

The Impact of Online Communication Human Existence

Bachelor Thesis Double your Degree with Philosophy

Erasmus University Rotterdam
Stéphanie Scholtes

Abstract: This study aims to analyse and describe the impact online communication has on human existence. Over the course of this study multiple theories and philosophers are addressed. All in order to address the transformative power of online communication in human experience, human action and the way in which humans are able to realise themselves in society. Multiple sources have been consulted to complete this study, but the book "*What things do*" written by Peter-Paul Verbeek (2005) is used as a reference point in regard of structure, argumentation and point of departure. The main difference between this study and Verbeek's study is the specification on the impact of online communication, while Verbeek focused on technological artefacts in general. Moreover, the relevance of this study is denoted via the discussion of potential threats and opportunities during and after an extensive elaboration on the impact online communication has on human existence.

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Supervisor:

Prof. Dr. V.A.J. Frissen

Second Reader:

Dr. H.C.K. Heilmann

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Introduction

At the moment, the year 2018, technology is thriving. Technology plays a huge role in everyday life. Moreover, people have even become completely reliable on technology. Reliable in the sense that not being able to work with technical devices is equal to being unable to function and participate in society. For example, at the beginning of 2018, it was announced that publisher DTG would stop producing and spreading the Dutch version of the Yellow Pages, which is an annually updated book containing all telephone numbers¹. From now on everyone has to either look up phone numbers online or call the “1888” service. Which means that from now on you will always need a technological search engine to find a telephone number. If you don’t know how to work with or ‘read’ these applications, then you won’t be able to look up telephone numbers and make the necessary calls.

This is one of many examples where technology has become the new standard. Personally, I’m usually not even that conscious of the technology I’m using. Many technological devices function in the background, creating comfort and pleasure. Giving me the possibility to focus on the result. According to Heidegger, these technologies are *ready-to-hand*, you are only focused on the nail put in the wall, instead of on the hammer fulfilling the job (Verbeek, 2005, p.114)². However, while reading these news items and having heard multiple discourses about technology influencing humanity during philosophy courses, I noticed how big of an impact technology has on human experience and the way in which humans realise their existence. Still, many questions came to my mind. Such as, to what extent does technology impact human experience? In what manner does technology impact human experience? Or going even further, does technology influence our behaviour? Or, does technology even shape our human existence at the macro-level? Finally, should we be more aware of the influence technology has on our lives?

Multiple philosophers have shared their thoughts on the impact technology has on human life. Peter-Paul Verbeek discussed some of these philosophers and their theories in his book: “*What Things Do*” (2005). At the same time Verbeek developed a framework to understand the impact technological artefacts have on humans in his book. All in order to answer the question: “*What effect do technological artefacts have on us, humans?*” (Verbeek, 2005, p.1).

I used Verbeek’s book, his structure and argumentation as point of departure for my thesis. Though in contrast to Verbeek, I will describe the impact of online communication applications on human life, instead of describing the impact of technological artefacts on human life. To be clear, in my thesis, online communication is used as a concept to cover all interaction or communication between two or more people over the internet. Examples of online communication applications, which I will use throughout my thesis to illustrate concepts, are WhatsApp, Facebook, Instagram and E-Mail.

¹ Unknown, “Papieren Telefoongids stopt na 137 jaar, 'einde aan iconisch boek',” *NOS*, January 11, 2018, accessed April 2, 2018, <https://nos.nl/artikel/2211385-papieren-telefoongids-stopt-na-137-jaar-einde-aan-iconisch-boek.html>

² Peter-Paul Verbeek, *What things do: Philosophical reflections on technology, agency, and design* / Peter-Paul Verbeek; translated by Robert P. Crease (University Park, Pa.: Pennsylvania State University Press; [London Eurospan distributor], 2005)

I chose the topic online communication, because the artefacts enabling online communication and the effects of online communication are close to my personal frame of reference. For the simple reason that I am a frequent user of online communication, online communication applications are often used for measurement and interaction purposes in my pre-master Data Science and Entrepreneurship as well as in the field of business, which I have become familiar with during my bachelor Business Administration. Moreover, I think it is a very relevant topic in the timeframe of 2018. The question I would like to answer at the end of my study is:

What impact does online communication have on human life?

I will approach this question via more or less the same structure as Verbeek used in his book. Verbeek made a division between Philosophy of Technology theories establishing a *hermeneutical* and an *existential perspective* (Verbeek, 2005, p.48, p.121, p.148). Likewise, I will describe the impact from the *hermeneutical* and the *existential perspective*.

The *hermeneutical perspective* is used to describe how the world is represented or experienced by us humans. In this case, what impact online communication has on our human experience and what impact online communication has on human perception (Verbeek, 2005, p.147). So, I will discuss both the effects on experience and the effects on how humans see the world. While the *existential perspective* is used to discuss the way we human beings can realize ourselves in this world. For my thesis, the *existential perspective* is used to describe the impact online communication has on human opportunities of action and the realization of human existence (Verbeek, 2005, pp.10-11). These two dimensions differ at which level they are relevant. Enabled human action concerns the micro-level discussing individual actions, while the realization of human life concerns the cultural and societal framework in which humans position themselves. To cover the described *hermeneutical* and *existential perspectives*, I have decided to divide the main question into the following two sub-questions:

1. *What is the impact of online communication on human experience?*
2. *What is the impact of online communication on the realization of human existence?*

Both questions will be discussed respectively in chapter one and two. In the third chapter, named "*The Impact Online Communication has on Human Existence*", the answers to the sub-questions will be unified into one coherent answer to the main question.

Final comment, the philosophers and their theories which are discussed, either belong to *Classic Philosophy of Technology* or to *Contemporary Philosophy of Technology*. Both tendencies differ in their approach towards technology. *Classic Philosophy of Technology* arose in a time of major upscaling of technology in the turn of the 19th to 20th century. This tendency is characterized by suspicion and fear of the impact these innovations might have on human life. *Technological determinism* arose during this era. Followers of *technological determinism* see technology as an autonomous force causing change in human life (Frissen, 2016)³. *Contemporary Philosophy of Technology* views technology less negatively and started around the 1950s. In *Contemporary*

³ Valerie Frissen, "Introduction and Classical Philosophy of Technology" (Technology and Social Change, Rotterdam, September 01, 2016), accessed July 19, 2018

Philosophy of Technology, technology and its effects were considered within its context and not as an autonomous object (Frissen, 2016)⁴.

Chapter 1 The Impact of Online Communication from a Hermeneutical Perspective

As mentioned before, I will discuss both Classic Philosophy of Technology, as well as Contemporary Philosophy of Technology considering the impact of online communication on human experience. Both philosophers had not discussed online communication explicitly or extensively in their theory. Therefore, I will discuss the parts of the theories relevant for online communication and apply it to online communication. I divided this chapter up into two parts following Philosophy of Technology chronologically. Hence, I formulated the following two sub-questions:

1. *What is the Impact of Online Communication on Human Experience from a Classic Philosophy of Technology Perspective?*
2. *What is the Impact of Online Communication on Human Experience from a Contemporary Philosophy of Technology Perspective?*

For the first question, I will discuss Heidegger's Classic Philosophy of Technology view on technology and put emphasis on the concerns raised by Heidegger. Followed up by answering the second question with Don Ihde's contemporary ideas. Ihde's theory will be the basis for the hermeneutical part of the synthesized framework, which will be described in the third chapter.

1.1 Classic Philosophy of Technology's Perspective on the Impact of Online Communication on Human's Experience

In order to formulate a complete answer to this question, I will first elaborate on Heidegger's theory. Secondly, I will apply Heidegger's theory to the technologies enabling online communication, adding on with Verbeek's critiques on Heidegger's theory. Finalizing the answer to the sub-question '*What is the Impact of Online Communication on Human Experience from the perspective of Classic Philosophy of Technology?*' with one coherent conclusion.

1.1.1 Heidegger's theory

Martin Heidegger was a German thinker active during the 20th century. Heidegger aimed to give an account on how humans access reality. In his studies, Heidegger became convinced that reality can never be completely revealed to us (Verbeek, 2005, p.50). Which implied that while trying to access reality, you will not be able to access it anymore as it has transformed into your own reality. Hence, the perceived reality by you will always be your own reality and not so much the world's actual reality. An example to illustrate this is as following: just think of a very dark room, if you have a flashlight you will be able to see parts of the room. However, you will never be able to see the full

⁴ Valerie Frissen, "Contemporary Philosophy of Technology/Social Constructivism" (Technology and Social Change, Rotterdam, September 08, 2016), accessed September 4, 2018

room (Dodson, 2014)⁵. Reality is, according to Heidegger, relative per person as well to the era and culture in which reality is perceived (Verbeek, 2005, p.50).

Putting this idea into context with technology, technology was for Heidegger *a way of revealing* reality. Heidegger defined technology as *bringing-forth (Her-vor-bringen)*. To Heidegger, technology reveals an otherwise concealed reality. As explained in the previous paragraph, this revealing is relative. It should be put in the timeframe and culture in which the technological artefact was used and created. Heidegger called this activity of revealing during the era of modern technology *enframing (Gestell)*. In Heidegger's theory, technology is more than a mere neutral instrument used by humans as a mean to an end (Heidegger, 2008, p.218)⁶. Technology gives humans the opportunity to control and manipulate the reality they want to access. Reality becomes a sort of inventory, or as Heidegger called this kind of reality, a *standing-reserve (Bestand)* (Verbeek, 2005, pp.52-54). This *standing-reserve* is then used to be processed and distributed in a functional way on demand by humans (Heidegger, 2008, pp.224-225). Thus, according to Heidegger, revealing during the modern era (*enframing*) meant revealing the reality as a *standing-reserve* (Heidegger, 2008, p.228).

Heidegger's attitude towards the development of technology influencing human reality or experience was mostly negative. He described this development as a *danger*. According to Heidegger, reality could no longer be seen uncontrolled, but only as the *standing-reserve* waiting to be processed on demand. Furthermore, Heidegger argued that humans themselves might even become standing-reserves (Heidegger, 2008, pp.131-132)

1.1.2 Heidegger's theory in Context of Online Communication

In the context of online communication, nowadays, humans often experience reality via online communication applications. For example, Facebook aims to enable meaningful interaction between humans by staying up to date of friends' lives via Facebook. Via the news thread, Facebook provides content placed by friends and content placed by companies. Behind this news thread there is an algorithm governing all these news items. This algorithm 'decides' what will be the content shown to its users. Hence, the newsfeed actually represents not just social reality but a manipulated and controlled reality⁷. It is the reality which the algorithm thinks we will appreciate the most, as data is gathered and analysed in order to find out what content the users would prefer the most.

So in the end the reality presented via online communication, in this case Facebook, is manipulated and controlled at two points. The first manipulation is done by humans themselves as they decide on what to share with the rest of Facebook. The second manipulation is the prioritization of certain data via the algorithm. Hence, online communication applications which use algorithms reveal a relative and partial reality and not a complete or true reality. Which is not as different from the regular way reality is perceived as described by Heidegger. Moreover, via text-based online communication, such as Facebook Messenger and WhatsApp, facial expressions are lost and even with video-based online communication, such as Skype, the complete body language is missing. Which means that only part of reality is shown to users.

⁵ Eric L. Dodson, *Heidegger in Twelve Minutes*, with the assistance of Eric L. Dodson (<https://youtu.be/A04RhtR0imY>, 2014), <https://www.youtube.com/watch?v=A04RhtR0imY>

⁶ Martin Heidegger and David Farrell Krell, *Basic writings: From Being and time (1927) to The task of thinking (1964)*, Rev. and expanded ed. (New York: Harper Perennial Modern Thought, 2008)

⁷ Adam Mosseri, "News Feed FYI: Bringing People Closer Together," Facebook, accessed June 7, 2018, <https://www.facebook.com/business/news/news-feed-fyi-bringing-people-closer-together>

To illustrate the magnitude of online communication these days. A study, executed worldwide, showed that the average social media user spent on average 135 minutes per day on social media in 2017⁸. Taking into account that this is only social media, hence it does not include the time spent on other online communication applications. Concluding, that on average humans access reality via online communication for at least 135 minutes per day.

Given this realisation with respect to Heidegger's dangers, Heidegger's concern in regard to only being able to reveal reality via online communication seems legitimate. Human knowledge of the world becomes more and more dependent on what is prescribed online, which initially seemed as broadening of a human's horizon. There were suddenly billions of people one click away to interact with. However, due to the algorithms adjusting the content to online behaviour, the experience in content has become more homogenized. As Prof. Dr. Valerie Frissen indicates in the television show "*Het Filosofisch Kwintet*": "*Nowadays algorithms on twitter are much stronger. For this reason, it has become much harder to be surprised by the content on my timeline*" (Polak, 2018)⁹. With the surprise, she means the opportunity to get in touch with opinions and content, which would normally stay in specific groups of ethnicity, education or nationality. In that sense, instead of the initial broadening of reality, reality has become narrowed down more due to the algorithms and the massive usage of online communication.

Considering Heidegger's second danger, the fear of humans becoming *standing-reserves* themselves is in some sense applicable to online communication. To illustrate this, most online communication applications are free of charge. However, from a business perspective the app-developers have to make money in some way, which is done via the collection and processing of human data. This data consists of all our interaction and behaviour online. This collected data is used to improve algorithms and to sell data to companies, which companies use to improve customer targeting. In this scenario humans are actually approached as data sources waiting to be processed in algorithms or bought by companies. In this scenario, Heidegger's fear of humans becoming *standing-reserves* is realised.

1.1.3 Critical Notes considering Heidegger

Heidegger's theory is quite generic, he took technology as a whole into account with his concept *enframing*. This, and the fact that he was active in a time when there was no online communication, makes it rather difficult to specifically apply Heidegger's theory to online communication in a relevant way. However, Heidegger's description of the dangers, gave me the inspiration to think of the (negative) effects of online communication such as homogenization of content due to algorithms and the concept of humans being *standing-reserves*.

So, Heidegger raised some relevant concerns. However, I think that Heidegger's vision failed to accurately describe technology and the place it takes in society. Heidegger not only merely tackled technology in general, but he also approached technology as an autonomous causal effect. Which is in line with the tendency called *substantivism* or *hard determinism*. Both view technology as an autonomous power causing change in human experience and life in general (Verbeek, 2005, p.174) (Frissen, 2016). Like Verbeek argued in his book, Heidegger reduced technology to its conditions of

⁸ Unknown, "Social Media & User-Generated Content," Statista, accessed June 7, 2018, <https://www.statista.com/statistics/433871/daily-social-media-usage-worldwide/>

⁹ Clair Polak, "Uitholling van het publieke debat," with the assistance of Philip Blom et al., July 22, 2018, *Het Filosofisch Kwintet*, accessed July 28, 2018, https://www.npostart.nl/het-filosofisch-kwintet/22-07-2018/VPWON_1289462

possibility, namely *enframing*. Heidegger merely discussed technology as the revealing of reality as a *standing-reserve* (Verbeek, 2005, pp.94-95). Which is at the same time also the problem, he didn't actually discuss the technology itself. Moreover, he didn't discuss what causes technology to rise and develop. Heidegger also failed to point out the positive new perspectives technology has brought .

I will put this into perspective with online communication. By only emphasizing the negative consequences of online communication, the discussion would lack other factors such as: the positive sides to online communication and the interaction that is going on between all the forces impacting our experience. Also, the effects of online communication cannot only be reduced to the online communication applications in general. There are also users and creators which decide to use online communication in the first place and secondly decide on how to interpret its content. Moreover, reflecting back to the *standing-reserve* example in section 1.1.2. "*Heidegger's theory in Context of Online Communication*". Measures have already been taken against this via the GDPR law in May 2018. The GDPR law gives humans their rights concerning data back. This law in a nutshell demands companies to ask for data in a way in which users understand the consequences¹⁰. Moreover, users may see which data is collected by the companies and the right to demand deletion of all the collected data. Thus, the usage of online communication comes with threats, but there is a constant interaction going on to reduce negative effects and enable opportunities. I will discuss these points more elaborately with the support of Ihde's theory in section 1.2.

1.1.4 Conclusion

In conclusion, from Heidegger's perspective, which in this text represents the *Classic Philosophy of Technology perspective*, the influence of online communication would impact human experience negatively. Approaching the topic from Heidegger's point of view, online communication applications and the algorithms behind would mostly be seen as an autonomous force causing changed human perspectives to the point where reality can only be seen as a *standing-reserve* including humans.

However, I think, as argued in the critical notes, that by simply accepting this rather simplistic conclusion you miss the point and fall short in describing a coherent whole, including the other forces influencing the consequences of technology. Hence, I still need to come up with a more accurate description of the impact that online communication has on human experience.

Nevertheless, via Heidegger's described *dangers*, I considered possible negative effects of online communication. With these concerns, I want to point out that it might be useful to be aware of possible consequences of online communication and that a critical approach might give new opportunities to overcome these problems. Such as trying to overcome homogenization by adjusting algorithms or trying to overcome the algorithm by explicitly searching dissidents. Secondly, I want to emphasize that the danger of humans becoming *standing-reserves* is realistic, due to the sale of human data. However, there are also other instances reinforcing laws and behaviour, such as the GDPR law, which combat these threats and issues. Thus, the negative consequences must be debated, but if addressed properly these consequences are not insurmountable.

¹⁰ Unknown, "GDPR Key Changes: An overview of the main changes under GDPR and how they differ from the previous directive," EU GDPR, accessed September 15, 2018, <https://eugdpr.org/the-regulation/>

1.2 Contemporary Philosophy of Technology's Perspective on the Impact of Online Communication on Human's Experience

Having discussed the issues raised by Heidegger from the Classic Philosophy of Technology view, I will continue with Don Ihde's more nuanced elaboration of technology and human experience from the Contemporary Philosophy of Technology view. Via Ihde's theory, I want to describe the interaction between humans using online communication and online communication.

1.2.1 Ihde's theory

Philosopher Don Ihde was one of the first philosophers to connect (post)phenomenology to technology (Verbeek, 2001, p.119)¹¹. An important aspect of postphenomenology is the intertwinement and even constitution of human beings and their world (Verbeek, 2005, p.112). Thus, according to Ihde, the experiencer (human) and the experience (the world) are not independent, but relate to each other and co-shape one another (Verbeek, 2001, p.123).

According to Ihde, technological artefacts are *active mediators* of the relations between humans and the world. Mediation enables new possible actions in the relations between the actants. For example, an X-ray enables the doctor to see the patient's body in a different reality, namely as a picture of bones instead of a body of flesh and blood. The technological artefact actively mediates the relations between the experiencer and the experience, but the actants engaged are not determined by the technological artefact (Frissen, 2016)¹². As active mediator, according to Ihde, the technological artefact is characterized by its *technological intentionality* (Verbeek, 2005, 114). Ihde's concept of *technological intentionality* stands for the actions to which the technological artefact invites. For example, an e-mail invites me to a different writing style than a message over Facebook. However, to what sort of usage a technological artefact invites us, differs per context. Ihde defined this as *multi-stability*.

Ihde made a distinction between *mediated* and *naked perception*. *Mediated perception* is perception mediated via an artefact and *naked perception* is also mediated perception, only not mediated via a technological artefact. While trying to access reality via mediated perception, certain aspects of reality are strengthened, while other aspects are reduced (Verbeek, 2005, pp.130-131). To illustrate this, when I post pictures of all the happy moments in my life, my acquaintances start to have an idea of me that my life is filled with happy moments as their experience of me is mediated by the happy moments I've posted in my online communication applications and not so much by the moments of which I don't send or post a picture.

Ihde argued that not all artefacts mediate experience in the same way. In order to capture all the different kinds of mediation, Ihde defined multiple relations of mediation. Ihde first defined *embodiment relations*, which can be illustrated as follows: (I-technology)→world. This relation describes how humans use technology as an extension of themselves to broaden their experience of the world (Verbeek, 2005, pp.125-126). To illustrate this, using online communication applications, online communication becomes an extension of the user to represent the content send into the world as well, the interaction the user receives. At that point, the online communication applications are more or less transparent.

¹¹ Hans Achterhuis, *American philosophy of technology: The empirical turn / edited by Hans Achterhuis; translated by Robert P. Crease*, with the assistance of Peter-Paul Verbeek, Indiana series in the philosophy of technology (Bloomington: Indiana University Press, 2001)

¹² Valerie Frissen, "Contemporary Philosophy of Technology/Interactionism" (Technology and Social Change, Rotterdam, September 15, 2016), accessed July 28, 2018

Secondly, Ihde defined the *hermeneutic relations*, which can be illustrated as follows: I→(technology-world). In the hermeneutic relations, a technological artefact mediates a representation of the world. Where the artefact is a representation of the world or experience (Verbeek, 2005, p.126). To illustrate this, when I send a picture to a friend or text a message to my mother, at that moment, that picture or text message represents my life event or experience to the other person.

The last two relations, Ihde defined, are *alterity relations* and *background relations*. *Alterity relations* can be illustrated as follows: I→technology(-world). Here the technological artefact is perceived as a sort of autonomous other, for which humans might care or even genuinely interact with (Verbeek, 2005, p.127). An example of this phenomenon is a chatbot or an intelligent robot to which humans can ask questions. Although, interaction between humans and technology online is quite common and part of *alterity relations*, it is too much a niche in context of the online communication I have been talking about thus far. For this reason, I will not apply this relation to online communication in section 1.2.2 "*Connecting Ihde's Theory to Online Communication*". *Background relations* can be illustrated as follows: I→(-technology/world). Technological artefacts working in the background, while shaping our context (Verbeek, 2005, p.128). For example, the ventilation system in a building sustains a certain temperature, however, the users are never aware of it, not even of the sound it makes. Until it shuts down at 6 p.m., only then it becomes apparent that this device has constantly made noise and created a comfortable temperature. *Background relations* are also not relevant for the framework specified on online communication, because online communication doesn't work in the background, on the contrary it constantly demands the attention of its users.

Ihde also discussed some transformations of culture due to technological development. To Ihde, technological artefacts are not only characterised by *technological intentionality* at the individual level, but technological artefacts are also characterised by *cultural intentionality* at the macro-level (Verbeek, 2005, p.137). According to Ihde, technological communication, information and imaging is for a big part causing the cultural transformation of our culture into what he called *pluriculturalism* (Verbeek, 2001, p.137). *Pluriculturalism* implies that different cultures have become interwoven. We are so often confronted with other cultures due to for example online communication, that those other cultures become part of our own frame of reference (Verbeek, 2005, p.137).

Furthermore, Ihde discussed another cultural transformation due to the technological development, which he called the *decisional burden* (Verbeek, 2005, p.138). This concept describes the modern situation in which we have so many options to choose, that we are demanded to also make a choice. For example, nowadays innovations have enabled the option track down whether a baby has down-syndrome at a pre-mature state. This phenomenon is an incredible opportunity, but at the same time puts a burden on the parents of the choice whether you want to know or not. Moreover, the moment you know that your baby has down syndrome there is the next choice whether you want to have this baby born or not.

In his theory, Ihde tried to nuance the extreme standpoint in previous theories. As in the past, the options were to either see technological artefacts as neutral instruments or describe them as autonomous determining forces in human experience (Verbeek, 2005, p.138). Eventually, Ihde sketched a theory were on both individual as well as on macro-level, technological artefacts are subject to the context, but at the same time impact human experience via its intentional and mediating character (Verbeek, 2001, pp.138–139).

1.2.2 Connecting Ihde's Theory to Online Communication

Ihde's description of the mediating role technological artefacts have in human experience is applicable to online communication. Ihde's theory gives a more realistic view of present-day technology and its impact on human experience than Heidegger did. Online communication is not the determined new reality, but it does have impact on the micro-level for the users as well on the macro-level of culture.

For individual users, online communication is a representation of the message the other person wants to send to them. You have to read and interpret the message someone sends. Online communication is characterized by *technological intentionality*. For example, via WhatsApp, I'm invited to send short messages and use abbreviations. Moreover, I also feel less the urge to send well-thought messages as I can delete the send message within an hour, if it did not convey my intent as well as initially thought. Moreover, the concept of *multi-stability* described by Ihde is applicable to online communication. For example, I use Facebook to sell my study books. While during the Arab Spring, activists used it to schedule a protest¹³. This *multi-stability* can also be seen in the multiple possible relations humans can have with online communication.

Online communication applications can be described via *embodiment relations*, because online communication applications are at the moment of communication with others transparent. They meet the conditions to be transparent (Verbeek, 2005, p.126). To illustrate this, using online communication, the user is focused on the content and not the application itself. For example, when I am sending a picture via Snapchat, at that moment I'm focused on a nice filter, an appropriate caption and of course a good picture and I'm not focused on the app or even my mobile phone. Moreover, it takes a certain skill to use those applications, older people often have more difficulties using online communication applications. Finally, online communication applications often aim at an experience of interacting with a person as well as you would do standing next to them. Having opportunities of communicating over video with quality recreating the feeling of standing next to someone.

Relating to the *hermeneutic relations* of mediation as described by Ihde, online communication explores a different kind of communication experience, than real life interaction or communication via letters. In present day media culture, humans are constantly sending each other information. About what they are doing, what clothes they are wearing, what they are eating etc. It depends from person to person, but humans can send all the information they want to the other person. However, there are limitations, such as the loss of facial expression and tone of voice with written messages.

Although there are limitations, another consequence considering *pluriculturalization*, is the universal understanding of emojis¹⁴. Emojis are small images we can add to our text messages or use as messages to show emotions or illustrations of objects. Research shows that the majority of people from all over the world thought that the emoji, the one where a smiley face is crying while laughing, meant someone who is happy and laughing so hard they have to cry (Verschuer, 2018). Not only can humans talk to other people at the other side of the globe, they also have an universal understanding. This interconnection between people all over the world has the consequence that

¹³ Saleem Kassim, "Twitter Revolution: How the Arab Spring Was Helped By Social Media," accessed July 28, 2018, <https://mic.com/articles/10642/twitter-revolution-how-the-arab-spring-was-helped-by-social-media#.xmYzVBeCL>

¹⁴ Nynke van Verschuer, "Iedereen spreekt toch emoji? Wereldtaal: Emoji's zijn het nieuwe Esperanto. Een nieuw boek beschrijft hoe ze onze taal veranderen," *NRC*, June 18, 2018, accessed July 31, 2018, <https://www.nrc.nl/nieuws/2018/06/18/iedereen-spreekt-toch-emoji-a1607029>

human's horizon is broadened. This has effected human's perspective, a modern-day human being perceives something, he or she reflects on this from a frame of reference that includes multiple cultures, contexts and ideas.

This rapid change in technological possibilities regarding online communication has come with, what Ihde called, the *decisional burden*. At the very least, every person in Western society actively has to decide from a certain age onwards whether they will communicate online. However, in online communication this *decisional burden* goes even further. You are also more or less forced to participate in online communication. For example, for my bachelor Business Administration you needed Facebook in order to complete an assignment. So not only social peer pressure pushes you to go online, it is even mandated by the greater institutions such as the university.

1.2.3 Conclusion

Via Ihde's theory, I have shown that online communication can be seen as an active mediator transforming humans and their experience via its *technological intentionality*. Online communication is a medium co-shaping human experience and perception of the world. The concept *multi-stability* indicates that online communication not necessarily determines the experience. This concept shows that online communication can be used and interpreted differently over different contexts and humans.

The possible transforming effects of online communication on human experience, I have described via Ihde's concepts of *embodiment relations* and *hermeneutic relations*. Humans approach interaction with other's having online communication applications as transparent mediators, which reflects Ihde's definition of *embodiment relations*. Moreover, the reality or information humans perceive via online communication applications is equivalent to Ihde's concept of *hermeneutic relations*. The reality presented via online communication is limited, because of loss of facial expression and body language. At the same time online communication enables to experience these expressions via a universal language in the form of emoji's.

Ihde conceptualized transforming effects of technology via concepts such as *decisional burden* and *pluriculturalization*. Both concepts are applicable to online communication. The *decisional burden* in the context of online communication reflects the force society in general puts on humans to participate in online communication. The interwoven cultures and broadening of human's frame of reference illustrate *pluriculturalization*.

1.3 Conclusion

In conclusion, online communication impacts human experience as an active mediator. The described *embodiment relations* illustrate the way in which humans together with online communication applications represent themselves in the world and at the same time experience the world. Via the *hermeneutic relations of mediation*, online communication invites and inhibits certain aspects of reality. These relations not only affect individual experience, but also have consequences at the macro-level human perspective such as *pluriculturalization* and the *decisional burden*. Ihde discussed these transformations in regard to technological artefacts in general, but I have discussed examples in which these relations specifically apply to online communication.

Ihde's and Heidegger's theories are complementary in the eventual coherent framework. Via Ihde, I describe online communication as an active mediator and the transforming impact online communication has on human experience and perspective. However, Heidegger's theory and concept of *standing-reserve* provides inspiration to take a critical stance. Via Heidegger's described *danger* relevant debates to combat possible threats of online communication can be exercised. Which can result in regulation or raise of user awareness of possible threats.

Chapter 2 The Impact of Online Communication from an Existential Perspective

In this chapter, I will discuss the influence of online communication on human existence. As already discussed to some extent in the previous chapter, online communication has its effects on society. In this chapter I will go deeper into these cultural and individual implications. As already stated in the 'Introduction', I will approach the *existential perspective* from both the actions humans take as well as the context in which these actions are taken. Both parts are interrelated, because the micro-level of behaviour influences the context and at the same time at the macro level, the context influences the behaviour (Verbeek, 2005, pp.147-148). Therefore, I decided to answer the following two sub-questions in this chapter:

1. How does Online Communication impact Human Action?
2. How does Online Communication impact the Macro-Level of Human Existence?

Using these questions, I follow Verbeek's structure in discussing the impact technology has on human existence. Verbeek argued that both human actions and the way in which humans realize their existence interrelate and together shape human existence (Verbeek, 2005, pp.147-148). Verbeek also argued that human existence is shaped by human actions as well as the context in which humans realize their existence in the world (Verbeek, 2005, p.147). For the discussion regarding human actions, I will discuss Contemporary Philosophy of Technology philosopher Bruno Latour, because he elaborately discussed the mediating effects of human actions and technological artefacts.

In order to answer the second sub-question, I will discuss the Classic Philosophy of Technology philosophers Karl Jaspers and Albert Borgmann. Jaspers is mostly relevant, because he raised valid concerns and was one of the few philosophers of Classic Philosophy of Technology to give a structured account of the impact technology has on human existence (Verbeek, 2005, p.18). Borgmann is relevant for the second sub-question due to his analysis of the patterns raised by technological artefacts impacting and even shaping human life at the macro-level (Verbeek, 2005, p.174).

2.1 The Impact of Online Communication on Human Action

Not only does online communication mediate human experiences. Online communication also has impact on human behaviour. Via Ihde, I have already discussed the active mediating role online communication has, I will extend this theory via Latour's theory. In the following paragraphs, I will outline Latour's actor-network theory and its implications. After the outline, I will relate the theory to online communication.

2.1.1 Latour's Theory

Philosopher Bruno Latour developed the *actor-network theory*. In the *actor-network theory*, all persons and artefacts work as actors in a constantly interacting framework of relations between actors (Verbeek, 2005, pp.100-102). The actors, or the concept Latour preferred: 'actants', only gain meaning in the network they function in (Verbeek, 2005, pp.148-149). Latour tried to overcome the dichotomy and clear separation between humans and nonhuman objects. Latour believed that humans and their world cannot be treated as two separate, independent entities. This view was in contrast with modern theory, because modern theory aimed at a 'pure' distinction between humans and non-humans (Latour, 1993, pp.10-11)¹⁵. Therefore, Latour wanted to go against modernity by introducing what he calls *amodern perspective*, this perspective overcomes this described 'purification' of entities. Latour illustrated his view with the example of the hole in the ozone. This phenomenon is both caused by humans as well it is something in nature. Hence, some entities could not be purely categorized. These entities Latour called *hybrids*, implying that humans and nonhumans are interwoven (Verbeek, 2005, pp.152-154).

Bringing Latour's ideas a step further, Latour warned for the pitfalls of reducing Philosophy of Technology to either nonhumans or humans. In the example of a shooting where someone gets killed, some might say the man behind the gun is the killer. Others might say that the gun is guilty for the death of that person. However, Latour argued that there is not one you could plead guilty. In this case the technological artefact is the mediator in the shooting, where the intention of the human and the function of the gun together form the *new program of action*, namely shooting someone (Verbeek, 2005, pp.155-156). Latour derived *four meanings of mediation* to explain phenomena where such interaction takes place. Those meanings were: *translation*, *composition*, *reversible black-boxing* and *delegation* (Verbeek, 2005, pp.154 – 155)

Translation is where the action intended by the human is technologically made possible by the nonhuman object. Taking the shooting as an example. The human or gun alone can't endorse a shooting. However, together the human and the gun change into a new actant, namely into an actant capable to shoot someone. The two individual actants have 'translated' into one new actant performing the *new program of action*. The second meaning discussed by Latour is *composition*. *Composition* covers the linkage of the actants in the network. As discussed in the example, the shooting is done by the assembly of human and gun (Verbeek, 2005, p.156). The third meaning is *reversible black-boxing*, this concept indicates that normally the assembly of multiple actants stays invisible and *reversible black-boxing* makes this assembly explicit again (Verbeek, 2005, p.158) (Latour, 1994, pp.36-37)¹⁶. The last meaning is *delegation*, this concept describes the responsibility and function a technological artefact can carry with it. This concept can be illustrated as having one architect inscribing a task to the other actants via the non-human actant. For example, the speedbump which is designed to slow down traffic. In this case the designer of that artefact inscribed

¹⁵ Bruno Latour, *We have never been modern* (Cambridge Mass.: Harvard University Press, 1993)

¹⁶ Bruno Latour, "On technical mediation," *Common Knowledge* 3, no. 2 (1994)

an aim of behaviour he expects of the users of that speedbump. Though, the user does not always have to behave the way the architect foresaw beforehand (Verbeek, 2005, p.159).

2.1.2 Connecting Latour's Theory to Online Communication

Online communication is interwoven in a network of technological artefacts, on the one hand enabling its existence and on the other hand humans using, and actually needing, online communication in daily life. Because online communication exists in its network, due to its users and the devices enabling its existence. Online communication would not exist if one of its actants would disappear. Nevertheless, the same goes for online users; without online communication, they wouldn't exist either. Devices enabling online communication would not exist, if either online communication or the demand from its users would not exist.

The mediating effects of online communication are applicable to Latour's *four meanings of mediation*. For example the meaning of *translation*, the human and online communication translates into one new actant, namely the online user. To illustrate, if it wasn't for this new actant, the previous actant, namely the human, couldn't have been able to interact with someone at the other side of the world on a daily basis via the world wide web. As letters take weeks to transport and calling is both very expensive and difficult due to time difference. The human's intention, together with the function of online communication 'translate' into a *new program of action*, for example, daily communication with someone at the other side of the world.

Considering the second meaning *composition*, this new actant, the online user, is a linkage of one actant the human and the technology, in this case online communication. This new actant is a hybrid composed of a human and the artefact. The first two meanings show how interwoven humans and online communication are.

In line with the third meaning *reversible black-boxing*, usually we are not as aware of the network enabling the usage of online communication. Only during updates, disruptions or scandals, these networks become visible. Normally, we are not aware of the massive amount of actants involved, such as the internet connection which needs to work, the smartphone or other digital devices, the device of the other person you are trying to connect with, the algorithm, but also the government that needs to allow online communication.

Finally, the fourth *meaning of mediation, delegation*, explains, in the context of online communication, the functions inscribed by the web- and app-developers. Web- and app-developers are constantly trying to create and update functionalities to either improve user experience, or improve their business model. To illustrate, WhatsApp has the functionality of showing two blue checkmarks to the person who sent a message, if the person to which the message was sent has read the message. When WhatsApp introduced this functionality, it caused some controversy, because it meant people knew when you would have read it without responding. This function inscribed the behaviour of immediately answering after reading a message, because people would consider it as ignoring someone if you did not respond immediately.

Thus, online communication enables and inscribes new kinds of behaviour of its users at the individual level, as we have only discussed the direct interactions and mediation between actants.

2.2.3 Conclusion

As could be seen in the actor-network theory, everything exists, because of the interconnection it has in the network. Moreover, Latour put extra emphasis on *hybrids*. Via the concept *hybrids*, Latour argued against pure separation of humans and non-humans. Which also indicates that online communication applications are active mediators, forming new *hybrid* actants with humans enabling *new programs of action*. This I discussed via Latour's concepts of *translation* and *composition*.

Via Latour's concept *reversible black-boxing*, I explained normally the invisible network of components, humans and functionalities humans interact. Moreover, I not only observed and explained the *new programs of action* enabled via online communication, but humans are also invited or inscribed with new actions as discussed in the meaning of delegation.

2.2 The Impact of Online Communication on the Macro-Level of Human Existence

Verbeek discussed two philosophers which will help to evaluate the impact online communication has on the way humans realize their existence within the macro-level of living. These philosophers are Karl Jaspers and Albert Borgmann. Karl Jaspers was a philosopher from the era of classic Philosophy of Technology and Borgmann was highly influenced by Heidegger's theories (Verbeek, 2005, p.173). They are both rather negative towards the impact of technology. Nevertheless, I will now first discuss the relevant parts of both philosophers and relate this to online communication.

2.2.1 Jaspers' Theory

The main point in Jaspers' work was that technology has alienated us humans (Verbeek, 2005, p.17). To put this statement into context: Jaspers was a philosopher in the beginning of the 20th century. Jaspers wrote during an era, as already discussed shortly in the '*Introduction*' explaining Classic Philosophy of Technology, in which the industrial revolution had left his marks on society, as mass production was since then possible. Jaspers observed that people had become less involved in the process of production and consumption than they were before the rise of mass production. According to Jaspers, technology was understood in a *functionalist* way. All artefacts had a certain function. This was also more and more applied to humans, Jaspers stated. Humans were no longer conceived as unique individuals, but merely as interchangeable subjects (Verbeek, 2005, p.20). Humans were now living what Jaspers called a mass life, in a society, dependent on technology which Jaspers named the *apparatus* (Verbeek, 2005, p.21). Jaspers argued that: as life became more and more commoditized the used artefacts became commoditized, and as well humans lost their ability to bond with the world. This is what Jaspers referred to as *alienation*.

Although Jaspers was extremely negative towards technology, he did acknowledge that technology is necessary to sustain human population. Nevertheless, he did think that we should reduce the usage of technology and mass production as much as possible in order to regain authenticity.

2.2.2 Borgmann's Theory

German-American philosopher Albert Borgmann also made an attempt to describe the impact of technology on human existence. Borgmann tried to find consensus between the ideas of *instrumentalism*, *substantivism* and what he calls *pluralism* (Borgmann, 1987, pp.11-12)¹⁷. To make these tendencies more feasible. First, the *instrumentalist* tendency in Philosophy of Technology advocates the idea of technological objects being mere neutral objects. Effects of technological innovations are caused by the human aimed ends. In this context, technology functions as a neutral mean fulfilling human aimed ends (Frissen, 2016). To illustrate this, from an *instrumentalist* point of view a pill would merely be a neutral object functioning to fulfil the end, namely curing the disease. Secondly, as already discussed in section 1.1.3 "*Critical Notes considering Heidegger*", *substantivism* views technology as an autonomous power causing change in human life (Verbeek, 2005, p.174). Thirdly, *pluralism* views technology as an outcome of a complex process. In this process, all other influences and possible interactions such as culture, time-period, and other technologies are taken into account. Borgmann would, for example, see Latour's theory as *pluralism*, because Latour tried to describe the impact technology has on human behaviour as a complex process of interactions (Verbeek, 2005, p.175).

According to Borgmann, none of these tendencies would be able to completely and accurately describe the impact technology has on human existence. Borgmann argued that *instrumentalism* falls short, because of the small role it assigns to technology. *Instrumentalism* views technology out of its context, as society has changed drastically since the rise of technological innovations and this cannot only be described as a mere means. While, according to Borgmann, *substantivism* is insufficient due to the lack of explanation on the question why technology would become an independent force (Verbeek, 2005, p.174). The explanation is a circular argument, where technology could gain so much influence due to human judgment and consciousness, but at the same time technology has overwhelmed this human influence (Borgmann, 1987, p.9). Considering *pluralism*, Borgmann argued that specific technologies might form via counterbalancing interaction, but this explanation is too complex for the radical changes in society caused by technology, such as the rapid automation of industries and digitization of society (Verbeek, 2005, p.175). Borgmann argued that the radical transition of the world after the rise of technology was possible due to social agreements and highly disciplined and coordinated efforts (Borgmann, 1987, p.11). So instead of describing all interactions, Borgmann argued that we should find the basic paradigm or framework which functions as the blueprint to our societal transformations since the rise of technology (Borgmann, 1987, p.12).

Borgmann formulated a specific paradigm of technology, which he called the *device paradigm*, to describe the pattern constraining and characterizing our modern-day lives (Verbeek, 2005, p.175). Furthermore, according to Borgmann, technology had the ability to have such a big transformative power on the form of human existence over the past centuries, because of its promise to liberate humans from all the hardships (Verbeek, 2005, p.176). Which is still the case. If you think about it, the reason we adopted online communication services so rapidly is due to the promise of never having to miss out on our friends and family anymore, and business-related communication over e-mail and Skype is much faster than sending letters. These technologies are characterized by fulfilling these promises via its *availability*. Technologies enable humans to instantaneously fulfil human needs without any difficulties, which could potentially enrich our lives (Verbeek, 2005, p.176).

¹⁷ Albert Borgmann, *Technology and the character of contemporary life: A philosophical inquiry*, Philosophy (Chicago: The University of Chicago Press, op. 1987)

To elaborate on this further, Borgmann made a distinction between *devices* and *things*. *Devices* are objects providing to our needs, without the need of human engagement. For example, the earlier described ventilation system sustains a certain temperature without the need of human attention. These *devices* are, according to Borgmann, simple machineries fulfilling human needs. The result delivered by *the device* is what Borgmann named *commodities* (Verbeek, 2005, pp.177-178). While *things* are objects that need engagement to function and fulfil our needs. These *things* are also part of the context. I will illustrate this with Borgmann's famous example of the fireplace. Humans need to engage and focus on the fireplace to heat up the room, the fireplace provides a place for people to sit around and the fireplace demands to be the centre of attention (Verbeek, 2005, p.177). Borgmann argued that the *device paradigm* is the process of changing *things* into *devices* and as a consequence humans change from engaged beings into beings consuming commodities (Verbeek, 2005, p.178).

At this point Jaspers' and Borgmann's work intersect. As they both believed that the rise of commodities caused the disconnection between humans and their involvement with the world or activity. However, Jaspers' theory was more extreme. Jaspers concluded in the end that humans lost their ability to bond with the world. While according to Borgmann to some extent there is a disconnection between humans and their world (Verbeek, 2005, pp.179-180). However, this disconnection was caused by the sort of relation between humans and technology which Borgmann called *implication*. This *implication* refers to the influence technology has via the pattern in which human's choices become constrained and characterized (Verbeek, 2005, p.179). According to Borgmann, in modern Western society, humans have to organize their existence in the context of liberal democracy and technology modelled via the *device paradigm* (Verbeek, 2005, p.181)

Though Borgmann worried about this transformation from humans engaging with *things*, to humans consuming available commodities, Borgmann formulated a theory to improve the bond between humans and the world and enjoy the enrichment technology offers. This solution concerns *focal things* and *practices*. *Focal things* require humans to become engaged again. These *focal things* demand a centre position instead of being degraded to a background device and *focal things* would also invite humans for *focal practices*. Humans practicing actively and engaged with the *focal thing* and therefore as well with the world (Verbeek, 2005, pp.183-184).

2.2.3 Connecting Jaspers' & Borgmann's theories to online communication

Regarding structure and description of the impact technology has on humans realizing themselves within the macro-level of the world, I think Borgmann described the most relevant theory in the context of online communication. Following Borgmann's ideas, online communication gives us the promise of enabling meaningful interactions via continuous and instantaneous updates. However, this instantaneous availability of interaction between people also creates an overdose of interactions and updates, and as a result engagement towards friends might transform into a commodity. A personal letter would gain much more attention, than one of a hundred mails, WhatsApp- or Facebook-messages some might receive per day. Hence, most probably Borgmann would have called the mainstream online communication applications, such as WhatsApp, e-mail, and other messenger applications, *devices*.

Moreover, online communication is also applicable to the device paradigm. Society is more and more building towards online communication. Not only friends and family expect from one another a continuous availability online, but also universities, governmental institutions and businesses expect from their clients the capacity to communicate online. Society is becoming characterized and constrained by online communication. Thus, the relation between online

communication and humans at the macro-level is an *implication*, because online communication steers towards certain behaviours also from a higher level than at the micro-level during interaction.

This brings me to Jaspers' argument of living in a society dependent on technology, *the apparatus*. As already described in the paragraph above, to function properly in society there is the need to be able to communicate online. However, Jaspers took this a step further with the idea that this dependence on technology, or in this case online communication, leads to human *alienation* to their world and humans becoming commodities. At this point Jaspers' theory becomes, in my opinion, too far-fetched in regard of online communication. With this statement, Jaspers excludes the opportunities raised by technology, and in this case online communication. This comment is also applicable to Borgmann as he also put the emphasis mostly on the negative effects of technology (Verbeek, 2005, pp.188-190). It is simply not true that human engagement has merely declined since the rise of technology or online communication. To illustrate this, humans can still have meaningful interaction demanding human engagement over online communication. There are applications like Smule, which is an application enabling singers to engage in songs with other singers all over the world¹⁸.

Although both theories have their flaws, they are both still relevant. For example, Jasper's argumentation in regard to human's becoming commodities might be used as a starting point to critically view certain online communication applications and certain human interactions online. I will illustrate this with an example, namely with the dating application Tinder. With this application, the user will see the pictures of other users, he or she may swipe right if he or she feels attracted to the other user and wants to talk to this person or the user may swipe left if he or she is not attracted and doesn't want to talk. One might argue that via these apps, people are treated as mere interchangeable objects, because if one is not attracted or does not like the conversation afterwards, one can switch within a second back to the pool of thousands of other users.

I think Borgmann's theory is relevant as well, because he critically views the effects of technology and at the same time comes up with a useful change of behaviour. Borgmann's described *focal practices* can be used to let humans realise whether they are mindlessly consuming the information given via online communication and the interaction done via online communication. At the same time, it prescribes a way to change to "focally practicing online communication". One could get more qualitative interaction, while having the benefits of technological development. Moreover, it might prevent many problems. For example, WhatsApp is at the moment struggling with their market in India, because of the rapid speed fake news is spread over its users in group chats. One example which caused tremendous problems was the fake news spread in the winter of 2018 which stated that a vaccine harmed children. Many parents refused to let their children be vaccinated after they read this news on WhatsApp, this affected more than 240.000 children¹⁹. WhatsApp and schools are now trying to raise awareness and urge people to think before they are spreading news further in group chats. Hence, people are urged to become engaged again with the content, to think about the news and crosscheck the news instead of mindlessly consuming the content read.

¹⁸ Unknown, "About: Smule: CONNECTING THE WORLD THROUGH MUSIC™," Smule, accessed 08/03/2018, <https://www.smule.com/about>

¹⁹ Soutik Biswas, "On the frontline of India's WhatsApp fake news war," *BBC News*, August 20, 2018, accessed September 12, 2018, <https://www.bbc.com/news/world-asia-india-45140158>

2.2.4 Conclusion

Borgmann wrote a theory which gives an account on how technology impacts the macro-level in which humans realize themselves. As I applied this to online communication, I must come to the conclusion that online communication does impact the way in which human can realize their life, which can also be described as an *implication*. Main reason for this is the fact that being able to communicate online is compulsory in the year of 2018.

Although Borgmann can be used to give an account of the impact online communication has on the macro-level, Borgmann, just like Jaspers, lacks the discussion on the positive effects of technology. However, Borgmann and Jaspers are therefore useful to provide a critical view on technology. Jaspers account of technology is applicable to the way online communication might in some cases invite humans to be degraded to mere interchangeable subject. While Borgmann's theory concerning focal practices is applicable to advocate human engagement in human consummation of news. Hence, both philosophers advocate human awareness to the threats in regard to the effects of online communication.

2.3 Conclusion

Concluding the discussed theories in chapter two, I can conclude that online communication has an impact on human existence. Online communication has influenced humans from the existential perspective in two ways. The first is the mediation of action: human behaviour is mediated by online communication. Not only are their *new programs of action* due to the meanings of translation and composition, which a new *hybrid* actant acts within the network. These networks providing human action are usually hidden, while the third meaning *reversible black-boxing* makes the network of interaction in which we are active during online communication visible again. Behaviour may also be steered within a certain direction via the fourth meaning *delegation*, which Latour described. Hence, via Latour's theory, I described the micro-level at which human action is impacted by online communication.

Following up to Borgmann's *device paradigm*, which can be used to describe online communication's impact at the macro-level on humans realizing themselves in society. As described in section 2.2.3 "*Connecting Jaspers' & Borgmann's theories to online communication*", online communication characterizes and at the same time constraints the way humans can realize their existence. Via online communication opportunities, such as staying up to date every second of the day and having access to massive amounts of information, were promised and enabled. However, this has also resulted in the *implication* from society to humans to be *available* online as well.

With this comment, the focus is put on the negative effects of online communication. This negative approach is a characteristic of both Jaspers' and Borgmann's theories. This mere negative approach is not justified as online communication has also enabled positive and engaging interaction between humans. Though, Jaspers' and Borgmann's concerns and Borgmann's possible solutions to threats are relevant. For this reason, I will their theories as a critical approach towards the impact of online communication in the coherent framework .

Chapter 3 Online Communication's Impact on Human Existence

In the past two chapters, it has become evident that online communication impacts human existence. However, until now I discussed the impact via multiple sub-theories. The aim of this chapter is to sketch a coherent and clear answer to the main question: *'What impact does online communication have on human life?'* This chapter includes the discussion of the overlap and correlation between the sub-parts.

First, I will discuss the theories to view the impact online communication has on human life. Secondly, I will discuss the possible threats as well as opportunities, because the consequences of the impact of online communication are relevant for possible regulation, societal debates and individual awareness.

3.1 One Coherent Framework

Overall, I conclude that at the micro-level online communication must be seen as an active mediator. An active mediator which mediates both our experience as well as our behaviour, which is in accordance with Ihde's and Latour's ideas. At the macro-level, in accordance with Verbeek's argumentation, Borgmann emphasized the resulting engagement humans have with reality via the *device paradigm*, in the sense that online communication characterizes and at the same time constraints ways of realizing human life (Verbeek, 2005, p.191). This micro- and macro-level division may also be seen as a direct and indirect impact, because online communication impacts human experience and behaviour directly during individual interactions between humans and indirect when humans have to realize their lives in the framework impacted by online communication. I will elaborate further on these statements in order to use the described theories as complementary parts for one coherent framework.

As already stated, Ihde and Latour both discussed technology, in this case applied to online communication, as active mediators. Ihde discussed human experience via mediated relations with technology (Verbeek, 2005, p.125). Online communication co-shapes our reality, because due to mediation, certain aspects of reality are amplified and reduced. This contrasts to the experience that *naked perception*, perception not mediated via technology, would reveal.

Moreover, Ihde also discussed *technological intentionality*, the experience and behaviour to which technology invites. The behaviour or experience to which a technological artefact invites does not necessarily have to be intended by its designer. In my view, Ihde's *technological intentionality* is an important addition to Latour's ideas of mediation of action, because of unintended *technological intentionality*. Like Verbeek discussed in his book on technology in general, Latour's meanings *translation, composition and black-boxing* are quite straight forward and also fit well into the framework in regard to online communication (Verbeek, 2005, pp.168-169). Online communication and humans together compose into a new actant, the online user, with new *programs of action*, such as sending pictures over online communication applications. Normally, this massive network stays hidden, however, when something goes wrong via *reversible black-boxing* all the components of this network become visible. However, as Verbeek argued, *delegation* leans too much on the inscriptions done by the designers. While online communication also invites us to behaviour which designers could not foresee or have intended beforehand (Verbeek, 2005, pp.168-169). Moreover, Ihde's concept of *multi-stability* should also be added to this theory, as online communication not

only invites to (unintended) behaviour and experience, but also the usage of online communication may differ over different contexts (Verbeek, 2005, p.170). Thus, at the micro-level online communication actively mediates human experience and action, which is also under the influence of context, and intended and unintended *technological intentionality*.

After having discussed the impact of online communication at the micro-level, I will now discuss online communication's impact at the macro-level. In regard to human perspective, I think Ihde's concept of *pluriculturalization*, defined as human's frame of reference consisting of multiple interwoven cultures, reflects the impact online communication has on human perspective in general, because human perspective has broadened due to a more globally oriented network in which modern-day humans function. Nevertheless, to fully grasp the impact online communication has on human existence via the *existential perspective* at the macro-level, I will follow Borgmann's theory in regard of the *device paradigm*. As I have already discussed, online communication is deeply embedded in society nowadays, in the sense that participating in online communication is a requirement. Moreover, this mandated participation in online communication has changed the opportunities to engage in human interaction. On the one hand, consuming and handling hundreds of messages via online communication doesn't seem to enhance human engagement, on the other hand online communication has also enabled new *focal practices* via interaction with other people passionate about your hobby from all over the world. At this point I also want to add to Ihde's concept of the *decisional burden*, which implies that technological advancements come with the demand of choice in certain circumstances. As already discussed, online communication enabled many new options in regard of human interaction, however it also comes with the pressure to participate and decide what you want to see, believe and act upon.

Thus, online communication impacts human existence both on a micro- as well as macro-level. The impact must be seen as a co-shaping influence on human existence, because the impact is subjected to context and human interaction. The consequences of online communication's co-shaping influence are important to be aware of, because there are some serious threats and opportunities which one must be able to combat or use in order to improve an individual life as well as society.

3.2 Threats and Opportunities

After this elaboration on how online communication impacts human existence, I will now discuss the possible threats and opportunities of online communication. As already discussed, philosophers such as Heidegger, Jaspers and Borgmann were mostly emphasizing the threats of technology. Which I have already tried to apply to online communication. I have also tried to balance this negative approach with the positive effects of online communication throughout my thesis.

As already discussed, Heidegger's, Jaspers' and Borgmann's theories triggered me to think more critically of certain aspects of online communication. Aspects like the algorithms homogenizing content or the apps, such as Tinder, in which people seem to be mere interchangeable subjects. These aspects seem to be a derogation of the meaningful interaction, instead of an addition to meaningful friendships. Moreover, I have also discussed other threats such as the fake news epidemic in India via WhatsApp or the sale of human data. Although all these phenomena are threats, for both threats measures have already been taken in the form of education and regulations. Which shows that possible threats not necessarily have to turn into some kind of apocalypse. As long as humans are willing to debate and critically view the impact of online communication and acknowledge the massive transforming power of online communication on human existence, than I think the opportunities of online communication can be endless.

In my thesis, I have already given many examples of the opportunities. Varying from broadening human's horizon via interaction with dissidents to humans engaging in *focal practices* via apps such as Smule. The main message is that humans should be aware of these opportunities and threats.

Over the course of my thesis, I have given many examples, but these examples arose from my individual frame of reference. Thus the message towards the reader is that there are probably many more threats and opportunities which you might come up with yourself. In order to fully enjoy the useful effects and reduce the harmful effects of online communication, one must be capable to disclose and debate the consequences of online communication.

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