# **Abstract**

The progressive increase in connectivity, while allowing for higher resilience to loneliness, has not decreased the effect that loneliness has on overall wellness. In addition, the lower quality of online based interactions and relationships may induce loneliness despite an increase in social activity. The paper explores the mediated relationship between loneliness and happiness, assuming that social cohesion and engagement will act as a buffer for loneliness’s negative effects. To do so, data is pulled from the General Social Survey and the American National Elections Study to analyze changes in online interaction rates between 2018 and 2020, and verifying if these were met with corresponding changes in loneliness and happiness self-evaluations. The Fixed Effects Multinomial Logit model revealed that no mediating relationship could be found from social cohesion and social engagement activities, however the performance of social activities and the recognition of one’s belonging to a community were found to benefit wellness regardless of external political turmoil or national medical emergencies. Given that this study on the effect of online communication was conducted on a nationally representative sample, further research is proposed on its role within local, proximity-based, communities.

*Keywords:* Online Communication, Loneliness, Health, Happiness, Social Cohesion

Screens and Faces: A Fixed Effects Model for the Effect of Loneliness on Wellness

When Interacted with

# **Introduction**

The internet has made physical distance a trivial limitation, as many today are able to stay continuously connected through their phones, tablets, computers and laptops (Scott et al., 2021). Through online communication, we are able to remain connected with people all over the world at all times, increasing our social networks, empowering healthy behaviors through sharing, and increasing our resilience to discord and mental distress (Lin et al., 2020; Kamalpour et al., 2020). However, while the quantity of communication might have increased exponentially, the quality of online interactions has struggled to pick up the pace, and the possibility remains of feeling isolated even within this solid global interactivity network.

The pandemic was a wakeup call for most supporters of digital networks, given that social isolation measures were met with distress, worry, and fear (McClain, Vogels, Perrin, Sechopoulos, & Rainie, 2021). In fact, increased bouts of social isolation and, particularly, of feelings of loneliness have been proven to bring sleep disturbances, poor estimation of health, depression and high suicide risk (Hwang, 2020; Hämmig, 2019; Rauschenberg, et al. 2021). Even just the perception of having to endure protracted physical or emotional loneliness can bring about several stress related illnesses, such as cardiovascular irregularities, strokes and hypertension, citing also dysfunctional health habits and the worsening of existing chronic illnesses (Kim, 2021; Mohnen et al., 2011).

Unfortunately, the restrictions on physical meetings and interactions did in fact exacerbate loneliness among young US adults. Both students and elders were among the most impacted by isolation measures, with an overall decrease in the amount of basic social needs being met and an increase in mental illness comorbidity rates (Towner et al., 2022). Of the several studies conducted on the matter, Harvard’s 2020 report on loneliness remains the most influential: from a representative sample of 950 U.S. adults, about 36% of these had felt lonely by late October 2020, and 61% of them had developed depression in the same period (Weissbourd, Batanova, Lovison, & Torres, 2021). On the other end, pooling from a series of national surveys conducted shortly before and during the pandemic, it is estimated that about 22% to 24%[[1]](#footnote-1) of the US elderly population (65 and up) felt lonely regardless of pandemic-related quarantines (Cudjoe, et al., 2020; DiJulioet al., 2018), leading to substantial rises in perceived isolation by 2020 and 2021. This can lead to cases such as those evidenced by the San Francisco social isolation study, which indicated that about half of a sampled pool of elderly from the city’s population was left abandoned without any form of social support, suggesting that citywide numbers may not be that much different (Kotwalet al., 2021).

Private Information and Communications Technologies services like Zoom, WhatsApp, Facebook and Facetime allowed for some form of coping through this forced isolation, by reestablishing communicative relationships with friends, family, and colleagues, as well as by maintaining an information network connecting vulnerable individuals to the outside world (Lee, et al., 2021, Manderet al., 2020). The formation of these online communities acted as a temporary buffer to the negative effects of loneliness, much in the way that physical communities act as resilience mechanism in situations of extreme duress (Bergstrand & Mayer, 2020; et al., 2021). However, there is little to be said about the effectiveness of these communities in creating safe and effective spaces of interpersonal interaction.

Reports by the GlobalWebIndex and the Pew Research Center suggest that the growth of internet use was accompanied by a gradual shift in the way that we experience the digital world, with people now growing more and more accustomed to online interactions and digital relationships (McClain et al., 2021).[[2]](#footnote-2) Overall, the increased role of online communication in the country’s system of social support might have been accompanied by a resurgence of hope and a decrease in overall loneliness, as the increase in social isolation and mental health mediators such as self-esteem, self-efficacy, and social support has been proven to be significantly associated with increased online communication (Fawcett & Karastoyanova, 2022; Kearns & Whitley, 2019).

Nevertheless, communities driven by online communication operate differently from physical communities, substituting codependence due to proximity with less tightly connected interest-based groups (Groenewegen & Moser, 2014). Furthermore, online interactions tend to be employed as an auxiliary rather than as an alternative to offline interactions (Scott et al., 2021; McCully, et al., 2011), and can often act as a crutch for individuals who prefer maintaining in person meetings to a minimum (Sessions, 2010; Turneret al., 2001). The problem with giving people a choice in the matter of meeting in person online is that a void then begins to form between members of both online and physical communities, especially if both base their cohesion on strict online communication (Wellman, Boase, & Chen, 2002). Ultimately, while digital interaction allows for remote and on-the-fly communication, the quality of the resulting relationship is stunted by the lack of physical social cues, sacrificing cohesion, trust, and group identification (Lee & Lee, 2010; Cullen & Sommer, 2010). Further, while mental health might be improved through the reduction of loneliness, an excess of online activity might actually cancel out the mediating effect of online communication on loneliness resilience factors and reduce the efficacy of existing communities at improving individual wellness (Vacchiano & Bolano, 2021; Gil de Zúñiga & Valenzuela, 2011).

There is little discussion surrounding this multidimensional aspect of online communication on loneliness, mental health, and social cohesion, especially compared to studies concerning physical communities and their overall effect on participating members. As such, the present research paper serves as an exploration of online communication within the context of nationwide events such as the pandemic, analyzing its perceived effectiveness at staving the effects of social isolation within the United States. In particular, the focus will be on detecting mediating aspects of online based social cohesion on mental health, while accounting for personal characteristics and preferences of connectivity. The study will particularly look at the period between 2018 and 2020, when social distancing measures forced most people to increase their digital footprint, and engage in online communication more than physical communication. It is assumed that both physical and emotional loneliness will decrease perceived wellness (Pittman, 2018), and that social cohesion will have a significant role in determining the strength of this relationship.

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1. Results are cross referenced from the National Health and Aging Trends Study (NHATS) and an independent study by the Kaiser Foundation [↑](#footnote-ref-1)
2. This trend actually preceded forced social isolation, since online community participation had been growing since 2017 (From 72% to 76% in 2019, Reddit & GlobalWebIndex, 2019). [↑](#footnote-ref-2)