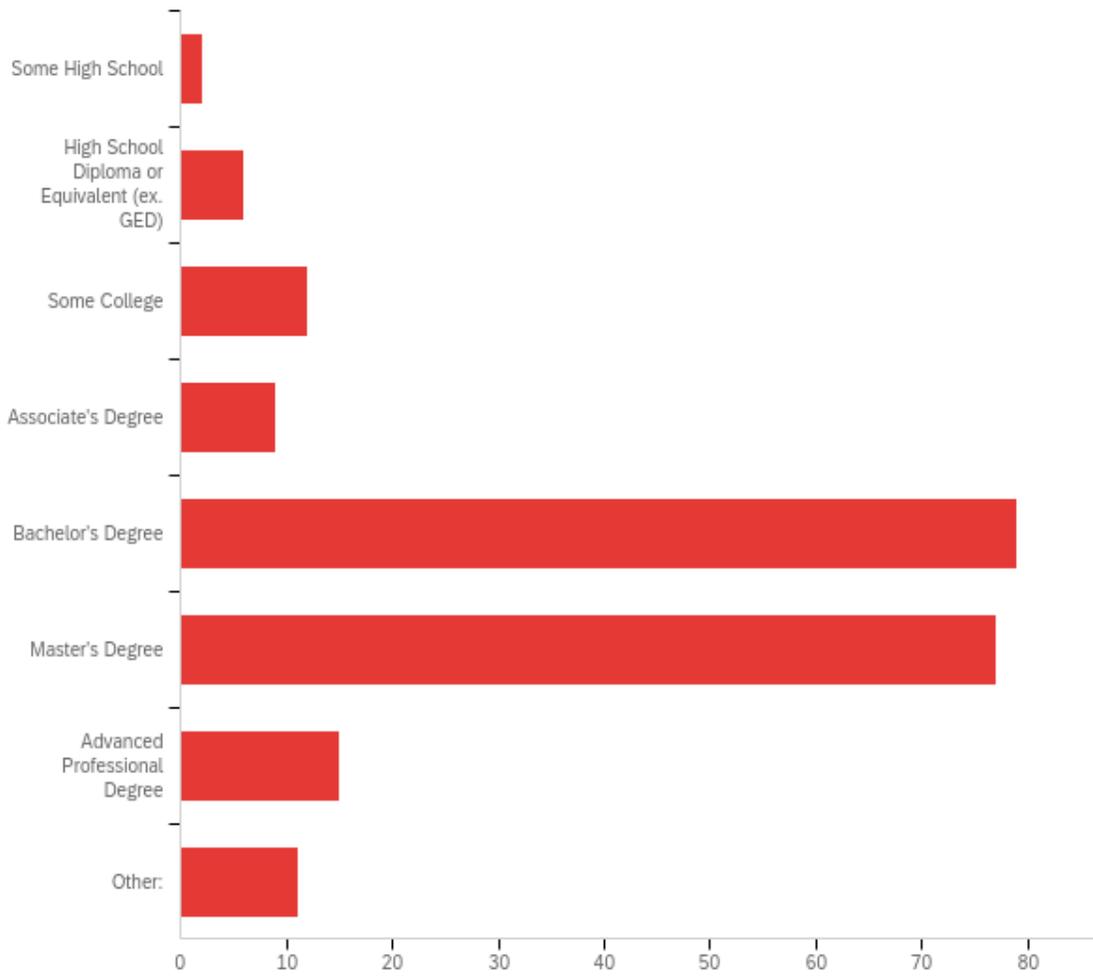
<b>Appendix E.6 SAMPLE DEMOGRAPHICS: Respondent Occupation (# of Respondents)</b>
---

Respondent's Occupation



**Appendix E.7 SAMPLE DEMOGRAPHICS: Highest Educational Attainment (# of Respondents)**

### Respondent's Education Attainment (Highest Completed)



**Appendix E.8 SAMPLE DEMOGRAPHICS: Respondent Gender Identity (# of Respondents)**

### Respondent's Gender Identification

