

Online Communication During the COVID-19 Pandemic

A Techno-Anthropological Study on the Use of Online Communication

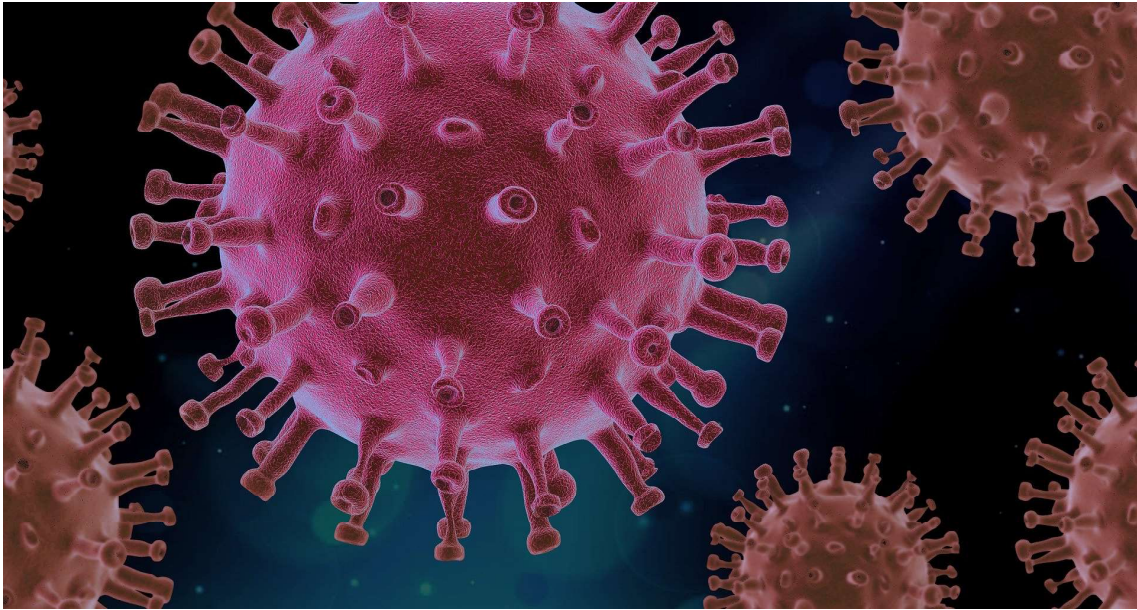


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Jacob Højholt Leegaard

Kriss F. Dam Poulsen

Peter Bach Lundgaard



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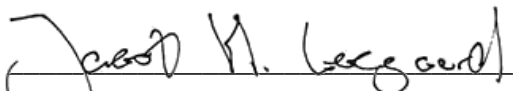
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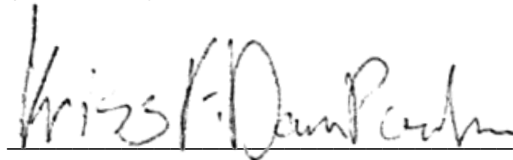
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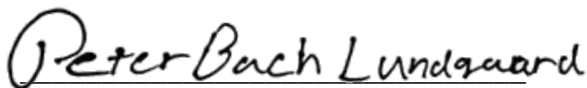
Jacob Højholt Leegaard

(20155191)



Kriss Finnbjørn Dam Poulsen

(20144851)



Peter Bach Lundgaard

(20153706)

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ABSTRACT:

This project examines how four people living in Denmark experienced the COVID-19 related lockdown of Denmark in the spring of 2020.

A questionnaire inquiry was conducted that showed that audio and video calls had been a popular way to keep contact during the lockdown, as well as doing activities while communicating online.

To get further qualitative insight into people's experience with the lockdown and with communicating online, a diary study was conducted, followed up by interviews with four of the diary informants. Using Étienne Wenger's Community of Practice, as well as Don Ihde's postphenomenological perspective on human-technology relations, the analysis studies these four informants' experiences with the online communication technologies during the lockdown, finding that social distancing affected some people's mental wellbeing, and people had to adapt to new ways of working and socializing, thus also having to create new shared repertoires in their respective communities of practice. The thesis concludes that online communication has worked well as an alternative during the circumstances that to some extent has satisfied a need for social interaction and togetherness, however, it cannot yet fully replace in-person communication.

By signing this document all group members confirm equal participation in the project and collective responsibility for the contents of this report. Furthermore, all members assure that plagiarism is not present in this report.

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Preface

Through the spring of 2020 this master's thesis was written by three students of Techno-anthropology, at Aalborg University.

Originally, this thesis was to revolve around the implementation of robotic technology within the healthcare sector, where participant observation would have been a very central aspect of the research design. However, as people around the world have experienced, the national COVID-19 related lockdown brought changes to plans and expectations. Since the pandemic immediately became such a central part of our daily lives, and the original project plans were severely hindered, we decided to embrace the situation and change the research topic to the current one.

We would like to thank our supervisor, Margit Saltofte, for her guidance and assistance, and for sticking with us through a hectic time, with many challenges.

Aalborg University, August 3rd, 2020.

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Chapter 1

Introduction

This Master's Thesis was produced under the extraordinary circumstances of a global pandemic; the COVID-19, or Corona pandemic. Because of the rapid disease spread, this pandemic affected everyone in the Danish society, where people's usual daily routines were set aside. Everyone was urged to stay at home, and if possible, also to work from home, in order to stop the spread of the disease (Statsministeriet, 2020). A big change was also seen in education, as schools and universities moved from more traditional educational settings to, predominantly, online settings. In terms of this thesis, and practicing techno-anthropology in general, alternative measures were also necessary to produce this master thesis, as certain data gathering methods, such as participant observation, would no longer be possible to use.

The extent, or the consequence of the pandemic, was immense, and during the initial measures taken by the government, people were encouraged to minimize physical interaction (Statsministeriet, 2020). As a response to these measures, people have used online communication technologies, as all work- and social related interaction was urged to be done remotely. In addition to this, university activities were also done remotely, which resulted in the majority of this thesis also having to be done through the use of online communication technologies. These changes sparked an interest in further examining these social changes that were taking place and eventually became the basis of this project.

Chapter 2

Problem Analysis

The following chapter will seek to highlight the situation regarding the global pandemic; how pandemics are typically responded to, and how widespread pandemics can affect a society. First of all, in order to understand the consequences of the COVID-19 pandemic, it is important to know what constitutes the disease itself.

2.1 What is COVID-19?

Coronaviruses are a type of virus that come in many different forms, and some can cause disease among human beings. This coronavirus was labelled “SARS-CoV-2”, and the disease it causes is called COVID-19 (Statens Serum Institut, 2020a; John Hopkins Medicine, 2020). The virus mainly caused an outbreak of a respiratory illness on a global scale (John Hopkins Medicine, 2020; WHO, 2020a). The first appearance of the virus was thought to be in Wuhan, China, in December 2019, and was first recognized by the World Health Organization (WHO) on January 12th (WHO, 2020c).

Originally, authorities found cases in people, who had visited *Huanan Seafood Wholesale Market* in Wuhan, where seafood, as well as other live animals, were sold. The global spread of the virus is thought to have been in connection with the Chinese new year, which is celebrated at the end of January. This brought an increase in flight travel to and from China, which can have contributed to spread. Wuhan Airport is quite large, which among other's offered direct flights to England, France and Italy. (Statens Serum Institut, 2020b)

The typical symptoms one needs to be aware of consist of *fever, cough, sore throat, headache, soreness in the muscles* and *shortness of breath*. The incubation time, which is the amount of time that passes from when the virus is first contracted to when symptoms start to develop, is considered to be 2-12 days, although on average it is between 5-7 days (Statens Serum Institut, 2020b). This contributes to the complexity in assessing whether a person has contracted the virus or not, as days can go by without any symptoms.

One of the main reasons why this disease is such a large threat, is due to it being extremely dangerous for the elderly, as well as people with diminished health statuses (Statens Serum Institut, 2020b).

On March 11th, WHO declared COVID-19 as a global pandemic (WHO, 2020b). This declaration prompted different national responses to the outbreak; but how can you stop the spread of such a disease? This is off course a highly complex situation, and in order to get a glimpse of the impacts of a pandemic, as well as how countries can prepare for such extraordinary events, the following section will provide a walkthrough of how a global pandemic emerges and how it can be responded to.

2.2 The Six Phases of a Pandemic

In 2009, the *World Health Organization* released a report called “*Pandemic Influenza Preparedness and Response: a WHO Guidance Document*”, which was aimed at equipping governments to mitigate the impact of the next global pandemic (WHO, 2009). The report assesses various important measures that need to be made in order to be prepared for a pandemic, and this can be done on a national, governmental and more local plan.

There are different phases of a pandemic, and when it comes to preparing for an influenza pandemic, WHO (2009) proposes these phases to be a part of five different groupings:

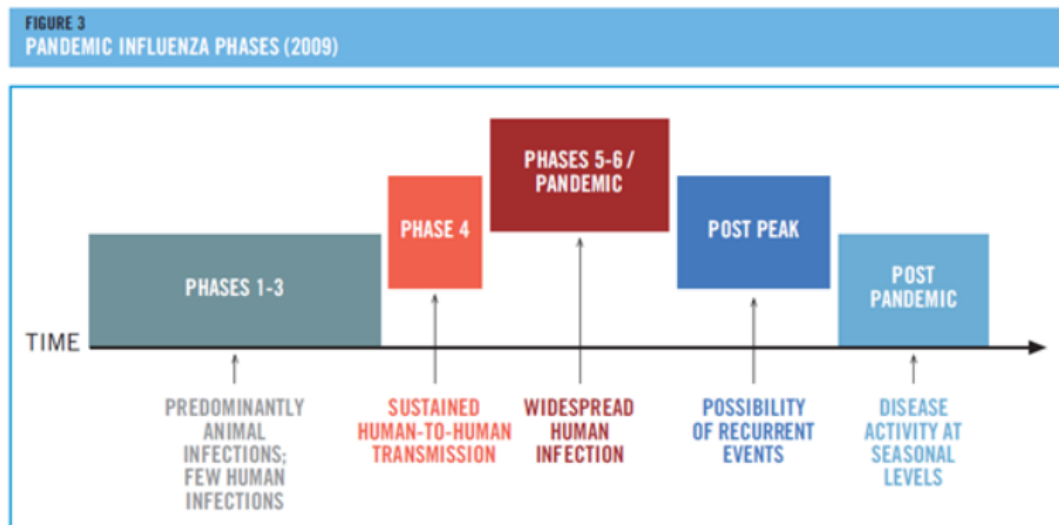


Figure 2.1: Pandemic Influenza Phases (WHO, 2009)

In the first three phases, the potential for a pandemic threat is established. Influenza viruses are known to circulate between animals, and in **phase 1**, none of these viruses are reported to cause infections in humans. In **phase 2** these viruses have caused an infection in humans, and are therefore already considered as a potential pandemic threat. During **phase 3** the influenza virus has now caused a few sporadic cases of disease in people, but it has not been proven to have a high level of transmissibility among humans. **Phase 4** is reached, when human-to-human transmission has been verified, to an extent that can cause community-level outbreaks, thereby significantly increasing the risk of a pandemic. This is considered a key event, and it is imperative that information about these events is given to the suitable authorities as quickly as possible.

Phase 5 is then characterized by a human-to-human spread of the virus into other countries. When this occurs, it signals that the pandemic is forthcoming.

The pandemic phase, **phase 6**, is reflected in the virus being spread to another continent. A global pandemic has now begun. After the implications of a pandemic, **the post-peak period** follows; this indicates that the number of cases have dropped below the highest observed number of cases. This does not mean that the pandemic is over, however, as additional waves of activity can be spread over months. **The post-pandemic period** is present, when the influenza disease has declined to an extent, where it is characterized as seasonal influenza. (WHO, 2009)

This thesis was mainly conducted through *phase 5*, *phase 6* as well as the *post-peak phase*; starting out around the lockdown of the country. Because of the severity of the pandemic, it would affect most of the people in society in terms of work, social life and so on. This kind of situation, which requires citizens to take an active part in preventing the disease from spreading, is referred to as a “*whole-of-society*” approach (WHO, 2009).

2.2.1 Whole-of-Society Approach

During an ongoing pandemic, that is so severe that there is a need for a whole-of-society approach, it is important that the national government leads, plans and coordinates the efforts of the entire nation. The “*whole-of-society*” concept is present, when most parts of society is affected by the pandemic. Society is now divided into different sectors and groups. A distinction is made between the *health sector*, *other sectors* and *individuals/families/communities*. The most important way to overcome a pandemic is to work together, and therefore, communication is key.

FIGURE 2
WHOLE OF SOCIETY APPROACH TO PANDEMIC PREPAREDNESS

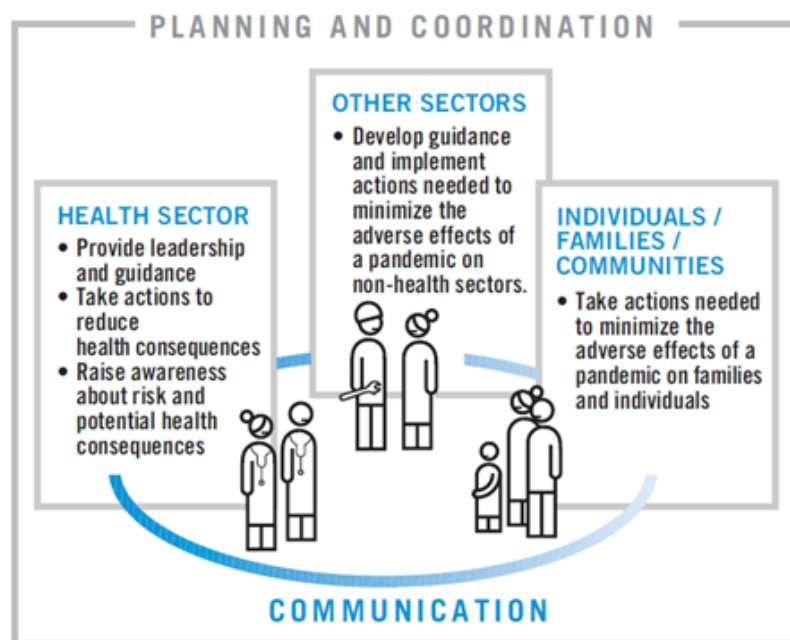


Figure 2.2: Planning and coordination of different key sectors. (WHO, 2009)

A great responsibility lies at governmental level, where it is important to be able to communicate the correct information and various measures, to minimize the pandemic's impact on the citizens. (WHO, 2009)

The report underlines the importance of measures in different areas of society; among these lie the “*individual/household*” measures. These measures revolve around what the citizens can do in order to help overcome a pandemic, and include risk communication, individual hygiene and personal protection. Individuals are also affected by societal-level measures, which are applied to the societies or communities in which they are a part of. Among others, these measures require a great sense of behavioral change in the individual citizen, where a main aspect is to minimize social interaction. (WHO, 2009) This particular measure affects all members of society during a pandemic, and is defined as social distance:

“Reducing the spread of disease will depend significantly upon increasing the “social distance” between people.” (WHO, 2009: p.28)

The concept of social distancing is a very central aspect of containing the spread of a virus. It requires people to change their daily lives significantly in order to help stop the spread of the virus, and they will have to set aside the need to be socially active; both when it comes to family members and friends, as well as work related activities.

As illustrated in figure 2.4 below, individual social distancing choices are crucial in stopping the spread of the disease:

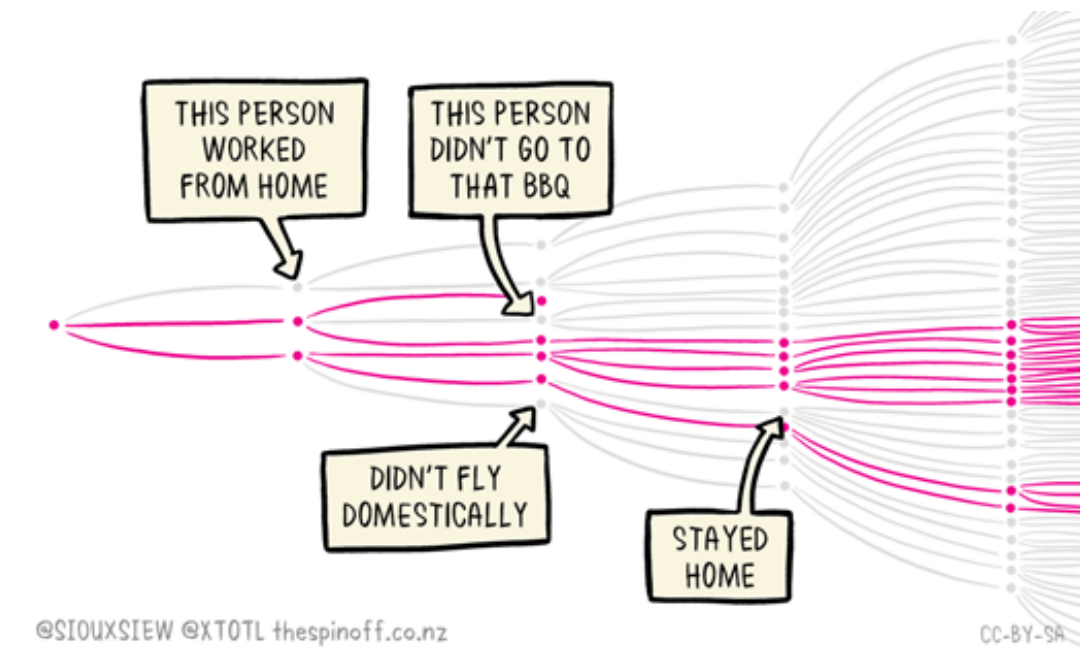


Figure 2.3: The effects of social distancing (Wiles and Morris, 2020).

2.2.2 COVID-19 In Denmark

The whole-of-society approach was very much present in Denmark. 13 days after the first danish citizen had contracted the virus, the approach was effectively introduced on March 11th; the day WHO declared COVID-19 as a global pandemic (WHO, 2020b). A press conference was held the same evening, by the Danish Prime Minister, where the social distancing initiatives were outlined as paramount in the conquest of defeating the virus (Statsministeriet, 2020). The headline from the press conference in question was “*Denmark shuts down*” (DR.dk, 2020a), and the weeks after will, in this thesis, be known as the “*lockdown period*”. The slogan of “at stå sammen hver for sig” (standing together apart) becomes a central aspect of many of the future press conferences, as there is a call for togetherness or unity.

The key points surrounding the progress of the pandemic in Denmark are illustrated below:

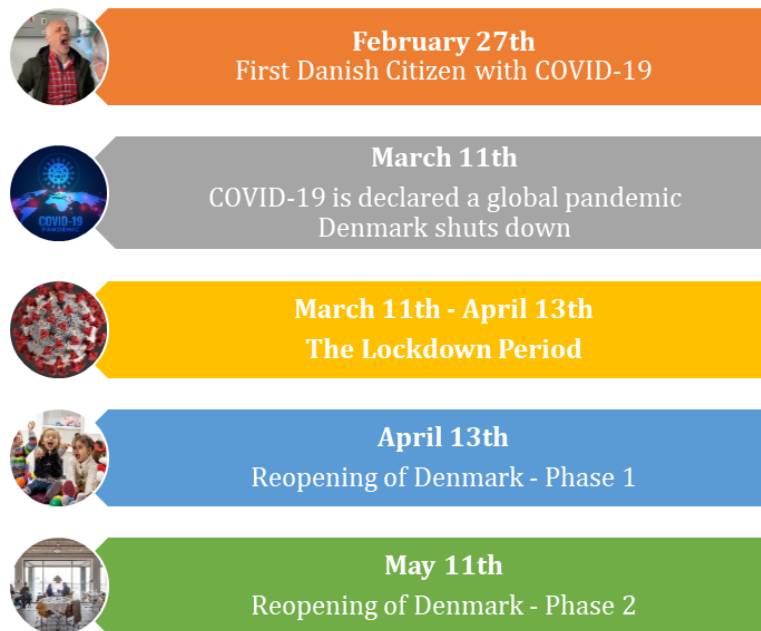


Figure 2.4: Overview of the key progress points of the COVID-19 pandemic in Denmark.

During the press conference on March 11th, the government announced that they had made the decision to shut down all unnecessary activity of educational institutions, day-cares, indoor cultural institutions and recreational offerings for a period of two weeks starting friday the 13th of March. Government employees were sent home, and all private institutions were heavily encouraged to temporarily close down. Private employers were encouraged to do the same thing with their workers; to work from home, if possible. People were encouraged to use less public traffic, likewise hospitals and nursing homes were encouraged to limit their visitors immediately. Additionally a ban was proposed against gatherings of more than 100 people. In conclusion, the prime minister acknowledged that these were drastic initiatives, and that we, the danish citizens, will see less of each other in the coming weeks. (Statsministeriet, 2020)

As weeks went by, the Danish society was gradually opened up through different reopening phases, and things slowly started going back to normal. However, during the lockdown period, the social distancing efforts were an important aspect, which would proceed to affect Danish people in various ways. For example, prolonged social distancing can prove to have implications on people's mental health, which will be further elaborated in the following section.

2.3 Social Distancing and Mental Health

As previously mentioned, one of the key measures the government can impose or ask its population to do in the fight against a pandemic is social distancing and self-isolation. However, social distancing can affect people's mental health. In this regard, Damir Huremović, MD with specialization in psychiatry, identifies in the book *Psychiatry of Pandemics - A Mental Health Response to Infection Outbreak* that social distancing's effects on mental health stem from two key issues: *isolation* and *uncertainty* (Huremović, 2019a). The isolation that occurs, arises from being away from friends and family, missing physical contact and in some cases, where people use protective medical equipment, the inability to read facial expressions can have an effect on psychological well being. The other key issue is uncertainty; not knowing if you are infected or if any of one's loved ones are. For those who are ill, uncertainty likewise plays a part. Depending on the disease, there could be uncertainty about one's chances of surviving the disease. (Huremović, 2019a)

There are a multitude of different mental health issues that can occur due to such isolation and among others, they include: *post traumatic stress disorder*, *depression* and *anxiety* (Huremović, 2019a). Depression and anxiety derive from a response to fear, uncertainty and loss of control. As mentioned earlier, not knowing if one is sick, being frightened for the wellbeing of loved ones or cancellation of long term plans can all have an effect on the mental wellbeing of people (Huremović, 2019b). Anxiety manifests itself, to a large extent, as a feeling of helplessness, while depression is manifested in a prolonged state of feeling sad, not being able to feel pleasure or engaging in social activities. It can also affect eating habits, sleeping habits, and can result in feelings of worthlessness and hopelessness. To overcome these issues, if severe enough, medical treatment might be needed. However, in mild or less developed cases, technology can help preserve social support and alleviate the symptoms of depression, for example by using telephones to call the right people or engaging in social media to stay in contact with friends and family. (Huremović, 2019b)

In a preliminary evaluation from March 23th, by the Danish Health Authority, the Danish government acknowledges that the enforced restrictions will have an effect on several people's mental health and well-being. They acknowledge that the restrictions reduce the possibility for togetherness with family and friends, and that people may be worried and have the need to talk to others about the situation. For this reason, they will

make a communicative effort to give citizens instructions on how to support each other. The citizen centered communication efforts will, other than continue securing that citizens have knowledge about preventing spreading the virus and how to act when virus symptoms are showing, they will also focus on, among other areas, mental health and well-being. (Sundhedsstyrelsen, 2020a)

The efforts include flyers, posters, and informational videos about how to cope with the pandemic and being isolated. One of the videos feature the head of the Danish Psychological Association, Eva Secher Mathiasen, who reiterates the importance of keeping yourself mentally active for your mental health, as it helps to keep one distracted from the things that are stress inducing, as well as to create sense in one's everyday life, by spending your time on things you enjoy, want to learn or find important. (Sundhedsstyrelsen, 2020b)

One of the posters for the general public, explains how the current situation can affect one's well-being and mental health, and that worrying about risk of infection and economy, as well as isolation and keeping distance from other people, can result in loneliness, exhausting the mind, and lead to symptoms of stress, depression and burnout. To combat this, the poster provides some guidelines aimed at helping one's mental health during the pandemic (Sundhedsstyrelsen, 2020c). The 11 guidelines are as follows:

Mental Health Guidelines	
Get some sleep and try to maintain a daily routine	
Keep a healthy and varied diet	
Keep physically active	
Keep mentally active	
Create structure in your daily life	
Remember - you are making a difference	
Keep in touch with the outside world, and do something together at a distance	
Accept that the crisis can be a strain on the people close to you	
Relax and take a break from the worries	
Don't blame yourself or others for getting infected with COVID-19	
Take care of yourself	

Figure 2.5: The 11 guidelines of maintaining a healthy mental state. (Sundhedsstyrelsen, 2020c)

The same advice is presented in an informational flyer for people who are showing symptoms; to help cope with being isolated the first advice is to keep yourself mentally active by doing things that acquire concentration or makes you happy, and to do what you can to keep in contact with other people through social media, phone calls and video calls. (Sundhedsstyrelsen, 2020d)

2.4 Communicating at a Distance

In today's day and age, there is a large number of different ways to keep in contact with friends and family. Online platforms such as Skype, Facebook, and the like, have brought people closer. This, however, raises some interesting questions: can online communication substitute in-person interaction and are there issues specifically related to the use of online platforms for communication? In order to get a better understanding of how online interaction differs from regular interaction, the following section will seek to elaborate on these questions.

In the book *Face-to-Face Communication over the Internet: Emotions in a Web of Culture, Language, and Technology* (2011), the two authors Arvid Kappas and Nicole Krämer try to outline key issues and understandings of online communication. In the introduction it is stated that the development within the space of online communication has progressed from text-based communication, which had difficulty offering a service that could enhance or be comparable to in-person communication. However, advances in this realm have made even text-based communication comparable to regular communication. However, the development of video-conferencing, where both live audio and video signal is transmitted, allows auditory and visual cues to be taken into account in the online interaction. (Kappas and Krämer, 2011)

Online interaction is often referred to as computer-mediated communication (CMC). In his article on defining CMC, December (1997), uses the following definition:

“Computer Mediated Communication is a process of human communication via computers, involving people, situated in particular contexts, engaging in processes to shape media for a variety of purposes.” (December, 1997)

In another article, regarding the role of emotion in CMC, Derks et al. (2008) find CMC to include *“a variety of electronic message systems and electronic conference systems, which can be supplemented by audio and video links. CMC can be synchronous (e.g., chat) or asynchronous (e.g., email), and the messages are predominantly typewritten”* (Derks et al., 2008: p.767). The different types of communication therefore include *text-based, audio-based* and *video-based* communication, in various synchronizations.

Text-based communication refers to blogs, social networking sites (i.e. Facebook), e-mail and chat, where most of these are becoming increasingly synchronous (Kappas and

Krämer, 2011). Some of these modes have incorporated voice interactions, the so called VoIP (Voice-over-IP), where perhaps the best known platform, Skype, was one of the front runners. Through Skype, people were able to talk to people all over the world, at a low or no cost. The incorporation of video into different platforms has increased dramatically over the years, and there is now an abundance of software available that allows people to easily interact through video, making it easier to get closer to in-person communication. (Kappas and Krämer, 2011)

In-person communication, however, relies heavily on communicative and nonverbal signals for effective communication. These signals can include the tone of voice in which words are said that imply specific meaning beyond the words themselves, the gaze of the eyes, or how one dresses to imply social status. All these cues, signals, and symbols are used to communicate different things and are considered important in any social interaction (Bitti and Garotti, 2011). With text-based communication, these nonverbal signals are hard to express. However, the use of punctuation marks and smileys provide some degree of presence of these signals in text-based communication.

Video communication, on the other hand, provides a much greater basis for supporting nonverbal communication. As two people are connected through video and audio, it allows the two to distinguish tone of voice, perceive facial expressions, and so on (Bitti and Garotti, 2011). When people are connected through video-conferencing, the communication relies on two main components; *spatial presence*, which is the ability to perceive visual and auditory clues from the remote space in which the other people are physically present, and *communicative presence*, which is the perception of both the verbal and non-verbal signals communicated by other people (Bitti and Garotti, 2011). Both spatial presence and communicative presence are part of an umbrella term called *telepresence*. The ability for video-conferencing to act as a successful communication tool relies heavily on the people's ability to be telepresent. The success of telepresence is largely dependant on technology. Technological limitations can cause low levels of telepresence, making it hard to perceive visual and audible cues, as well as verbal and nonverbal signals, which most in-person communication rely on. (Bitti and Garotti, 2011)

This is also discussed in the work of Benjamin Belmudez (2015) regarding *Audiovisual Quality Assessment and Prediction for Videotelephony*, where he outlines various factors that play a role in the quality of video-conferencing, as well as giving a thorough walk-through of the technical process of video communication. These factors can play a role in the communication technology's ability to allow telepresence. In terms of the audio and

visual signals, for them to be explicitly communicated through a digital medium, there is a need to transfer a large amount of data. There is a vast difference between the amount of bandwidth needed for audio transmission and video transmission, as Belmudez (2015) illustrates:

“a speech signal sampled with a 8 kHz sampling frequency and coded on 16 bits per sample represents a data flow of 128 kbps (kilo-bits per second). A video signal in a VGA format [...] at a frame rate of 25 fps requires a data rate of approximately 92.2 Mbps (Mega-bits per second).” (Belmudez, 2015: p.11)

Although the quality of both the video and audio elements can vary, the example outlined above serves to illustrate how much heavier it can be to transmit video signals (Belmudez, 2015). The process of the audiovisual communication can be condensed into a process of sending and receiving information through a network, which will be elaborated below:

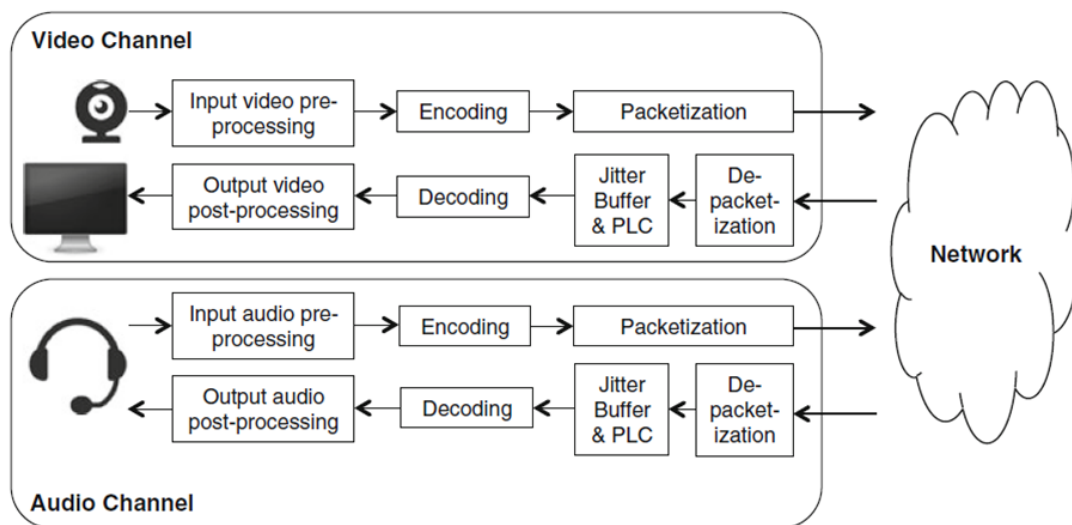


Figure 2.6: The process of audiovisual communication. (Belmudez, 2015)

Input:

The audiovisual signals are gathered through a camera and a microphone, where the signals are pre-processed at the gathering stage using algorithms, which enhance them. (Belmudez, 2015)

Encoding:

After the input is retrieved, it is encoded, which is also done through coding algorithms, whose main functions are “*to reduce the amount of data to be sent over the network*” (Belmudez, 2015: p.11), which allows for the communication to take place in a real-time manner. When the audio and video elements have gone through the encoding process, the data is then condensed into smaller packages, which is referred to as “*packetization*”. The packets are then sent through a network.

Decoding:

When the packets have reached their destination, the process of *de-packetization* takes place, where the packets go through a *jitter buffer*. The jitter buffer then reorders the packets, and gathers them in their original form, which are labelled by a timestamp. The encoded video frames then go through a decoder, which produces a stream of displayable video frames. (Belmudez, 2015)

Output:

The displayed video frames are then displayed on the screen, in accordance to their timestamp values. In general, the timing of the timestamps correspond with the encoded form. The frame rate of the video can also be adjusted to synchronize with the audio. (Belmudez, 2015)

One of the key aspects in the work of Belmudez (2015) revolves around the experience or perception of the quality of the audiovisual interaction, and he underlines that the quality of one’s experience is influenced by factors like *service, content, network, device, application* and *context of use* (Belmudez, 2015). In this regard, there are several forms of *visual degradations* that can occur through the process of video-coding, which themselves can affect the overall experience. He mentions *blockiness, blurriness, jerkiness, color-bleeding, ringing, and mosaic patterns* (Belmudez, 2015). Without going into detail of these visual degradations, they serve to underline the fact that there are a lot of different ways the visual aspect of video communication can differ from the visual perceptions occurring during an in-person conversation.

In addition to this, the way in which people communicate during video-conferencing, despite the use of visual and audio cues, is still different from in-person communication. This revolves around several different factors; one main factor includes eye contact. When people engage in video-conferencing, they usually stare at the video feed of the person they are talking to. This means that the people are not creating eye contact as

the web camera recording the video feed is placed in a different line of sight. This lack of eye contact can create a disorienting rhythm of communication.(Bitti and Garotti, 2011) Another factor that plays a part in video-conferencing is the passiveness of the receiver. When engaging in regular in-person communication the people listening do not remain passive; they provide feedback to the talking party through body language and vocal cues, that allows the person to comprehend how the information is being perceived, whether it is understandable, allowing the speaker to adjust accordingly to the feedback received (Bitti and Garotti, 2011).

In video-conferencing that feedback happens quickly and often rather unnoticeably, which can disrupt the natural flow of the conversation. In a regular social encounter, conversations are based on taking turns between the conversing parties. This is again regulated by visual and audio cues. In video-conferencing the regulation of turn taking is different and can often cause unnatural pauses and disruptions, that makes it take longer to convey the same information than it would in a regular in-person conversation. (Bitti and Garotti, 2011)

As such video communication can be a nice alternative to in-person communication, that provides much more opportunity to effective communication than text-based communication. However, it is in subtle ways different to in-person communication, in terms of more interference and disruption, that slows down communication and it heavily relies on proper equipment that does not disrupt either the video or audio feed to be successful.

2.5 Problem Statement

As illustrated throughout the Problem Analysis, a widespread pandemic can have a wide range of implications on society (Statens Serum Institut, 2020a,b). The COVID-19 virus was considered to pose a considerable threat towards the health of the Danish citizens, and therefore a whole-of-society approach (WHO, 2009) was adopted quite quickly, most notably in the form of the governmental lockdown on March 11th (Statsministeriet, 2020). Since the introduction of the pandemic, social distancing was used as a way of avoiding a rapid spread of the virus, and this can bring some consequences in form of minimal physical interactions, isolation and social deprivation (Huremović, 2019a). Therefore, during the lockdown, there was an increasing need of online communication, both in terms of social and work related activities. Although there are many promising alternatives to physical interaction, for example video communication (Belmudez, 2015), many of the communication modes have their limitations (Kappas and Krämer, 2011; Belmudez, 2015), and are not considered to be a direct replacement for in-person interaction.

In light of the restrictions made by the government, and the extensive lockdown period, it could be interesting to explore how the Danish citizens have adapted to a more online daily life. This has lead to the following problem statement:

Problem Statement:

How have people living in Denmark been affected by social distancing and how have online communication tools supported their daily lives during the lockdown period?

The problem statement can be regarded as twofold, with a focus on the overall effects of the pandemic, in terms of the social distancing initiatives, as well as how these technologies have affected the everyday lives of people, in terms of their regular daily practices.

Chapter 3

Methodology

This chapter will seek to describe the different methods used in the making of this thesis. This will mainly revolve around the methods used for data gathering, as well as the handling of the gathered data. In order to get a better understanding of how the circumstances surrounding the thesis has affected the choices of data gathering methods, and some of the challenges it has brought, the following section will seek to describe the chosen research field.

3.1 Introduction to the Field

The COVID-19 pandemic had a great impact on most of the societal structures in Denmark, especially in terms of social distancing, which meant that physical, or in-person interaction, had to be greatly reduced. After the lockdown on March 11th, where everyone, except the essential workers, were urged to stay at home as much as possible, people had to communicate in other ways. People's everyday lives drastically changed, where many had to work, attend classes and interact socially from their homes.

An interest in figuring out how the pandemic had impacted different people and to see how they had coped with the situation arose, and became the initial focus of this thesis. In terms of defining a field of research, it was quite challenging at first, as we were gradually experiencing the situation as well.

After a few weeks of being in the same situation as many other people in Denmark, different interesting themes emerged that could serve as a basis for this master thesis. For example, the social distance initiatives meant that you could no longer visit friends or family, and in general, there was a lack of leisure activities available. From our personal perspective, we found that this brought an increase in online events to entertain people at home. During the initial phase of the project, two main interest points were identified:

- Online Social Interaction
- Online Events

As a way of getting some insights into how people's behaviour was, in relation to these two interest points, it was decided to design and conduct an online questionnaire in relation to them. By conducting an online questionnaire, we were hopefully able to identify some themes to delve deeper into. Conducting it online was a great fit, given the situation, where people, including ourselves, should limit the physical interaction. Therefore, the data gathering desired for this project had to work around in-person interaction. Ultimately, this resulted in a mixed method approach, which will be introduced in the following section.

3.2 Mixed Methods Approach

When conducting empirical research, the researcher is deemed to make some choices regarding how the empirical data should be gathered. These methods are used to steer a project into a particular direction, and are often referred to as strategies of inquiry (Creswell, 2009), or research design.

Historically, there has typically been a divide between quantitative and qualitative methods when conducting research within the humanities. However, in the late 50s, two psychologists, Campbell and Fiske (1959) decided to use both qualitative and quantitative methods in their research regarding people's psychological traits. This way of conducting research gained popularity, and by the early 1990s, integrating or connecting quantitative and qualitative data was quite frequently used in research, as "*the results from one method can help identify participants to study or questions to ask for the other method*" (Creswell, 2009: p.14).

Creswell (2009) identifies three different types of mixed methods approaches; *sequential*, *concurrent* and *transformative*.

Sequential mixed methods seek to utilize the findings achieved through one method with a different method. For instance, the researcher can start out with exploratory qualitative methods, and then subsequently implement the findings into the design of a quantitative study, or vice versa. The main element in this approach is that the findings of a method are used to complement the other.

The concurrent mixed methods procedures take place when quantitative and qualitative methods are used simultaneously in order to provide a comprehensive analysis of the research problem. This is done by merging the findings of the different methods which can be conducted at the same time.

The transformative mixed methods approach revolves around a theoretical lens as a carrying framework for topics of interests, methods for data collection, as well as outcomes anticipated by the conducted study. However, this type can include both a sequential or concurrent approach (Creswell, 2009).

In this project, the research design reflects that of a sequential approach, as a quantitative method was used as a basis for the qualitative methods used later on.

3.2.1 Sequential Mixed Methods Approach

When planning a mixed methods research design, there are some considerations the researcher has to take into account. These considerations are summed up in the table below:

Timing	Weighting	Mixing	Theorizing
No Sequence concurrent	Equal	Integrating	Explicit
Sequential- Qualitative first	Qualitative	Connecting	Implicit
Sequential- Quantitative first	Quantitative	Embedding	

Figure 3.1: Planning Aspects in a Mixed Methods Design, highlighting the research design of this project. (Creswell, 2009: p.207)

For example, when using a sequential approach, *the timing* in conducting either qualitative or quantitative first, is of importance. In this project, a quantitative questionnaire was first used, although the overall focus of the analysis, *the weighting*, was of qualitative nature. The choice of how the methods are ultimately mixed can also have varied forms. (Creswell, 2009) It can be argued that the two methods have been mixed in a *connected* manner:

“The two databases might be kept separate but connected; for example, in a two-phase project that begins with a quantitative phase, the analysis of the data and its results can be used to identify participants for qualitative data collection in a follow-up phase” (Creswell, 2009: p.208)

Finally, the theoretical aspect has not been explicitly mentioned throughout the study, as the research in this study has been of an inductive nature.

Therefore, as a way of exploring how the pandemic had affected people, with social distancing in mind, it was decided to conduct an online questionnaire, which would serve as a basis for the qualitative research conducted later on in the project.

In order to get an overview of the data gathering in this project, and how the mixed methods approach was eventually formed, the following figure 3.2 will outline the key events:



Figure 3.2: Outline of the data gathering process in this project.

3.3 Questionnaire

During the initial stages of this project, it was decided to use a questionnaire as a way of gaining insights into people's social lives during the COVID-19 pandemic, and to see how social distancing had changed their usual daily lives. There was particular interest in gaining knowledge about how people used online communication platforms as a supplement to, or as a direct replacement of, their regular physical social interactions.

According to Remenyi (2011), a questionnaire can be defined as *data-collecting devices*, that contain a list of specific questions, which are answered by appropriate informants. By utilizing questionnaires, the researcher can gain a better understanding of the proposed research question, as well as insights into possible answers, given that they are designed in a suitable manner. (Remenyi, 2011)

Questionnaires are often used in relation to quantitative research and are typically inclined to require some form of statistical analysis or interpretation. However, question-

naires can also be designed in a more qualitative way, giving the researcher rich opportunity to analyze and interpret the respondents' variety of answers. (Remenyi, 2011) When designing a questionnaire, it is important to take several things or issues into consideration. Remenyi (2011) condenses these issues into four questions:

1. *"Is the data that may be obtained through the use of a questionnaire appropriate when answering the research question?"*
2. *"Who will have to answer the questionnaire if the data is to be obtained?"*
3. *"How will the researcher deliver the questionnaire and retrieve it when it is completed?"*
4. *"How can the required informant be made to feel that he or she wants to contribute data required for the research project?"* (Remenyi, 2011: p.94)

These four questions served as guidelines for the design of the questionnaire. The intentions of the questionnaire was to get some insights into how people were interacting online during the implications of social distancing. It was not necessarily designed to answer the research question on its own, but it was considered as a way to get inspiration for possible future directions of the project. Because of the inductive nature of the project, the questionnaire was considered a good and relatively fast way to get an overview of potential themes, which eventually could be elaborated and incorporated into the qualitative methods we had intended to conduct afterwards.

3.3.1 Our Questionnaire

As Remenyi (2011) mentions, questionnaires are typically inclined towards quantitative statistical analysis, however, it is also used in qualitative research. The questionnaire developed for this project was mixed, in terms of adapting a variety of open qualitative questions, closed fact seeking questions and closed opinion based quantitative questions. The quantitative questions were based on opinion-based questions, made in the form of scales, more specifically, *the Likert scale*. A Likert scale is a small scale ranging from 1-5, where "1" could signify a high degree of agreement with a given statement, whereas "5" could signify a low degree of agreement with a statement (Remenyi, 2011).

In this questionnaire, the Likert scale was used to collect data about people's experience regarding the use of technology, in which the ranges were not numbered but described with words ranging from *very positive* to *very negative*.

Figure 3.3: Example of a quantitative question from the questionnaire, as shown in SurveyXact.

The closed fact seeking questions were used to gain insight into what technology or digital platforms the informants were using.. They were provided with a list of popular digital platforms for communication such as Facebook, Microsoft Teams or Skype. We also included a relatively high number of open qualitative questions, in which the informants were free to answer as they pleased; typically in the form of an elaborating text box, that was connected to a question.

A common tool to use in questionnaires are screening questions, which, based on the answer, takes the informants on different paths in the questionnaire or, depending on the questionnaire, simply ends it (Remenyi, 2011). Some screening questions were used mainly to help ensure that respondents would not be asked irrelevant questions. An example of one of the screening questions was “*Did you engage in activities that you normally would not have done on a digital platform?*” of which the informant would not get further questioned about, if they answered no.

After completing the design of the questionnaire, it was sent out to a few study peers to get feedback. We wanted to ensure that the questions made sense and that the infor-

mants would not be sent down a wrong path based on their answers, as well as exploring how informants could possibly answer the questions. This feedback provided valuable insights and allowed us to make appropriate changes before launching the questionnaire to the public.

The questionnaire was launched on Facebook through the researchers' personal Facebook profiles, sent directly to specific individuals and finally posted on a highly active Danish COVID-19 related Facebook group. During the period the online questionnaire was active, from the 8th of April through 17th of April, it received 190 responses, out of which 154 were complete responses. The 36 partially completed responses will not be included in the further analysis.

3.3.2 Discussion of the Questionnaire

As mentioned earlier, the questionnaire in this project was initially planned as a way to gain insight into the field of research, and to help create a narrower focus for the project. It was considered a success, as it helped shape the future direction and the scope of the project, as well as providing valuable data for analysis.

The questionnaire was launched on Facebook in different ways; through personal status updates, through re-shares from friends as well as posting it to one Facebook group. Although this group was very active, the majority of answers were noticeably not from this source, as there were more than 100 answers before it was shared to the group. It is possible that the group was too active, resulting in the post getting buried. The fact that it was launched on our personal Facebook profiles meant that the audience receiving it, more likely than not, were of our own demographic; danish people between the ages of 20-30. This is also represented in the data from the questionnaire. However, we also had a significant amount of Faroese respondents, as one of the group members is Faroese. This resulted in a mix of both Faroese and Danish people, mainly in the age group of 20-30 years old. Seeing as we had a mix of different demographics meant that we could achieve a broader perspective of the lockdown, the effects social distancing had on the informants, and how they chose to overcome the accompanying challenges. While it could be worrisome having a broader demographic, it did not have a great effect on the answers, as we saw similarities between the answers of all the different respondents. For a further look into the demographic behind the questionnaire, see appendix A.

As mentioned above, the completion rate of the questionnaire was less than 100 percent. Many of the answers were partially completed, meaning that some people had started answering the questionnaire, and subsequently decided to stop before it was finished. This, we argue, was most likely due to the number of open questions, in which the informants have to spend time writing their answers, as well as the general amount of time it took to complete the questionnaire. As one of the informants wrote in one of their answers; *“This question thing is too long”* (Respondent 160). This was not unexpected. However, we included the open questions in order to gain enough insight to base the project on. In this sense, we were extremely satisfied with the number of complete responses we had gathered, as well as the qualitative data generated from it.

The questions included in the questionnaire mostly pertained to social distancing and online activities; how the informants have tried to stay socially and mentally active through online communication platforms during the lockdown. In some cases, we experienced that the questions were too similar in nature, which made some informants feel that they had already answered the question beforehand. This was especially evident regarding the questions around new activities: *“Have you done any activities that you normally would not have, on a digital media?”* and *“Have you done any activities that you normally do physically, but now have begun doing on a digital media?”*. These two questions proved to be somewhat confusing, and may have contributed to some similar answers, although an effort was made to distinguish the questions through two different topics; one being about entirely new activities, and one being about adapted activities. This could perhaps have been solved by a clearer distinction.

After reviewing the initial questionnaire data, we got some insights into the respondents' social activities. One of the key aspects, that would require more attention, was how video communication was used as a supplement to the physical interactions people were used to before the pandemic. Although the questionnaire managed to provide a good amount of qualitative data, there was an interest in acquiring additional, more detailed knowledge on some of the findings.

Seeing as it was not possible to apply any kind of physical data gathering methods into the project, where some kind of observation could be involved, it was decided to incorporate an alternative qualitative approach; *the diary method*.

3.4 The Diary Method

Historically, the diary has been used for several different purposes and in several different contexts. Mainly, it can be seen as a tool used to document people's own experiences of the world in accordance to different lived events. In qualitative research it is important to investigate the world as it is experienced by the informants. This is perhaps best known as a phenomenological perspective, popularized by Maurice Merleau-Ponty, as the experiences and the lived life of people is the basis of knowledge (Brinkmann and Tangaard, 2015). As such it is important to get an understanding of the world our informants live in and experience.

In a semi-structured diary study regarding daily lives of probation workers in five different European countries, Rokkan et al. (2015) define the diary as: *“a record of what an individual considers relevant and important in his or her life, for instance; events, activities, interactions, impressions or feelings.”* (Rokkan et al., 2015: p.203)

In their book about diaries in European literature and history, Langford and West (1999) describe diary writing to take place in the personal space of the writer, striking a balance between *“the spontaneity of reportage and the reflectiveness of crafted text, between selfhood and events, between subjectivity and objectivity, between the private and the public.”* (Langford and West, 1999: p.8). In more recent times, the diary format has made its way into different research areas, and has become an established research instrument, which is typically referred to as the diary method (Hyers, 2018). By applying diaries as a research method, the researcher can potentially come closer to the daily lives of their informants. Sheble and Wildemuth (2009) argue that diaries can provide the researcher with access to *“places they might not otherwise be able to go: personal homes, the minds of individuals, and geographically dispersed locations”* (Sheble and Wildemuth, 2009: p.16).

When utilizing diaries as a data gathering method, the researcher has an opportunity to get access to rich data sets and as a method, the diary has been used in a wide range of research projects. It has been used to document things like daily laughter and time use, and among others, it has covered topics like education, pain and multi-media engagement (Hyers, 2018). In order to understand how the diary method has been used in this project, it is important to understand what constitutes diary research. The following section will seek to describe how the diary method can be used in data collection, as well as how it can be implemented into a research design.

3.4.1 Diary as Research

When discussing diaries, a distinction is typically made between two different types; *solicited* and *unsolicited* diaries. The unsolicited diary is a personal diary, which is not always purposely written for an audience or a specific purpose, whereas the solicited diary is usually developed by researchers, where people are then asked to keep a diary for a specific reason (Milligan and Bartlett, 2019). Diary research is based on solicited diaries, which typically involve purposive sampling of participants, who are asked to document specific experiences over a given period of time. One of the main arguments for using diary studies is to “*get a more accurate rendition of a human experience*” (Hyers, 2018: p.24), due to the immediate documentation in relation to a phenomenon.

Although the diary has been used mostly as a tool to document one’s own reflections and thoughts in a textualized and empirical manner, the diary studies have recently become increasingly favored in the collection of quantitative data. To summarize the open nature of a diary study, the method offers several advantages for researchers in many different philosophies, and above all; it provides flexibility. (Hyers, 2018)

3.4.2 Solicited Video Communication Diary

As mentioned in chapter 3.3.2, the diary study would revolve around video communication. Because of the anonymity related to the questionnaire, it was not possible to recruit respondents directly. However, seeing as most people have been affected by the pandemic, in one way or another, the population of potential informants was quite broad. Therefore, it was decided to recruit some acquaintances of the group members, and the process of contacting informants was rather straightforward. They were directly contacted through various online platforms, and the inclusion criteria was mainly confined to whether or not they had used video communication regularly during the lockdown, and if they were interested in participating in the diary study. Six informants with varied backgrounds were recruited as participants; four students, a sociologist, and a teacher. All informants were in their 20s and 30s, as this was the most represented demographic of the questionnaire. All the diaries can be found in Appendix B.

3.4.3 The Diary Format

The informants were provided with two separate documents. The first document contained information about the project, what we were interested to learn from the diaries as well as a letter of consent. The second document contained three different diary entries; one for each video call to be made. The idea was to gain access to a more detailed description on the process of communicating through video, in order to provide ample support to our informants they were presented with standardized inspirational questions meant to help them along when writing their diary entries.

As such, the diary used in this project was a solicited diary with a specific intended purpose. After about a week, they had individually completed the three diary entries, and the documents were retrieved for analysis. An example of a diary entry is found below:

- **How did you make the call? Which platform was used? (Facebook, Facetime, Zoom, Snapchat, etc.)**

Facebook

- **Who was involved in the conversation? What is your relation?**

A friend

- **Did you do any activities during the call? Did you do the activities together, or did you each do different things?**

No, we didn't do anything together

- **Would you have had this interaction if it was not for COVID-19? Would it have been face-to-face instead? Would you have done the same activities?**

Yes

- **How was the experience? How did it leave you? Did it make you happier? Make you miss them more? Did you experience technical difficulties that interfered with the experience?**

There were technical difficulties due to bad network yet still I was happy to see my friend and talk with her.

- **If you have further thoughts about the overall experience of the videocall, feel free to elaborate:**

Figure 3.4: Example of the diary format, as well as one of the shorter diary entries.

As mentioned it was decided to include some inspirational questions, in order to give the informants an idea on what kind knowledge was of interest. This brought some challenges which will be further discussed in the following.

3.4.4 Discussion of the Diary Format

In our diary study we had 6 informants, with varying backgrounds and of varying demographics. As mentioned earlier, the idea of using a diary in this manner, was to try and get some more reflective thoughts on the process of using video calls. However, this was not exactly the case, as many of the responses were quite sparse, which is quite well illustrated in figure 3.4 above. The idea of a diary, in itself, holds a very promising aspect of getting thorough personal insights by the informants themselves. However as writing a diary is a very personal matter, it requires passion and motivation to write a fulfilling and reflective entry. As Milligan and Bartlett (2019) also mention, there is a big difference in keeping a diary for yourself and keeping a diary for others. This is something that was not taken sufficiently into consideration, as it was not explicitly mentioned what the researchers expected to get out of the diary entries.

Another factor, which also has impacted many of the answers, is the formulation of the standardized questions. As mentioned earlier, most of the participants directly answered some of the questions that were meant to be purely inspirational, and that has in one way or another dictated the answers and responses given in the different entries. However, without any of these standardized questions, and if the participants perhaps were given only a blank diary entry to fill out, the uncertainty of what kind of data would come out of the diaries would be high, and could potentially point in many different directions.

It is important to note that generally the diary entries were useful and provided at least some account of their reflections regarding their experiences. However, even the more detailed diary entries were not considered to be sufficiently rich in data, to stand on their own for further analysis.

Taking all things into consideration, and although it could have been done differently, the diary method still served its purpose, as the subsequent interviews were scheduled to take place afterwards, where it would be possible to question the participants for further elaborations.

3.5 Interviews

As mentioned previously, some of the diary entries were not as extensive as originally planned. There was a need for elaboration, and this was done by conducting some follow-up semi-structured interviews. Regarding the interviews conducted in this project, the seven stages in a research interview by Kvale (1997) have served as a source of inspiration. The seven stages call for a reflective approach in the research process, in terms of the structure of interview, the central themes that are identified through analysis as well as the researcher's own subjectivity (Kvale, 1997).

In general, interviews can be understood as human relations, as the interaction between an informant and interviewer dictates the knowledge that arises from the interview. (Brinkmann and Tangaard, 2015)

The semi-structured interview is considered to be a more flexible type of interview, that allows the researcher to have an overall structure, while still allowing the informant to freely contribute to the conversation. In addition to this, the semi-structured format also allows the researcher to divert from the planned questions, if perhaps, the conversation leads to interesting paths that were not incorporated into the original structure of the interview. (Brinkmann and Tangaard, 2015)

In this project, four of the diary participants were selected as interview informants, and four semi-structured interviews were conducted. For each of the interviews, an interview guide was developed, containing a standardized section, with questions inspired by the overall themes identified through the questionnaire and diaries, as well as a personalized question section, where specific questions related to the individual participant's diary entries were placed. As such, the main goal of the interviews was to elaborate on the diary entries, by maintaining a focus on the informants' experience with video communication, as well as online communication in general, and to get a deeper understanding on the overall impact of the lockdown regarding the COVID-19 pandemic. The interviews were all conducted through online communication.

3.5.1 Choosing the Informants

Out of the six diary participants, only four of them were selected as informants for the interviews. When going through the individual diaries, some of the participants' entries

were more suitable to move forward with. Therefore, some exclusion criterias were made. For example, two of the students had quite similar backgrounds, both foreign exchange students from the same country, and in order to avoid the chance of getting quite similar data, only one was selected as an interview informant.

Another exclusion criteria revolved around the informants' age group. Going through the questionnaire, especially one age group was prevalent; people in their 20s. As a way of streamlining the overall demography, only people in their 20s would be selected for the interviews. And finally, one informant was excluded due to his geographical residency being in the Faroe Islands. Although the Faroe Islands are a part of Denmark, and in many ways quite similar, the effect of the pandemic was completely different in the two countries. For example, the virus outbreak in the Faroe Islands was stabilized rather quickly (DR.dk, 2020b), and therefore the extent of the lockdown was not as extensive as it was in Denmark. This exclusion process resulted in four interview informants:

- Emmanuel, foreign exchange student, 23 years old
- Jákup, sociologist, 29 years old
- Mathias, student, 26 years old
- Carsten, student, 27 years old

The transcriptions of these four interviews has been attached as Appendix C, where the excerpts from two of the interviews have been translated.

3.5.2 Discussion of Interviews

The informants were a quite homogenous group, as the informants were all males in their 20s. Originally, it was decided to focus on one age-group instead of incorporating a more diverse group of informants. The informants get even more homogenous in terms of their occupation, as three out of the four were students. It can be argued that a more broad selection of informants, regarding both the diaries and interviews, could be considered beneficial, as the chosen informants are in many ways quite similar. However, looking at their differences in terms of personality, background, and experience with technology, the group can be considered to be quite diverse; a foreign exchange student temporarily living in Denmark, a long-term resident of Copenhagen from the

Faroe Islands, as well as two lifelong residents of Northern Jutland. This provided a quite interesting mix of people, and served to illustrate great contrasts throughout the analysis.

One thing, that was not sufficiently utilized, was the way in which the online video-interviews were conducted. Although two of the interviews were conducted via online video communication platforms, there was not a specific focus on documenting our own experiences of the interaction. Taking an auto-ethnographic approach could have been beneficial in many ways, and could perhaps have contributed to a better and more insightful understanding of the process of video communication for the researchers. This could eventually have been related to some of the things that were mentioned by the participants of the questionnaire, diaries, and interviews.

3.6 Organizing the Data

Because of the large amount of data gathered through the varying ethnographic methods in this project, it has been imperative to take an organized approach to the different empirical data-sets. This was mainly done with inspiration taken from the thematic analysis, as outlined by Braun and Clarke (2006), where the different data-sets were coded through the qualitative data analysis software, *NVivo*.

3.6.1 Thematic Analysis

By taking a thematic analytic approach, the researcher has the opportunity to let the data speak for itself. The main characteristics of a thematic analysis lie within its open nature, encouraging the researcher to explore the empirical data.

This is a good way to discover themes that are not always apparent at first. In this regard, Braun and Clarke (2006) propose an overall framework on how to approach a thematic analysis, which is categorized into six phases:

PHASE	DESCRIPTION OF THE PROCESS
1.FAMILIARIZING YOURSELF WITH YOUR DATA	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2.GENERATING INITIAL CODES	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3.SEARCHING FOR THEMES	Collating codes into potential themes, gathering all data relevant to each potential theme.
4.REVIEWING THEMES	Checking if the themes work in relation to the coded extracts (<i>Level 1</i>) and the entire data set (<i>Level 2</i>), generating a thematic map of the analysis.
5.DEFINING AND NAMING THEMES	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6.PRODUCING THE REPORT	The final opportunity for analysis. Selection of vivid compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Figure 3.5: The six phases of thematic analysis, as outlined by Braun and Clarke (2006).

This framework is proposed as a step-by-step guide to conduct thematic analysis. However, the researcher is encouraged to approach it iteratively; by continuously going back and forth in the data-sets.

Before the data could be used for the analysis, it was necessary to gain an overview of the different data sets. Therefore, during this project, the three different data-sets have undergone different variations of a thematic analysis. All the qualitative data was eventually imported into NVivo, and subsequently became a part of the coding process, although a first round of coding was conducted using only data from the questionnaire. As mentioned in **section 3.3**, the purpose of the questionnaire was to get inspiration for future directions, thereby making it an important foundation for the rest of the analytical process.

After the questionnaire data had been thoroughly reviewed, some of the themes were chosen to serve as a basis for the rest of the project. For example, the aspect of video communication was quite prevalent in the questionnaire, and this served to become the basis of the diary study conducted subsequently.

The qualitative data collected through the diaries was not that substantial, so the coding process was not as comprehensive as the questionnaire. Some of the codes generated from the questionnaire were also relevant for the diaries, but seeing as the different data sets were quite different, the diaries were eventually coded alongside the interviews.

3.6.3 Coding Interviews

Again, following the first phases of the thematic analysis, initial codes were made. Some of the codes were reused from the questionnaire, while some new emerged. The codes are visualised in the word cloud below:



Figure 3.8: Wordcloud of initial codes.

These codes were eventually condensed into three overarching themes, as outlined below:

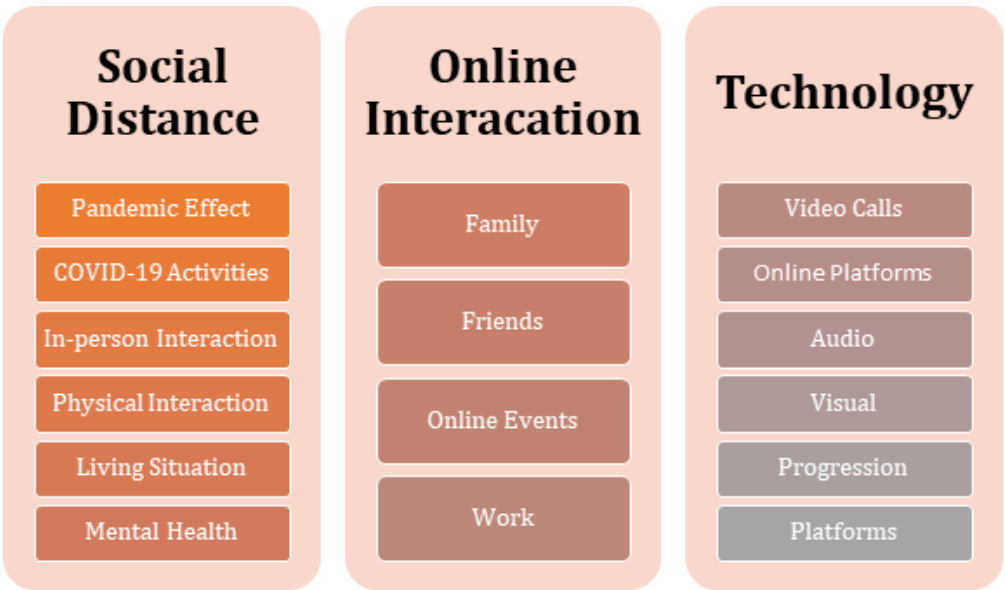


Figure 3.9: Wordcloud of the three overarching themes.

By gaining an overview of the different data sets, it was possible to incorporate all of the data sets, as a result of the mixed methods approach, into the analysis.

Chapter 4

Theoretical Approach

For this project two theories have been chosen to constitute the theoretical framework, from which the analysis is guided. The first is Don Ihde's *Postphenomenology*, in which the central aspects will be explained, as it can be used to understand and explain how humans and technologies exist together. The second part of the theoretical framework is *Community of Practice*, which is a social learning theory, in which Etienne Wenger describes how learning emerges in collaborative communities in which people participate in. For the context of this thesis, the two theories are used as a way to understand how people's practices are affected by the use of technology.

First of all, the theory of postphenomenology will be introduced and elaborated. However, in order to understand postphenomenology, one must first understand the basics of its predecessor; *phenomenology*.

4.1 From Phenomenology to Postphenomenology

The phenomenological tradition thought of itself as an alternative to science; where science sought to analyze reality, phenomenology sought to describe it:

“While the sciences, as Merleau-Ponty stated, merely “analyze” things from a distance, phenomenology “describes” them from a closer engagement. Rather than describing the world as it actually is, the sciences present a reduced reality.” (Rosenberger and Verbeek, 2015: p. 11)

However, the Dutch philosopher Peter-Paul Verbeek points out in his book *Moralizing Technology: Understanding and Designing the Morality of Things* (2011) that the major works within the phenomenological school of thought were accounts of the relation between humans and reality, less so a description of reality. He continues to state that it is more fitting to understand classical phenomenology as a philosophy that seeks to analyze the relation between humans and their world. (Verbeek, 2011)

Expanding on the German philosopher Martin Heidegger's ideology, he proposed that artefacts should be seen as the link between humans and their reality. Heidegger used two central concepts called *“readiness-to-hand”* and *“present-at-hand”* to explain his overall stance (Verbeek, 2011). To illustrate these two concepts, Heidegger used a hammer analogy, which has become quite famous in the realm of technology philosophy. He explains that when a person is using a hammer to hammer a nail, the person using the hammer is not focusing on the hammer but on the nail; this is when the artefact is ready-at-hand. In this state people are engaged in their reality through the artefact. Whenever the artefact breaks down, the person shifts focus to the artefact and the artefact becomes present-at-hand. In this state the artefact *“[...] is no longer able to facilitate a relationship between a user and his or her world”* (Verbeek, 2011: p.7).

Verbeek (2011) takes this understanding a bit further, stating that when an artefact is used, it facilitates the user's involvement; how they act and how they perceive their reality. In one of his previous works, *What Things Do: Philosophical Reflections on Technology, Agency, and Design* (2005), Verbeek further describes how technology mediates the world of the human:

“When human beings use an object, there arises a “technologically mediated intentionality,” a relation between human beings and world mediated by a technological artifact.” (Verbeek, 2005: p. 116)

In relation to this, a key distinction emerges between postphenomenology and classical phenomenology, which lies within the differing understandings of object and subject. Prior to the advancement of phenomenology, there was typically a clear distinction between object and subject. However, phenomenologists proposed bringing them closer together by placing an intentional relation between subject and object, where the human subject is always directed at the objects (Verbeek, 2005).

When technology mediates our relation to the world, it can, from a phenomenological perspective, impact people’s relationship between objectivity and subjectivity in their lifeworld (Verbeek, 2005). The term “*lifeworld*” is derived from Husserl and was a central term in his phenomenology, which in its essence came to mean the reality in which humans can experience; it is the basis for human decision making, actions and communication. Later Merleau-Ponty described the lifeworld as the basis for everything that is known, scientifically and otherwise. All that is known stems from personal perspectives and experiences (Jacobsen et al., 2015). It plays an important role in postphenomenology and Verbeek (2005) describes it as:

“Moreover, the world cannot be treated as an assemblage of objects for knowledge, but must be viewed as something in which human beings live: a lifeworld.” (Verbeek, 2005: p. 110)

In postphenomenology, it is argued that there is no direct relation between subject and object, but instead an indirect relation, where technologies function as mediators (Rosenberger and Verbeek, 2015). The North American philosopher, Don Ihde, a founding father of postphenomenology, also recognizes the necessity of connecting human-technology relations, rather than considering human subjects and technological objects as separate:

“If the fundamental intertwinement of humans and technologies is not taken into account, the relations between human beings and reality cannot be understood.” (Verbeek, 2011: p.15)

Rosenberger and Verbeek (2015) describe postphenomenology to be a re-interpretation of the foundations of phenomenology; especially regarding the term *mediation*. Building on this way of experiencing the world, postphenomenology seeks to gain an understanding of how science and technology mediate the human-world relations. (Rosenberger and Verbeek, 2015)

4.1.1 Human-Technology Relations

In this regard, Don Ihde, in his seminal work, *Technology and the Lifeworld: From Garden to Earth* (1990), presents four different type human-technology relations, which are illustrated in figure 4.1 below:

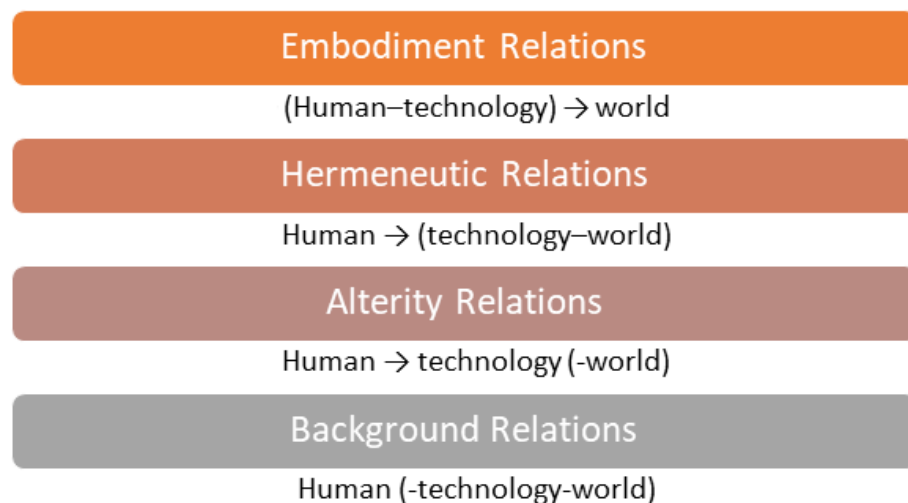


Figure 4.1: The human-technology relations. (Verbeek, 2011)

These human-technology relations, originally proposed by Ihde, will be expanded upon in the following sections, with the exception of the *alterity relation* as it has not been prevalent when analyzing the data.

4.1.2 Embodiment Relations

Ihde (1990) argues that the *embodiment relations* are human-technology relations, that extend the capabilities of the human senses. An example regarding people who use glasses is mentioned. The world that the people wearing glasses see is mediated through the glasses, or the artefact. He continues by stating, that when such relations are good, a form of transparency happens. The wearer of the glasses does not notice, or is affected by, the glasses, but they effectively become transparent to the wearer. As such, the technology becomes an extension of the natural senses; it becomes embodied:

“My glasses become part of the way I ordinarily experience my surroundings; they “withdraw” and are barely noticed, if at all. I have then actively embodied the technics of vision” (Ihde, 1990: p.73)

Ihde (1990) visualizes these embodiment relations by connecting the human, the technology and the world. The first step is identifying the underlying intentionality, and in the case of the glasses, the intentionality is being able to see; that is the intended purpose of the glasses; to enable someone to see clearer:

“I see - through the optical artefact- the world” (Ihde, 1990: p.72)

However, once the wearer of glasses embodies the glasses, the relation changes:

“I - glasses - world” (Ihde, 1990: p.73)

The artefact effectively mediates the human sight. If the artefact, in this mediated state, becomes transparent, Ihde (1990) illustrates it as:

“(I-glasses) - world” (Ihde, 1990: p.73)

4.1.3 Hermeneutic Relations

The second type of human-technology relations Ihde (1990) proposes are *the hermeneutic relations*. Usually, hermeneutics are understood as textual interpretation. Ihde (1990), however, understands hermeneutics as interpretation within the context of technology. This is further explained to be considered an activity, which needs different modes of action and perception, which can be regarded as analogous to reading. Reading is the action required for the interpretation of text. He explains that in order to read something, it has to be written and all writing entails technology; from writing with pen and paper to writing on a computer. As such writing can be considered a technologically embedded form of language. (Ihde, 1990)

In terms of human-technology relations the process of reading and writing entails a host of different hermeneutic techniques. In an ordinary reading situation, the object, which is to be read, is placed in the line of sight of the reader. In a way, what is read is being read from a smaller bird's-eye perspective. Ihde (1990) further explains the concept of the phenomenology of reading, using maps as an example. By reading a map, if what is represented on the map is isomorphic to what it is trying to represent, i.e. a landscape or topography. The map is in a sense transparent, as what is shown on the map refers to something beyond the map itself, in terms of what it represents. This example touches upon the previous embodiment relations, in terms of the map representing a bird's-eye view of an area, that one could experience in an in-person encounter, even though the map distorts the size-ratio. However, distinctive features are represented. (Ihde, 1990)

The map example is also different from the ordinary act of reading, as the map itself, which is a substitute for a landscape, is the focus of the reading, and not the landscape itself. This, again, differs from the embodiment relations, in which a person looks through glasses at something, where in this sense, the map is what is being seen. Reading a map, however, is different from reading text. While the map represents something beyond itself, a written word represents only the word that is written. The transparency related to reading text is then different to the transparency of technologically embodied perception. Textual transparency in terms of Ihde's hermeneutic transparency refers to what is written by and through the written words. As such, when reading a text, what is read is the world of the text Ihde (1990). In terms of reading, there is a host of readable technologies in which a hermeneutic relation can exist between humans and technology.

Following in this direction, Ihde (1990) draws on the thermometer and explains that a person sitting inside looking out can see snow. He can see that it is cold. However, the person is unable to feel the cold. In order to feel the cold, the person would have to go outside and experience a full in-person encounter with the cold. The person inside can look at the thermometer and read how cold it is outside, but still, the person does not feel how cold it is. The person reading the thermometer immediately knows that it is cold, but what the person perceptually has seen, is a dial and a specific number, i.e. the text of the thermometer, and through this text the thermometer delivered its world, i.e. "it is cold outside". Ihde (1990)

Ihde (1990) takes the thermometer example further, by proposing that a person sitting in a hermetically sealed house, with no windows or access to the outside, having only a thermometer to reference the outside world, would both have to know what the thermometer is, in terms of what world the thermometer is referencing, as well as to know how to read the thermometer. This example takes offset in a real world incident, in which a nuclear reactor nearly had a meltdown, due to misreadings of the instruments by the engineers operating it. Ihde (1990) shows the mediation of the technology in this situation:

**"I-technology-world
(engineer-instruments-pile)"**
(Ihde, 1990: p.85)

The engineer has an instrument board between him/her and the nuclear pile. The object of perception for the engineer are the instruments and not the nuclear pile itself, while the nuclear pile is read or seen through the instruments. This relation is therefore:

"I-(technology-world)" (Ihde, 1990: p.86)

He explains that the parentheses around the instruments and the nuclear pile indicate how the perceptual focus of the engineer is surrounding the instruments. The engineer reads the world through the instruments. However, the instruments are connected to what they are referring to; in this case the nuclear pile.

A problem arises in terms of the connection between the technology and the world, that is being referred to; in this case the instruments and the nuclear pile. If what is read does not correctly represent the reference object or the world, it cannot be present. If

the instruments do not correctly refer to the nuclear pile, the nuclear pile cannot be seen by the engineer. This creates an enigma position in the relation which can both be positioned with the technology, but also with the text. How is the engineer supposed to know that the instrument is malfunctioning or what the instrument is referring to? There is an opacity in this relation; if the engineer could verify himself independently of the instruments, what is malfunctioning would not have been a break-down. However, in a case where independent in-person verification is impossible, the relation remains opaque. (Ihde, 1990)

4.1.4 Background Relations

The fourth and final human-technology relations are the *background relations*. It revolves around the technologies that function without human intervention; they function in the background. Take for example the new smart home devices that can alter heat, cooling, and lighting in the home. They need to be installed, at which point they are present in the forefront, but once installed, turned on and linked up, they often function independently in the background, away from humans. They do not require attention from humans. Therefore, the technology becomes absent, and they are also considered different from what Ihde (1990) previously mentioned, in terms of transparency and opacity. It becomes absent, yet it is present in the experience of the human. Much like Heidegger's hammer analogy; it is only when the technology breaks down that the focus is directed towards it (Ihde, 1990).

In relation to this project Don Ihdes different human-technology relations are used as a framework for understanding the use of online communication technologies as the use is described by the informants of the study. It will help us to understand how and why certain situations arose in the context of the use of online communication technologies, and will enable us to have vocabulary to accurately describe what is seen in the empirical data.

4.2 Communities of Practice

Communities of Practice is a social theory of learning that seeks to shift the focus from the traditional individual aspects of learning by incorporating a social aspect. Its main argument is that the process by which we learn and become who we are, is a result of social practice and this takes place in different communities of practice (Wenger, 1998). Because of the frequent use of the phrase "Communities of Practice" in this thesis, both in singular and plural forms, it will from now on be referred to as "CoP".

The theory was developed by Etienne Wenger in 1998, and was first introduced in his book called *Communities of Practice: Learning, meaning, and identity*. This concept of social learning takes a point of departure on the premises of the social nature of human-beings. In this regard, Wenger (1998) sets up four assumptions regarding this type of learning:

1. *"We are social beings. Far from being trivially true, this fact is a central aspect of learning."*
2. *Knowledge is a matter of competence with respect to valued enterprises - such as singing in tune, discovering scientific facts, fixing machines, writing poetry, being convivial, growing up as a boy or a girl, and so forth.*
3. *Knowing is a matter of participating in the pursuit of such enterprises, that is, of active engagement in the world.*
4. *Meaning - our ability to experience the world and our engagement with it as meaningful - is ultimately what learning is to produce." (Wenger, 1998: p.4)*

Through these four assumptions it is underlined that the primary focus of the theory is learning as social participation:

"Participation here refers not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities. Participating in a playground clique or in a work team, for instance, is both a kind of action and a form of belonging. Such participation shapes not only what we do, but also who we are and how we interpret what we do." (Wenger, 1998: p.4)

Following the notion of learning as social participation in different communities, Wenger (1998) proposes the social learning aspect as being constructed by four components; *meaning, practice, community* and *identity*:



Figure 4.2: The four components of social learning. (Wenger, 1998)

These four components, Wenger (1998) argues, contribute to social learning in different ways, as he summarizes their main properties;

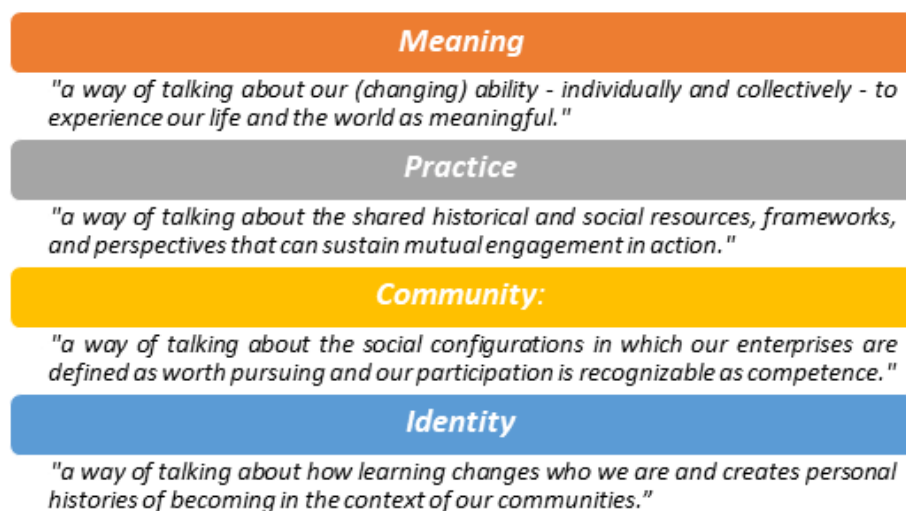


Figure 4.3: The four components of social learning summarized. (Wenger, 1998)

These four components are interconnected, and are all considered equally important aspects of the social learning process. The following sections will seek to provide a further understanding of these different components, and how these components will become implemented into the analysis.

4.2.1 Meaning

In order for practice to thrive, it is important for the individuals taking part in that practice to find meaning in the practice:

"Practice is, first and foremost, a process by which we can experience the world and our engagement with it as meaningful" (Wenger, 1998: p.51)

The first component, "*meaning*", seeks to elaborate on how meaning is constructed through people's experiences. This is explained through three different concepts; *negotiation of meaning*, *participation* and *reification*.

The *negotiation of meaning* takes place in several different aspects of our lives. By existing and living in the world, people are constantly subject to constructing new meanings depending on new experiences, as well as past experiences. Therefore, living is a constant process of negotiating meaning.

Participation is described as "*the social experience of living in the world in terms of membership in social communities*" (Wenger, 1998: p.55), and can be found on both personal and social levels:

"It is a complex process that combines doing, talking, thinking, feeling, and belonging. It involves our whole Person - including our bodies, minds, emotions, and social relations." (Wenger, 1998: p.56)

Closely connected to practice is the concept of *reification*. Reification can be seen as the process of objectifying something, that is not necessarily considered to be tangible; that is, to transfer meaning or emotion into fixed forms, which ends up being given the status of object:

"Any community of practice produces abstractions, tools, symbols, stories, terms, and concepts that reify something of that practice in a congealed form."
(Wenger, 1998: p.59)

Wenger (1998) mentions the duality of participation and reification as a vital part of finding meaning, and that people, and the things they use in a practice, should not be defined independently of each other. Therefore, participation and reification form a unity, which ultimately gives rise to various experiences of meaning, which are fundamental for any practice to take place (Wenger, 1998).

The following section will elaborate on the components of practice and community.

4.2.2 Practice and Community

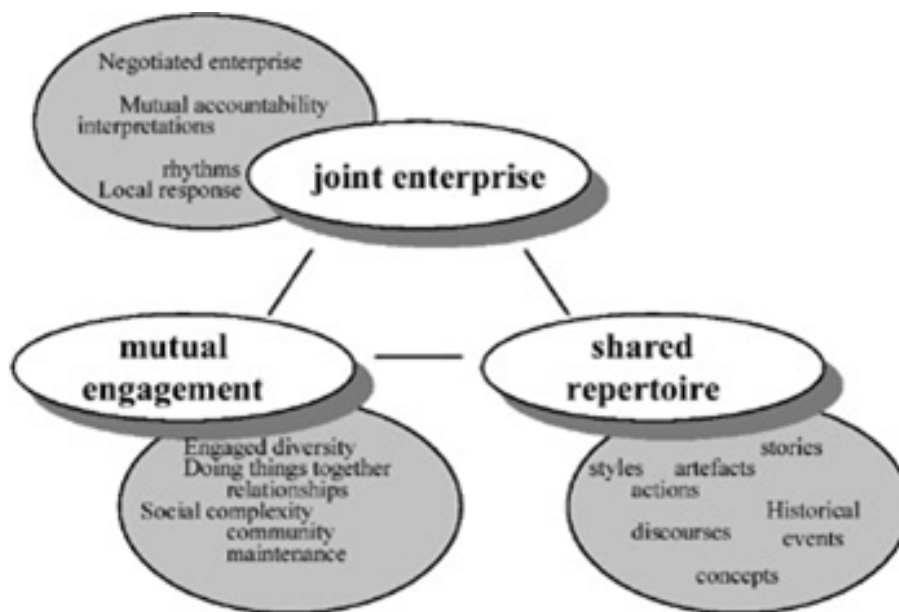


Figure 4.4: The three dimensions of a Community of Practice (Wenger, 1998)

Social learning takes place by participating and engaging in communities. Wenger (1998) argues that a community, in itself, is not a community of practice until it is connected to practice. In this regard, he introduces three dimensions; *mutual engagement*, *joint enterprise* and *shared repertoire*, that together constitute a community of practice, which is indicated in the figure 4.4 above.

Mutual Engagement:

The first dimension revolves around participating in a practice. A practice is not an abstract element; it is the result of people engaging in actions emerged from a collective negotiation of meaning. Becoming a member in a certain community of practice, therefore, revolves around mutual engagement:

"Mutual engagement involves not only our competence, but also the competence of others. It draws on what we do and what we know, as well as on our ability to connect meaningfully to what we don't do and what we don't know - that is, to the contributions and knowledge of others." (Wenger, 1998: p.76)

The mutual engagement implies a social learning aspect, as people learn from each other by constantly renegotiating meaning in the things they are doing together.

Joint Enterprise:

As a result of the mutual engagement, where the members of a given community engage in activities regarding a specific practice, a joint enterprise is formed. A joint enterprise of constantly evolving, and influenced through, practice. Coming to terms with how to do things in a certain way is a process, rather than a fixed agreement. This also implies a mutual accountability among the participants, which emphasizes the influence each participant can have in terms of defining, or pursuing, a joint enterprise within a practice. (Wenger, 1998)

Shared Repertoire:

The final dimension in defining a community of practice is the development of a shared repertoire. As a result of the joint pursuit of an enterprise, different resources are established and utilized by the members of the community:

"The repertoire of a community of practice includes routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions, or concepts that the community has produced or adopted in the course of its existence, and which have become part of its practice." (Wenger, 1998: p.83)

To sum up, CoP are formed by histories of mutual engagement, as well as the process of negotiating an enterprise, which results in the development of a shared repertoire.

Learning in Practice:

These dimensions each play a part in defining a community of practice. However, these dimensions are subject to continuous development, and are never static. In terms of learning, the members of a community of practice are constantly leaving their mark on the practice, which eventually results in changes. The forms of mutual engagement are evolving in terms of mutual relationships with other members. The joint enterprise is then adjusted according to the mutual engagement, and the shared repertoire is renegotiated in terms of adopting new procedures or tools. (Wenger, 1998)

4.2.3 Identity

Wenger (1998) argues that identity in practice is shaped by an interplay between participation and reification. Identity is not something you have; it is constantly evolving. He continues to state that we all belong to several different CoP, that have either taken place in the past or are currently ongoing. (Wenger, 1998)

In order to understand how people evolve in various CoP, Wenger (1998) uses the term *trajectories*, to show how identities are constantly evolving. In terms of CoP, these trajectories can come in various types. Two of these trajectory types are highlighted below:

Peripheral trajectories.

"By choice or by necessity, some trajectories never lead to full participation. Yet they may well provide a kind of access to a community and its practice, that becomes significant enough to contribute to one's identity". (Wenger, 1998: p.154)

Inbound trajectories.

"Newcomers are joining the community with the prospect of becoming full participants in its practice. Their identities are invested in their future participation, even though their present participation may be peripheral". (Wenger, 1998: p.154)

Multimembership

There are different types of memberships, where one can participate as a full member in one community of practice, while participating in the periphery of others. Although some CoP may be more central to one's identity than others, whatever the extent of membership, participating in different CoP contribute to the construction of one's identity. Participating in several CoP is referred to as *the nexus of multimembership*, which implies that being a member in different communities is closely interconnected to our identity, but it is neither fragmented or fully united parts of it.

"On the one hand, we engage in different practices in each of the communities of practice to which we belong. We often behave rather differently in each of them, construct different aspects of ourselves, and gain different perspectives. On the other hand, considering a person as having multiple identities would miss all the subtle ways in which our various forms of participation, no matter how distinct, can interact, influence each other, and require coordination."

(Wenger, 1998: p.159)

Participation and Non-Participation

Following the notion that CoP are everywhere, it is difficult to participate in every CoP we encounter or meet. The practices we are a member of each shape our identity in different ways, but as Wenger (1998) argues, we are also defined by the practices we choose not to be a part of:

"We not only produce our identities through the practices we engage in, but we also define ourselves through practices we do not engage in. Our identities are constituted not only by what we are but also by what we are not." (Wenger, 1998: p.164)

The relations to communities, therefore, involve both participative and non-participative elements, which together shape our identities. These elements are illustrated in the following figure:

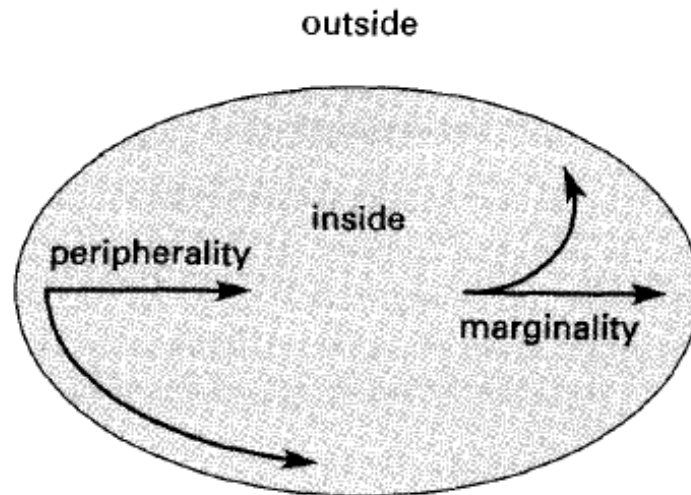


Figure 4.5: (Wenger, 1998)

In terms of participation you can either participate or not. The level of membership can vary in terms of either *peripherality* or *marginality*. For example, a peripheral member of a community of practice is not yet at full membership, but has the possibility of getting there through engaging in a practice. Marginality, on the other hand, is seen as a restricted form of participation, which prevents full participation. As illustrated in figure 4.5, participation is defined through four categories:

- **full participation** (insider)
- **full non-participation** (outsider)
- **peripherality** (participation enabled by non-participation, can lead to full participation)
- **marginality** (participation restricted by non-participation, can lead to non membership or a marginal position). (Wenger, 1998: p.167)

4.2.4 The Discontinuity of the COVID-19 Pandemic

For the analysis of the empirical data in this project, the theory of CoP will serve as an analytical framework. The COVID-19 pandemic has brought a lot of changes into people's usual way of life, and this was also the case for the informants in this study.

Wenger (1998) discusses the concepts of continuities and discontinuities, which refer to how CoP are constantly evolving. Through participation and reification, both continuities and discontinuities thrive. An example is mentioned, that revolves around the installation of a new computer system in a given practice. In the specific example, the introduction of the computer system was a major discontinuity, as it transformed their practice almost beyond recognition. However, the old-timers, as they are referred to in this example, are now joking and laughing about how complicated things were before this radical change of their practice occurred (Wenger, 1998). This interplay between continuity and discontinuity is sufficiently summed up in the following:

"Because the world is in flux and conditions always change, any practice must constantly be reinvented, even as it remains "the same practice." [...] Constant change is so much a part of day-to-day engagement in practice that it largely goes unnoticed. Even when it causes a discontinuity or a crisis, it rarely leads to a breakdown. The community does not fall apart." (Wenger, 1998: p.94)

This raises an interesting aspect to the situation surrounding the lockdown, and whether this is also relevant in terms of the social distancing initiatives that affected so many people in Denmark.

In relation to this, the analysis will try to show how the discontinuities brought to the informants' various CoP, in the form of radical changes in their practice, mostly in terms of moving their daily lives into an online setting. This will be done by classifying the diary and interview informants into separate narratives, where the informants will be considered individually as multi members of different CoP. Through the empirical data gathered on the various cases, the different concepts and components, that have been mentioned in this chapter, will be selectively incorporated throughout the analysis.

Chapter 5

Analysis

This chapter will contain an analysis of the different data sets gathered throughout the project. First off all, the chapter will contain a short walkthrough of some of the findings discovered through the questionnaire. This will mainly revolve around the respondents' different ways of keeping in contact during the lockdown, their preferred platforms, as well as some of the activities that have taken place while communicating online.

In order to get a deeper and more personal understanding of how people have experienced the lockdown, the second part of the analysis will seek to delve into the interview-informants' lifeworlds; who they are, how their experience of the lockdown, as well as how their experience with online communication, has been, particularly regarding video communication. This will be done through a narrative format, containing individual narratives for each of the informants, and these will be analysed in line with the theoretical framework of Postphenomenology and Communities of Practice. In addition to this, the narratives will incorporate some of the findings from the questionnaire, that have not yet been presented. Finally, each narrative will contain a summary of the main findings.

5.1 Communication During Lockdown

COVID-19 has impacted a lot of people living in Denmark, as it suddenly dictated people to move their daily lives, including work, free-time interests, and keeping contact with friends and family, to the digital world.

So, to what extent have people been isolating themselves? In the questionnaire, we asked how the respondents had been together with their family and friends respectively, during the lockdown. They were provided the options of having “no contact”, “met physically”, “sms/chatted” “audio/video calls”, and an “other” option. This question allowed the respondents to select multiple options, and so the below charts illustrates how many times each option has been chosen:

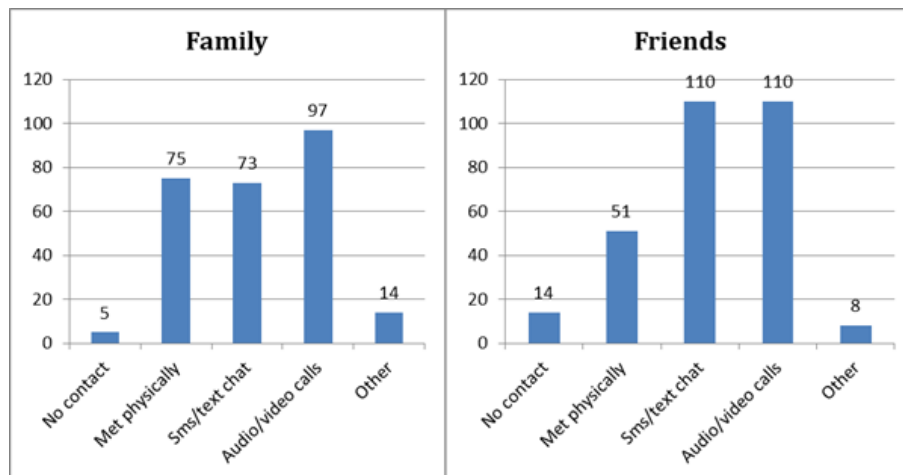


Figure 5.1: Graph of amount of answers regarding the degree of contact people have had with respectively family and friends.

This data shows that very few people have been completely without contact with either friends or family, and that slightly more people have not had contact with their friends, compared to with their family. It is worth noting, that people have still, to some degree, been meeting physically, more so with their family than friends.

Although a fair share have been meeting physically, the audio and video calls have been used a lot in both of the groups. This could possibly indicate that some respondents have been using audio/video calls as a supplement to not being able to meet physically, as often as they used to.

When looking at the “other” answers regarding communication with family, five people clarified that they live together with their family. Eight people clarified how they have been having physical meetings with their family, but that they have been meeting outside and thereby had the possibility to maintain the required distance. As for the “other” answers regarding communication with friends, five respondents clarified that they had met outside and kept their distance, where two clarified that they have met with selected friends and have been communicating digitally with others.

As illustrated above, communicating with audio and video has been widely used, but which platforms have people been using? To get an insight into how the respondents were communicating, they were also asked which platforms they had been using for audio and video based communication with their family and friends. They were given the options shown on the graph below, and a space to fill in their own answers in the “other” option.

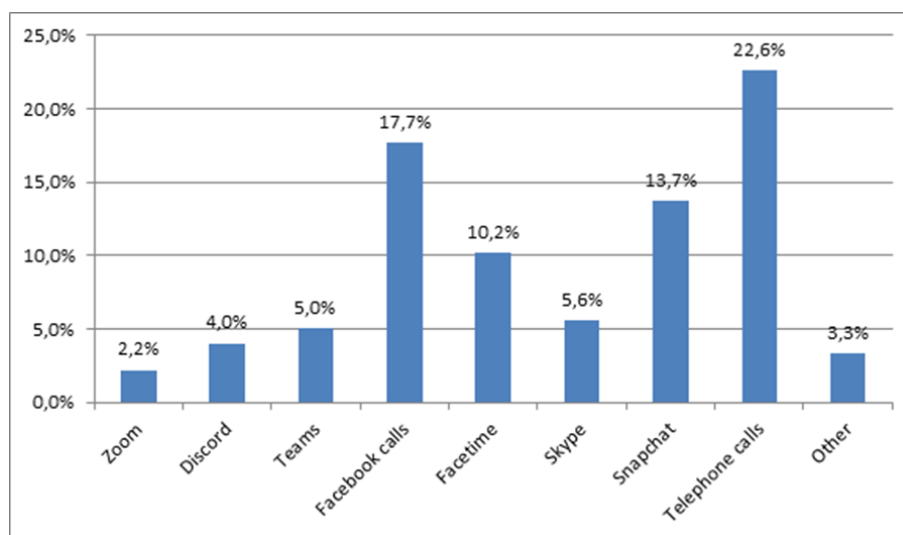


Figure 5.2: Graph of the most prevalent platforms used for online video and audio communication.

The most popular ways of communicating have been “*telephone calls*”, “*Facebook*” and “*Snapchat*”, followed by “*Facetime*”, “*Skype*”, “*Microsoft Teams*”, “*Discord*”, “*Other*” and “*Zoom*” respectively.

To gain further insight in people’s practice when communicating online, the respondents were asked what they had been doing with their friends and family when interacting together through digital media.

The question provided a textbox, in which these qualitative answers have been categorized into different types of activities. The answers that mentioned multiple activities of different kinds, have been split up into the respective categories. Therefore, the following graph shows how many entries each of these categories have had.

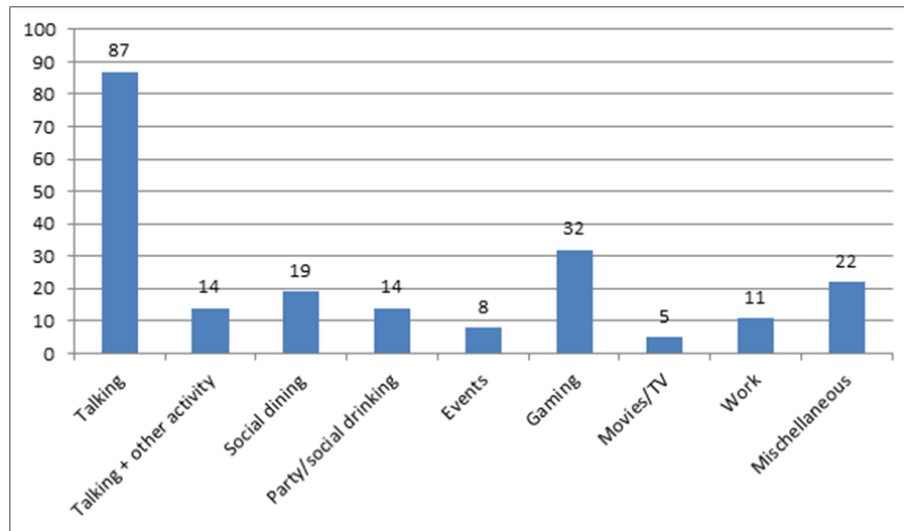


Figure 5.3: Graph indicating what activities people have done while interacting online.

Simply “*talking*” was naturally the most mentioned activity for the respondents. Out of the 87 times “talking” was mentioned, in 54 cases it was mentioned as the sole activity. In the remaining 33 answers, talking was listed as a separate activity of the respondents’ answers. “*Talk + other activity*” covers the times respondents have explicitly mentioned talking whilst doing other things. These things included taking a walk, showing off creative projects, doing practical things around the house and one person having shown off their newborn child.

Eating a meal, or having a drink, were also popular activities during online communication. This is covered by the “*social dining*” category. In this category, the respondents have mentioned eating breakfast together, having a family dinner and cooking together. Drinking coffee or having a glass of wine were also mentioned several times. Specifically drinking alcohol, especially beer, was also mentioned fairly often, as well as hosting digital parties. This is covered by the “*Party/social drinking*” category, which also includes four separate respondents having digitally held “friday bars”.

Similarly, some respondents mentioned they participated in some events with their friends and family. These events include birthday celebrations, having Easter lunch together and one participant participated in a name-giving-party for a friend’s newborn baby.

Gaming was also a very popular activity. This mainly includes digitally playing computer games, but a few respondents have also mentioned playing board games and doing jigsaw puzzles together. The digital games that respondents have mentioned, include draw-and-guess, quizzes and Tabletop simulator; a software that simulates board games, making them possible to play together online.

Watching something together was also mentioned a few times, which is covered by the “*Movies/TV*” category. This includes watching movies, television and series. One person specified that they have watched the government’s press conferences together.

The category “*Work*” primarily covers respondents having done study related work together, but also includes doing homework, where one participant elaborated that they discussed their master thesis.

The “*Miscellaneous*” category includes activities that were only mentioned once or twice. This includes baking, playing with their children, being in the garden, cleaning, knitting and exercising.

Summing up the response to this question, it can be seen that the majority of the respondents have just been having conversations online. However, we do see that it has not been uncommon to do other activities whilst communicating online.

To get an insight into what activities were actually new for the respondents to do, and therefore presumably results of the lockdown, a follow-up question was asked, whether they had done any activities that they normally would not have done on a digital media. A majority of 112 out of 154 answered no. The ones who answered yes were requested to write which activities were new for them. Summing up these answers, especially gaming was a new activity, followed by online partying and social drinking, doing events like the ones previously mentioned, and doing quizzes. These are all examples of activities people have done throughout lockdown.

The following will now dive further into four individual people’s experiences of the COVID-19 related lockdowns of Denmark, starting off with a man named Mathias.

5.2 Narrative 1 - Mathias

An informant that participated in our diary study and subsequent follow-up interview was Mathias, a 26-year-old student from Denmark. He has been living with his girlfriend for a few years, and together they have felt the hardships of social distancing and self-isolation. This will be further elaborated in the following sections, which will contain an analysis of his personal experiences, in terms of how the pandemic has affected his daily life.

5.2.1 Uncertainty and Isolation

During the lockdown, Mathias was in self-isolation for a long time. One of the main reasons for Mathias's extensive isolation, where he has been unable to see his family as much as he would like, is because of worries in relation to the spread of COVID-19 virus. This resulted in him and his girlfriend self-isolating for about two months:

"We have been very isolated and that is probably because on my girlfriends side, she has been very afraid of it [...] because her mother is in the risk group and they have a yearly vacation house tour with all of her family that is scheduled for mid-may and that has been something we have been looking forward to, so if we are to participate in that, then we have to be 100% healthy [...] we cannot bring anything along that could infect them all. [...] one of the biggest reasons why we have been isolating ourselves so much, has been that we would simply feel so bad about infecting others and especially since her mother is in the risk group. I still have my grandparents like if they get it, they are done for [...] That has definitely been a factor. [...] I could have [...] said okay we meet with my mother or my family for this time, but my mother is a first grade school teacher and they opened pretty soon [...] so I think we just agreed we would do it properly and completely..." (Mathias, Appx C, l. 393)

Mathias and his girlfriend have been very worried about other people in their lives, especially his mother-in-law and his grandparents, as they are in the group of people who might become fatally ill from contracting COVID-19. As such, they collectively decided to isolate themselves completely for two months, in order to ensure that they

would not be a source for contagion, but also because they wanted to be able to join her family's vacation in May. It is clear that this worrying is something weighing heavily on them as they decided to completely isolate themselves. As stated in the problem analysis, worrying can have a substantial effect on one's mental health, specifically in terms of uncertainty, as Huremović (2019a) mentions. The couple obviously experienced isolation, albeit together, which must have been a definite help in not feeling completely alone and isolated. However, the uncertainty that arises is shown from the excerpt; they were uncertain about whether they could join the vacation or not. Their future plans were uncertain, as they were doubtful about the health and safety of her mother and his grandparents. All these factors of uncertainty can easily have affected Mathias' mental health, as well as the overall experience of the lockdown.

5.2.2 Working Online and Living Under Lockdown

When Mathias is not studying, he enjoys an active lifestyle. For example, he is a keen hunter, and he plays handball for his hometown team. Usually, he is surrounded by people in his friend groups, where they are quite frequently arranging different gatherings. So, on March 11th 2020, when Prime Minister Frederiksen announced the lockdown of Danmark, Mathias was in for a radical and unexpected change in his life. In the interview, he was asked how the lockdown had affected him personally, and he explains:

"...I was partners with [my project partner] and studied together with him, and we also worked together last semester and we met together all the time, and that worked really well when we were writing together [...] Then it sort of shut down, so we had to use [Microsoft] Teams [...] We have actually been able to see the influence based on what we wrote when we have been talking on Teams compared to what we wrote after. After it has been alright to meet in-person again, that has been a lot higher in quality[...]" (Mathias, Appx C, l.13)

He used to meet up with his university project partner a lot before the lockdown, and having worked together before meant they knew each other and therefore had a particular way of doing things. During the interview he described how they have been working together on Microsoft Teams, and how the meetings often were sporadic and varied in length; from half an hour to an hour. At other times they had scheduled daily meetings from 08:30-09:00, and a second meeting later in the day.

He mentioned the importance of being available to meet in case one of the group members needed help with something project related. This is in stark contrast to how a regular work day at the university would have been, where they would have a more scheduled way of working and having meetings. It is usually much less sporadic and spontaneous.

In terms of a CoP, the fact that they had worked together previously alludes to an established shared repertoire between the two. From their previous semesters, they have established how to work and write a project together. After the lockdown they were not able to meet physically anymore, and this was quickly noticed by Mathias, as he saw a difference in the quality of the work they produced. The work done in-person was of higher quality than the work done through Microsoft Teams. This decline in the quality of their output could be due to a forced change in their shared repertoire, in their routines, and rhythms of how to do things.

Wenger (1998) proposed that in a CoP, a joint enterprise is established once mutual engagement is agreed upon. In the case of Mathias and his project partner, they had through previous semesters agreed upon their mutual engagement in terms of project writing and formed a joint enterprise within the same field, agreeing on the tools and ways of doing things. When the lockdown occurred they were forced to change their joint enterprise, as they were forced to change the way in which they had to work together. In trying to establish this new joint enterprise of doing project work, they have not been able to work at full capacity, or in the same manner as before, which has contributed to the work being of lesser quality. Perhaps the change in the way they had to engage with the group had an effect on the product as they did not meet regularly or on fixed schedules, something out of the norm for the two, might have presented some issues in that regard. The impact of the lockdown did not just affect the work balance within the group; it also affected the social dynamic between Mathias and his project partner:

"Besides the work, I also think that it has kind of changed something social for us, because we have always, when we have been together, been able to joke [...] that part becomes worse in a way, because it is hard to communicate over Teams and still have the same social bond where you just [...] say something for fun, and I can quickly be misinterpreted [...] It has to be very serious when you work on Teams and very concentrated, which affects the dynamic a little[...]"

(Mathias, Appx C, l.31)

As Mathias states, the ability to joke around and have fun has been diminished. When the two used to meet up, their dynamic was different; there was a more relaxed social element present in their work practice. Since they have been working through Teams, and due to having to use technology as a mediator for their communication, some of the jokes that Mathias would make would at times be misinterpreted by his project partner, which perhaps contributed to a more serious and focused way of working.

As mentioned in **chapter 2.3**, online communication is different from in-person communication, in which the communication relies heavily on nonverbal signals and body language. However, with online communication these cues can be hard to detect. For instance, eye-contact can be difficult to establish because people in video-conferences do not typically look directly at the camera, but at the image of the other person in the screen, which creates a lack of eye-contact that can distort the rhythm of the conversation (Bitti and Garotti, 2011). It is not made entirely clear, if the misinterpretation of some of the jokes happened specifically due to a lack of eye-contact, but it does serve as an example of online communication not being directly comparable to in-person communication, as the non-verbal cues are not as easily detected by his project partner. The change in social interaction is also present in some of the other communities he was a member of:

"... in relation to being social outside of school, it has affected a lot around family and friends, sport. I used to meet my buddies and all that 3 times a week. I have not been able to do that. We have not been able to go to handball and to matches, and do something together with them [...]" (Mathias, Appx. C, 1.38)

From Mathias's point of view, he experienced some difficulty in adjusting to COVID-19 in terms of his social life, where he went from being very outgoing with his friends, about three times a week, to not seeing them at all. While the social aspect of seeing others through sports and other activities have changed for Mathias, other more secluded activities have been easier to carry out:

"... I would say in relation to the social, like some of the things I like to do here at home, such as for example baking Sunday bread and that sort of thing, that's something I have always liked to do and have done it for a long a time, and that has gotten a lot of hype during this time. So that has actually been

made easier in a way, because there is a lot of people that have started to get into that[...]" (Mathias, Appx C, l.63)

In the quote above, the activity of baking is highlighted. Due to COVID-19, more people started getting into baking, because of the implications of social distance, making the activity more attractive for many people. While he does not specify exactly what makes the activity easier, it is possible that more people getting into baking has enabled more discussion, debate and learning in relation to the topic on different social media platforms, benefiting those involved in the craft.

Baking is not the only activity that Mathias mentioned to have garnered more interest from people during the lockdown:

"We walk a lot; have been a lot in the forest, and out in nature. Basically that has been our way of relaxing; being outside and looking at animals, looking at birds. [...] a lot of people flocked to the places we normally would have for ourselves, [...] all of a sudden 4 cars are parked and 12 people are walking and you are just like: "it just does not make sense, you have never wanted to do this before."'" (Mathias, Appx C, l.67)

What is interesting in the above quote, as Mathias mentions, is that he and his girlfriend, before the lockdown, often would go out to a specific place for a walk and watch nature unfold. During the lockdown more and more people have started to join in on this activity, or practice, which is the same thing that happened in relation to his baking hobby.

However, with the inclusion of more people in baking, there was not an intrusion of space; everyone still baked at home, but could collaborate online without encroaching on others' spaces, which made it a positive development for Mathias. This is in contrast to the nature walks, which more people seemingly also started to do, meaning that more people came to the location he and his girlfriend had frequently visited. The inclusion of more people was not perceived positively by him. There might be different reasons for why he feels that more people coming to this place is negative. Usually, he was able to enjoy this particular location with his girlfriend, and all of the sudden it was overcrowded, contributing to a disturbance to the peace and quiet it usually provided. Another reason might be a more practical one, as it might be harder to keep a respectable physical distance, the more people are there, which he might see as a health hazard.

5.2.3 Maintaining an Online Everyday Life

While the lockdown has affected Mathias socially and personally through the different hobbies he engages in, the lockdown also brought challenges at home. Both Mathias and his girlfriend were writing their master thesis during the lockdown, and were confined to work in a small apartment without an adequate internet connection:

"... our internet here in the house has just simply been so piss poor that we have not been able to [work] simultaneously. And if she is then sitting in here in the living room, then I have not been able to sit in there. Then I needed to sit in our [bed]room to work, or vice versa. So we have had to integrate and plan that, so when we had interviews [...] then our joint calendar basically had a description of "alright from 09:00-10:30 I need to use the internet, because I have to do an interview", then the other person needs to log of the internet and stay quiet [...]" And that obviously has been a bit of a planning process, which has been quite big[...]" (Mathias, Appx C, l.98)

As the excerpt shows, the fact that they have both been confined to work from their thin walled home, as well as not having an internet connection good enough to support both of them working simultaneously, has resulted in them having to plan, and adapt their life to support the other person.

He states that normally, when the internet problems would occur, he would just go somewhere else. However, because of the lockdown, he was not able to simply move his work elsewhere. He further explains that their internet at home has never been good, but ever since they both have been home and using it all the time, it has become problematic. So much so, that he had used his phone data as a Wi-Fi connection. These technical issues with the internet did not only control his life, by determining when he could conduct investigations as part of his thesis, it also became an extra unwanted expense, as he had to buy a bigger data package for his phone. All of these issues resulted in him losing his patience. Having had enough of it, he decided to enquire about the possibility of getting a new internet service in his apartment:

"... We have taken that measurement thing to check what kind of connection we could get on this address, which basically just said that we can not really get anything other than 16mbit [...] and we have had that for 4 years, or something like that, and now because that it absolutely did not work one day, in rage I called and actually wanted to quit the subscription, and I have called many times before and said it was really bad, but this time they said they could find something [...] and then 5 days passed and then it was great[...]"

(Mathias, Appx C, l.518)

From the above excerpt, it is clear that the internet at his home has been a source for great frustration, as he said one day he called his internet service provider in rage due to it not functioning properly.

From a phenomenological perspective, the relation between the internet and humans is often considered as being one in the background i.e.; a background relation (Ihde, 1990). The internet usually functions regardless of human interaction, it is simply just there. However, in Mathias's case, the internet was very much moved to the foreground, as the internet connection issues became too great. It came so much into the foreground of his lifeworld, that he had to plan his life around the technology, in order to carry out his practice. In that sense, the internet can be said to have been a controlling factor in his life.

Some similarities can be drawn from Heidegger's famous hammer analogy; while the hammer in that sense represents a clear embodiment relation being an extension of the human and being transparent in use, only to be recognised when it is broken, and losing its hammeriness. (Ihde, 1990) The internet revealed itself in this manner because it did not properly serve its intended function and became a focal point in the lifeworld of Mathias, albeit for a limited time. The internet problems have not only been a source of frustration during the lockdown; it has existed for several years. Previously, when the internet was not functioning properly, or if his girlfriend had to use the internet, Mathias had the ability to relocate, for example to the university campus. This indicates that although the internet connection has been bad before, its function has been tolerable in their daily lives. However, this raises the question on whether or not the internet can be considered to be a background technology in the first place; or if it only moved to the background after the upgrade of the internet services.

Apart from the internet problems, Mathias and his project partner tried to do interviews using the platform Zoom. However, this presented some problems in terms of the informants, who had trouble accessing the platform, which he argues was due to them not understanding the technology.

From a phenomenological perspective, in terms of hermeneutics, as Ihde (1990) describes the process of reading as analogue to many aspects of technology. The Zoom technology requires reading and knowledge on how to use the technology properly, or in this case how to access the interview room that has been created for that specific interview. If the information presented by the app or technology does not co-align with the knowledge that the informant possesses, it becomes a tricky affair to access the interview room, given that the informant does not know what needs to be done in order to access it. As Ihde (1990) states in his example with the hermetically sealed room and the thermostat, an enigma position is created when the world that the technology is referencing is unclear. One must know that one is reading a thermometer and that the thermometer is referencing temperature, before one can understand the world being referenced. In this case if their informant does not know that they would need a code to get into the interview room, how to get the code, or that the information is not presented clearly enough, it would be hard for them to understand the world that Zoom is trying to convey.

Mathias had other experiences with Zoom during the lockdown, which he explains in one of his diary entries:

Who was involved in the conversation? What is your relation?

My friends from my hometown and their girlfriends. We were 11 people there: my girlfriend and I, and four other couples and one of my friends who are single was there by himself.

Did you do any activities during the call? Did you do the activities together, or did you each do different things?

We had arranged a game of “banko” with them. We had a bag filled with the numbers from 1-90 and just like regular banko, we took one token with a number, one by one. Then we had arranged some small presents (cake delivery or an invitation for “wine and dine”). Hereafter we had a music quiz. (Mathias, Appx B, p.2)

During the lockdown, he and his girlfriend had an online party with 9 friends, in which they had arranged different games and activities to do together, again, through the platform Zoom. In the interview, this was further elaborated. Asked why they had chosen this platform, Mathias explained:

"Yeah I think it had better quality, but I also think it was a choice we took [...] It is not everyone that has Teams [...]. When we tried to use Google Hangout and Skype, the quality was really bad, when we were a lot of people online [...] and then we chose Zoom and bought a license[...]" (Mathias, Appx C, l.136)

He explains the reasoning behind opting for Zoom, instead of a cheaper or even free alternative, to be revolved around its superior quality for video communication with several people participating at the same time. The quality must have been deemed so much better that it justified the price tag of the licence. During the interview, the whole selection process was delved further into:

"... We said okay, on Saturday, [...] we could hold something online and then people were like "yes we would like to do that" and then there actually were many that thought they want to participate, and then to like to make it the best possible experience for everyone [...] I wrote to all the boys [...] because they are all couples, so i tried to invite them all into a call in Google Hangout and Skype because people were home anyway on a Saturday, like they could not go anywhere, so [...] We could just as well try it out, and so we tried it and quickly found out that it just did not work as well when we did it[...]" (Mathias, Appx C, l.173)

The above excerpt shows how it was not a simple and quick choice, but a rather extensive selection process of trying out the different applications available, to figure out which would work best for their purpose. Going back to Wenger's CoP, what can be seen here is the formation of a joint enterprise and the development of a shared repertoire. For that to happen, there needs to be a negotiation of meaning between the participants, which usually revolves around the participants' past experiences, as well as new experiences (Wenger, 1998). In this case, the duality of participation and reification play a significant role, both in terms of how different platforms have been tried out before, and also the experiences that have become embedded into the platforms. The members are in this

case in the process of establishing a joint enterprise, i.e. having a get-together online, and they are developing a shared repertoire in a sense, by trial and error, where they are trying to figure out the best tools and the best way achieving the shared goal of having an online get-together.

"... We knew about Zoom and we knew that if you did not have a license then you only have 40 minutes for free and then it closes down and you have to reopen it again [...] That is why we bought it, so we did some research[...] we have been able to do so because we have had the time to do it, it has just been therefore, otherwise it would have been crazily annoying to sit there 11 people and wait for something to happen, and then we cannot make it work and then you have to spend an hour on it and you just know that is going to happen if you do not test all of it before" (Mathias, Appx C, l.180)

Mutual engagement is also present, as they in this case draw on each other's past experiences. As mentioned in **chapter 4.2.2**, mutual engagement revolves around learning from one another and using the knowledge of others (Wenger, 1998). Mathias mentions in the above quote that they knew about Zoom beforehand, and knew about the time limit the application has on the free version of the software. This meant that their past experiences came into play and helped shape what could eventually become a shared repertoire of using Zoom and connecting multiple people together online at the same time.

Mathias mentioned that the fact the participants had more time than they would usually have, also helped getting more people to join the online get-together:

"I believe that when we have tried to arrange something where we are 11 people, which is the maximum we are in that group, that has never happened before, usually there are 4 people that can not participate [...]" (Mathias, Appx C, l.142)

Additionally, he mentioned an Easter lunch in one of his diary entries, where two people joined in from their tractors. When asked about this, he confirmed that these two would most likely have been too busy with the harvest to join the event, had it been done in-person. This highlights one of the positive sides to the surge of online communication during the lockdown, as it has made it possible for people to participate in activities that

they otherwise would not have, due to distances, or in this case busy lives. However, the amount of people being able to join might not be all that positive after all:

”... I definitely think that it has been much better that we have had 6 connections instead of 11 [...] Just when we are sitting us two, ones sound gets distorted and becomes worse [...] when you have to try and talk and discuss, have a regular dialog, then you often talk over the person [...] you do not get that in the same way and that is perhaps one of the bigger issues somehow with these digital technologies[...].” (Mathias, Appx C, l.145)

As he explains the fact that they only had 6 connections in the call helped. This was due to the majority of participants being couples, which meant they only needed one computer for two people, making it a little easier to communicate. He also explains a decisive issue with the video communication platform, in terms of how it distorts the sound when talking, and as mentioned in the problem analysis, video communication can disrupt the natural rhythm and flow of a conversation (Bitti and Garotti, 2011). Mathias mentions, that in a regular conversation he can talk over someone else, but this is not possible during online communication of this kind.

In this case the term, telepresence comes into play. Mathias’s ability to be telepresent is hampered, as he and the people he is engaging with remain passive receivers in the conversation. Bitti and Garotti (2011) mention that when communication through video happens, the receiver of the information, i.e the person being spoken to, often remains passive, sitting still in silence, which in a normal conversation would not be the case, as the receiver in a in-person conversation would through body language and vocal cues let the speaker know how what is being said is perceived. In Mathias’s case this passiveness is unnatural to him and it makes for a different experience when conversing with others through video. In postphenomenological terms, what could explain his different experience is the embodiment relation, that arises between him and his computer, as the computer acts as an extension of his senses, his ability to talk and see through long distances, is not embodied to a full transparent state, some distortion happens that makes the embodiment relation not completely transparent. Had the relation been completely transparent, then the ability to converse, the manner it would happen, would come closer to the same experience if the two conversing parties were in the same room.

Mathias goes on to explain how the Zoom app is able to cope with many people joining the same call and why that was preferable to, for instance Skype or Google Hangout:

"...When we are that many in an online meeting, and you want to speak to everyone, then it affects when you cannot see everyone in the same size [video], for example if we had a meeting with many and some are smaller, and maybe it is only those talking that show up so you can see their picture. We thought that was a little annoying, but in Zoom [you can use gallery view] where everyone are equal size and they are placed in boxes that do not shift around [that means you] can have a conversation with everyone as if we were sitting in a circle[...]"
(Mathias, Appx C, l.208)

What Mathias is referring to in the above quote is that in many video communication platforms the video feed of the different people involved in a meeting, will vary in size, often highlighting the person talking by making their picture bigger than the others. This was seen as an unattractive feature by Mathias and his friends. They wanted a more equal setting so everyone could see each other on an equal scale. Having all the video feeds of the different people involved also makes for a more realistic setting as everyone can see each other as Mathias states it is "*as if we were sitting in a circle*". This points to an attractive feature in the Zoom application that allows for people to closely connect in a setting that resembles that of an in-person get-together, where everyone can see each other equally at the same time. In other words the technology is able to mediate the get-together between the friend group in way that is more favourable than other technologies in the same category. It can effectively project the world of the get-together that allows for the participants to see each other in a way that mimics how they would be seen in-person. This feature also serves a very practical purpose in the sense of maintaining group conversation, as everyone is able to see each other clearly and everyone can converse with one another, at least to an extent.

5.2.4 Keeping a Conversation Going

During the interview Mathias goes through the differences between meeting online and in real life, and how it affects the level of engagement of the participants:

”I think it is also because there is some kind of barrier between [us]. We just sat at our place and had fun, but you are sitting focusing on your computer the whole time and that goes for the others as well [...] and I think for those sitting alone especially it must have been hard to keep the flame going. You do not get that party vibe. It is not there in the same way as if we are at an Easter lunch and we are sitting at a table [...] then there would not just be 2 which speak together, but then you speak over one another all the time, so there would always be a conversation going and i just think if you all time have to say “now i am going to speak and now you are going to speak” [...] it becomes superficial[...]” (Mathias, Appx C, l.296)

Mathias states that as the party went on the harder it became to keep it going, as they all were just sitting in front of a computer. For those with other people around, in this case the couples, it was easier because they could have fun amongst themselves, while those alone had to rely on what happened in the meeting, and as he mentioned when people are speaking two at a time at the party, if the person alone is not in that bracket of being one of the speakers, that person is just left to one’s own devices, which Mathias believes must be hard to cope with. He elaborates his point with a comparison to a regular party that they would have in-person, in which everyone would speak to everyone, conversations would happen across others. It would not just be the entire group having one conversation together. It seems then that the technology is lacking a feature that allows for the people to be truly together, as the technology does not support multiple conversations going on at the same time. It creates a messy and incoherent experience that in no way represents an in-person party. The technology then does not allow for a full embodied experience between all of the people together, as they at times have to be quiet, which subdues their senses rather than extending them.

The fact that they were in front of a computer, did not help either as Mathias says it became a barrier for them; just looking into a computer screen. It is, however, interesting how they collectively tried to keep these parties going, venturing into games and activities rather than just conversation:

"... It was a little like, lets try and save this, so we do not just stop and then people started finding old quizzes [...] they had used before [...] You just did everything to keep it going and normally that would be not necessary. Then the evening would just keep going with conversation [...] So I think 100% that it was like "lets save the night", but you could then feel that as soon as vi have had an extra quiz, then there another one that had an extra quiz [...] and then all of a sudden people were like "now we seriously do not have anymore to give, now it becomes a little too boring" (Mathias, Appx C, l.326)

The idea of trying to keep the party going is quite interesting, rather than simply quitting the party they were all committed to trying to keep on, and having identified that conversations were less effective in keeping up morale they decided to use quizzes and activities to engage in. However, as it happened playing one quiz after another quickly became boring and the will to keep going became smaller and smaller. This might be the explanation for why in the later months of the lockdown they stopped meeting online as Mathias says:

"... the first month we had 3 or 4 or something like that, but after that it was as if it just went down again like then we did not do it and I do not know why. I do not know if people were like [...] it was not exactly as if it was in real life." (Mathias, Appx C, l.350)

The fact that the parties were not the same as if they were together in-person meant people stopped having them. The novelty of doing a new, perhaps even exciting thing, like having an online party went away, and the hard work that needed to be done in order to effectively create a fun environment became too much. It was not enough to make one quiz after the other, and having engaging conversations were not possible in a group setting and as people realised the fun of being together perhaps disappeared.

5.2.5 Being Away From Those Who Matter Most

While it was new and unfamiliar for Mathias to spend time with his friends through online communication, it was also a different and new experience for him to contact his family in this manner. In his diary he notes that it is normal for him and his girlfriend to stop by his brothers house for a couple of hours to catch up and see his nephew, but ever since the lockdown, physical contact with his family has been limited and they had to resort to different alternatives such as Zoom. In another diary entry, he further elaborates that he missed them a lot. This was further elaborated in the interview, in terms of the difference between missing family compared to missing friends:

"I also think that it has something to do with what people you are talking to, like I think when it is family and such, then you have more need for that physical contact. [...] now [ed. My nephew] is, what, 1,5 years old and then it is also about throwing him around a little [...] holding him. Also with my brother and my parents [...] [ed. I] would like a little more than just a conversation. You also want to show your physical contact [...] in some way such as giving a hug [...] that was one of the things I used to do a lot and that was actually a big part of the family way of doing things and [...]that just got taken away from one day to the other" (Mathias, Appx C, l.239)

For Mathias, physical contact is very important with his family, more so than with his friends. He has a much higher need to see his family in person. This is due to both how they do things in their family their practice one might even say, they show affection for one another physically with hugs, he has an even greater need to his young nephew and to be a part of his life by playing with him and holding him, something that he is not able to do during the lockdown. He explains that the need to see his nephew also stems from his young age, as Mathias explained during the interview, his nephew is in the age where he is only just now starting to getting to know him, and in order to try and stay connected they talked through a video-call:

"It was as if when I tried to do it over video [...] he did not understand it in the same way [...] he could hear and understand my voice, and he could also see me, but [ed. he] did not understand where I was and it was a big deficiency that contact" (Mathias, Appx C, l.260)

What seems to be the case is that even though his nephew is able to hear and see Mathias, the lack of physical connection makes the interaction different and he felt he needed the physical interaction with his nephew and regarded the lack thereof to be difficult. The lack of spatial awareness is likely not uncommon with toddlers at such a young age. However, the technology's ability to make Mathias telepresent might also play apart in this; if the technology is not able to properly refer the spatial presence of Mathias i.e. the place he is at, the sounds coming from Mathias's physical location, it might be even more confusing than it could be. Spatial presence is the visual and auditory signals that come from the physical space of the people talking through video-calls are in (Bitti and Garotti, 2011). If those signals are distorted through the call, the overall telepresence of Mathias might not be fully engaging or correct enough for others to perceive where he is at.

Inspite of the technology's ability to make Mathias telepresent, he has been communicating online with his family a few times during the lockdown. However, these experiences have led him to believe that there is a need to schedule and agree on specific times to meet online, rather than having sporadic meetings with the single purpose of conversing:

"if i want to talk with my brother and my mother simultaneously, it has been like, one of them have been eating or the other has been doing something [...]then we have not been able to call each other the same way, so i think sometimes planning would be better and then there has to be more. There is missing something other than the conversation to meet for, for example if you could play a game, that has worked well so if you could find something else than the conversation to meet for, i think that would be great" (Mathias, Appx C, L.554)

He says it is simply not enough just to have a conversation, especially if there are more than one person in the conversation, as people might be occupied with other things which can interrupt the conversation, making it increasingly difficult to communicate. In order to create a better experience overall, it is a good idea, in his view, to have something else to rely on, apart from the the conversation itself; for instance, a game. It is understandable why he feels this, as his experience in a call with his mother and brother, could easily become chaotic. With the participants of the call individually engaging in different things, it could become difficult to focus on the conversation alone. In terms of centering the conversation around a game, it is not always that simple:

"I also think you have an idea about that if I am on a computer, then I have an expectation that the other person sitting across from me in the meeting also is on a computer. [...] that requires you to have knowledge about what type of technology the other person is on. Because I would not be able to do the same thing, play a game or something like that with my mother if she is on an iPad"
(Mathias, Appx C, l.578)

He states that there needs to be a shared understanding of what platform, or device, is being used. For compatibility reasons, games that you can play on a tablet might not be playable on a computer and vice versa. As such, it is important to establish this ahead of an online meeting, so that it is possible to effectively meet for something other than the conversation itself.

5.2.6 Summary of Mathias's Narrative

Summing up Mathias's experiences and opinions, we have seen that having close family being at risk, was a defining factor in Mathias and his girlfriend being extra cautious with their social distancing during the lockdown. Unfortunately, we also saw a special need for physical contact with his family, especially regarding his young nephew, which online communication could not satisfy.

The lockdown particularly affected his university related group work. Here, he used to have a very established joint enterprise with his project partner from previous semesters. The lockdown forced them to change the way they write, produce, and work together; it forced them to change, or re-negotiate their shared repertoire to fit to their existing joint enterprise. At first they met solely through online platforms, sporadically and with meetings at varying lengths. But, despite trying to adapt, they still experienced a difference in the quality of work they produced after the lockdown.

Additionally, Mathias also found that their group dynamic was affected; they could no longer joke in the same way they used to, and Mathias reasoned that this was because online communication lends itself to more serious and concentrated interaction. It was argued that this was likely also caused by a shortage of nonverbal signals, that distorted the rhythm of the conversation. When Mathias and his partner started physically meeting again, they saw that their quality of work improved. This further confirms that their group dynamic and joint enterprise was affected negatively by the lockdown, in a way

that online communication did not manage to support sufficiently enough.

Looking at Mathias and his friends get-together, their process of selecting what platform to use, showcased an example of a CoP, where an effort was made to maintain a pre-established joint enterprise, i.e. having an online get-together. This was a process of developing a shared repertoire, by trying out different platforms.

The main technological issues Mathias experienced was in regards to a troublesome internet connection. It got to the point that he and his girlfriend had to adapt their workday to support the other person's work. Thus did the internet go from being a background relation, from simply being there, to come to the foreground.

What has been positive with online communication, is that it has allowed people to participate in activities that they normally would not have been able to participate in. But more people in an online activity did not necessarily mean a better experience. Mathias found that it was easier to communicate with fewer participants in a call. The more connections, the bigger the risk of technical problems.

Another thing he mentions about online activities, was that the natural rhythm of conversation was distorted. It was not possible to convey the same body language and vocal cues as in-person, and you could not talk over each other, as it would happen in an in-person conversation. When communicating online, there happens an embodiment relation between the person and the computer, but the distortions that happen results in the embodiment relation not being completely transparent.

Finally, Mathias mentioned the need to center online conversations around something other than just the conversation itself, as he had experienced when interacting online with his family in a sporadic manner. They were often busy eating and so on, which made it difficult to maintain a conversation. To that end, he proposed that playing games or having something else than the conversation itself, to rally around would be beneficial.

5.3 Narrative 2 - Jákup

The second narrative revolves around Jákup, a 30 year old sociologist from the Faroe Islands. He is currently living in Denmark, where he is working for a non-profit organisation. Jákup lives on his own, and has a girlfriend who lives nearby.

5.3.1 Sudden Lockdown

On the day of the lockdown, March 11th, Jákup and his girlfriend were supposed to go to a concert at Vega, a music venue in Copenhagen, and it was just 10 minutes before they were supposed to go that the couple decided not to go. When the lockdown suddenly happened, as he elaborates, he was quite shocked:

"...suddenly the country was shut down, it was shocking, because you didn't know the extent of the lockdown and what would happen next. I experienced sort of a crisis during the first weeks, it was very uncomfortable. [...] I remember that when it was discussed whether or not a curfew would be implemented and so on, as it was in France and Italy, and if it came to that, we [Jákup and his girlfriend] had to choose where we should stay" (Jákup, Appx C, l.626)

The couple decided that they would be in quarantine together, with the advantage and freedom of having their individual places to go "... where we could focus more on working from home and so on." (Jákup, Appx C, l.632). He referred to their situation as a luxury compared to those of other people, as they still had the possibility of spending time apart. This is a good example on how the pandemic affected people in different ways, especially when compared to Mathias' case, where spending everyday together in the same apartment could pose different challenges, such as having to coordinate his workday around his girlfriend. For example, being allocated to the bedroom or having to remain quiet, while his girlfriend was conducting interviews. Jákup also mentions the word "crisis" in the quote, in terms of experiencing the initial lockdown, as the situation was considered to be quite uncertain. This is in line with Huremović (2019a), that uncertainty plays a big part in people's mental health during a pandemic. It is quite clear that Jákup's mental health was somewhat affected by the uncertainty of the lockdown, as he described feeling as though he went through a crisis. While Jákup saw a change in

his life, regarding the public sphere, he also experienced more personal changes, as the following section will seek to elaborate on.

5.3.2 Working from Home

As lockdown occurred Jákup experienced having to work from home as his workplace closed down as many others did during the lockdown. The usual meetings were substituted with online meetings, and all the regular work assignments should now be carried out from home. This sudden change of practice meant that there was a need for a re-definition, or re-negotiation of the different dimensions, that constitute a CoP (Wenger, 1998). In terms of the joint enterprise that was present prior to the pandemic, there was a need to move the entire enterprise to online platforms. It was in a way forced into the practice surrounding his work, and their shared repertoire, having to use video communication, especially regarding the platform Zoom. Jákup had not heard about it beforehand, but during the lockdown it has become a big part of his life, mostly in terms of work meetings; typically video meetings, where several people were involved. Before the lockdown, Jákup was in many ways used to video communication, and he thinks that most of the people his age are as well. However, he acknowledges that it should not be taken for granted that he has lived abroad, in several different countries, for many years, and therefore has perhaps used it more than most. In relation to this, Jákup mentions that video and audio communication demand different types of concentration:

"In general, I hate talking on the phone. But when I am in a video-call, like now, I am not as impatient. I feel it needs more attention, and therefore I am not as distracted.

KP: *So you are more 'on'?*

J: *100%. Because I am very easily distracted by other things. When I am on the phone [audio], I always do something else at the same time, and then I just answer 'yes', without quite following the conversation"* (Jákup, Appx C, 1.699)

Doing something else while having a conversation, was also a thing he noted in one of his diary entries, where he participated in a board meeting using Zoom. He mentioned that during a meeting, he fiddled with a Rubik's Cube while the meeting was going on.

There were not any technical difficulties mentioned in his diary entries, but challenges were mentioned in relation to some meetings, where several people were participating:

”But off course, when we have these meetings, where 9-10 people are involved, there is always something. Mostly when several people are involved. Especially when people forget to mute their microphones and they do not always know how to coordinate the situation. Pure chaos at times.” **Jákup, Appx C, l.734**

He finds that there are always difficulties, and this was especially relevant when people forgot to mute their microphones, which would usually disturb the overall flow of conversation. Having to mute the microphone is an interesting example, that shows how online communication at times may add an action, necessary to make the conversation enjoyable, that would otherwise not be necessary with in-person communication. Although staying quiet during a conversation is quite normal, having to manually press a mute button makes it a very conscious and explicit choice of being done with speaking, or wanting to speak. In terms of the embodiment relations, the communication platform becomes quite opaque, especially when all the participants have to mute their microphones, except for when you have something to say.

Compared to a one-on-one conversation, the group conversations can be considered quite chaotic. This is again in line with Bitti and Garotti (2011), where having to mute your microphone strongly defines the dynamic of conversation, which normally would be more fluid. The muting of the microphone, further disables the possibility to provide feedback to the speaker, and solidifies the muted participant as a truly passive receiver that can distort the conversation. In postphenomenological terms, it also means that the technology does not truly mediate or facilitate the conversation between the participants, as Jákup for example solidifies with his complete shift of focus onto the rubik’s cube, rather than being focused on the conversation at hand.

5.3.3 Isolation, Loneliness and Online Communication

Jákup has lived in several countries, and has travelled around quite a bit. This means that he has spent quite some time on his own, which has led him to consider himself quite comfortable in spending time alone:

"... even though I have often been in the situation, where I haven't known a lot of people, due to the different places I have moved, it has been a hobby of mine to meet new people. I have always been comfortable being isolated, because I like to build new relations with people." (Jákup, Appx C, l.717)

He did not consider himself as someone with an urging need to be physically social, but the lockdown has made him realize that this was not entirely the case:

"... during the lockdown, I had a period of really missing the presence of people. I was quite down, and on the day I got to meet at the workplace again, I got an extreme boost. I realized that I really needed to interact and have some social relations with people, where you can hang out and small talk."
(Jákup, Appx C, l.721)

In this case, Jákup realized his appreciation for the presence of people, and the simple social interaction that happens even at casual encounters, for example in the workplace. The need for physical interaction was not something that was obvious for him, but as mentioned in **chapter 2.3**, the effects of social distancing over an extended period of time, can have an impact on most people, and this is something that online communication does not always sufficiently counter.

Comparing online and physical interaction, Jákup is quite skeptical towards online communication as he finds it to be very inauthentic. He believes that it will never become natural.

"... you have way too much control when you are looking into a screen, and it is super inauthentic. You have way too much control, and it will never become natural. If you and I are used to talking in person, we will not get the same rhythm as usual. The jokes are not delivered as well, and so on. It is a weird version of interaction" (Jákup, Appx C, l.775)

Jákup continues to explain that one is not as exposed when sitting behind a camera, compared to physical interaction. He finds it somewhat “safer”, in the sense that you are not applying yourself as much, as when you are talking to someone in-person. He mentions that at first, when the work-related Zoom meetings started, he would make sure that everything in the background of his picture during the meeting would have to look nice and well organized, and he thinks a lot of people have done that before they entered a video call. Being a sociologist, he goes on to relate this with Erving Goffman’s two concepts of “*Frontstage*” and “*Backstage*”, and underlines how people will put great effort into staging themselves, e.g. by organizing their background, to try and control the impression people will get of them:

*”... his most famous book *The Presentation of Self* is about frontstage and backstage. You try to control the impressions people will get of yourself. You think you have more control than you do. [...] And that is essential when we interact with people, it’s all about who stands in front of you, and who is in the audience” (Jákup, Appx C, l.759)*

This is also mentioned by Bitti and Garotti (2011), who state that nonverbal signals are very important in communication, and that these nonverbal signals include among others how one dresses to imply social status, the same can be said for adjusting the frame of the video-camera to show one’s home, for example, in an attempt to avoid showcasing a messy corner. As Jákup also mentioned:

”You are not as exposed, it is safer to sit like this, and you do not apply yourself as much, you don’t make the same effort. I can imagine that a lot of people make sure that they have a nice background before they start a call.” (Jákup, Appx C, l.745)

However, after having been a part of several work-related video-calls, Jákup has become quite indifferent when it comes to figuring out how his background looks. This is also an indication on these meetings becoming normalized, and therefore more natural than they perhaps were at first.

In terms of group calls and one-on-one calls, he finds it especially awkward to communicate online with a single person. He goes on to mention the fact that when communicating, you are looking at the other person, while simultaneously being able to see

yourself. In addition to this, you are not really making eye-contact with each other, because the camera usually is placed above the screen. This makes it very unlike a physical conversation. He also mentions that during important meetings, he will usually put a few books under his computer, to help the computer and camera be at eye-level.

"If you Google "tips for job interviews online", most of the articles mention eye-height, because it imitates a regular conversation."

(Jákup, Appx C, l.796)

This is quite interesting, as it indicates that he has been in similar meetings of importance in the past. This is an example of a way of making the technology more transparent. Because of the noticeable difference between physical and online conversations, the technology in itself, in this case the computer, does not quite mimic reality. As stated in the context of Mathias finding that jokes would not come across as effectively, a lack of eye-contact can distort the rhythm of the conversation (Bitti and Garotti, 2011), and could be a reason for his situation. Jákup is seemingly aware of this and actively tries to imitate eye-contact by moving his computer screen and camera to eye-height, in an effort to help normalize the rhythm of conversation. For the technology to become a more natural extension of his senses, or a more full embodiment relation, he tries to adjust the technology to fit to his idea of a more authentic conversation, and to enable a more transparent embodiment relation (Ihde, 1990), that resembles an in-person encounter.

Apart from the online interaction with work, friends and family, Jákup has also participated in some online events, which will be elaborated in the following section.

5.3.4 Participation in Online Events

Online events have been quite present on different social media platforms since the start of lockdown, and although it resulted in him missing a concert he was supposed to go to, Jákup has participated in various events. One of the webinars he attended revolved around the American ambassador to Denmark, Carla Sands. In addition to this, he also attended some online concerts; concerts that he thinks probably would not have been held had it not been for COVID-19. Jákup enjoyed the concerts, and the main thing that made an impression, was the artists' attempts to communicate with the audience during the concert.

”What makes it feel like a concert is that the artist communicates all the time, like “Hey Belgium, Hi Germany” and so on. That makes it feel quite cozy, and it makes you feel that you are a part of a social event, and they take requests and so on” (Jákup, Appx C, l.808)

This way of reaching out to the people in the audience appears to make a positive impact towards making the experience feel more like an in-person experience. This provides an opportunity for the audience to feel more connected with the artist, and the people who are attending. Although Jákup acknowledges that the artists he has been listening to have been very “folksy”, which might have had an influence on them being more interactive with the audience. Following in the mentioning of online events, this was also present as an additional agenda in the questionnaire. The following will contain a walkthrough of some of the events mentioned in the questionnaire, as well as a few selected quotes regarding the same theme.

5.3.5 Online Events - Questionnaire

As a way of keeping people entertained and to distract them from what was happening, these online events played a big role for many of the respondents; both in terms of keeping mentally and physically active (Sundhedsstyrelsen, 2020c).

The positive aspects regarding Jákup’s view of online concerts, was also continued in the questionnaire, where the artists being able to connect with the audience, in a way the normally would not be able to, was also recognized by one of the respondents:

”Even though the people who are doing the concert, are sitting another place behind a screen, they managed to be present by reading the comments and taking song requests” (Respondent #20)

Other respondents also found that the online concerts managed to provide a special and positive experience during the lockdown:

“I think the events get a special meaning when you know that everybody else is also sitting and listening because it is the only alternative.” (Respondent #48)

“It works well. More intimate than you would expect. Also I REALLY miss going to concerts!” (Respondent #170)

“I think that it makes it easier to “stand together - separately” with these types of events. It brings something positive into our daily lives, which definitely helps one’s mental health.” (Respondent #140)

Respondent #140 proceeds to elaborate on the online concerts in a following question:

“Music makes you happy and helps us forget what we are in. It is not the same as listening to recorded songs on services... Conversation often emerges between the artists, you could call it a little “hygge”. It just gives a little more than just using Spotify.” (Respondent #140)

Underlining the fact that online concerts may not be the same as the in-person experience, but with the artists adapting to the medium, using the fact that they have interacted with the audience in a different way, it manages to be a different, but special experience.

None of the respondents explicitly find the online concerts to be better than a real concert, and although they acknowledge that some technical difficulties occur once in a while, people are generally finding online concerts to work well; at least as an alternative, given the situation:

“The alternative is to not hear live music, to taking that into consideration it has been a positive experience, even though it can not be compared with a real concert.” (Respondent #105)

“It has been OK. To be physically present to events gives you an entirely different and more positive feeling. To hear and feel the reaction from others who are in the same room as you give you more enthusiasm and a feeling of togetherness, that is not possible digitally.” (Respondent #39)

These previous excerpts, in one way or another, all express an apparent need for togetherness, and possibly a sense of community, that is experienced especially at in-person events. This need for togetherness [Samvær] appears to somewhat have been satisfied by online events, like concerts, although not entirely to the degree the in-person experience would which again points to the postphenomenological aspect of the embodied relation (Ihde, 1990) that exists, as the technology is not able to fully be become an embodied experience that allows for people to experience the same as they would in-person.

Overall, the respondents have been very positive about the online events. The respondents who answered that they had participated in an online event, were asked how their general experience had been with the online events that they had participated in. The response to this showed to be predominantly positive, as illustrated in the diagram below:

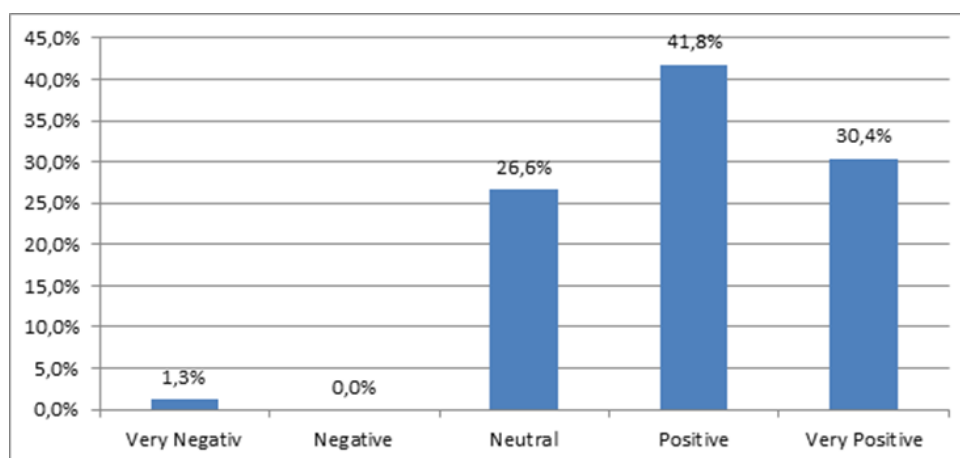


Figure 5.4: Percentage distribution of answers to the question “How has your general experience been in relation to the online events you have participated in?”

Out of the 81 answers, only one person answered that they had a generally negative experience. This response is a good indication that the rise of online events during the lockdown have been warmly welcomed, and as suggested by the above excerpts, they have been fulfilling a certain need to participate in social events, during a time where it was not possible to do so.

As a final question about online events, the respondents, who had participated, or considered participating in such events, were asked if they could imagine themselves participating in similar events after the lockdown. 50% of the 81 people answered “yes” to this question, where 10 respondents answered a definitive “no”.

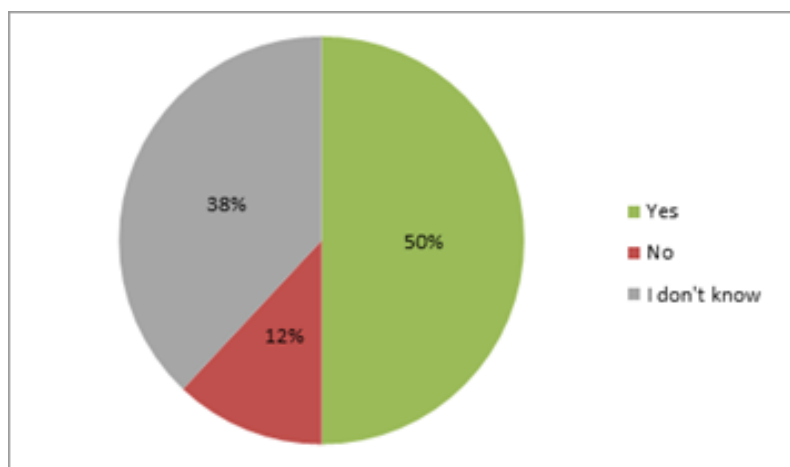


Figure 5.5: Percentage distribution of answers to the question “*Do you see yourself participating in similar events after this period?*”

Following this question the respondents were asked to elaborate on the reasoning of their answer, and what online events they would participate in. In the response to this question, online concerts were considered especially popular events that people could see themselves participate in after the lockdown. Less popular, but still often mentioned were webinars, fitness classes and online quizzes.

A common theme for the respondents who answered “yes”, was the possibility of not having to travel. Due to people’s busy daily lives, as well as long distances, people have found that online events, especially concerts, have allowed them to participate in events, they would normally not have had the time or energy for.

Being able to choose where you want to participate was also mentioned several times. One of the respondents mentioned being able to do fitness from the comfort of one’s

own home, while still feeling as a part of a “real” class; another mentioned being able to enjoy a concert while getting a feeling of togetherness, without having to worry about social norms, as well as being able to “...sit in my underpants and enjoy the experience, just how I want to” (Respondent #137). These were two examples of people who like being able to choose the setting. It was also mentioned a few times that it was “hyggeligt” to be able to, for example, enjoy a concert from your own living room.

On the opposite side, the respondents who answered that they did not see themselves participating in online events after the lockdown reasoned that “*It is just not the same*”, and it simply not being necessary when you are allowed to do it physically again. One respondent explained;

“These events are a good way to “compensate” for what otherwise would not be possible, but when we are over all of this, the real version and the regular everyday is preferred.” (Respondent #24)

Other respondents similarly pointed out the lack of social togetherness, and that you have better contact with each other when you interact in person.

As many of the examples show, online events have been a welcomed alternative to many of the physical events people usually participate in, and to some degree have they, especially online concerts, managed to create a feeling of participating in a social event, and a slight feeling of togetherness.

Moving back to Jákup, he was asked if he could see some of these online events continuing to take place in the future, to which he referred to experts on the news, who often mentioned the permanent impact of the COVID-19 pandemic:

“You hear experts talking about it all the time on the news, that this will have a huge impact permanently. By showcasing how it is possible to work at a distance, and to take even more advantage of the internet. I think we will figure out, that it is very much possible, and that people will somewhat continue working in this manner.” (Jákup, Appx C, l.822)

He predicts that companies might move towards giving the employees the choice of working from home. However, he concludes the interview by saying that one might eventually miss one’s colleagues, as he had experienced firsthand.

5.3.6 Summary of Jákup's Narrative

Summing up the story of Jákup, the national lockdown shocked him and left him in a sort of feeling of crisis. This is relevant in terms of how Huremović (2019a) explains that uncertainty can cause problems for one's mental health. The big change for Jákup, other than apocalyptic-like streets, was having to work from home; having to suddenly move his entire work related enterprise to online platforms.

Jákup is a person who is quite used to video communication, and has realized that he is less impatient when communicating through video, than when communication through audio alone. However, like Mathias, Jákup also stated that there are always difficulties with video communication, especially when several people participate. This is particularly present when people are forgetting to mute their microphones, which contributes to a quite hectic work meeting. In terms of postphenomenology, having the possibility to mute and unmute can affect the technology's ability to mediate the conversation between people. This adds a very explicit choice of wanting to speak, making the communication platform rather noticeable, as well as affecting the dynamic of the conversation, compared to one-on-one conversation, where this may not be necessary.

Another thing that the lockdown made him realize was that he had a bigger need than he thought he would have, in terms of his need for physical interaction, and to have social relations with people. Similar to how Mathias did not feel he could sufficiently connect with his nephew, we saw that online communication was falling short of satisfying the need of these interactions.

Jákup is skeptical towards online communication, as he finds it inauthentic, and doubts that it will ever become natural. Similar to what Bitti and Garotti (2011) state, he finds that people will not have the same rhythm of conversation, as they would in-person. He also finds online communication inauthentic, because one is more in control of self presentation, both being able to see yourself, and the example of "staging" one's background to give a better impression.

The lack of complete eye-contact is also an aspect that Bitti and Garotti (2011) point out distorts the rhythm of conversation, and was another aspect that Jákup found inauthentic. To counter this, he adjusted the technology, by using books to make the camera eye-height, to fit his idea of a more authentic conversation, thus helping the technology become a more natural extension of his senses. The surge of online events during the lockdown allowed Jákup to participate in events he does not think would have been held otherwise. In these events, he has appreciated how artists have been interacting with the audience, which helps you to feel connected and a part of a social event.

Through the questionnaire answers, we saw that other people felt that online events managed to create a special experience, especially online concerts. Excerpts of the answers showed an apparent need for togetherness and a sense of community that is experienced at in-person events, which online events, to some extent, have satisfied, although not to the same extent as it would in-person. Additional advantages of online events have been eliminating the need for travel, and being able to choose the setting on your own, making them easier and more convenient to participate in. 50% of the people who had participated in an online event could see themselves participate in a similar event again after the lockdown. On the opposite end, people found a lack of social togetherness. They did not see a need for them after the lockdown, and simply found the online events as being a compensation.

5.4 Narrative 3 - Carsten

The third narrative revolves around Carsten, a 27-year old nurse student, who lives by himself. The COVID-19 pandemic can affect people differently, as shown in the previous narratives. With an offset taken from the perspective of Carsten, who usually spent most of his days in school, this chapter will seek to unpack his experience of the lockdown and how the social distancing initiatives affected his life.

In one of his diary entries regarding participation in an online class, the main issues the pandemic has brought was summed up:

"... I can feel after having had remote education multiple times, that I am beginning to miss my classmates and a structured everydaylife, which the school creates when you have to be physically present." (Carsten, Appx B, p.11)

The structure of his everyday life, as well as the longing for physical social interactions set the tone for his experiences of the lockdown. As mentioned in **chapter 2.3**, during a time of social distance, it is important to focus on the mental health aspects related to prolonged social isolation. As Huremović (2019a) concurs, isolation is considered one of the main issues regarding mental health in a social distancing situation.

5.4.1 Longing for Physical Contact

As most people have experienced, the lockdown brought drastic changes to daily routines, social activities and opportunities in general. For Carsten, the biggest change brought by the pandemic came in the form of self-isolation:

"Well, you do not get out as much as before. One's social life is put on pause [...] And I could feel that maybe in the first couple of weeks - that the psyche was not as good as it used to be." (Carsten, Appx C, l.855) "

This quote illustrates the mental health issues that have become a major focal point, both in terms of the government's informational material, as mentioned in **chapter 2.3**, but also in the awareness of regular citizens. This was something that meant a great deal to

him, as he continues to explain how he experienced the self-isolation immediately after the lockdown:

"Especially the first two weeks. I could just as well have been sitting in an isolation cell, although I of course talked with people on the computer. But I did not walk out of the door, unless I had to do some grocery shopping and that was only if it was absolutely necessary. You just turn insane by that. I do not know if you know the term "hudsult" [touch deprivation], but that was basically what I experienced, right? Missing physical contact with other human beings, to feel seen in some way right? Even though you are seen when you go to Rema[1000], you just do not get seen seen" (Carsten, Appx C, l.989)

The absence of physical interaction quickly became noticeable, as he compared it to imprisonment or solitary confinement. In addition to this, his yearning for physical interaction is explained in the form of the distinction of the concept of "*being seen*". The need for physical interaction is not satisfied by engaging with people at a supermarket; it has to come from deeper social relations. The term "*hudsult*" (touch deprivation) is a really appropriate and fitting wording of the mental state people have gone through during lockdown. As Huremović (2019a) states: missing physical contact can have an effect on the psychological wellbeing of people. This can eventually lead to mental health issues, and as Carsten pointed out earlier, where he mentioned that when his social life was, more or less, put on hold, it affected his psyche.

The mentioning of the first two weeks being the hardest ones, is quite interesting, in terms of the perception of the immediate danger of the virus:

"I chose to sit inside for two weeks, because I thought why not. Everybody does it. But then I saw that nobody did it and then I also stopped doing it. Because at that point, I could feel that it was not my style." (Carsten, Appx C, l.881)

This could be an indication of reaching the limit of social deprivation. As soon as people started going out again, it was considered more acceptable for him to go outside.

However, during the lockdown, some attempts were made to socialize through online technologies, in order to reduce this need to go outside:

"Then I began drinking with my friends on Discord, for example [...] You can get an alright interaction by talking to them and see them through a camera, but actually being able to see human beings in front of you in some way is missing." (Carsten, Appx C, l.857)

Although the activity of having a drink while communicating with friends coincides with the government's mental health guidelines, regarding doing something together at a distance (Sundhedsstyrelsen, 2020c), it appears that even though he can see the people he is talking to, interacting with people online does not sufficiently satisfy his social needs.

Having a drink together with friends, was not only an activity which Carsten indulged in; it was also quite prevalent throughout the questionnaire.

5.4.2 Online Social Drinking - Questionnaire

As mentioned in the intro of the analysis, having a drink together online was one of the most frequent activities mentioned in the questionnaire. In some of the elaborating questions, people mentioned different formats of online drinking:

"We have held a digital quiz every Friday, where we sit apart from each other and drink a lot. Everybody gets to make a round with 10 questions"

(Respondent #42)

"Held each other company. What you would usually do physically, just digitally, with the limitations it brings. One night we had a get-together on Messenger, where we toasted with wine and talked."

(Respondent #163)

In many of the entries, alcohol was combined with something else; a pubquiz, an easter lunch, board games etc. This was also the case for one of the informants in the di-

ary study with the following entry, where a pub quiz was established, that involved 17 friends living in separate countries:

"We held our own pubquiz on Zoom and had some alcohol as well. We were divided into teams of 4 and with 1 quizmaster. The quizmaster showed the questions on a power-point presentation on Zoom, while the participants communicated in the teams through Messenger (...) The experience was fantastic. It left me happier but made me miss them more." (Sigurd, Appx B, p.20)

Similar to the above excerpt, Mathias also wrote in a diary entry that he had an online call with his nephew, that left him miss him more afterwards. Through these different activities, it is interesting to see how the social relations, which would usually take place in a physical setting, are being kept alive through online communication. It highlights how big a part these interactions play in people's daily lives. However, as the last quote illustrates, no matter how good an experience is in terms of online interaction, there seems to be a common sense of an incomplete experience; although it made him happier, the longing or yearning of being together physically increased. This theme of longing for physical contact continuously prevails as one of the main casualties that social distance has brought upon the people most affected by it.

5.4.3 Moving from Physical to Online Interaction

The direct implications of the lockdown, in terms of social interaction and education, meant that Carsten had to move his life into the digital world. However, this was not a good solution for him. The overwhelming need for physical social interaction was again a central theme in his online endeavours. The social element is again highlighted through the explanation of one of the biggest motivational factors for him in attending school being:

"Okay, my idea of going to school revolves around this, I always show up, if I can off course. But the fact that I get to see my friends when I show up, this is definitely a motivation in going to school. I turn it into a specific act, that I have to see my friends, and then the school becomes something of a bi-product, in one way or another. The fact that you have recess, or that you can take 10 minutes off, or participate in some group activities, the fact that you can have fun." (Carsten, Appx C, l.1114)

In this excerpt, the educational element of attending school is described as a secondary activity, which again highlights his need for social interaction. This social aspect, which Wenger (1998) mentioned as an essential part of learning in a CoP, is very much a leading factor in Carsten's way of learning.

The statements mentioned above raise some interesting aspects in terms of being a member of different CoP. In terms of the things mentioned in the interviews, as well as the diary entries, there are two noticeable CoP that mean a lot to him; the *nurse education* and his *group of friends*. The following sections will focus on these two different communities, and how they have been affected by the move from a physical setting to online platforms.

5.4.4 Online Education

The move from physical to online education has been quite difficult to come to terms with, especially regarding the importance of the social aspect of attending school. In a comparison between physical and online classes, the physical classes are regarded superior in several ways. Asked if he could compare physical and online education, he replied:

"No, not at all. Physical classes are much better, and what they teach is basically the same, but it revolves around the fact the dynamic is different if you are sitting in a classroom [...] you can ask questions - you can also ask questions in a Skype meeting or a Teams meeting - but it is just a little more "oh, sorry". [...] When you are communicating with each other, for example working on a case, it is completely different if you do it through a computer. The dynamic becomes different, you could say. [...] And also the fact that you can just sit with your microphone muted, and just do all kinds of things." (Carsten, Appx C, l.955)

He mentions the dynamic of the online interaction as different from physical interaction in a similar fashion to how Mathias felt his joke fell flat, and how Jákup found online communication as inauthentic, partly due to a lack of eye-contact or how the conversation turned chaotic as people could just mute their microphones and do other things instead. When communicating through video, as mentioned in chapter 2.4, the passiveness of the participants, which is very much present during online lectures, can create an unnatural flow. As Bitti and Garotti (2011) mention, this can cause unnatural pauses and disruptions, which would not be an issue in an in-person conversation, as verbal and non-verbal cues are more easily communicated. The turn-based interaction can be difficult to implement into the lecture, and this is also something Carsten mentions:

"Yes, like something as education, the dynamic is affected because you can not raise your hand and let the teacher set the tempo. You interrupt the middle of something. But you have to do it, because otherwise you would not get seen."

(Carsten, Appx C, l.1070)

The interactions between student and teacher become somewhat distorted through the online platform, and there is a continuous feeling of interrupting the lecture, or the flow of the education.

From Carsten's point of view, the technology being used for online education is considered a non-satisfactory way of learning. The technology contains too many disruptive elements, which contribute to his reluctance to accept it as an alternative to the real thing by continuously having a focus on its deficiencies. Therefore, in terms of the embodiment relations (Ihde, 1990), the technology never becomes transparent, but instead remains a noticeable artefact.

The practice of nurse education, as it is today, has been formed over several years. Abruptly moving the educational format to an online platform, in such a way it had to be done after the lockdown, posed an immediate change to that practice. In terms of seeing nurse education as meaningful, a very large part of Carsten's negotiation of meaning, the social aspect, has in one way been taken out of the equation. As with many other practices, the lockdown has brought an immense barrier in terms of negotiating a meaningful practice, which is mostly related to the abruptness of the transition. One way of interpreting his reluctance of accepting online education can perhaps involve some kind of reification.

In terms of the lockdown, which has brought a lot of unforeseen changes to Carsten's life, the education continues to take place online. As he states, online education cannot even be compared to physical education, and bearing in mind that the social element of his learning process has been taken away, it could be argued that the overall situation has been somewhat reified into the technology. The online learning platform has adopted a higher meaning, in terms of representing his subjective feelings and experiences, thereby it has become an object of his subjective frustrations. The online education is summed up, by once again highlighting, what is missing from the experience, where the social interactions are not present:

"You don't have that when you are sitting in a Teams meeting, then it is just school. And if you have a 10-minute break, then people have to go to the bathroom or get a cup of coffee, and then there is silence, as people mute their microphones. And then we have to wait 8 more minutes for the class to start again. And as soon as school is over, then people have plans, and off they go."
(Carsten, Appx C, l.1118)

The normal way of doing things is sorely missed, and most of the smaller things that constitute their social practice, which have been through a thorough process of negotiation, and which all define their joint enterprise, have disappeared.

5.4.5 Online Social Interaction

Moving on to the second CoP mentioned earlier, his group of friends, the scenario is very different. In terms of communicating with people online, Carsten is quite used to interacting with friends online, especially while playing video-games. As he mentioned earlier, having a drink with his friends was something that emerged through the social distance, and this was also mentioned in one of his diary entries:

"We had a drink together, and played various drinking games, while we could keep an eye on that we were drinking the amount that we should. [...] It was a good experience, we had fun. [...] After our night of drinking I was very happy. For example, we agreed to meet up in Amsterdam when Corona was more under control, so we could drink together in real life." (Carsten, Appx B, p.10)

In this example, there is no mention of problems regarding the technology. The platform used for this social gathering is called Discord, which Carsten mostly uses when playing computer games. In this case, all of the participants are used to this platform, and have rich experience in interacting with each other through it. The dynamic is brought up again, when Carsten talks about the difference between online education and online social interactions:

"... I also think the dynamic gets affected, it depends on how well you know each other. I have known some of those I talk to online for 8-9 years, and we have talked online all those years. So we just know, when one is done talking the other one takes over. We have a flow." (Carsten, Appx C, I.1072)

In terms of the practice that takes place between Carsten and his friends, the experience they have in terms of how they should act and so on is quite refined. Seeing as they have spent years communicating in this manner, all their common experiences go into shaping that practice, in terms of determining a meaningful way to interact.

From the comparison of the two CoP, there is a noticeable difference in the way Carsten perceives the two, in terms of online interaction. On the one hand, when he is talking about the online classes, a lot of focus is being placed on how much worse it is when compared to the physical classes, when on the other hand, he effortlessly interacts with his friends online. Returning to the human-technology relations (Ihde, 1990), it can be argued that in the CoP involving his friends, the technology, in this case the computer, becomes transparent, and becomes a natural extension of his senses. The transparency in terms of the technology, in this case, is mainly revolving around previous experience. Asked if he notices the technology when he communicates online, he replies:

"No, not really. It is quite automatic, because I have been talking over the computer in so many years. It's just how it is." (Carsten, Appx C, I.1044)

This implies that the technology in fact, when he is talking online with his friends is truly transparent, as it is unnoticed by him. He describes online communication to be a natural part of his life, and that he has no problem with interaction online.

Looking at the two mentioned CoP, there is of course a difference in the practices, and the practice of online education is very new, and therefore is undergoing a re-negotiation of meaning for everyone involved, both the students and the teachers, whereas the practice of socializing with his friends online is practically the same as it was prior to the COVID-19 pandemic.

5.4.6 Summary of Carsten's Narrative

Carsten has been affected by social distancing and the lockdown in many different ways. Among others, these include no longer having the opportunity to physically meet at school.

This has been an important factor in how the lockdown has affected Carsten, mostly because of the lack of structure in his everyday life, which is created by the obligation to be physically present at school. The lockdown caused his social life to be put on hold, and he acknowledges that the lockdown took a hit on his mental health.

During the first two weeks, Carsten totally isolated himself. His interactions were only taking place through online platforms. This resulted in him explicitly experiencing an absence of physical interaction; he felt “touch deprived” and noticed a lack of deeper social relations. Carsten acknowledges that you can be social and get some interaction with people through online communication, but he finds that there is something missing; it does not sufficiently satisfy his social needs.

In one of his diary entries, Carsten had an online get-together with his friends where they had a few drinks, and as the questionnaire showed, this has been a popular activity during the lockdown. It was also discovered that there has typically been a sense of an incomplete experience with these activities; although it generally seems to leave people with a happy experience, the longing of being together physically, can increase.

It has been difficult for Carsten to come to terms with the move from physical to online education. He describes how seeing his classmates are a part of his motivation to study, and thus it seems that the social aspect has been a leading factor in Carsten's way of learning. He thinks physical education is significantly better.

Similar to both Mathias and Jákup, Carsten finds the dynamic to be completely different when conducted through an online platform, but only when it comes to the educational setting. There is a difference between asking a question on Teams, than it is in-person, as it creates a much bigger interruption online. This, similar to how having to mute in Jákup's case, causes the embodiment of the technology to be disturbed, and causes it never to become transparent. As the social aspect, that was a big part of Carsten's negotiation of meaning has been taken out of the equation, his reluctance to accept online education may have been reified into the technology. Carsten mentions that there are many aspects of his study life that get taken out of the equation, when communicating through Microsoft Teams. The discontinuity, as mentioned by Wenger (1998), brought by the lockdown, has made it very difficult for him to accept the format of online education.

In contrast to the interaction with the community of his education, interacting with the community of his online friend group has been more enjoyable for Carsten. This contrast likely boils down to the practice of online education being very new, thus undergoing re-negotiation of meaning for those participating in the community. Whereas in the community of, surrounding his group of friends, several years have gone into refining their practice.

5.5 Narrative 4 - Emmanuel

Emmanuel is a 23 year old male international student. He is studying at Aalborg University (AAU) in Denmark, where he currently lives in a shared facility with three other international students. He came to Denmark in January 2020, and is staying for the spring semester, where he will return to his home country in July 2020.

5.5.1 Exploring the Danish Culture

One of the recurring themes that emerged through his interview was regarding his desire to explore and experience Denmark and its culture; both in terms of socializing and to experience the educational experience surrounding the Problem Based Learning (PBL) model at AAU. The PBL model underlines learning through group work by collaboratively working on specific problems using relevant knowledge from research and theory (Askehave et al., 2015). This way of learning is new for Emmanuel and he is keen on experiencing how the model works in practice. However, as luck would have it, COVID-19 would have a significant impact on his experience:

"I think it has been quite a challenge. The whole plan was to meet with my other colleagues and to share ideas and to experience how the PBL system works. Because after every lesson or lecture, just meet with your group members, they will try to communicate and make some kind of compromises, and bring something new. But it is what it is. We can't meet. Personally I would like to meet person to person, but we still work together." (Emmanuel, Appx C, l.1169)

In terms of preferred modes of social interaction, Emmanuel is a person who enjoys personal encounters. During the lockdown, the social interaction was limited, and his usual encounters with friends, sharing a beer and group work at AAU was sorely missed. During this period, he has felt quite isolated, but living together with other people has naturally meant he was not completely alone. As Emmanuel mentions in the following statement, he and his roommates had not spent much time together, as they all have different study related things to take care off. Interestingly, the lockdown paved the way for the residents to socialize more than they had earlier:

"... before the corona times we all used to be kind of busy people, because I might have a class at 08, and when I woke up, I entered the bathroom, got ready and rushed out to campus. There was this lack of connection and socialization there, but during this corona period we all start at one place, and we got a chance to talk more than we used to do, because of corona. I think it has brought us closer." (Emmanuel, Appx C, l.1201)

This might be considered an outlier example of how the lockdown actually has brought people closer together. Seeing as most people have spent a lot more time at home during the lockdown, the opportunity to focus on things that are usually not a part of people's everyday lives, has increased. In Emmanuel's case, this has resulted in a rare break from the usual hectic days of attending lectures and joining in group work activities. Because he does not need to spend time traveling to and from campus, he has had more energy to interact with his family than before. The interaction with family, as well as friends, was also assessed on a larger scale in the questionnaire, which in the following will be unfolded.

5.5.2 Contact With Friends and Family - Questionnaire

One of the questions in the questionnaire was aimed at getting an overall sense of the extent of contact the respondents had with their friends and family during the lockdown. Looking at the overall response, there was a significant amount of people who felt like they had been in less contact with their friends and family.

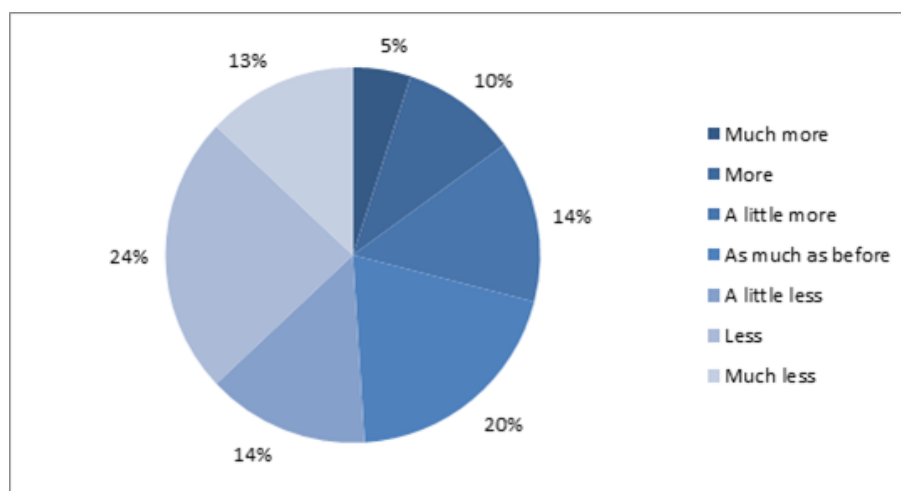


Figure 5.6: Diagram showing the amount of people in relation to degree of contact

The responses showed that 51% of the respondents felt like they have had less contact with their family and friends, ranging from “much less” to “a little less”. Of the 154 respondents, only 7 people (5%) felt like they have had “much more” contact with their friends and family, compared to 20 people (13%) who felt like they have had “much less” contact. “Less” contact was the most frequent option, with 37 (24%) people, followed by 31 (20%) who answered “as much as before”. However, 29% of the respondents felt that they at least have had a little more contact with their friends and family than usual. Given that the questionnaire was about online communication, it can be presumed that this has been the primary reason for the fact that almost a third of the people feel like they have had more contact than usual.

5.5.3 Online Interaction During the Lockdown

Most of his online interaction is in the form of texting, as well as the occasional audio-call. He elaborates on how his mother is not very good with technology when it comes to texting or chatting, so he mentions that he usually calls her up using audio calls. However, in one of his diary entries, he elaborates on a video-call he made with his mother back home, and how much it meant to him:

”We talked about life from her end [at Home] and mine in Denmark. We shared our life experience and made reflections of the new pandemic in the world. [...] It was a nice experience reaching her afar and seeing her and that made me so happy. I miss her so much that I wish I could reach face-to-face.” (Emmanuel, Appx B, p.15)

As mentioned in chapter 2.3, nonverbal signals are important when communicating in-person (Bitti and Garotti, 2011), and this is somewhat made possible through video communication. The excerpt highlights the advantages of video communication. The visual element of the online call, which Emmanuel is not used to having with his mother, heightens their conversation, and provides him with a positive experience.

Prior to his arrival in Denmark, his experience with video communication had been scarce:

"... I think I can count the number of video-calls I used to make back in my home country. But ever since I came here, because of this whole thing, people want to feel your presence, want to see you" (Emmanuel, Appx C, l.1246)

The situation surrounding the pandemic has brought a more frequent use of video-calls for Emmanuel. He does not necessarily consider this to be a bad thing, as he proceeds to underline some of the advantages of video communication:

"Yeah, I think the feeling of making a video-call is more encouraging and more appreciative. You get to have a full concentration rather than the audio call. And the video call makes you see some kind of emotion from the person talking to you. So things like facial expressions, you can see that this person is tired or something. But on audio-call, you don't really know anything." (Emmanuel, Appx C, l.1253)

Comparing the two options, video communication allows for a more focussed conversation, especially when it comes to the possibility to see some of the emotions of the person from the video feed. Seeing the emotions of the person you are talking to, may also be the reason that he finds that people want to feel your presence. Although, as Bitti and Garotti (2011) points out, the possibility to pick up cues in terms of body language and eye-contact and so on is present during video-calls, it does not fully imitate in-person interaction.

5.5.4 Educational Platform

As Emmanuel moved to a European country he experienced clear differences in the way online lectures were held, in terms of the online communication platforms that are used for such purposes:

"When we went into lockdown, the lecturer was trying to see how we could organize online lectures and discussions, and how we should interact with each other, and the first thing that came to my mind was Whatsapp. But the lecturer introduced us to [Microsoft] Teams, because they had been using it a bit at AAU. I really like it." (Emmanuel, Appx C, l.1291)

As many other students have experienced during the lockdown period, a new platform emerged in the form of Microsoft Teams. However, compared to Carsten's somewhat negative experience with Microsoft Teams, Emmanuel stands in stark contrast as he finds it to be a good tool with versatile functions, that makes for a good overall experience.

Being students having to participate in lectures, both Emmanuel and Carsten have had experiences with online lectures, however, there is a difference between their individual CoP. In terms of membership, Carsten can be considered a core member in the practice of studying to be a nurse, whereas Emmanuel is a newcomer to the practice of studying at AAU. When discussing participation, Wenger (1998) mentions different levels of memberships, for example in terms of peripherality. As Emmanuel previously stated, one of his main desires was to experience working with PBL, and this has been made increasingly difficult in relation to the lockdown. Defining Emmanuel's study as a CoP, in terms of moving towards full participation, and towards full membership, it has become very difficult to move past the peripheral participation he has been engaging in from the start. However, in terms of the CoP within the shared facility, and how the residents got more time to interact, the lockdown actually made it easier for Emmanuel to move past peripheral participation.

Because of his limited time in Denmark, and his lack of experience regarding the practice of PBL, he is perhaps more open to learning through technology, because it can still be considered to be the PBL way of learning. In Carsten's case, the practice of nurse education, which he has been a full member of for some time, has suddenly encountered a major discontinuity, which entails a radical change in the way things are done. Therefore, Carsten is perhaps not as prone to learn through online platforms as Emmanuel is.

Additionally, Emmanuel tells an anecdote about Microsoft Teams being the platform that will be used for some of the remote exams. If it is in relation to a group exam, the chat section will function as a signalling space; if a group member wants to answer a question, he/she writes an "x" to signify that they would like to answer. Coincidentally,

this is also mentioned as a missing feature in Carsten's experience with Microsoft Teams, as he thinks that this could help fix the problems he found with questions interrupting the flow of lectures:

"Okay, when I think on Teams, for example, you could easily make it better for the teachers. If there was a function called "raised hand" or something, then the teacher, the one who controls the conversation or call, can see who has "pinged" and when they have. Just throw a red circle around it or something, it doesn't have to say "ding" every time." (Carsten, Appx C, l.1089)

These two examples are a good indication on how two different CoP use exactly the same communication platform in different ways. As Carsten points out in the above quote, the teacher could get some more assistance from the technology, in order to get rid of the disruptive element of interrupting the entire class. As Microsoft Teams makes its way into the shared repertoire of the two communities, a difference is seen in how it affects their separate joint enterprises, and as Wenger (1998) implies, coming to terms with how to do things in a certain way is a process and not a fixed agreement, indicating that the introduction of a new technology takes time.

5.5.5 Technical Difficulties

As mentioned earlier, Emmanuel was quite disappointed in terms of not having the opportunity to fully explore and experience Denmark in its full capacity. However, he acknowledges and appreciates the digital communication platforms, which have allowed him to continue his studying, as well as to socialize during the lockdown. Although there has been a general positive tone regarding the online communication, there has been some technical problems, which in this case revolved around his internet connection:

"... sometimes there is a connection problem that can mess the whole meeting up. Sometimes you will be having a good chat, then someone can get some internet problems, then we have to wait. But if it was a physical meeting, this would not have happened." (Emmanuel, Appx C, l.1177)

In Emmanuel's comparison of physical and online meetings, even though he is quite positive to online interaction, as with many of the other cases, he mentions the internet as a noticeable barrier for communication. This barrier makes a difference in his perception of the technology, as its underlying intentionality (Ihde, 1990) is being able to communicate with the participants of a meeting. Again, there are disruptions in communication, and therefore, the technology never becomes fully embodied in Emmanuel's case, which seems to be an overall theme throughout the four narratives.

In terms of moving away from the peripheral participation in his education in Denmark, the internet connection problem can also be considered to be a hindrance:

"... because I had internet problems, I missed some time with my group members. And sometimes they had to work without me, and I would have to catch up. The others have also had some connection problems." (Emmanuel, Appx C, l.1365)

While Emmanuel's overall experience with Microsoft Teams have been rather positive, he later in the interview, elaborates that he experienced difficulties with this platform; especially when working with his study group. The problems became enough for him to suggest that they used Zoom instead, which they ultimately did. These problems were perhaps a combination of internet problems, as well as software problems. An example is mentioned regarding a status-seminar he was a part of:

"It was good, but at one point I had some problems with my computer. I don't know what it was. At the time we had a Status-seminar, I just woke up and before the meeting I tried to set it up, and it kept crashing, and I didn't know why, so I joined a friend downstairs." (Emmanuel, Appx C, l.1306)

It is interesting to see that all these difficulties with the technology seemingly have not made a significant impact on his opinion of Microsoft Teams as a platform.

Internet connection problems can be a great source of frustration, as seen through these previous four narratives, and this was also quite frequently mentioned in the questionnaire. As one of the questionnaire respondents points out, connection problems are increasingly noticeable during times of social distancing:

"Practically the same as it used to, but maybe more irritating if the connection has been bad, because it is the only thing you have"

(Respondent #173)

Because many people have been dependent on online communication platforms, in light of the restrictions of leaving the home, internet problems have perhaps become more noticeable and significant, than before the pandemic.

One positive thing that the extensive online communication during the lockdown has brought for Emmanuel, has been in relation to exams. Emmanuel had an online exam that was conveyed through video communication, and he mentioned that he found it very different from an in-person exam:

"Personally, sometimes I get some kind of stage fright, but behind this computer I am always comfortable. I'm just doing my own thing, talking - even though I can see the person, because it is a video call, I just think it is different for me, from the personal thing." **(Emmanuel, Appx C, I.1332)**

This is thus another example on how the distance that online communication can create ends up for the better; by helping Emmanuel be more comfortable in an exam setting. In this case he actually gains confidence by communicating through video as some of the elements related to a physical oral exam become distorted.

5.5.6 Online Church Event

In terms of online events, Emmanuel has not participated in many. However, he mentions that he did attend a church event, which took place in his home country, but due to circumstance was broadcasted online. In relation to this, he mentions that his home country is a fairly religious country, and that he is used to attending church ceremonies. During the online church event, there was some preaching and some singing. Asked how he would compare the online church events with the physical church, he answered:

"For me, it can never be the same. Because like, there is too much of the procedures that have to be experienced live, and to feel the presence. But it is also fine, because it is not always that people can go to church. Maybe when someone is sick, that person can not go to church, but I think this is a good opportunity because even someone who is not that well can still enjoy the service and the moment and so on." (Emmanuel, Appx C, l.1274)

In a follow-up remark, he mentions that it gave him the feeling of being at church, except for *"...the fact that you can't tell your neighbour "you are strong" and so on..."* (Emmanuel, Appx C, l.1282). He underlines that it is a good opportunity for people who are not able to physically attend church, which during times of social distancing was a perfect fit. In his case, he still felt a lack of community and togetherness. However, this event allowed Emmanuel to remain a part of the religious community in his hometown, which he appreciated. This ties in well with how earlier questionnaire data showed that although not to the extent of an in-person event, online events still managed, to some extent, satisfy the need of togetherness.

Appreciating the technology as an alternative, given the circumstances, is something that was also seen when the questionnaire respondents were asked about their experience with the technology.

5.5.7 Opinions on Technology - Questionnaire

One of the questionnaire questions was aimed at gauging the respondents opinions on their general experience with the technology, when communicating with family and friends.

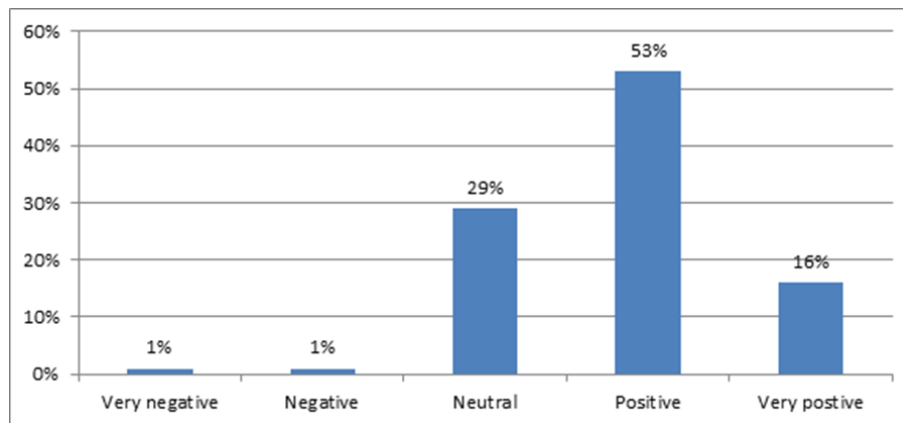


Figure 5.7: People's general opinion on the experience of the technology, when interacting with friends and family online.

As illustrated above, an overwhelming majority found the experience with technology to be on the positive side, and a very limited number of people having had a negative experience.

The overall positive response does not necessarily mean that people have not been experiencing any technological trouble, since they appear to at least in the narratives be a common occurrence, but it could be an indicator for people having enjoyed the experience of communicating with their friends and family; so much, that the technological issues have not mattered that much.

The respondents were asked to elaborate on the question above, and there seems to be an overall sense of positivity in the respondents when it comes to online communication during the lockdown, as it is the only option they have had. In terms of the mediation of technology, this positivity seems to move the focus away from the actual technological artefact, and towards the experience of the online communication. The technological malfunctions, therefore, seem to be more easily excused, because of the overall situation, as some of the respondents pointed out:

”When the circumstances are as they are, then it works fine writing/talking together on digital media - but the technology always teases (driller) a little” (Respondent #32)

”Given that it is the ‘best’ alternative, when you are not allowed to meet, the technology functions well. You see and talk to each other. It is also rare that you ‘fall out’, which I rate highly” (Respondent #5)

”It is good that you are still able to talk together, and the technology works well -however, I do prefer to be together physically, but as a temporary solution it is completely OK.” (Respondent #171)

Another theme that emerges from the answers revolves around how the technology has made it easier to maintain the regulations in terms of the social distance:

”Very quick and easy way to satisfy your social needs. You do not have to travel long distances to communicate with others. But it only works temporarily. Long term, it will become intolerable to be at home all the time.” (Respondent #137)

”Technology has made it easier to be “together apart” (Respondent #120)

”It is a good way to keep in touch when we are not allowed to see each other, and it provides the possibility to get closer than the two metres that you are supposed to keep distance.” (Respondent #159)

One of the respondents also point out how privileged the world is in terms of online accessibility:

"It is very easy to get in contact. It is not at all like it was in our youth, where you only had a landline or a letter, that would take a few days to reach its destination. We are very privileged now in our society."

(Respondent #97)

Thus it appears that online communication has been an appreciated technology in times of lockdown, and that the technological difficulties that appear to be a common occurrence have not been severe enough for people to leave them with a generally negative experience.

Returning to Emmanuel. Asked if he thought there were any technological improvements that could be innovated on, or close the gap between the difference in physical and online interaction, his final remarks were:

"I don't think so much, because it is quite hard to bridge the gap between technology and real nature. Because nature is what it is, and technology can try to make things more realistic, but it is not so much. [...] They are trying, and it's good. It's not that bad." **(Emmanuel, Appx C, l.1401)**

5.5.8 Summary of Emmanuel's Narrative

Being an international student, Emmanuel wanted to experience Denmark, its people, and the PBL model of Aalborg University. However, the lockdown had a significant impact on all of this. He felt quite isolated, although unlike the previous informants of our analysis, he lived with other international students, and because the lockdown caused them to have more free time, it uniquely managed to bring them closer together. However, having seen more to people has not been a general occurrence. Questionnaire data showed that 51% felt that they have had less contact with their family and friends; this includes contact through online communication technologies.

Prior to his arrival in Denmark, Emmanuel did not have much experience in the use of video communication. However, due to being in a foreign country, during a lockdown period, he had the opportunity to use it more. In the case of Emmanuel, we saw another two examples of how video communication generally seems to provide good experiences for people, although at the same time leave them longing to be together physically.

He also experienced that other people want to feel your presence through video. He himself finds that video communication is more encouraging and appreciative, and similar to how Jákup found himself more concentrated when having video communication, Emmanuel finds that it allows for a more focused conversation. Being a newcomer to Aalborg University and his study, the lockdown did not make it easier for Emmanuel to move past peripheral participation. However, we have seen him

being very engaging and open towards the change he is experiencing. Difficulties with the internet connection has been a problem for all of the four narratives in this analysis, and these problems have been increasingly noticeable during the lockdown. Emmanuel's technical problems have also mostly been related to his internet connection. As in the other cases these disruptions in the communication caused the technology to be unable to accomodate a full embodied relation with Emmanuel. In this case, it also affected Emmanuel's ability to participate in the practice he wished to do, hindering him in moving away from peripheral participation.

Through the other narratives it has been highlighted how the rhythm of conversation is disturbed by video communication, and how it is inauthentic because you are much more in control of the impression you are giving, compared to in-person interactions. Interestingly, Emmanuel experienced this as an advantage at his own exam, as the distance the video communication create helped him be more comfortable. Furthermore, there was a surge of online events because of social distancing initiatives around the globe, allow Emmanuel to participate in the religious community from his hometown. Although it did not give him the feeling of community and togetherness, he enjoyed the service he attended, tying in well with the earlier questionnaire data showing that online events has been a welcomed alternative.

Questionnaire data showed that people's general experience with the technology when communicating with friends and family has been positive. However, this positivity may stem from the fact that people have enjoyed the communication that it has made possible, more so from the fact that the technology has been working flawlessly, as we have seen that technological difficulties appear to be a common occurrence. However, it does show that, for the majority, these technological difficulties have not been severe enough to leave people with a negative general experience.

Chapter 6

Discussion

In the following chapter the validity of the empirical data, subsequent analysis thereof, and the results that follow will be discussed. Thereafter the the theoretical framework of CoP and its implication on the project, and the analysis, will be discussed.

6.1 Validity in Qualitative Research

Throughout this project and the analysis, the majority of the empirical data stems from interviews conducted with the four informants that have been a part of both the diary study as well as the interviews. This presents an interesting conundrum as for the most part the analysis is anchored in these interviews with these four people, and the data is very individual to these four informants. However, as the data is based on a retrospective view from the informant, it is a reconstruction of experiences. This means that there is a probability that some things have been left out and unreflected upon (Szulevicz, 2015). Had it been possible to use participant observation, these experiences would have been known to us and we would have gotten greater insights into the practices that the informants have. However, in our case, we have had to rely only on the spoken and written word of our informants, regarding their daily lives, and the processes that exist therein. Therefore, it stands to reason, that we might not have been able to get the full picture of what social distancing and online communication has been like for these individuals. Without observing how they have communicated and what the process of reaching an agreement on when to communicate, to actually doing it etc.

We also experienced how observations would have been useful in this project as in the diary study the informants were asked to reflect on issues they had experienced during an online communication event, but not many could actually think of issues. It was only during the interviews, when specifically asked about, for example internet connectivity issues, that they actually began reflecting on the extent of those issues. This, from one point of view, could solidify the postphenomenological view we pose in the analysis; that the internet is a background technology (Ihde, 1990). A technology that is simply just there, and not given much thought until it breaks down. It also implies that there is a possibility that other things have gone unnoticed or unmentioned throughout the project. Something that participant observation could have possibly provided further insight about, or knowledge of. That being said, the informants are the experts of their own life, and are more than capable of explaining their own experiences.

The aforementioned instance is not the only example in this project, where observations would have been beneficial. Because the project deals with isolation, social distancing and online communication, as mentioned in the problem analysis, chapter 2.3, the effects of isolation on the mental health of individuals can be quite significant. Seeing as it has been somewhat implicit in both the interviews and diaries, that some of the informants might have experienced issues with their mental health during this period, it has been difficult to know the extent of these issues. This is because our data lacked certain information such as how long some informants had been isolating for, and to what extent they isolated themselves, as some may have had more in-person encounters than others, which also affects the state of one's mental health. However, the feelings they have mentioned are real and are not to be undermined in any way; it would only be a useful method in a sense to understand more fully what is going on in the field. Primarily, it comes down to an issue of timelines, as we have no knowledge of when the situations, they describe through the interviews, happened. Whether it was immediately after the lockdown or whether it was a few weeks after. This potentially affects the impact they have felt during the time shortly after the lockdown; perhaps they would not have felt so distressed compared to a month into it. However, the interviews were conducted during the later stages of the lockdown, where the country was slowly starting to open up again. This also meant that the informants' worst experiences of the lockdown would have been some time ago, and further away in their memory.

An issue we also encountered due to the singular nature of the project, i.e. basing it mostly on interviews, was not knowing what type of communication was being re-

flected upon during the interviews. Sometimes it went unsaid or otherwise implicit, whether the informant was talking about some form of video communication or only audio communication. Upon transcribing and analyzing, it became somewhat of an issue to determine exactly what kind of communication was being referenced. However, for the most important points raised during the interview it has been clear what type of communication was spoken about.

These potential issues raise a question of validity throughout the project. However, to that point we argue that in line with Morten Fredriksen's (2015) chapter, *mixed methods research in qualitative methods*, a textbook, which mentions that in mixed methods research, a common tool to ensure valid knowledge or results is triangulation. Triangulation infers the use of different sources and methods to support the claims made during an analysis (Frederiksen, 2015). In the case of this project, the triangulation has consisted of statements made from the interview informants, and the literature from the problem analysis, which support many of the statements. For example, regarding issues pertaining to internet connectivity, or that the social aspects of online communication are simply just not the same. These are all claims that are supported by that literature. Finally, the project also makes use of data from the questionnaire, which also has been used to support the individual claims, and thereby strengthening them even more. To that end, it seems that the findings of this thesis are valid as the claims are supported through other literature, and from our own quantitative data.

6.2 Individual Communities of Practice

In this project, a large part of the theoretical framework was based on CoP, and with the qualitative empirical data being exclusively based on individual opinions and experiences, this poses an interesting dilemma, as a community involves more than just the one person. However, it was decided to use the single individual perspective on the different CoP of each informant. The knowledge and insight gained regarding their respective CoP stem from a single person in a given community, as no observational research was conducted regarding the other participants within the community in question, nor how the practice functions in a group setting. This impacts our results in a couple of ways. Mostly in form of the individual perspective on the practices and the communities themselves, which meant that some facets or insights, like tacit knowledge

regarding the practice, might not have been covered. Had it been possible to observe or participate in some of the practices, perhaps our understanding of the CoP would have been much greater. However, it can be said that from an individual perspective, we have an insight into the informants' experience of being a part of different CoP. For example, in Mathias's case, regarding him and his project partner, a quite detailed assessment of how Mathias has experienced the practice of working together online, through communication tools like Microsoft Teams, was achieved. What could potentially be lacking is the experience of his project partner, as he might have experienced the process differently.

Following in the trail of how CoP was used in the analysis, there was an overall focus on the individual perspectives. However, Wenger (1998) mentions another aspect that could potentially have been used as an analytical framework in this project. By adapting a more collective approach, the experiences of all the informants could perhaps have been linked or connected by a common denominator; online interaction as a result of social distancing. This could have been done by adapting the concept of constellations of practice.

According to Wenger (1998), not all social practice should be considered as a CoP. For example, the engagement of participants can sometimes be considered to be too broad, too diverse or too diffuse to be treated as a single CoP. By considering a social configuration as a constellation of practice, it is possible to perceive its participants as related in particular ways. In this regard, several different reasons are mentioned as to determine a constellation of practice, depending on which perspective the observer chooses to take. Some of these reasons include: having related enterprises, facing similar conditions, sharing artifacts and so on. In addition to this, relations like locality, proximity, and distance are considered to play a role in defining a constellation, however, it can be expanded to fit the social configuration of interest. These types of relations or defining points pave the way for a broader configuration than that of a single CoP.

Therefore, as an example, by defining "*online interaction as a result of social distancing*" as a constellation of practice, it might have been possible to get a more focussed, or in-depth analysis of the social configuration, than of the informants' individual CoP. Their individual practices would then be seen as interconnected practices. On the other hand, seeing as the informants after all were quite different, with many different ways of utilizing online communication, as well as their individual perceptions of technology, perhaps a constellation of practice approach could quite easily become too broad and

diffuse. It would perhaps also be considered quite difficult to use the various concepts related to CoP, as the participants are, in many ways, not sharing the same enterprises.

Going back to the theory of CoP, but keeping the collective approach in mind, it could be possible to define the entire nation of Denmark as a single CoP. This would perhaps be far fetched, but by using the argument of social distance as a way of connecting their practices, it might have been a possibility. By keeping in mind that this would perhaps not fit into the way the theory was intended to be used, many of the concepts of CoP could have been used, as so many people in Denmark faced the same challenges and the same circumstances at the same time; almost like a collective discontinuity to their practice. This could perhaps be done by defining “*being a Danish citizen*” as a common practice, and by looking at how online technology supports that practice during a pandemic. This would also open up the possibility to incorporate the data from the questionnaires more directly into the analysis, instead of the sequential and connected way it was used in this project.

Chapter 7

Conclusion

In this final chapter, we will seek to answer the problem statement, by summarizing the main findings of the analysis.

Problem Statement:

How have people living in Denmark been affected by social distancing and how have online communication tools supported their daily lives during the lockdown period?

Throughout the analysis of the empirical data in this project, many aspects in regards to the use of online communication tools, and the effect of social distancing have been shown. The analysis showed that online communication has been one of the most prevalent ways to keep in touch with friends and family during the lockdown, and that people have been creative by doing activities while communicating. In regards to the problem statement, we have seen how some people have felt as if they were in the midst of a crisis, due to the uncertainty surrounding the lockdown and how some people have felt touch deprived and missed physical contact with loved ones. We have seen how people have used online communication tools for different purposes such as work and social gatherings, and how they differ from in-person meetings. It has come to light that people have had to learn how to use these technologies and how they have affected both their work and social practices.

This boils down to 3 key themes of online communication and social distancing, which have been identified in this project:

1. **Mental Health**

Social distancing and the lockdown in Denmark has had an effect on the mental health of some people.

2. **Re-negotiation of Practice**

Online communication is new to some, and the creation of new shared repertoires is needed in each community of practice.

3. **The Technological Mediation of Conversation**

Online communication is not the same as in-person communication, it distorts the natural flow of conversation and is, in many cases, not enough to satisfy the need for physical contact. The technological limitations that surround online communication can be a barrier for effective communication.

The first theme, *Mental Health*, covers how the social distancing initiative and the lockdown of Denmark has had an effect on the mental health of some people. As mentioned above, the uncertainty that was brought by the lockdown and social distancing, both in terms of not knowing the extent of the lockdown and worrying for loved ones, was a significant element of people's experience of the COVID-19 related lockdown of Denmark. For others, the lack of physical contact meant they felt touch deprived, and found it hard to deal with mentally. The implications of the lockdown and social distancing meant that people had to resort to online communication tools, both in terms of maintaining a social life, as well as their work-life. However, with the use of online communication tools different challenges arose.

The second theme, *Re-negotiation of Practice*, covers the fact that online communication has been new for some people, and thus has the creation of new shared repertoires been needed. The fact that many people were unfamiliar with the use of online communication, meant that the work that was previously being done in their different joint enterprises suffered in quality. In addition to this, some people had trouble figuring out the mechanics behind these technologies. For the most part of the analysis, it was seen that the re-negotiation of the pre-existing shared repertoires in the respective communities of practice was an overall theme, as they had to negotiate and experience the new tools they were forced to use. This meant, that as they were in the process of

learning how to use these technologies, their work suffered. It also meant that some people had trouble using the technology, or understanding it, as they had not yet developed a shared repertoire regarding the use of these online communication tools. In other cases where online communication was already a part of the shared repertoire, the communication happened naturally and functioned well. This was mostly because of a pre-existing understanding of how to communicate online, which had been developed over several years.

The third and final key theme, *the Technological Mediation of Conversation*, covers how online communication technologies mediate conversation and interaction, and how it distorts the natural flow of conversation, making it different from in-person communication. The distortion revolved mostly around the embodiment relation of the online communication technologies, where in many cases, they were not transparent enough to allow people's senses to fully be extended through the technology. More often than not, it created a different rhythm of conversation; jokes were not being conveyed in the same way, the act of muting and unmuting disturbed the flow, and asking questions interrupted more than it usually would. All these examples illustrate technological limitations becoming barriers for communication. Although online communication distorts the natural flow of conversation, we have seen that communities can over time get used to the adjusted practice. Online communication also gives the participants more control of self presentation. This can make online interaction seem inauthentic. However, the increased control, as well as the distance online communication brings can also be seen as an advantage, creating a more comfortable interaction, for instance at an exam.

Additionally we have identified a difference in people's need for physical contact. Some people had a greater need to have physical contact with family, and that it was simply not enough to talk and see each other through online communication technologies. Similarly, some people found themselves missing others or feeling touch deprived, and felt their need for physical interactions were not met, despite being together with people online. This further shows how technologically mediated conversation can not completely substitute in-person interaction. On the other hand has there been certain situations, where people might not have been able to be together, regardless of the lockdown and social distancing, where online communication technologies allowed for everyone to meet and be together, shown with the example of an online party, where people were able to participate in the event, even though they were working. However, as it was noted by two of the informants, the more people that are connected in a call, the higher

the risk for issues, both regarding internet connectivity and the use of communication technology. Especially internet connectivity has been identified as a barrier for effective online communication, as multiple informants had stories about issues with their internet. Some even had to plan their life around their internet, just to be able to work from home, while others had issues connecting to online classes and be a part of the respective communities of practice.

All in all, an effect on mental health was experienced, as lack of physical contact and the experience of uncertainty during the initial lockdown was present. Out of necessity, people have used online communication platforms for different purposes. Socially, in terms of keeping social, and achieving a sense of togetherness, and occupationally, in terms of work or studying. In terms of interacting with friends and family, these technologies were able to connect people. However, in terms of work, it became a matter of learning new ways of carrying on with the same joint enterprise, and re-negotiating their shared repertoires in order to figure out how to effectively use these technologies. Before this could be established, we saw that some of the work-related practice suffered in quality. While online communication technologies offered a great opportunity for people to be together, the overall experience of the informants was diminished in some ways, as it distorted the natural way of communicating, which indicates that online communication can not yet totally replace in-person communication.

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