



OULUN YLIOPISTO
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Usage of anonymous geosocial applications among Finnish university students: case Jodel

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Abstract

The purpose of this thesis is to investigate the use of anonymous geosocial applications among Finnish university students. The objective is to understand why these applications are used and how their typical use can be characterized and what anonymity, i.e. the possibility to post without real identity, provides for the students compared to other social media services. Qualitative research approach has been used following the case study strategy. Students from university of Oulu have been interviewed regarding their opinions and attitudes towards Jodel, an anonymous geosocial application. Results of this work indicate that anonymous geosocial applications are used for various reasons and their use can be characterized in many ways. Anonymity enables a more liberal environment for discussion, although it comes with downsides, such as trolling. A key finding regarding this study are the three dimensions of Jodel, which are anonymity, locality and sociality. These dimensions reveal fascinating insights about Jodel, such as a sense of belonging that is generated among users of the application. It was also discovered that these applications fill in a specific need for people to communicate such as to discuss avoidable topics.

Keywords

Jodel, geosocial, social media, anonymity

Supervisor

PhD, University lecturer, Tonja Molin-Juustila

Foreword

Writing this thesis has been an extended project for me starting from March 2017. There were ups and downs and combining working life with the creation of this thesis was a challenge, though as it turned out eventually, possible to manage.

I want to thank PhD Tonja Molin-Juustila for supervising and guiding me during this journey. Without her ideas and viewpoints this thesis probably would have never come into existence. Thank you is also in place for PhD Heidi Hartikainen for giving valuable insights during finalizing this thesis. I would also like to thank my sister Sanna Löfström for her support and ideas she provided me for this work.

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Joni Mäntykorpi

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Abbreviations

AGPS	Assisted General Position System
API	Application Programming Interface
CMC	Computer Mediated Communication
GPS	Global Positioning System
ICT	Information Communication Technology
LBS	Location Based Service
MSNS	Mobile Social Network Services
NLP	Natural Language Processing tool
PIU	Problematic Internet Use
SAT	Scholastic Assessment Test
SM	Social Media
SNS	Social Networking Sites
UCG	User Generated Content
UDC	User Distributed Content
Yak	Message in Yik Yak

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1. Introduction

Anonymous geosocial applications have gained popularity in the past two years, according to Heston and Birhnoltz (2016). Especially students have been one of the main user groups for these location-based applications where the most recent and local topics are being discussed daily, as stated by Wu, Minkus, Ross and Keith (2017). My personal motivation for this thesis comes from the fact that by this day, I did not encounter a research made on Jodel, although there were plenty of studies made on Yik Yak and Whisper (both similar type of applications to Jodel) such as the study by Heston and Birhnoltz (2016), where they claimed that anonymous geosocial applications have become every day. Jodel is a chat service where users can publish anonymously messages or images in real time, and other users are able to comment these messages and give them upvotes or downvotes: those discussions which get multiple downvotes are wiped out, as Yle News (2016) briefly described it. Jodel got incredible popularity among university students in Turku, where the most active channels were University of Turku channel and Turku University of Applied Sciences channel as Yle News (2016) stated. Jodel is primarily designed for students, as it's described as "buzz in your campus" in Google Play and Apple Store (Yle News, 2016). These services are used a lot in university contexts' and their nature as local and anonymous services affects the topics there are being discussed (Yle News, 2016). Due to the following statements, Jodel was selected for this case study because it has gained popularity among university students and because the application is principally designed for university students. Research about similar application Yik Yak have been made, such as studies about Yik Yak's usage between college students, for example Wu et al. (2014), West (2016) and Black et al. (2016) where Yik Yak posts, or "yaks" were collected and analysed. Wang et al. (2014) claimed that these pseudo-anonymous messaging applications such as Whisper, and Yik Yak have had a dramatic way on how people communicate. Because these services are anonymous, anonymity and its' side effects, for example trolling and theories regarding anonymity such as John Suler's online disinhibition effect (2004) and Ma et al. (2016) anonymity and self-disclosure were also in scope.

Aim of this study is to understand more about the use of anonymous geosocial applications in Finnish university students daily use. Also, side effects of anonymity are in scope, such as what negative or positive issues students have found out while using the application. The relationship of anonymous geosocial applications and academic performance is also looked upon. Therefore, the research questions for this study are:

RQ1: Why do Finnish university students use geosocial applications?

RQ2: How is typical use by Finnish university students characterized?

RQ3: What kind of positive or negative issues Finnish university students experience while being online anonymously?

RQ4: What is the relationship between anonymous geosocial applications and academic performance?

Qualitative method was chosen to be the research method for this thesis, because lots of past research had been done on similar applications where the content posted to these applications were gathered and analysed, but no studies came up where direct interviews were done with users of these applications. Due to this the author thought it was time to do a qualitative interview-based case study about use of Jodel among university students and their experiences in using it. The author realized that instead of collecting the discussions straight from the application, interviewing users directly could give novel insights into peoples' motives and thoughts about the use of anonymous geosocial applications.

The first part of the thesis (Chapter two) is the literature review of the thesis. It covers the related research and relevant background about the subject and definition of the basic concepts, such as social media, Jodel and similar applications, anonymity and its' side features, and social media and its' impact on students' academic performance. The second part of the thesis (Chapter three) consists of theoretical background of the research methods used in this work such as qualitative approach, interview, case study and thematic interview, which is the information gathering method selected for this thesis. Target group of the study is also explained in Chapter three. Empirical results of the study are presented in Chapter four, and findings and discussion are provided in Chapter five. Lastly comes the limitations and future directions in Chapter six, where the limitations of this work and future work are looked upon. The author hopes that this thesis will give background to future research regarding anonymity and anonymous geosocial applications, mostly Jodel.

2. Related research and background

This chapter provides the theoretical framework as well as some relevant background on anonymous geosocial applications. Related research and background for this study was mainly collected by browsing the latest journals of *Computers in Human Behaviour* from a timespan of April 2018 to January 2015 as well as using the most related keywords in search engines such as ACM database, ScienceDirect and Google Scholar, such as “geosocial application”, “anonymity” and “Yik Yak”. Former studies about anonymous geosocial services mainly focused on Yik Yak, which was a Jodel-like local application used in colleges and universities across the US. Some news sources about Jodel were used since as the collection of the material proceeded, no scientific articles about Jodel came across. The literature review (2.1) begins with a definition of social media, its subcategory anonymous geosocial applications (2.2) and Yik Yak and Whisper (2.3) which were most researched by the time this literature review was completed. Then I gave a definition about anonymity (2.4), which I thought was the second most important concept in this study, and the negative side effects of anonymity (2.4), which in general manifest itself in the form of trolling. Lastly the literature review addresses the impact of social media use on academic performance (2.5): this theme emerged from data during collecting the material for the literature review and was added to the thesis as a curiosity.

2.1 Defining social media

Social media can be described in many ways and terms. According to Correa, Silva, Mondal, Benevenuto and Gummadi (2015), “social media use is defined as the particular consumption of digital media or internet that has little to do with traditional information media use”. Social media provides an apparatus for the audience to communicate, connect, and interact with each other and their common friends through instant messaging or social networking sites (Correa et al., 2015). Most of the research on social media use has been focused on social networking sites, which are virtual gatherings of users’ profiles which can be shared with others to generate lists of associates and keep contact with them. (Correa et al., 2015)

Erkkola (2008) states that social media is a post-industrial phenomenon which has altered societies distribution and production structures as well as the economy and culture. In social media, the content is mainly generated by users with peer-production (Erkkola, 2008). Instead of people being only consumers, they are active operators who generate content (Erkkola, 2008). Because of this, the line between content generating and consumption has faded. Despite content generation, sharing is also in central part, despite the algorithms which promote content for the users. (Erkkola, 2008).

Although there has been lots of debate about *social media*, it has been said to be still a bit unclear concept, according to Suominen, Östman, Saarikoski and Turtiainen (2013). It has been said to mean a new phase in internet usage where user role is different, and perhaps more active than before. The most trivial definition for social media is that it’s social. During the 2010’s, social media has become a general concept which is referred to any service where are lots of users which share content and communicate with each other. George Takei, the famous actor from *Star Trek*, who said that social media is like ancient Egypt, in both people write to walls and worship cats” and Livescience.com which compared Pompeii’s ancient graffiti’, or “wall posts” to modern social media. These ancient writings are said to reveal primeval social networks. However, some people argue that comparing these old means of communication to modern social media is somewhat

misleading. After all social media, as we understand it today, refers to digital network communication of a specific era and that social media and its' services and means of use change all the time (Suominen et al., 2013, p. 13-17). According to Matikainen (2012) most popular social media sites are social networking site Facebook, microblogging service Twitter and video-sharing page YouTube (Matikainen, 2012, p. 299-300).

Social media has also created several new terminologies to describe the phenomenon such as *user-generated content* (UGC) which is an essential concept in social media since it refers to the content created by its' users, and *user distributed content* (UDC) means user-transmitted material, in other words, content borrowed from elsewhere. (Matikainen, 2012, p. 297). According to Hinton and Hjorth (2013) in addition to the creation and sharing of content, social media is characterized by network- and community-based activities, and the communities formed by the users are strongly connected to the offline world as well as the relationships that have emerged from it. Studies have shown that people who have strong ties outside the internet are also heavily connected to each other through the network, and this has supported the idea that the "offline" world also largely determines social interaction on the web (Hinton & Hjorth, 2013, p. 37-38). The networks and friendships in social media are often based, for example, on a common background or geographic location, and they are mainly used to strengthen relationships outside the internet (Hinton & Hjorth, 2013, p. 43-44).

According to Matikainen (2012, p. 297), the concept of social media refers to a development stage of internet where content production is scattered, and users are producing more and more content. Social media can be regarded as an "umbrella concept" that covers a variety of distinct aspects of network communication and phenomena and due to this, its content and boundaries are difficult to perceive. Matikainen points out that its more fruitful to find out social medias' core content rather than looking for a strictly precise definition for it (Matikainen, 2012, 297-299).

2.2 Anonymous geosocial applications

Recently new kind of social media applications and sites have emerged, called *anonymous social media*. In an article by Correa, Silva, Mondal, Benevenuto and Gummadi (2015) anonymous social media networks have grown to host millions of users who post tens of millions of pieces of content that are viewed billions of times in a monthly basis. Anonymity also makes it easier for the users of these services to hide or protect their offline or online identities (Correa et al., 2015). Compared to traditional social media sites like Facebook and Twitter, posts on anonymous social media sites are not made by people with well-defined user identities or profiles (Correa et al., 2015). Although anonymous online forums have existed since the young days of internet, long ago, they were devoted to certain sensitive issues or topics (Correa et al., 2015). Additionally, its' user populace was quite small and limited to technically sophisticated users with precise concern to be anonymous (Correa et al., 2015). Anonymous social media can be described as a subcategory of social media: its main purpose is in sharing content and communicating anonymously on web- and mobile based environments (Gupta & Brooks, 2013).

Chang and Liu (2007) discuss Mobile Social Networks (MSNSs) in their publication *A General Architecture of Mobile Social Network Services* (2007). People often look for information by asking people within their social network even though they have access to vast reservoirs of information such as the libraries and especially the internet (Chang & Liu, 2007). This is because people are grand sources of exceptional information, particularly that which is community-specific, location-specific and time-specific. In the

recent years, Global Positioning System (GPS) and cellular assisted technology have become mature and affordable, and the combination of location technologies and wireless communication have made it possible to develop Location-Based Services (LBSs) (Chang & Liu, 2007). In recent mobile social network services, user-location information is frequently being used (Chang & Liu, 2007). Today the most popular smartphone apps are location based (such as Tinder) which means that the smartphone's Application Programming Interface (API) utilizes the users' geographical position (GPS with its collection of satellites) as well as wireless fidelity (Wifi), Assisted general position system (AGPS), cellular networks, and offers user information based on it (Wu et al., 2017). However, smartphones location can be faked by using GPS hacking which means that user can set its' phones location to a remote place, like for example being physically in Paris and setting the phones location to some street corner in Brooklyn (Wu et al. 2017). As Hinton and Hjorth (2013) stated, smartphones have given a new meaning to social media since they are always on the go, and they allow people to partake with social media anywhere at any time. When mobile phones became tools of multimedia technology, also location-based services have come along with it, technology which utilize various features in smartphones such as General Position System (GPS), which can determine the geographic location of the user, based on cell-phone towers and wireless networks. With location-based services the smartphone's position can be determined to an accuracy of within 100 meters or typically even less (Hinton & Hjorth, 2013, p. 123-125).

Heston and Birnholtz (2016) claim that enabled by widespread GPS technology, anonymous location-based social applications have become every day. Besides letting people find dates from close distance and connect with friends, they also allow people to talk anonymously with strangers nearby with apps such as Whisper and Yik Yak (Heston and Birnholtz, 2016). In location-based social apps, the content is visible to others within certain geographic range of the user's position (Heston and Birnholtz, 2016). These applications have lately got negative media coverage because they have been looked as enablers of negative interactions, such as cyberbullying (Heston and Birnholtz, 2016). Though some research suggest that anonymity can cause people to behave negatively, there are also research indicating that anonymity may enable positive interactions, such as stigmatized identities or health topics which are sensitive by their nature (Heston & Birnholtz, 2016).

According to Wang J.-L., Jackson, Gaskin and Wang H.-Z. (2014) in a new wave of pseudo-anonymous messaging, services such as Whisper, Snapchat, Tinder, Yik Yak, Secret and Wickr have been on the rise recently and have had a dramatic impact on how people communicate. These services give their users means to express their opinion, share secrets or tell gossips completely anonymously and untraceably (Wang et al., 2014). Besides supporters, these apps have also gained critics due to their anonymous nature: supporters of these services argue that they provide a channel for whistle blowers averting prosecution and give users a chance to say their opinion without fear of being abused or bullied (Wang et al., 2014). According to critics, lack of accountability encourages and enables negative discourse in these networks in forms of threats, personal attacks and spreading rumours (Wang et al., 2014).

As reported by Saveski et al. (2016) anonymous social networks have emerged in recent years growing from online forums to mobile applications. Several platforms such as Secret, Whisper and the Insider, have appeared, and works such as "The Many Shades of Anonymity" – the studying of content posted Whisper, presented how posting behaviour differed when compared to public networks (Saveski et al., 2016). Saveski et al. (2016) also found out that when people post on anonymous platforms such as Yik Yak, vulgarity increases only a little when compared to public ones, and when it does, posts containing

offensive language are most likely to be downvoted. Researchers suggest that the community filtering mechanism together with the reward system, also known as Yakarma user score on the app, creates an environment where positive social norms arise (Saveski et al., 2016). This proposes that self- and community moderation works also in anonymous social media platforms (Saveski et al., 2016).

2.3 Research on Yik Yak and Whisper

Yik Yak is a location-based social media platform which focuses on creating anonymous, local communities, especially targeted in college campuses, as Saveski, Chou and Roy, discussed it in their' article *Tracking the Yak: An Empirical Study of Yik Yak* (2016). Within a 10mile radius, users can leave posts called "Yak's" which can be a maximum of 200 characters long. The community defines the persistence and popularity of yaks with downvotes and upvotes: if a post receives -5 votes, it is removed, creating a mechanism which censors and filters content by itself. In the application, users are encouraged to create posts and upvote/downvote other posts in hope of winning Yakarma points. With marketing efforts to heavily directed towards college campuses, the target demographic is young (Saveski et al., 2016). According to Yik Yak's website, the application allows its' users to ask questions, share news, offer support and interact with others who are in the same place at the same time. Yik Yak can be described as a "springboard" to connect with others in their local community. (Yik Yak, 2017)

Yik Yak is a location based mobile application which is used mainly on college campuses across the US, according to Wu et al. (2017). According to Wu and colleagues, it was founded in late 2013 and it has attracted publicity ever since. The application provides a simple bulletin board where users can post short messages, named yaks which are less than 200 characters long as Wu et al. (2017) described it. It differs from traditional social networks in a way that by using the phone's GPS, the posts are visible only for users nearby (usually covering about two square kilometres) which is big enough to cover most of the US campuses (Wu et al., 2017). Until lately, Yik Yak was completely anonymous but recently it was modified in a way that users were given pseudonym usernames, which they may change whenever they want to (Wu et al., 2017). Yik Yak has received negative media coverage due to bullying and hate speech, and some universities have even blocked their students' access to the app on their networks, although some journalists have found Yik Yak good at evoking honest answers on sensitive issues. (Wu et al. 2017)

Yik Yak has greatly gained attention from the research community. Wu et al. (2017) made an analysis about the topics being discussed in Yik Yak and referred to multiple studies, such as a study by McKenzie (2015) where 319 posts, called "yaks" were collected and categorized into four objectives, which were shock, joke, inquire and emote. Heston and Birnholtz (2016) collected yaks from 35 universities for several months and by hand-coding 1,800 yaks and sorted them into eight intent categories, which were personal admission, information/advice, observation, venting/complaining, opinion, invitation, joke, and favour. Though this does not elaborate on the content of the topics being discussed, this sets a framework for Yik Yak users. Black et al. (2016) did also some collection and categorizing of yaks, from 42 campuses and got 4000 posts from 3-day period and concluded that beside of campus life, notifications and sex were the most popular topics discussed in the app, and they also found rhetorical questions and profanity from the yaks. In an analysis of Whisper (a smiliar application as Yik Yak) Wang, G., Wang, B., Wang, T., Nika, A., Zheng, H. and Zhao, B. Y. (2014) concluded that anonymous social networks show low clustering and high dispersion with minor evidence of relationships between users of the app.

With the help of GPS hacking, Wu et al. (2017) collected almost 1.6 million yaks across 45 US college campuses. Natural Language Processing (NLP) tool was used to determine the nature of the yaks (either positive, negative or neutral) and supervised machine learning was used to classify the yaks into nine different themes and sort out how topic popularity varies across campuses and which topics are most popular (Wu et al., 2017). Interestingly they found out that there were more negative than positive yaks at all 45 universities, and that Christian universities had the most positive student sentiment, liberal arts colleges came as second, and least positive sentiment was found in two-year colleges (Wu et al., 2017). The study also found that gender of the poster was predictable based on the word content of a single post and that female sentiment ratio and emotional level was like male sentiment ratio and emotional level (Wu et al., 2017). The yaks had large amount of dating and sex related conversations as well as academics and popular culture ones (Wu et al., 2017). Interesting finding was that campuses which discussed mainly about dating and sex also had least academically related discussion (Wu et al., 2017). Schools with higher Scholastic Assessment Test (SAT) scores had lower admission and alcohol rates, and their alcohol related yaks were less compared to southern schools which discussed more about alcohol compared to other schools. (Wu et al., 2017)

In an article by McKenzie, G., Adams, B. and Janowicz, K. (2015) Yik Yak was compared to Twitter. Yik Yak and Twitter may look similar, but they are different from other geosocial media or location-based applications in many ways: first, Yik Yak is anonymous as well as yaks, and second, yaks are tied to user's location and are accessible only for other users who are situated in radius of 1.5 mile of the post (McKenzie et al. 2015). The research found out that the topics discussed in Yik Yak differed in many ways, such as the terms used mattered more to young adults (in this case college students) and the language used in Yik Yak was such that people would not use it in non-anonymous settings (McKenzie et al. 2015). When 40 topics from Yik Yak and Twitter were analysed against one another, the researchers found out that Yik Yak topics were more local than Twitter topics and after all, Yik Yak differs significantly from Twitter due to the subjects being discussed and their true nature (McKenzie et al. 2015). The paper suggests that next step will be comparing Yik Yak data to other media platforms: for example, anonymously posted data might reveal some behavioural patterns that could not be studied when using other services. (McKenzie et al. 2015)

Sara West (2016) claims in her article "Yik Yak and the Knowledge Community" that professionals have given too much focus on Yik Yak's negative traits rather than its' complexities: therefore, article looks Yik Yak as a place for critical research mainly in the fields of professional and technical communication. In Yik Yak users participate in networks based on their physical location and due to this, it has gained much popularity on college campuses and highly populated metropolitan areas (West, 2016). The author of the article describes Yik Yak as an incentive for the creation of knowledge communities: in other words, people work together to form and preserve collective knowledge in Yik Yak (West, 2016). Throughout its lifespan the application has garnered a deal of attention due to its controversies: the application has had a deal of racist, sexist, homophobic and hostile posts, which are a result of its ephemeral and anonymous nature (West, 2016). The article points out two reasons why users don't have to address the repercussions of a post, because (a) the post is not linked to their identity, and (b) due to the application design, it will soon disappear entirely. (West, 2016)

According to West (2016), there were seven primary types of posts which are being sent to the community. Firstly, the author mentions *individual posts*: in these posts users usually tell something about themselves, and begin for example with "I" or "me", e.g. "I had to eat dinner without Netflix", and by this facilitate the community building by

contributing something personal to community (West, 2016). Secondly come the *question/advice seeking posts*: users ask for immediate response from the community (West, 2016). These posts also boost the formation of knowledge in the community and are often formulated as questions (West, 2016). Third are *directed posts*: there are usually addressed directly to some certain unidentified or named audience, for example “shout out for group x” (West, 2016). These posts are not always looking for responses, but instead in these posts’ users are able to share their own experiences and by this contribute to the community building (West, 2016). Fourth on the list are *connection posts*: these posts don’t necessarily look for a certain audience, but sometimes their goal is to find certain types of people (West, 2016). They usually reference a common experience or feeling, such as “That feeling when you have to do thing x” (West, 2016). These posts can also be linked to some known event/thing/moment in the community (West, 2016). Fifth come *joke posts*: In these posts the purpose is to joke about campus or local happenings, popular cultural references or shared experiences, and these posts may also be about posting jokes or making new jokes (West, 2016). Sixth come *community-wide warning/notifications*: these posts are mainly about warning people with information that the poster believes everyone should be aware of in the community, and these can be about weather conditions, campus events, etc. (West, 2016). Seventh and the last type of posts come *school pride posts*: these are usually about promoting some school and mocking the rival school, such as “upvote if you hate school x.” and they may feature the home team’s name or mascot. (West, 2016)

Whisper is a leader in pseudo-anonymous messaging and social communication services, as stated by Wang et al (2014). It was launched in 2012 and ever since had more than 3 million-page views as of beginning of 2014 Wang. et al (2014). Using anonymous nicknames, users can send and reply to messages, also known as *whispers* (Wang et al., 2014). Based on keywords from the messages that users post, the app overlays each users text on top of a background image, and after that the novel whisper is posted to the public stream with randomly generated or users own nickname (Wang et al., 2014). Users can “heart” other whispers anonymously or reply to them with a public follow-up whisper. Additional feature is that the participants can send private messages for whisper authors and start a chat with them. (Wang. et al, 2014)

According to Wang et al. (2014) Whisper differs from other social networking sites such as Google+ or Facebook in a way that users are identified with a nickname with no association to any personal information of the user, such as email addresses etc. Whisper servers store only public whispers, and private ones are stored on their end-user devices meaning that specific user’s historical whispers cannot be searched in the app (Wang. et al, 2014). Also Whisper differs in a way that there is no connection between a known group of known connections such as Facebook friends or followers on Twitter, instead the communication is with unknown strangers (Wang. et al, 2014). Content is browsed from numerous public lists, by the most recent ones first (Wang. et al, 2014). In the app, whispers are divided into four categories such as *latest* where are the latest whispers; *nearby* where all whispers from 40 miles range are shown; *popular* with the most liked and commented whispers and *featured* where Whisper’s content managers have collected some of the most popular whispers. (Wang. et al, 2014)

2.4 Anonymity

In this chapter I will present past research on anonymity. Anonymity has many special characteristics, such as what role it plays in computer-mediated communication (CMC), why people behave differently in online settings (*online disinhibition effect*), stranger on a train phenomenon (*anonymity and self-disclosure*) and a broad definition of anonymity by Gary Marx (1999). I will also present what advantages as well as disadvantages anonymity has.

2.4.1 Special characteristics

Anonymity has long been of interest between social scientists and other social psychologists. Anonymity was inspected by Kimberly M. Christopherson in her article “the positive and negative implications of anonymity in Internet social interactions: “On the Internet, Nobody Knows You’re a Dog”” (2007). The article’s focus is on anonymity and what kind of role it plays on computer-mediated communication (CMC) (Christopherson, 2007). Anonymity can be described as “the inability of others to identify an individual or for others to identify one’s self” (Christopherson, 2007). It may be within big social setting such as crowd or in reduced setting such as two people interacting over the internet and as the article points out, anonymity can be divided into technical and social anonymity (Christopherson, 2007). Technical anonymity means that in the exchange of the material, all meaningful identifying information about others are removed where things such as one’s name are removed whereas social anonymity means that one is not necessarily truly anonymous to others in social context, but the individual regards him/herself to be anonymous to other people. (Christopherson, 2007)

People tend to act differently online than in real-world settings. John Suler (2004) explains *the online disinhibition effect*, which consists of six features. Next, I will introduce these six features. First feature is *dissociative anonymity*, which means that when people can distinguish their actions online from those in their in-person lifestyle and identity, they are more likely to self-disclose and act more freely than they would with these entities. Next feature is *invisibility*: in online settings, such as those which are text-driven, for example message boards and chat rooms, people are not able to see each other. This invisibility gives them the freedom to act in a way which they otherwise would not. One should also notice that when people have discussion via e-mail, chat, instant messaging etc., people may know a great deal about one another, even when they haven’t met each other physically. People don’t need to think about how they sound or look when they write a message, nor how others sound or look in response to what they say. One doesn’t have to think about facial expressions, gestures or other means of face-to-face communication. *Asynchronicity* is also one feature of the online disinhibition effect, which means that when being online, one doesn’t need to interact with other in real time. This disinhibits people because people don’t need to cope with someone’s instant reaction. A feature called *solipsistic introjection* means that text communication together with lacking face-to-face cues can change self-boundaries. One could have the feeling that their mind has joined with the one their talking to online, and that reading another person’s message could be experienced as hearing person’s voice in their head, as if this person’s influence and psychological presence have merged into one’s inner self. *Dissociative imagination* signifies that we get to a certain degree changed force that enlarges disinhibition if we combine the chance to effortlessly escape or dissociate from what occurs online with the psychological procedure of making imaginary characters. This means that people may feel that characters they “created” exist in different space, that the other online personas live separate and in a make-believe dimension and apart

from the offline world. As Suler quoted Emily Finch, she suggests that some people see their online life as a game with different norms and rules when compared to real life settings. *Minimization of status and authority* designates that when people are online, they might not know people's status in real world or it may not be that important. Things such as authority figures usually express themselves with dresses and body language, and online these cues become non-existent, which means that their authority decreases. One fundamental of the internet is that the purpose of the net is to share resources and ideas among others, and that everyone is equal. After all, one should note that *the online disinhibition effect* is not the only thing that influences in how people act on cyberspace, since individual differences also play a significant role. People's needs, underlying feelings and drive level are also factors' which affect sensitivity to disinhibition. (Suler, 2004)

Formerly mentioned social psychological concepts by Suler (2004) can clarify how anonymous behavior, depending on the context, may show up as either in negative or positive deeds. One positive effect anonymity has is its importance for privacy on psychological wellbeing where privacy means the ability of an individual to control how much he or she is in contact with others (Suler, 2004). Therefore, privacy has been linked to individual happiness and on the counterpart, failure in meeting the individual privacy needs has been associated with anti-social behavior and aggression (Suler, 2004). When concerning the theories of anonymity, one obvious thing is that one can completely hide his or her physical appearance in computed-mediated environments and it has been proposed that people could be completely free of physical cues in CMC compared to face-to-face interactions where physical appearance is obviously an important reminder (Suler, 2004). It has been proposed that people treat others based on their race, gender, age, attractiveness etc. and things such as social power hierarchies may also play a role on these physical indications (Suler, 2004). Because of this, CMC should create a more equal field for people to communicate because an assumption is that because it acts out as a filter, it should diminish the amount of these social cues. The equalization hypothesis points out that internet technology allows for a more equal playing ground and that is because of the previously mentioned lack of social cues (Suler, 2004). Anonymity has usually been associated to create negative rather than positive outcomes where individual loses his or her self-awareness which leads to anti-normative or anti-social behavior. (Suler, 2004)

According to Ma, Hancock and Naaman (2016) anonymity enhances self-disclosure both in online and offline backgrounds (Ma et al. 2016). Self-disclosure can be described as the act of revealing personal information to others which can be intrinsically rewarding and socially beneficial (Ma et al. 2016). It can also be said to be the so called "stranger on a train phenomenon" where people might reveal personal and very confidential information about themselves to unknown people on a train, and anonymous services such as Yik Yak and Whisper allow users to disclose anonymously to people who are at nearby distance (Ma et al. 2016). The findings of the study promote that people are more likely to disclose to social ties than to people nearby, mutually under real-name and anonymous sceneries (Ma et al. 2016).

Concerning the audience perspective, people are more contented in disclosing to social ties rather than to people who live close when concerning anonymous and real-name aspects (Ma et al. 2016). When doing disclosure decisions, the audience matters even when no identity marker is being used (Ma et al. 2016). Self-disclosure can be seen highly beneficial, especially when disclosing to friends (Ma et al. 2016). The study suggests that people are highly motivated in sharing online with friends, but less when the content

becomes more intimate (Ma et al. 2016). People usually get support in social media when they post intimate content, for example, express feelings of loneliness. (Ma et al. 2016)

Anonymity permits more disclosure down the line: it increases the baseline for self-disclosure and sometimes weakens the regulation (Ma et al. 2016). Overall people are more likely to disclose any kinds of content in anonymous environments rather than in real-name setups (Ma et al. 2016). People are less likely to share items with negative valence in real-name settings (Ma et al. 2016). In parallel, people are more likely to share negative content in anonymous rather than non-anonymous platforms, because these negative posts would not violate self-presentation goals (Ma et al. 2016). People are more likely to share content with negative valence on anonymous boards where negative content is more apparent (Ma et al. 2016).

Marx (1999) gave a broader definition of anonymity in his article “What’s in a Name? Some Reflections on the Sociology of Anonymity”. According to Marx (1999) being anonymous depends on *seven dimensions* of identity knowledge, which are *person’s legal name, person’s address, pseudonyms which may link the person to the person’s actual location or name, pseudonyms which cannot be linked exactly to a person’s identity information but provide clues about it, behavior patterns which reveal information, social categorization, and skills that point to personal characteristics or information items such as passwords*. To be fully anonymous means that a person cannot be identified according to any of these seven dimensions listed above (Marx, 1999). Identity knowledge can also be a feature of information privacy (Marx, 1999). The author states that, paradoxically, anonymity is social by its nature (Marx, 1999). By this he means that one can’t be anonymous without an audience, or at least counterpart: anonymity requires always at least some form of interaction with others. (Marx, 1999)

2.4.2 Advantages

Kang, Brown and Kiesler (2013) state that according to surveys, people have their reasons to seek privacy and hide their identity. In past studies, groups linked to seeking anonymity actively include members of stigmatized groups, whistleblowers, hackers, people who conduct sensitive searches and lurkers (Kang et al., 2013). People also tend to use anonymity as a means of protection when discussing avoidable topics, such as discussion about taboos and unpopular opinions and to create different personas online than they would present themselves offline (Kang et al., 2013). Correa and others (2009) stated that the anonymity of the internet attracted people who were less confident with themselves and, also had trouble making social relations with others.

According to Bernstein and colleagues (Monroy-Hernandez, Harry, Andre, Panovich and Vargas, 2011) focused on anonymity on the internet and image boards such as 4chan and its /b/-section. 4chan’s /b/ covers random and broad topics, and this forum is accessible to everyone (Bernstein et al., 2011). The article claims that the evidence is diverse on how anonymity affects an online community (Bernstein et al., 2011). Anonymity may have positive results, as groups which work anonymously and with critical colleagues generate more ideas (Bernstein et al., 2011). Researchers argue that in many cases identity-based reputation systems would promote pro-social behaviour, although anonymity may work for stronger communal identity as in opposition to bond-based attachment with people (Bernstein et al. (2011). This was also noted by Postmes (2010) who referred to social identity model of deindividuation effects (SIDE theory) which suggests that anonymity may either result in rather positive or negative effects in computer-mediated communication: anonymity can work to increase the effectiveness of work groups by

permitting individuals to identify more with the group and rather than working toward their own personal goals, work toward the goals of the group.

Bernstein et al. (2011) conclude that although /b/ encourages its users to reckless behaviour and is full of inappropriate language, anonymity can be a positive feature for communities. Some people might post things under the cover of anonymity because there are topics people certainly wouldn't say offline and by posting them to /b/, they certainly wouldn't come back to haunt them (Bernstein et al. (2011). In other words, posting anonymously may be fertile for more open and intimate discussions (Bernstein et al. (2011). Anonymity may also encourage people to experimentation with new "memes" or ideas, and anonymity also softens the "blow" for the user of being ignored in the discussion: if the post doesn't get any replies, it gets diminished in contradiction to some communities with stronger identity mechanics, where users uninteresting posts always stay. (Bernstein et al., 2011)

Rigby (1995) debated about arguments for and against anonymity. *Arguments for anonymity* are that having certain opinions, making certain statements or adopting some lifestyle might be dangerous in today's society, which can be occasionally conservative (Rigby, 1995). Anonymity might be useful when people want to ask, for example technical questions, anonymously when they don't want to admit that they don't know the answer to, or if they want to report illegal activities incognito, as well as other motives (Rigby, 1995). Many internet users feel distressed when anonymity is taken away, and freedom of expression is one considerable thing that anonymity promotes (Rigby, 1995). As Rigby cites Julf Helsingius, anonymity is useful because it gives people a chance to say also their controversial opinions (Rigby, 1995). The article also states that anonymity is part of our society and cannot be taken away and that anonymous services on the internet fill a specific need and are essential in many ways (Rigby, 1995). Some people like to think that anonymity is useful when sensitive topics are being discussed, such as discussion in newsgroups. (Rigby, 1995)

2.4.3 Disadvantages

According to Rigby (1995) despite online anonymity holds many benefits, there are also *arguments against anonymity*. These include illegal activity and abuse, which is one of the biggest downsides of online anonymity (Rigby, 1995). A small number of sociopaths exist who escape the responsibility of their actions under anonymity, and some of these actions consist of terrorism, harassment, kidnapping, personal threats, hate speech, revelation of trade secrets, financial scams and exposing personal information as well as other things (Rigby, 1995). According to Bernstein et. al (2011) anonymous forums such as 4chan's /b/ are passing and vulgar by their nature. Removing traditional social implications may result as making the communication cold and impersonal, and choosing to stay anonymous will decrease credibility (Bernstein et al., 2011). Although non-anonymous groups feel more personal, they have less cohesion in general (Bernstein et al. 2011).

Trolling is also seen as a negative side effect of anonymity. In an article by Cheng et al. (2017) the act of trolling is described as an antisocial behavior which disrupts normal conversations. Although trolling has traditionally been linked to antisocial behavior, the article points out that even ordinary people are capable to do so as well, and that there are two main triggering mechanisms for trolling, which are the individuals' mood and the surrounding context of the debate (Cheng et al., 2017). Things such as seeing troll posts made by others and negative mood increase the odds of user trolling by double (Cheng et

al., 2017). With a predictive model of trolling behavior, it was shown that ordinary people are also capable of trolling when the conditions are of certain kind: both situational and innate factors (Cheng et al., 2017). This puts into perspective how trolling behavior should be managed in the future: instead of banning all users who violate community guidelines, also thinking about the factors that lessen trolling may better reflect why it occurs. (Cheng et al. 2017)

Lopes and Yu (2017) investigated the connection of the so called “dark triad personalities” and online trolling behaviors towards popular and less popular Facebook profiles. Their findings suggested that popular people were prone to trolling and bullying in social media websites and that the dark personalities predicted various actions to less popular and popular Facebook profiles. Their findings were also in line with the previous literature such as Holtzman and Strube (2013) which suggested that psychopathy was associated with trolling online and that it was more common to happen towards popular profiles on Facebook. According to Buckels, Trapnell and Paulhus (2014) narcissism was not associated with trolling, instead, it related to downward social comparison and towards popular profiles on Facebook. Psychopaths sadistic nature lead them to bully people who were looked as physically attractive, popular as well as wealthy, only because they got more attention than other people got (Buckels et al., 2014). They were also seen as more socially remarkable humans. (Buckels et al., 2014)

2.5 Social media and smartphone usage related to academic performance

Multiple studies have been made about the negative side effects of social media and smartphone usage and its impact on students’ academic performance, which has often found to be undesirable. This has been shown in a way that students spend more time in social media rather than studying (Giunchiglia, Zeni, Gobbi, Bignotti & Bison, 2017). The negative impact of social media usage among students was noted and the need to control smartphone usage in academic surroundings (Giunchiglia et al., 2017). This was proven by comparing the logs of their smartphone’s social media apps to the credits and grades they received (Giunchiglia et al., 2017). Studies about students’ smartphone usage usually split the examinees into two groups, which are potential and non-potential smartphone addicts (Kwon et al., 2013). This is based on Smartphone Addiction Scale, which has ten features in a six-point Likert-type scale where the first point (1) is” absolutely disagree” and the sixth point (6)” I absolutely agree” (Kwon et al., 2013). Lee, Ahn, Nguyen, Choi & Kim (2017) studied the overuse of smartphones among students where they installed a software for 35 students’ smartphone which monitored their phone usage for six weeks. The results indicated that addicts strictly favored social media apps whereas messenger apps were the mostly used apps by both groups. (Lee et al., 2017)

Suliman et al. (2016) studied smartphone addiction with King Saud university students in Riyadh, Saudi Arabia. The results indicated that students who were mostly dependent on smartphones were most likely to become smartphone addicts (Suliman et al, 2016). Males were more prone in using smartphones than females and thus are more likely to be negatively affected by them, although some studies show no difference in smartphone usage between two genders (Suliman et al, 2016). They also found that single participants were more likely to become addicted than married participants on the smartphone addiction questionnaire, except for the health aspect (Suliman et al, 2016). As for the educational level, the study found out that bachelor program students, who were generally unmarried adolescents, had the highest degree of addiction when compared to M.A. program students, who were typically married adults (Suliman et al, 2016). This was

explained so that married people didn't have time to develop smartphone addiction because they had lesser time for smartphone because they had more things to do such as taking care of kids etc. (Suliman et al, 2016). This finding indicates that smartphone addiction is more common with adolescents than with older age groups (Suliman et al, 2016). The research also discovered that people who used smartphone more than 4 hours a day were more likely to become addicts and that monthly income also affected, meaning that those who had higher income were less likely to become addicted compared to those with lesser monthly income. (Suliman et al. 2016)

Study by Cerretani, Iturrioz and Garay (2016) about the leisure and study-related use of Information and Communication Technology (ICT), including smartphones among Spanish university students indicated, that the younger the students were, the higher their ICT use was for leisure- and study related purposes. This can be said to be in line with Suliman et. al. (2016) study about smartphone addiction among King Saud university students where the younger Bachelor students were more prone to become smartphone addicts rather than the older Master students, who were less addicted to smartphones. Cerretani et al (2016) also found out that too much of ICT use was linked to unfortunate study success and that there was a link between ICT use and psychosocial adjustment over academic performance.

Studies about smartphone usage among students are usually based on self-reported data which tends to significantly underestimate the time students use smartphones. Felison and Godoi (2018) employed apps which collected data from 43 business students' smartphones in a business school in Sao Paulo, Brazil. The results indicated a significant negative relationship between cellphone usage and academic performance, and that cellphone usage during lessons had a higher leverage. (Felison & Godoi, 2018)

According to Wang et al.'s (2014) study about social networking sites (SNS) usage on college students, the "social type" of social media networking sites use, meaning social communication, correlated positively to user's well-being contrary to "entertainment" use, which was not related to subjective well-being. As Wang et al. (2014) cited Huang (2010) and Selfhout et al. (2009), the positive relation between internet SNS use disappears when it's used for non-social purposes. According to Wang et al. (2014) the reason for losing the positive relation to internet SNS use may be due to the nature of the entertainment use, which is about playing games and browsing news etc. meaning that social communication is less likely to happen in these circumstances and so is self-disclosure, which has been linked positively to users' well-being. Online self-disclosure, which means disclosing personal things to other users, had a positive impact on friendship quality and "social" SNS use had a reverse effect to online self-disclosure (Wang, J.-L., Jackson, Gaskin & Wang, H.-Z., 2014).

As Zheng and Lee (2016) cited Beard and Wolf (2001), the Problematic Internet Use (PIU) can be explained as the *"use of the internet that creates psychological, social, school, and/or work difficulties in person's life"*. As Zheng and Lee (2016) stated, technostress is one of the most negative outcomes of PIU, and the social media addiction is growing due to the multifunctional capability of smartphones. Their findings indicated that the excessive use of mobile SNSs had negative impact mainly on individual- and work-linked matters, but also on family-related issues. Moqbel and Kock (2016) discussed the dark sides of problematic SNS use. According to their findings, Social networking site (SNS) addiction impacts work and personal environments negatively. SNS addiction increases task distraction which has negative impact on performance and implicitly weakens performance. The addiction also reduces positive emotions, which are known to improve health and performance.

2.6 Conclusions from the background

In this section I will present conclusions from the above-mentioned Related research and background on a mind map (figure 1).

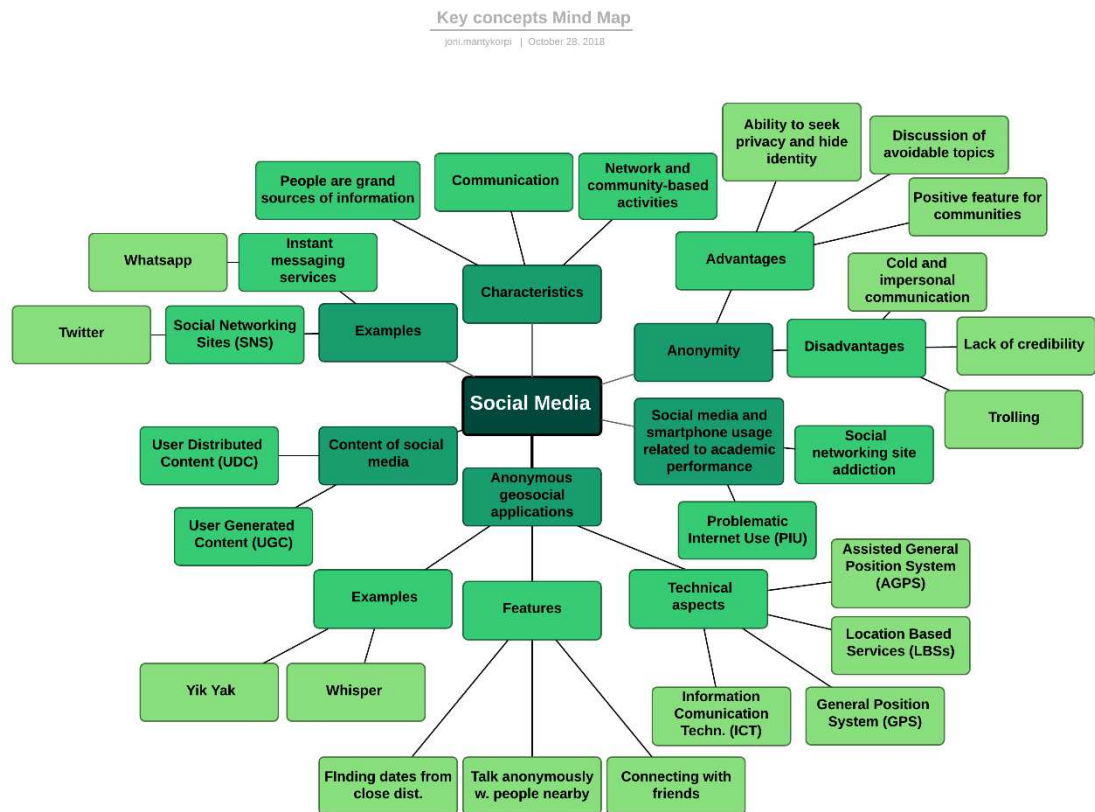


Figure 1. Key concepts of related research and background section presented on a mind map. Social Media is in the center of everything, and Anonymous geosocial applications is a subphase of SM. Social Media divides into five items, which are Content of SM, Examples, Characteristics, Anonymity and Social Media and smartphone usage related to academic performance. Anonymous geosocial applications, which is part of Social Media, divides into Examples, Features and Technical aspects sections.

In this entirety the theoretical background for this thesis was provided. In the next section research methods are presented such as qualitative approach and case study method, Jodel, interview as the method of data gathering and methods of data-analysis and analysis of the material.

3. Research methods

Research methods of this study are presented in this chapter. Qualitative method has been chosen due to the nature of this study as reflecting students experiences of using the application (Jodel). In this thesis I'm not concentrating on the technical details of Jodel such as its' usability or user friendliness, or how it should be technically improved. Instead, the objective is to understand why and for what reasons university students use Jodel or similar geosocial applications. Individual interviews were found to be the best way in gathering the material and in this case, theme interviews which could reveal hidden facts about the use of the app. Hence, this study is based on qualitative approach and the results of this study reflect individual experiences in use of the application, rather than systematically collecting the discussions or so called "threads" straight from the application. First, I will present the approach of this study, which is qualitative, and case study which is the primary research method in this thesis. Then, I will introduce Jodel, the "case" of this study, and then interview, which is the data gathering method in this study.

3.1 Qualitative approach and case study

Describing real life can be said to be the starting point for qualitative research, and the idea that the reality is multifarious. The goal of qualitative research is to study the subject thoroughly and in general, the objective is in finding or revealing facts rather than verifying existing facts (Hirsjärvi, Remes & Sajavaara, 1997, p. 152). Tuomi & Sarajärvi (2002) claimed that rather than viewing qualitative research as a single entirety, instead it should be viewed more as a loose combination of different research traditions, as an "umbrella" as they described it. Qualitative research stresses subjectivity as a value of the issue, and objectivity is not considered *de facto* (Tuomi & Sarajärvi, 2002, p. 188-189). As stated by Rosaline (2011) qualitative methods are not used in answering to questions such as "*what the causes are?*" and "*how many?*" or "*what the strength of the relationship of these variables is?*" Overall, qualitative research answers to different questions than quantitative research, and as a research method, it can provide remarkable and precious insights. (Rosaline, 2011, p. 2-4)

Previous researchers working with qualitative methods have adapted factions such as naturalistic, interpretive and experimental parts to qualitative research, according to Hirsjärvi et al. (1997). As they stated, there are also methodological schools of thought regarding qualitative research, such as symbolic interactionism or phenomenology. Research approaches, such as discourse analysis, ethnography, grounded theory etc. are often used when qualitative research is conducted. (Hirsjärvi et al., 1997, p. 154)

Qualitative research is *holistic acquisition of information by its nature, and the material is being collected in real and natural situations, and People are used as a tool when gathering the information* (Hirsjärvi et al., 1997). Measuring tools, such as pen- and paper tests are not used, and rather the discussions and researchers own observations play a role in the research. Forms and tests are often used by researchers as an assistance. (Hirsjärvi et al., 1997, p. 155)

To reveal unexpected facts, *inductive analysis* is used (Hirsjärvi et al., 1997). Hirsjärvi and colleagues stated that because of this, the starting point is complex and detailed examination of the material, not testing theories or hypothesis. That what matters, is not in control of the researcher, according to Hirsjärvi and comrades. Also, the *use of*

qualitative methods in acquisition of the material in a sense that the perspective of the examinees is considered, and their voices are heard, as Hirsjärvi and colleagues said. Hirsjärvi and colleagues stated that some of these methods include theme- and group interviews as well as participatory observation. Then the *target set should be chosen appropriately, not using random sampling method*, as Hirsjärvi and colleagues argued. Other key point is that *the research plan is shaped as the research progresses* and the plans will be amended according to the circumstances, and lastly, *the cases are treated as unique and the material is interpreted accordingly*. (Hirsjärvi et al., 1997, p. 155).

Case study was selected as a research method for this thesis because the subject of this thesis is relatively new: no earlier case studies about the use of anonymous geosocial applications among university students came across when the literature review proceeded. Case study as a research method means describing one case or individual, according to Routio (2018). Routio explains that in case study, the researcher tries to understand the subject to be examined as a whole: rather than highlighting only a few selected features or variables of the object or trying to construct a universal model, the researchers' viewpoint is more of holistic and understandable towards the researchable phenomena. Routio states that case study is descriptive by its' nature, which means that the aim is not only to describe the subject, but also its' hidden structure. According to Routio (2018), two usual case studies are 1. A case study expanding earlier theory and 2. New exploratory case study.

3.2 Jodel

Jodel is a location-filtered social-mobile application which allows its users to post messages, or "jodels" within short distance of other users (Jodel-app.com, 2017). When opened, the Jodel app displays short messages named "jodels" posted by others within 10-kilometre radius (Jodel-app.com, 2017). Jodels can be either pictures sent by the users or messages with less than 240 characters (Jodel-app.com, 2017). According to Appinen (2016) the basic idea of Jodel is simple: you can send a Jodel anonymously, and other users can see your message within 10-kilometre radius. The messages can be up- or downvoted depending on their popularity and the vote result, in turn, will affect the visibility of the message (Appinen, 2016), and Jodels which get five downvotes disappear automatically from the timeline (Jodel-app.com, 2017). Users can report posts for the moderators to check if their content is acceptable (Weins, 2015). The makers of Jodel have composed "ten Jodel-commands", which every new user must accept: these commands are strictly against misuse, insulting and disturbing messages (Weins, 2015). The violators of these rules are being fought back by the moderators and with the help of the community (Weins, 2015).

Users have a Karma score only visible to them, which increases or decreases depending on if users jodels get up- or downvotes (Jodel-app.com, 2017). Other way of increasing Karma is by upvoting other users jodels and having certain amount of Karma will give user moderation rights to Jodel (Jodel-app.com, 2017). Users get Karma-points during using the application, which can be compared to Snapchat's Score-function as Appinen (2016) described it. Posts in Jodel are in three categories, which are based on the user's current position: "here" signifies that the post was posted within 1 km from user, "very close" within 2 km, "close" 10 km and "far" means over 10 km (Jodel-app.com, 2018). User is also able to set a hometown, which is useful when travelling to other places and wanting to keep touch with the home community (Jodel support, 2018).

Jodel is described as “the buzz on your campus” and it is an online community which shows you in real-time what’s happening in the area you are currently located (Jodel-app.com, 2017). By voting Jodels you have the power to influence on what your campus is speaking about, and you can share things such as funny experiences, news, events, discussions and jokes online (Jodel-app.com, 2017). According to Appinen (2016) besides being an application for students where for example Aalto university and University of Helsinki have their online communities, Jodel has also other channels where certain topics can be discussed. According to one user, Jodel can combine anonymity and communality in a fine way (Appinen, 2016). Jodel is not a unique idea of its own, and a similar app called Yik Yak used to be quite popular until it’s interest was subsided by students. (Appinen, 2016)

In an interview by Martin Weins (2015) the makers of Jodel described it as an “toilet wall” where anyone can write their messages anonymously. What is interesting is that several people are at the same place, but no one knows who posts there due to anonymity (Weins, 2015). Jodel has gained popularity especially in Germany and Sweden, where it has many users (Weins, 2015). Jodel differs from Facebook in a way that there you can write what you are thinking without having to worry if your boss is reading it, and some even use the app in search of partner as well as for party appointments (Weins, 2015). In an article by Aviisi (2016) the topics discussed in Jodel don’t differ that much when compared to other cities. Besides themes such as partying and hungovers, desperation and success of studies, relationships and sex are amongst the popular topics being discussed in the app. (Aviisi, 2016)

According to an article by Spiegel Online (2015) Jodel collects the “trash talk” on the campus and spreads news and pictures to the students nearby. One example of the usage of Jodel could be, that a user writes about his or hers crush on the app (Spiegel Online, 2015). She will probably never know who the admirer is because the principle of the smartphone app is that all users remain undetected (Spiegel Online, 2015). This is intended to encourage users to chat as freely as possible and unrestrained about their everyday lives (Spiegel Online, 2015). The Jodel CEO Alessio Borgmeyer points out that *“anonymity is a crucial factor because by this, users can be more authentic with Jodel when you do not have to pay attention to what you say”* (Spiegel Online, 2015). The two apps Whisper and Secret have already proved that the anonymous gossip on the net has good prospects. The tools also point to anonymous users who want to disclose, blasphemy, or denounce secrets without having to fear the consequences. (Spiegel Online, 2015)

As stated by Gründerszene (2015) Jodel was founded by a former Rheinische-Westfälische Technische Hochschule Aachen student Alessio Avellan Borgmeyer. In the summer of 2013, he had already launched a similar application called TellM with three friends, but in this app the users had to link themselves via friendships (Gründerszene, 2015). The four tested the app first at universities in Colombia and California, where Borgmeyer had previously spent more than a few months (Gründerszene, 2015). A few days after TellM launch came the similar App Secret in stores, and such as popular was the anonymous messenger app Whisper (Gründerszene, 2015). The founder of Jodel, Borgmeyer, finally decided to separate from his co-founders, and chose to play the messages from the stream to all users nearby, not just friends (Gründerszene, 2015). Jodel went viral in October 2014. (Gründerszene, 2015)

3.3 Interview as the method of data gathering

As the gathering of the research material continued, it became evident that an interview-based study would be on its' place since as I found out during writing down the literature review, the past research was mainly about collecting the discussions and their analysis, rather than finding out users' experiences or motives in using these applications. Interview is one of the most used practices of gathering information, according to Hirsjärvi and Hurme (2000). According to them the objective of the researcher is to convey an image of the interviewees' ideas, thoughts, experiences and emotions. They also state that researchers understanding of the nature of reality determines how he approaches this task, and interview is a social situation where two people meet each other. In interview, both the interviewer and in some terms, the interviewee, get an image of the counterparty's ideas and experience of the world (Hirsjärvi & Hurme, 2000, p. 31-34).

According to Hirsjärvi and colleagues, similarly interview is a unique data gathering method because there you are in direct verbal contact with the interviewee. As they stated, interview is known to be the main technique in qualitative research. According to them, the biggest advantage to other data gathering methods of interview is flexibility in regulating the collection of material as required by the situation and interviewees. Compared to traditional mail interview, there are more ways to interpret the answers as well as regulating the order of the interviews. (Hirsjärvi et al. 1997, p. 194)

Interview is usually chosen as a method due to following reasons according to Hirsjärvi et al. (1997), which are: *a need to view the person as a subject in research situation*. This means that the interviewee is both creative and active party, and that he or she can bring out issues about him or herself as freely as possible. Also, one reason to use interview is that *the research subject is uncharted or unknown*. When doing interview, the researcher can see the interviewee face-to-face and his or her expression and gestures, and the interviewee is able to tell more about him or herself in the process. So, there is a need to place the result in *wider context*. Other reasons include *knowing that the research participants produce complex answers into many directions* as well as *the need to clarify the answers*, then *the need to deepen the data*. This means that further questions may be asked and that arguments may be requested for the expressed opinions. Lastly, *the need to investigate sensitive or tough topics* is a reason to use interview as a method. (Hirsjärvi et al. 1997, p. 194-195)

There are many positive sides in interviews, such as the ability to reach the interviewees later if there is a need to do a follow-up study or complement the previously gathered material (Hirsjärvi et al., 1997). As Hirsjärvi and colleagues argued, conducting interviews requires careful planning and preparing for the role of interviewer which is time consuming. Hirsjärvi and colleagues also stated that negative sides are that interviews may hold multiple sources of error, which may be caused by the interviewer, interviewee or the situation itself. The interviewee may experience the situation as scary or threatening, as Hirsjärvi and colleagues argued. Then, the material gathered during interview is situation- and context-based, which may affect the results. (Hirsjärvi et al. 1997, p. 195-196)

Interview differs from normal conversation where both participants are equal in setting the questions and giving the answers in a way that in interviews, the interviewer is in control of the discussion (Hirsjärvi et al., 1997). For research purposes, interview can be explained as systematic collection of information, it has goals and its' aim is in getting as qualified and reliable information as possible. (Hirsjärvi et al. 1997, p. 196-197)

In this study, individual interviews are made to gather the data. Interview was chosen as a method, because this study's goal is to understand the researchable phenomena more deeply: collecting data from the application was seen just getting a scratch from the surface. Also, its flexibility as a data gathering method was a reason to have individual interviews to gather the data.

Students of Oulu university were selected as target group of this study. Research participants were recruited by sending a mail to university of Oulu students mail-list. Only Finnish-speaking students were selected because Jodels' content in Oulu is mainly in Finnish. Eight participants were recruited, and an estimate for one interview was 45 minutes although some lasted over an hour. A free movie ticket was provided for students due to authors previous difficulties in recruiting students for interviews. Before starting the interviews, I read informing of the research participants for every interviewee (see **Appendix A**). Also, the interview form is added to the end of this thesis (**Appendix B**).

Hirsjärvi and Hurme (2000) argued that the amount of people to be interviewed depends on the purpose of the study. According to them, the most common and simple answer is that as many as possible, so that you get the required information. Hirsjärvi and Hurme also argued that the number of interviewees depends on the purpose of the study, and it should be considered thoroughly. The number of interviewees is usually too big or too small and the usual number of interviewees per study is 15 (Hirsjärvi & Hurme, 2000, p. 102). The researcher should decide what kind of people should be interviewed, how many people should I interview, do I want to treat the interviewees as one group (small survey study), divide them into several groups or handle them as a collection of individual interviews, as Hirsjärvi and Hurme argued. Hirsjärvi and Hurme said that in every group every interviewee should be interviewed or otherwise, a random sample should be taken, or individuals should be gathered using snowball effect and in the end, the possibility of illusion should be considered. Also, the list of the interviewees should always be viewed with criticism. (Hirsjärvi & Hurme, 2000, p. 58-60)

Table 1. Information about research participants.

Interviewee	Age	Phase of study	Marital status	Use of jodel	Moderator in Jodel
Matt Medic	24	Bachelor	unmarried	2-4 times/week	Yes
Emily Economist	22	Master	cohabitation	almost daily	No
Tina Teacher	26	Master	unmarried	daily use	Yes
Gabriella German Student	22	Bachelor	unmarried	3-5 times/week	No
Ethan Economist	26	Master	cohabitation	daily use	Yes
Elizabeth English Student	25	Master	unmarried	N/A	No
George Geographer	24	Master	unmarried	occasionally	Yes
Sabrina Speech-Language Pathologist	26	Master	unmarried	almost daily	No

Out of the eight research participants three were male and the rest five were female. The youngest interviewee was 22 and two oldest ones were 26 of their age. Only two of the interviewed students were doing their bachelors', and the rest were doing their masters' studies. When it came to marital status, only two of the interviewed students lived in cohabitation, and the other five students were unmarried. Their use of Jodel ranged from occasional to daily use, and four students had earned the right for moderating in the app. Some of them opened it 2-3 times a day, others 1-3 times a week or even less. Common for all of them was that they used it during breaks or free time. Due to privacy protection, names of the research participants were changed with no indication to their true identities, except of their age and their area of study.

The interviews were done remotely via Skype and recorded with Evaer video and audio recorder for analysing and reporting the results of the study. Before doing the actual interviews, I conducted one pre-interview with a Jodel user. By this I wanted to ensure that the interview's themes and questions provided data for answering the research questions of this study. This was also done to ensure that the technical aspects were working fine, such as the Skype recording software and that the captured audio was listenable afterwards. Because there had previously been problems with the video and audio recorder in the pre-interview, I decided to use my mobile phones' audio recorder as a backup in recording the interviews. Framework for the interviews is based on theme-interview method, which has been presented in this section of the thesis.

Thematic interview is a type of interview which proceeds with themes selected in advance and focusable questions related to these themes according to Tuomi and Sarajärvi (2002). Theme interview is also known as half-structured interview (Tuomi & Sarajärvi, 2002). One advantage is that the interviewer can sharpen and deepen the questions based on the answers of the interviewees (Tuomi & Sarajärvi, 2002). Themes selected beforehand are based on previous research which is something that is already known about the phenomenon which is being investigated (Tuomi & Sarajärvi, 2002).

Hirsjärvi and colleagues (1997) describe theme interview as a format between open interview and form interview. They argued that topics of the interview or theme areas are known, but the precise form of the questions and their order is missing - this is common for theme interviews. The material from qualitative research can also be used in quantitative research in a way that it can be applied to the form required by statistical analysis, frequencies can be calculated from the data and the results can be analysed and interpreted in many ways. (Hirsjärvi et al., 1997, p. 197)

According to Hirsjärvi and Hurme (2000) the role model for theme interview can be said to be Merton's, Fiskell's and Kendall's focused interview (1956). The name theme interview has the benefit that it doesn't tie the interview to quantitative or qualitative camp, nor does it look at how deeply the research participant is looked upon, nor take a stand on the number of interviews, as Hirsjärvi and Hurme stated. They also insist that instead of using detailed questions, the interview proceeds with certain themes, and the result is that the voice of the interviewees is heard. Hirsjärvi and Hurme argued that theme interview considers that the significances are generated by interaction and that the human interpretation of things and their meanings are central to their significance. The idea is that all the experiences, beliefs, thoughts and emotions of an individual can be interpreted by this method, and theme interview is more unstructured than structured interview. (Hirsjärvi & Hurme, 2000, p. 47-48)

Language is the key in interviews, as Hirsjärvi and Hurme (2000) argued. According to them, based on the use of language, interview can be described as interaction between two people, which consists of human words and their linguistic meaning and interpretation. They also said that people can exceed their physical boundaries and express themselves with the help of language such as develop him or herself as a rational, intellectual and social creature, and people who take part in interviews are senders and recipients of messages. Goal of the interviewer is to find out how the interviewee's story or meaning of an object is constructed, as Hirsjärvi and Hurme argued. As Hirsjärvi and Hurme (2000) cited Valsiner (1987, 1997), the concept of *co-construction* can be applied to interview meaning that the interview response always reflects the interviewer's presence and his way of asking questions, as well as previous questions and answers (Hirsjärvi & Hurme, 2000, p. 47-48). Interview is both speech- and social situation, and one could argue that the language is governed by many rules (Hirsjärvi & Hurme, 2000, p. 50).

As Hirsjärvi and Hurme (1997) cited Winch (1958), Interview can be described as "language game" of two individuals where the content of the interviewee's speech is the subject of the study for the interviewer. As Winch (1958) argued, the interviewer makes conclusions and interpretations and notes certain facts of that speech. Winch (1958) also said that to do this, interviewer must have some form of communication and must understand the rules of language game. Then planning an interview, and especially in context of preliminary interviews, considerable attention should be paid to language, as language styles vary in different social classes since words and their connotations differ among people as Winch (1958) argued. Due to this, familiar expressions and ways of

presentation should be used in interview situations, according to Winch (1958). A relatively open and unbound interview method conducted under the most appropriate conditions is one of the most flexible and revealing way of facing a human being, as Winch (1958) described it. (Hirsjärvi & Hurme, 2000, p. 52-53)

Hirsjärvi and Hurme (2000) argued that when designing the frame of the interview, one should do a theme-based domain directory. They proposed that in interview situations the thematic areas are defined with questions, and the nature of theme interview is that not only the researcher, but also the research participant gives specifications of what they say. How something is said is depending on the research participant and his or her situation in life (Hirsjärvi & Hurme, 2000, p. 66-67). Below are shown the phases of a thematic interview (figure 2).

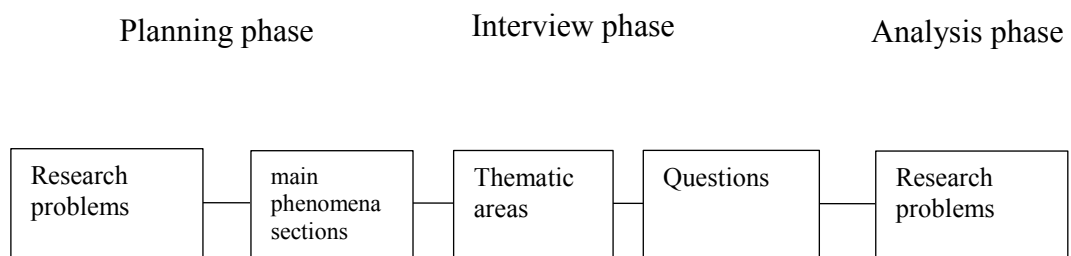


Figure 2. Thematic areas in study entirety according to Hirsjärvi and Hurme (2000).

In this thesis, the work began by thinking about the research problems in planning phase: first assignment was to define research problems and the main thematic areas. After that came the interview phase where the questions were derived from thematic areas. After that came the analysis phase where the results were analysed.

3.4 Methods of data analysis and analysis of the material

Before doing the interviews, I wrote down the questions based on the literature review and after that, thematized them. After transcribing the interviews, I made an excel-sheet where I classified the answers according to the thematization. The interviews were classified into six different thematic areas in the table which are “motivations and reasons to use Jodel”, “Content of Jodel”, “Locality of Jodel”, “Moderation of Jodel”, “Anonymity” and “Relation of Jodel and social media to students’ academic performance”. I started analysing the material by looking for similarities and differences from the interviews. According to KvaliMOTV (2018) coding is not necessary, but it helps in processing the material, and some text paragraphs are easier to be found when doing this. Therefore, the analysis of the transcript proceeded by doing some coding in highlighting some key findings from the text.

Analysis of the material proceeded by reading and carefully selecting those points and quotations which mattered most regarding this work. My intention was in considering the students’ individual experiences in using Jodel and finding relevant information between the lines. Rather than doing statistical science, my intention was in giving individual examples. Next, I will present the results of the interviews in the following chapter.

4. Empirical Results

In this chapter I will present results of the individual interviews. This chapter is composed of a chart where all the themes and answers of the interviewed students are listed. 4.1 discusses the students' motivations and reasons to use Jodel, 4.2 the content of Jodel, 4.3 locality of Jodel, 4.4 focuses on the moderation side of Jodel. 4.5 focuses on anonymity as well as anonymity's advantages (4.5.1) and disadvantages (4.5.2). 4.6 emphasises smartphone use and its' relation to students' academic performance.

4.1 Motivations and reasons to use Jodel

Students had various reasons why they used the anonymous mobile phone app. In general, the answer was anonymity, and the fact that when being anonymous, *“one can ask even embarrassing matters without the fear of losing their reputation”*, as Matt Medic described it. Also, popularity of Jodel and the fact that is a phone application which reaches out many people and can be used anywhere was brought up by Sabrina Speech-Language Pathologist. Tina Teacher stated that it is used because it is like any other social media and can be checked for example during times of boredom, and there you will see what is recently happening near you and at the campus. Emily Economist pointed out to the locality of the app: it gives you the opportunity to communicate with people who are on the same place as you are and have same interests and life situations, and this is also easier due to anonymity which give the chance for one to express his or her opinion more easily. Gabriella German Student pointed out that people use it for different reasons, some use it for entertainment, some for trolling, others to search for information, but mainly for entertainment. Also, Ethan Economist points out that information/knowledge moves quickly, and you can say whatever you want, and no one knows who has written it. He also said that the fact that there are no filters when compared to typical face-to-face conversation. It is used to get information from nearby and to take part in public discussion, and anonymity also adds its flavour to the discussion, as Ethan Economist depicted it. George Geographer stated that locality is the reason why people use Jodel and a factor which distinguishes it from other discussion platforms. Also, easiness of Jodel as a mobile application came into this interviewees mind. Sabrina Speech-Language Pathologist answered to this question so that it is due to popularity of Jodel: there you can discuss anonymously, and you get a spectrum of opinions from different kinds of people with different backgrounds. Also, the ability to reach out vast amount of people rapidly was raised by her. According to the following, it became clear that anonymity and localness were among the biggest reasons why students used Jodel.

Students were also asked whether they had found company from Jodel, such as companion or friends. As Matt Medic stated this issue:

“I haven't personally found but seen that usually when someone looks for companion, these attempts fall apart quite fast... People put much effort into it but to me it looks like it doesn't work always.”

Other students were not that pessimistic. One student said she hadn't looked for such but could have easily joined her neighbourhood groups (Etu-LyöTTY) if she wanted. Tina Teacher said she hadn't looked for company in Jodel, instead her friend found a romantic partner through the app:

“My friend found her boyfriend there: she posted a message and asked someone to come to her place to bake some cookies, then one guy volunteered and ever since then they have been together.”

Although Jodel is not a dating app, it might be a channel for people who look for friends or companionship, as the example above shows. Gabriella German Student said she found friends from locals through Jodel when she was at Dublin with her friend a while ago. Ethan Economist said he had the idea to look for companionship in Jodel at a job assignment in Åland but didn't do it. Elizabeth English Student said Jodel would be an upsetting alternative to look company, and that there would be better alternatives for Jodel. Sabrina Speech-Language Pathologist said that Jodel is very convenient to look company in a new location, as the previous quotation clearly demonstrates.

Students were also asked, what were the most common topics in Jodel. Those include actual topics which are currently going on, dating and relationships, jokes, mental health related topics, questions and study or job-related matters. As one interviewee described:

“I think that mostly actual topics which are related to a certain day, some events maybe, depending on the channel what you are following... But if you consider main feed I think that's what's happening now and some random thoughts from individuals. So, the main feed can be described as kind of a hybrid.”

As other student said:

“Someone is always likely to be drunk, it has come to be noticeable. Those loose candy for some reason seem to be an important topic for humans and where you get the cheapest ones. And of course, as usual, whenever something like that happens (Kärppä victory), the feed was filled with Kärpät¹-related posts, and then this “serial pooer”² in Oulu, there has been lots of discussion about it. Then these students party-related conversations, they are very common.”

¹ Oulun Kärpät is a professional ice hockey team based in Oulu.

² An unidentified man who reportedly defecated to a pool at a swimming hall in Oulu. This was noted in local as well as nationwide news.

Table 2. Most common topics in Jodel according to students.

Topic/ Interviewee	Dating/ relationships	Actual Topics	Jokes	Mental health	Questions	Study/Job related
Matt Medic	x		x	x		
Emily Economist						
Tina Teacher		x				
Gabriella German Student	x	x	x			
Ethan Economist	x		x			x
Elizabeth English Student		x				
George Geographer	x				x	
Sabrina Speech- Language Pathologist	x				x	x

These comments reveal the role of Jodel as a “toilet wall” and a local newsfeed: there you can check what is going on in your area as well as some random thoughts from individuals. It came clear that people like to untie their problems there as well as societal issues were sometimes discussed. People like to talk about their own matters and things which they don’t dare to talk with their own name.

4.2 Content of Jodel

Students interviewed for this thesis liked different kind of discussions in Jodel. These included fun or absurd discussions, scandals, interpersonal relationships, etc. Gabriella German Student said she liked to follow threads where she got the learn something new, such as discussion about human relationships, and those where people were being helped. Joke posts were also her favourite. Matt Medic also said that humour use was the main reason he used Jodel. George Geographer told he was a bench athlete, so topics related to sports and sport events were in his interests. Sabrina Speech-Language Pathologist said she liked to take part in debates and discussions, and otherwise everyday things, such as studying related matters. Ethan Economist said he enjoyed reading and discussing socio-political subjects. In Jodel, political correctness might not matter that much since people discuss anonymously, as Ethan Economist stated:

“Many of them might be very controversial things and I like to put some blast³ when I encounter those. But I rarely answer to those types of posts.”

Students also adored to follow channels, such as Emily Economist liked to follow dog-channel since she wanted to have a dog someday. Other channels she followed were neighbourhood channel, subject associations channel, gym-channel and women’s channel. Tina Teacher said that beside of human relationship related things, she also followed university of Oulu’s channels quite often. Although channels were popular, Elizabeth English Student said she was not that much interested in following the channels:

“For example, the channels, I don't follow them, I follow only the main feed (Oulu). I really can't say... Surely it varies quite a lot, it depends what you notice, or then if there is a post with lots of upvotes, then that I usually check more often. Pictures, I usually open.”

Despite Elizabeth English Student’s comment, it became obvious that students liked to follow channels, especially those which were related to their interests, and read joke posts for their own amusement.

Students had various unforgettable experiences with using Jodel. Matt Medic said one unforgettable event was when there was a police operation at University of Applied Sciences, and it was well reported and interesting to follow. This incident was noted by the Finnish media such as Yle Uutiset (2018). Interestingly he also said that discussions in Jodel concern also university personnel:

“Once a professor told us to remove a thread from Jodel and for everyone to calm down.”

Following statement clearly tells that Jodel is widely used in university as well as the university’s internal matters are being discussed there. The significance of Jodel within university students was also denoted by Emily Economist, who said that they once wrote an article for their guilds magazine and illustrated it in a “Jodel-way”. Jodel can also evoke feelings of national proudness: as Ethan Economist said, the layout of Jodel turned into blue with white font during the 100 Independence Day of Finland, which he said felt amazing. Elizabeth English Student told that just moments before the interview one threatened to do suicide in Jodel. This raises up the question if these threats are made seriously or just to get attention.

According to students, time of the day affects to the posts. Matt Medic said that during mornings people may whine about going to work and according to Emily Economist, during night time people might complain about insomnia. Sabrina Speech-Language Pathologist also noted that during night time people whine about being awake. She also suggested that there might be a spike in use of the app at somewhere between 9pm and 1am. Elizabeth English Student argued that during afternoon there are usually more posts than in the morning. According to Ethan Economist during Monday’s there might be more whining and job- and school-related posts and on the contrary, during Fridays there might be posts related to partying and free time. George Geographer also noted that during

³ This is a weak translation from Finnish sentence “laittaa paukkuja”.

weekends party-related posts were more common as well as nightly posts were people were looking for hook-ups. As Gabriella German Student described:

“Well at least in that sense that during night time there is not that much active discussion compared to daytime. And of course, the topics of discussion are different in Friday morning compared to Friday evening. Mornings it could be like “morning and coffee etc.” and during evenings people might ask where people are going today, etc. And during Saturday evenings there might be posts from drunk people. So maybe the threshold to post is lower during Saturdays.”

This shows that people are usually more work-oriented and stressful at the beginning of the week and on the contrary, looser and more carefree during weekends. People might dismantle their weekly stress by partying, and as a result this can be seen in Jodel during weekends.

Whether you can identify is the poster male or female, was also discussed with the students. Most students said yes, and that there were many traits which gave a hint whether the user was a male or a female. Ethan Economist pointed out that writing style of the subject which is being written about gave a hint of the posters gender, and by his opinion, age was harder to identify. Gabriella German Student said women and men might underline certain things which might tell you something, and it is also possible that someone might pretend to be man or woman in discussions. Sabrina Speech-Language Pathologist said that the subject which they discussed as well as whether they reported being male or female, writing style and the use of emoticons were a marker. Also, by her views, women usually overused emoticons. As Elizabeth English Student described it:

“I think that in some cases it will come up with purpose, at least in Oulu many people mark if they are male or female and age will come up at some point... But if you do not intentionally bring it up so yes probably somehow... Well, is it identification or is that you make a conclusion that this must be male or female.”

This clearly shows that although being anonymous, people want to give at least some kind of indication of who they are. Because threads users make to Jodel are not linked to any identity and vanish after time, the users were asked whether this had any effect on the posts they created to Jodel. Matt Medic said it lowered the threshold to post there, and Tina Teacher said that you would not be thinking too much about what you write there if you create a thread, such as you do not think who is going to see it. George Geographer admitted that the threshold to posting was small, which manifests itself as posting bad stuff. He also admitted have gotten minus fives’ sometimes. Interestingly one user said that she would write things which she could say with her own name also:

“Well usually I’ve aimed to do so that if I write there something then I could say that in real life too. So, I don’t write there anything that I wouldn’t stand behind in real life.”

Jodel can also be used as a channel to ask questions you would not ask from your close ones:

“Yes, I guess it sometimes affects when for example you have some questions which you don’t dear ask from friends, then you can think that hey, I can ask that from Jodel.”

Jodel is a channel for people to ask even the most embarrassing questions that would not dear to ask in real life. This fills in a specific need for people to get the information they need, such as in health-related subjects.

4.3 Locality of Jodel

The localness of Jodel and nature as an anonymous geosocial service was discussed in the next set of questions. First question was whether localness of Jodel affects the content people posted there. In general, the answer was yes: as Matt Medic stated, that in Jodel you can reach people from certain area and because of simplicity of the application, you would use rather Jodel than some forum in the internet. Emily Economist told that the localness of Jodel manifested itself in a way that her neighbourhood had their own Jodel channel where they organized all kinds of social events and shared Kik-messenger-profiles. She also pointed out that by this, you can get easily friends from Jodel. Also, the channels in Jodel are local as well as the topics being discussed there, as Elizabeth English Student pointed out:

“Usually the discussions I’ve started have been local, if I don’t consider these “I’m not feeling well, please help me!” posts... One example about local discussions would be the discussion about communal bus lines, like the bus lines of Oulu, so there you don’t discuss about bus lines of Helsinki or London.”

This shows Jodel’s importance as a local application. Locality of Jodel has many benefits, such as connecting with people near you and discussing matters in nearby region, such as the local bus lines Elizabeth English Student mentioned above. George Geographer said that the content could be 50% common and 50% local subjects. On the other hand, Sabrina Speech-Language Pathologist did not think localness of Jodel had any effect to the content. This could be because she was not very active user of the app so that she would even notice it.

In university of Oulu, locality of Jodel presents itself in many ways. People might ask directions to certain places at university or talk about local student parties, as Emily Economist described it. Also, local incidents at university are being discussed according to Tina Teacher, such as earthquake which occurred in Oulu last September. According to Matt Medic, local scandals such as the former Sami-drum scandal, was being handled at Jodel. This was also noted by regional newspaper Kaleva (Kaleva, 2018). As Matt Medic reported:

“Usually if there are these scandals, then those are processed there... Such as when we had this sami drum-scandal at the university. I think the processing of it began and ended in Jodel. There is this carnivalistic atmosphere always, so that those things are being posted.”

Jodel has an important role as a channel in discussing and processing current topics at the university as well as its’ significance as a local application. Localness of Jodel also gives birth to jokes and memes such as “into Merikoski⁴”, which is a mantra commonly being repeated in Jodel Oulu as said by Tina Teacher. Gabriella German Student thought that Jodel of Oulu and Tampere were much different when Kärpät won the Finnish ice hockey championship, and in Oulu this so called “Kärppä-ecstasy” was in the air soon after Kärpät won the game. Sabrina Speech-Language Pathologist states that localness also presents itself in a way that local services, such as opening hours or local events are

⁴ This person says “Merikoskeen” which means “into Merikoski” in English. Merikoski is a canal at Oulu river delta, and it has become infamous for people ending their days by jumping into the rapids.

discussed, and that there is sometimes debate between University and University of Applied Sciences students.

Despite there being a private/specific channel for university of Oulu, the university is referred also in the main feed. According to George Geographer, some university students often dislike people who claim to be high school students:

“You often find out if someone comes and openly says that he or she is a high school student or something like that, then people look it badly and they say that “come back when you are in university” and so on.”

Despite user group of Jodel has exceeded from not being used only by university students, this clearly shows background of Jodel as an application targeted for university students, since high school students are being discriminated there.

Advantages and disadvantages of the applications local nature were also discussed. Matt Medic reported that Jodel generates a sense of belongingness despite being an open arena since everyone can't get there due to its' local nature. Even though user can talk about local phenomena, it also creates local phenomena, as Tina Teacher described it:

“Advantages in sense that new things (or memes) are generated. And for example, if an outsider comes to Oulu Jodel, he might not understand these things they are talking about and, he or she might not be welcomed easily such as when saying “Hi, I'm from Helsinki” and people would reply “fuck off” or such. So sometimes it feels like the atmosphere is very Oulu-centric, and the positive thing is that it generates this “we-spirit” and new things come to existence although nobody knows no one there since we are anonymous, but otherwise as mentioned before, if an outside comes then he might get bit of unkind reception.”

Jodel creates its own local culture with its local memes and topics. “We-spirit” shows up as a discrimination against outsiders, and this can perfectly be seen from the quotation. Although this creates a sense of belonging, one student said that a downside to this is that it creates a “bubble” meaning that you may not be able to get an outside point of view to the discussion. Sabrina Speech-Language Pathologist said Jodel might also be used in sporting events to cheer up home team:

“Mostly positive... But yeah, there is pretty good reflected these media things, such as skiing competitions, there is everyone putting smileys and shouting “yeah, victory for Finland!” And now you can imagine if Oulun Kärpät wins then it literally explodes again, and here in Tampere it might be quiet at that point... So yeah, I think the medias things and worlds happenings are quite good reflected to it, so that if there is something negative such as terrorist attacks, so they will be reflected therein... Then there are always these few who get up on the wrong side of the bed.”

This clearly demonstrates that Jodel is also a “echo chamber” regarding positive things. It creates “we spirit” when people cheer their hometowns team or in a larger scale, the Finnish national team.

Since Jodel is confined to a certain geographical area where people use it, it was also discussed whether you can identify people who post to Jodel or not. The students reported some traits which may lead to recognizing, such as if someone tells an inside joke, posting a selfie to selfies-channel, writing style, tell a story what they did last night, or posting a picture from home. One student reported that if someone wants to remain anonymous, he

or she may write his message in a way which wouldn't lead to recognizing. As one student said:

"Yes, you can. Such as I have identified my best friend from there who wrote something there, because it sounded just like her... But of course, the fact that it was at our subject associations channel, so that had an effect to it. But because of her writing style I identified her. So that although your anonymous, then you always have this certain writing style which is not easy to disguise."

Perhaps this also indicates that users consider it fun when being able to recognize other users. This tells that people are curious to know who the poster was and look for hints in recognizing people from Jodel. Surely some hints may lead to recognizing, and the fact that in the above-mentioned case, the thread was posted to subject associations channel which may have been a crucial hint.

Findings suggest that rumours and personal attacks are common in Jodel. According to Matt Medic, celebrities are usually being mocked, and Tina Teacher stated that this happens in channels such as "celebrity gossips" and "blog gossips". Tina Teacher also told it is due to anonymity and the protection it gives for people to write down of any kind they want and never get to be accountable for what they say. Emily Economist suggested that this is due to peoples' hunger for dramas and headlines, and this was said one factor why rumours and personal attacks occur in anonymous platforms such as Jodel:

"Well in general people like gossips and to bring these kinds of sensations and when someone starts it and people start talking about it, then a snowball effect comes..."

".. And, also, because it's fun. It's like the television series "Temptation Island", it's just entertaining. It's like when you bring a gossip and people are like "really?" it's just very addictive. You can say that it's a modern tabloid (Jodel)."

A distinct trait of human behaviour is to look for dramas since peoples' everyday life might be boring. Jodel therefore brings the drama for their lives, in a form of tabloid which is generated by its' users. If Jodel therefore is a "modern tabloid" such as where celebrities are being discussed, it could be able to challenge the traditional physical tabloid magazines.

Differences between Jodel in different cities were also discussed. Most of the students thought there was not much of a difference with other cities, although city-related memes and inside jokes were a bit different. According to Sabrina Speech-Language Pathologist, the content is quite similar, such as asking questions about something. Smaller places might have quieter Jodel whereas in bigger cities Jodel is usually more active and livelier, in cities with lots of students where students are the ones holding up Jodel in the first place, as George Geographer stated. Ethan Economist argued that stories are much smarter in Oulu when compared to Helsinki, and according to him, this is because big percentage of the users in Oulu are students whereas in Helsinki it spreads to a much larger scale. George Geographer had the perception that Oulu is probably one of the most active Jodel cities there is. As he said:

"But the biggest cities where I've used, for example Rovaniemi where I'm from and where I go often, there it is mostly quite the same but there are some local memes with respect to local bar culture and subject associations, but after all it's quite the same. Then I sometimes use it in Helsinki and capital area, and there it shows that there are so much

more people, meaning that there is no such "meme-culture" likewise, rather it merges into a big mass."

Local memes seem to arise in student concentrations such as Oulu. Helsinki therefore is an exception because it is much bigger city which shows up as a faster posting speed and due to this there is no local meme-culture or sense of community being generated.

4.4 Moderation of Jodel

Moderation of Jodel was discussed and whether it worked or not. Most of the students, such as Gabriella German Student stated that it was good in filtering out spam and improper posts. Although it was seen good in filtering unnecessary and foolish posts, according to Sabrina Speech-Language Pathologist, there was a downside to it, meaning that in some discussions comments might be downvoted away and the result was that the whole discussions structure went strange. Elizabeth English Student stated that people tend to downvote justifiable opinions they didn't like although they were not improper in any way. George Geographer said that because of this issue there might be a risk that Jodel would become a "bubble" where different opinions are not tolerated. It might also happen that someone accidentally downvotes something, when you scroll it quickly it can happen as Sabrina Speech-Language Pathologist said. Tina Teacher discussed about a channel called "aasiakaspalvelijat"⁵ where foolishly acting customer servants were discussed:

"Well I think it's relatively good because there are these channels... Like there is this channel called "aasiakaspalvelijat" where stories about some foolish customer service representatives are being told, meaning that you can identify some of the people there who work in certain shops, and it happens that some people say that "I know who this is" and it gets downvoted away... But anyway, without this downvote thing this might stay there since some people would think that it's okay since it's only in Jodel... But the fact that how many people reads these stories and how many eyes see it meaning that how damaging that might be for the company. Like in one thread there was discussion about one shop. Then when you try to explain all your comments are downvoted away and when you try to explain it eventually becomes a lost case scenario."

A channel dedicated completely to mock people who work at customer service jobs seems bad. This is probably done because these are things people do not usually want to say with their own name. It would be easier for people to give feedback with anonymous messages instead of mocking and judging them on an anonymous mobile app. Also, the downside of the downvoting function came clear in this statement.

Out of eight interviewees, five had moderation rights in Jodel. Matt Medic and George Geographer said they were quite liberal in their moderation policy in a sense that they allowed there all kinds of posts. According to Matt Medic, content which people tend to report are things such as initials, names or such are written, or for example a photo with other people, which is certainly against the rules. As he said, things people get irritated of, such as cat photos, might also be reported. Tina Teacher said she had moderated in Jodel only for one day and saw only basic starts of conversation and nothing interesting. As George Geographer described:

⁵ This means a bad-behaving customer servant.

“Well usually what comes up are these creeps who look for sex and obviously do these proposals... That is quite common. Then there are these racist posts which are quite often reported. Then there are texts where some person might be identifiable. Then there are many groundless judging (where I can't find out the reason why they have been reported. Then sometimes something like images of cats are being reported.”

The following said moderation of Jodel works perfectly in protecting peoples' privacy and preventing negative side effects such as internet bullying. It was also discussed whether the students had reported any content in Jodel. Content which they reported included troll posts and homophobic posts (Matt Medic), posts where a person is highly identifiable (Tina Teacher), women hatred and racism (Gabriella German Student) and insulting or offensive posts (Sabrina Speech-Language Pathologist). George Geographer also told he took notice on posts with racism:

“Yes, especially racism is something which I don't tolerate and when I have time, I report posts where racism is present.”

Anonymous channel might be a way to channel inappropriate content, such as racism. This tells that people might have racist thoughts they would not tell in real life, but instead they dismantle these negative thoughts under the disguise of anonymity. It was also discussed whether the style of moderation in Jodel has an effect to the content there, whether it is positive or negative. Most interviewees agreed that it affects and only a minority thought it did not have an impact to it. Matt Medic said it is good in a way that negative posts are downvoted “invisibly”, though he said not all negative stuff is removed. As Emily Economist said, some threads which are targeted to certain individuals are removed, and Ethan Economist thought that moderation has an effect in a way that if you post something unproper then it gets immediately downvoted away. Ethan Economist also pointed out that a negative side of moderation of Jodel is that sometimes some messages might be downvoted in between threads so that they are not visible anymore. George Geographer had doubts whether the moderators attitude had an affect meaning that some moderators might allow more disgusting behaviour than others, so that it would be of luck whether a thread which violates the rules is removed or not. Sabrina Speech-Language Pathologist pointed out that only a fraction of negativity is filtered to us.

Table 3. Advantages and disadvantages of user-generated content moderation, according to students.

Advantages (+)	Disadvantages (-)
Negative posts are downvoted	Not all negative content is removed
Posts targeted to individuals are removed	Messages in between threads are downvoted away
Only a small fraction of negativity is filtered to us	Moderators might allow inappropriate content

The moderations “invisibility” certainly seems to work and filter the most inappropriate content. But as one user described, the moderators' attitudes might also have an influence on the content, meaning that some moderators might allow content which is against the rules of Jodel, though one should remember that there is likely always going to be threads loaded with negativity which are negative from the start.

4.5 Anonymity

Anonymous content of Jodel was discussed and whether the students found it more positive or negative. At least three interviewees found it more positive than negative, although pointing out that there is negative content as well. In this section I will discuss the advantages (4.5.1) and disadvantages (4.5.2) of anonymity.

4.5.1 Advantages of anonymity

It was also discussed whether students found anonymous communication easier than real life communication. Most of the interviewees agreed that it is easier and gave many reasons to justify this, such as the fact that in face-to-face discussions, you cannot discuss directly about everything, as Matt Medic said. George Geographer thought anonymous settings provide a way in expressing ones' opinion way easier. Emily Economist argued that many people are not that open in real life and may freeze up or over analyse what they are saying. Because of this, she said, Jodel might be good for shy people who can't discuss very openly in real life. Sabrina Speech-Language Pathologist had interesting points about anonymous communication:

“Yes, and motives are often completely different, it is easier, faster and you reach a wide audience in that sense, yeah, but then again, it never replaces a face-to-face conversation or dealing with things or being together, but for some quick questions it can replace such face-to-face discussion. And I like it when you don't know someone, such as if you ask for Christmas gift ideas, so maybe you get a better answer for that... So, in some cases no but in some yes, so both have their sides.”

Motives in posting to Jodel are therefore different than in real life communication. It is also much faster and reaches a much wider audience. This technology provides interesting a way of communicating with less barriers, such as social norms etc. which makes the discussion more open.

The overall appearance was positive despite there is negative distortion, as Gabriella German Student described it. Ethan Economist stated that the atmosphere is quite neutral, and then there are these extremities from negative to positive. According to Emily Economist:

“I think it's mainly positive. Well it depends so much about what you are reading there meaning that if you read negative content then of course it seems more negative than positive... So, it's very hard to tell if its more negative or positive.”

It was also asked are people more equal in anonymous settings or in other words, does anonymity make people more equal. Matt Medic said that in a certain way yes because there the social status or such doesn't matter and that it's only your own message which affects and that because everyone can upvote or downvote threads, it makes it more equal. Emily Economist said that anonymity creates equality because there are no presumptions against you. Ethan Economist also thought people would be more equal in anonymous settings, regardless of their social status:

“Yes, I would say that it in some extent improves equality because there is no effect in people's outer looks or how they sound, because there is only the text displayed... Like for example, if Sauli Niinistö would yodel, I think he would be at the same line with others... So yes, it improves it.”

Elizabeth English Student said Jodel was good for lonely people who wouldn't otherwise talk with people, but also pointed out to thing that people sometimes tell something about themselves, such as if someone asks a health-related question, then the replier might say "Greetings from medical student". The same thing was brought up by Sabrina Speech-Language Pathologist who said that people might tell in their message whether they are University students or University of Applied Sciences students. George Geographer stated that the only thing that matters there is how you express your matter, so that also creates equality.

The students were also asked why they would disclose to unknown people in anonymous environment rather than to people they knew. Matt Medic said that the subject mattered, that in some cases it is good to disclose to intimate relationships, but in some cases, it is better to ask anonymously from the Jodel community:

"then if I have for example some weird medical problem which I don't dare to tell anyone, then it's better to ask anonymously since these subjects can be embarrassing... Also, if you need consultancy or external viewpoint for relationship, then asking anonymously is sometimes a good way."

George Geographer also said you could ask more private questions in Jodel, those which you would not dare to ask in real life. Emily Economist said she wanted to get some contrast to her thoughts from Jodel before telling it to someone; Gabriella German Student also said there are things she would only tell her friends, but from Jodel she could have extra viewpoints to those matters. Sabrina Speech-Language Pathologist said she used Jodel only to get neutral opinion, meaning that if you get 25 answers to your questions, the opinion was more neutral rather than asking from two people. Jodels' ability to reach wider audience was pointed by Elizabeth English Student:

"Well I would assume that if I would put to Facebook something that I'm very pissed of that wouldn't get as many replies than in Jodel it would, because you get so many answers, so age doesn't count nor gender, or you would get so many replies from different people rather than only from your circle of friends. So, if I would put something I would get other sorts of answers."

Interestingly, the interviewed women obviously wanted to get verification to their ideas from the anonymous community such as Emily Economist, Gabriella German Student and Elizabeth English Student whereas the interviewed men Matt Medic and George Geographer pointed out to asking things such as asking embarrassing questions without the fear of getting stigmatized.

The question, why students would use rather Jodel than traditional social media such as Facebook, got various answers, though the general trend was in anonymity and the protection it gave when discussing various topics. Anonymity gives the possibility to discuss openly about different subjects without having to care about everyday lifes taboos or anything, as Matt Medic said. According to Tina Teacher, anonymity also gives the opportunity to join certain groups without the fear of being stigmatized, in other words, groups which you wouldn't have dared to join with your own name. Ethan Economist pointed out the differences of Facebook and Jodel as a platform:

"In Facebook you can't disclose about everything because there you are with your own name, but in anonymous platforms such as Jodel the threshold to do so is not that high... I think Jodel as a community is not very intense community, Facebook is like a vast circle of friends and there you can get the feeling of togetherness. Facebook is like your subject

association, you're not socialising there with everyone. Jodel has not been confined who you are talking with."

One could argue that this technology enables a more convenient way of information transfer, because it helps them to solve even their most embarrassing matters, some of those which they dare to share only in anonymous settings. Because Jodel is not a confined circle of people such as subject association and because universal, one could draw a conclusion that this gives more richness and variety to the discussion. Also, Facebook is used more with people who you already know. With Jodel you reach a wider audience, within 10 to 20 km radius, as Gabriella German Student described. She also stated that you can reach people much faster in Jodel. Altogether, reaching wide audience fast and without the constraints of being there with your own name indicate that Jodel is revolutionary in terms of sharing and acquiring information in the region.

Anonymity also played a role when the discussion was whether the threads students made to Jodel differed compared to the threads they made to traditional social media. Matt Medic told he made Joke and meme posts to get Karma. He also stated that he would ask sometimes questions anonymously, although in personal matters he would turn into traditional social media. George Geographer stated that there are also good stories and people get help to their problems. Tina Teacher said writing to Facebook was a bigger doorstep and Ethan Economist commented that being too much in line with public opinion was not that important in Jodel, and you can also be more eager with your opinions, as he said. This indicates overall that people can express their opinions more freely in such anonymous settings. Therefore, Jodel can be said to be a channel where people are free of the constraints that social norms put upon us every day.

4.5.2 Disadvantages of anonymity

Why people tend to act negatively in anonymous settings, was also brought up when discussing anonymity. Matt Medic said that the biggest one was the thing that because there is no shame-punishment opportunity so that there are no long-term sanctions on those who did something wrong and that anonymously you can say almost anything. Gabriella German Student pointed out to the negative side effects of anonymity, such as people being super-mean towards each other, situations where things go to personal level in a negative way, and lynching of people. She also stated that speaking with unknown people without your own face is different. Other disadvantage was, according to Emily Economist, that people are quite easily recognizable in Jodel meaning that there it is not that easy to be anonymous. Elizabeth English Student revealed that for her being anonymous was hard, because when you ask something anonymously, the answer might whatever nonsense, and this was the main reason she didn't post there. She also preferred more non-anonymous social media due to this. Emily Economist thought it had something to do with people discharging their bad mood or feeling of inferiority. Gabriella German Student also thought it had something to do with people dismantling their bad mood, and that it could be part of human nature. Tina Teacher said it was easier to be irritating rather than encouraging:

"Hard to tell what causes it, could be basic negative nature of some people, or schadenfreude that you want for someone... I guess it's much easier to be negative than positive, encourage people and say "yeahyeahyeah!" and more like poke someone with a stick and say "hehehe!""

The above-mentioned quote indicates that maybe it is more fun to irritate rather than encourage people, especially in anonymous environment. Ethan Economist stated that some people get pleasure from irritating other people, and this is easy because you are there not with your own face. Elizabeth English Student said complaining is easier in Jodel, meaning that in real life her friends would not tolerate if she would complain all the time but in anonymous settings, nobody would really care and know it was you. Sabrina Speech-Language Pathologist said that if you had for example bad day, you would rather open out to Jodel than to your companion. She also pointed to the non-embarrassment issue anonymity provides:

“There is no need to think afterwards if you would think so, plus if these things are negative such as someone had got STD, so hardly anyone would say so with their own name. It's the thing that in a way you don't need to be ashamed.”

Interesting point by Emily Economist was that because in Jodel is no body language such as you can't see other ones face etc., that also has a huge impact on the conversations. Quite the similar lack of physical communication was also pointed out by Tina Teacher:

“Well in that way because the information is written, then misunderstandings are more common especially when you can't physically see the other participant, and the threshold to begin a fight with someone is much lower. Overall all thresholds are lower. Also, you can't hear ones' voice or tone of their voice or their expressions meaning that the information you get is totally different. So, it's harder to interpret what the other says when the information is text-based.”

Emily Economist also pointed out to the downsides of anonymity: meaning that you do not always get appropriate answers there:

“But there is also this downside that you don't always get proper answers there. Such as when someone is in help and writes there about their depression and people might reply something insulting or improper, so that might make that person even more depressed. So, anonymity is not always a good thing.”

Trolls also invade threads where people look help for their problems, which obviously is not a good thing, especially if the help-seeker is in bad mood. When the discussion was about the content of Jodel compared to traditional social media, students shared many kinds of viewpoints. Matt Medic pointed out that there is plenty of overlap so that same things are discussed in both, but in Jodel the anonymity adds its' own flavour to it. According to Elizabeth English Student, there is a big difference in the content:

“For example, when you think of Twitter, there the discussion is usually quite appropriate, meaning that you'll seldom see "poo discussions" there when compared to Jodel where you see them every day.”

Under the disguise of anonymity people write things they would not write with their own name, as we can conclude from the following comment. Things such as victory of a big hockey match might also affect the common atmosphere in Jodel, but there is some negativity as well, as Elizabeth English Student described it:

“Sure, it varies so terribly, yesterday there was the very best spirit ever since Kärpät but... maybe I would say that people there complain more than share good news. Whether it was weather or anything, more likely there are complaint.”

George Geographer also said that there is much more trolling and “low-effort content” than in un-anonymous social networks. Ethan Economist said that the starting point is totally different when using for example Facebook, and some things are such which separate opinions and can’t be said with your own name. According to him, Jodel is different so that there you are just one with the others and as new content appear, your messages drop away. Also, the character amount for a post was pointed out by Gabriella German Student, meaning that in Jodel it’s much less than when writing to Facebook.

Users were also asked if they had encountered racist, homophobic, sexist or hostile posts in Jodel. Matt Medic told that there was racism such as in negative discussions about immigrants and sexism from side to side. Gabriella German Student had witnessed whore-calling when women said they had had sex with multiple partners and slamming of feminism. Interestingly students did not encounter homophobia. Elizabeth English Student said she had encountered conversations about homosexuality, but no homophobic posts and as Gabriella German Student pointed out, there were no homophobia but maybe jokes about it. No one gets spared from hatred, as George Geographer described it:

“There everyone gets hate equally such as women, men, immigrants and Finns.”

Internet bullying is also related to anonymous discussion platforms. As one student pointed out, especially young people tend to have these so-called “Instagram dramas”, but systematic bullying of someone she hadn’t ever countered. Freshmen are made fun of when they ask questions which are obvious to elder students, such as can you take a calculator with you to an exam. Also, some lecturers are being commented, such as “damn this lecturer X’s courses” or such. According to one student:

“Well at least celebrities are being discussed there, for example once this one fitness-girl was being bullied there, meaning that practically anything she did was analysed... There was even a channel dedicated for bullying her, so eventually she did a post about it to Instagram and it stopped. But I guess there might have been 1-2 people, back then it was speculated that it wasn't a gang-lynch... That is, that you never know if there is one person behind it because you can start multiple discussions there if you want to.”

This is one of the downsides of Jodel: although it is a channel to freely express opinions and viewpoints, this can be regarded as one of the downsides of anonymity. Also, the fact that if 1-2 persons can arrange a whole bullying campaign, it puts into retrospect, how much damage can they overall do to this person since thousands of people can see these anonymously written posts. However, one interviewee said that people were mean, and bullying was there daily, one encountered racism and other steep opinions, although not targeted personally to any individual.

All the eight interviewees had witnessed trolling to at least some degree in Jodel. George Geographer said that the main point in trolling is just to get attention and the feeling of success. This is done for example by using controversial opinions as a bait. One thing which disturbed George Geographer in Jodel was that people came to troll there, and that there was too much teasing and racism. He also referred Jodel to a “sound box” and did not like that side. Matt Medic said that recognizing a troll might be hard since those are very subtle things though if a story is unconvincing, then the case might be that the person is a troll. Tina Teacher also commented that these things are very subtle, and Sabrina Speech-Language Pathologist pointed out that you see trolling every day in some form, but usually it is concealed, though some trolls are truly recognizable. Emily Economist also shared her opinion that not all trolls are recognizable, and Elizabeth English Student

said you cannot always be 100% sure whether the person is a troll or not, or just plainly stupid. George Geographer referred that troll-posts are provocative by their nature:

“Well usually their claims and writings are obviously provocative, so that you can't believe that anyone would write that kind of text which they write and on the other end, this kind of arguing and if someone explains their argument well and then someone answers there by insisting, then in a way that they don't take the other side of the conversation into account in any way, then these kind of argumentation errors and those are good indicators, so from them you can see that they are trolls or then they just can't reason in any way. Also, if they use some slang vocabulary like "huutista"⁶ or ylilauta⁷-vocabulary, then those factors indicate that it's a troll.”

Good indicator in recognizing a troll is that trolls are there just to irritate other people, and they might use certain “troll-vocabulary”. Recognizing these factors might raise the troll-awareness among the users of the app.

Trolling comes in many forms. Matt Medic mentioned that people might tell unbelievable stories to get Karma, but there were also these “half-trolling’s”, which are made to look as people could recognize them as trolls and to be able to laugh at them. So, in this sense, trolling is not always to irritate people if they are implied that it is a joke. Gabriella German Student said it might show up as flooding the main feed with one thing, or some untruthful thing is being fabricated. Ethan Economist said people might troll to get attention, and it may come up in forms of making an unbelievable story to which people react, or just triggering posts which are meant to piss people off. Elizabeth English Student said trolling might come up as anti-feminism or anti-immigration threads:

“Well in many things, I guess there are very topical issues, such as in feminism-related threads where someone might say "a woman's place is in the kitchen" or "men's place is in workplace and woman has to spin ten children". So, I feel that such could be trolling even though you're not 100% sure is it. And then there are these immigration related topics where someone might say "open all borders" and others would say "all who cross the border should be shot", etc... Generally, some sort of most current thing where it's easy to throw gasoline into the fire when you know that someone will eventually get pissed anyway.”

Most of the interviewees found trolling as disruptive and irritating. Matt Medic commented that it ruins normal conversation meaning that you cannot talk properly even if you wanted to. Interestingly he also said that trolls might even invade his student associations channel:

“Then for example in this lääkis⁸-channel most of the people who have joined it don't even study medicine so that many who attend the discussion are just there to troll or provoke.”

⁶ This is a Finnish slang word for the English equivalent “lol” or laughing out loud, which is present especially in Finnish imageboards, such as Ylilauta.

⁷ Ylilauta is a Finnish imageboard.

⁸ Lääkis is Finnish slang word meaning Medical School.

So, trolls go even to channels where they should not be present. Gabriella German Student argued that even though trolls might be harmless, they do not add any value for the discussion. Elizabeth English Student commented that a good way to bypass trolls is to skip the discussions or comments which appear to be made by trolls. Sabrina Speech-Language Pathologist had thought the same so that annoying messages are better to be skipped rather than get irritated by them.

Recognizing a troll was not always an easy task as few students described it. Emily Economist pointed out that some troll-posts might be so cleverly written that you do not always know whether it is a troll or not. Gabriella German Student commented that everything is not recognizable, but the ways of argumentation, magnifying something or some extra is added there might reveal the post to be made by troll. Sabrina Speech-Language Pathologist argued that in troll-posts opinions are usually quite stiff and offensive, or even sarcastic and ironic which leave you clueless. She also pointed out that sometimes the opinions are so triggering that you immediately know that “there is a shitstorm breaking”.

Whether trolling ruins proper discussion or not was also debated. Tina Teacher said it depended whether it was aggressive trolling or just laughing and telling jokes but if someone attacks someone participating in the debate, then the discussion becomes a fight and the whole tone of the discussion changes. Ethan Economist argued that it ruins proper discussion because at some point you no longer know if that person is serious or just plainly annoying other people on purpose. George Geographer commented that he usually does not take those discussions that seriously that trolling would bother him. He also pointed out that people usually downvote clear trolls away, and a good way to recognize is troll from the posters number (a renewal which came to the app lately). He also used to warn other users of trolls by giving them a hint that “don’t feed that troll” or such. To the question, what causes trolling, two students had an opinion for it. Emily Economist said for some people it might just be fun to watch people get fooled, and Elizabeth English Student had similar thoughts:

“I could imagine that some people think it's fun to see how people react to such a thing, like throwing gasoline into the fire, picking up some popcorn and seeing what happens. Maybe it's just amusing ... So, I don't know, maybe that's just fun.”

Students were also asked whether they had trolled or not. Interestingly five out of eight interviewees did not admit they had trolled, but rather externalized the phenomenon to others. Such as Emily Economist debated:

“No, I don't want to troll, I don't want to tease people and put my time and energy into such.”

Those who admitted they had trolled had various reasons, such as George Geographer told that to some threads, he might have answered sarcastically or ironically, but he usually tried to formulate it in a way that people understand that it’s irony, though he admitted that sometimes he did troll to get a certain reaction out of people. Sabrina Speech-Language Pathologist also admitted he did troll sometimes in the forms of posting jokes or such. Ethan Economist admitted he had troll to test how a certain opinion is received:

“Yes, I admit that I have, in a way that I've answered to some thread and said an opinion from other persons point of view (who I really am not). So, I have tested how an opinion is received when I've introduced myself as someone else.”

The students were also asked whether their mood or the subjects discussed in the app were a “trigger” for them which manifested itself in the act of trolling. Matt Medic described himself as “quite jovial guy” so that usually he will just bypass the trolls without being irritated. On the other half, George Geographer said mood affects to some degree how you behave there, but other thing is whether you show it or not. Sabrina Speech-Language Pathologist also thought mood had an effect, such as if you’re tired, then it may result as stupid commenting. She also denoted that own attitudes to certain topics had an effect (such as politics) but whereas George Geographer and Matt Medic thought they could filter most trolls, she also felt she could ignore posts where something she loved were being criticized.

Related to previous question, students were asked what kind of posts triggered them most in personal level, such as things they loved. Emily Economist told she wasn’t easily irritated, but when her subject association was being criticized in a bad manner, she might have been irritated. Tina Teacher said she was triggered by “stupid stuff”, such as opinions which did not hold true, Gabriella German Student commented that a better strategy is just to ignore posts, such as those with woman-hatred, and Ethan Economist thought when his subject association was criticized with “troll criticism” and targeted, that might have provoked him. Elizabeth English Student didn’t like discussions such as those which were about income differences and were unemployed were called “lazy”, but she also held the strategy of ignoring these emotionally triggering posts. George Geographer also thought that ignoring the trolls was the best game plan:

“Well in a way if there is some personally important topic for me then I usually I talk about it quite seriously, so I rarely go into it with a trolling mindset, I often can grab into some topic and discuss it seriously, sometimes I can get tired when I realize that this is just about fighting windmills that... But yes, I tend to try to recognize the trolls quite efficiently so that if I see that someone is trolling then I'm trying not to give any attention to these kinds of guys.”

Warning other people about trolls was a good way to raise troll-awareness in the community. It became also evident that the best way to avoid being triggered was simply ignoring troll posts.

4.6 Jodel and social media in relation to students’ academic performance

As mentioned in the introduction chapter of this work, this section came as result of doing systematic review of scientific articles, mainly between years 2015 to 2018. The first issue to be raised was, did the use of smartphone ever become problematic for the students during their studies, and, use of Jodel.

Six out of eight students viewed smartphones as a disturbing factor during studying situations. Emily Economist thought she would probably be more successful in her studies without smartphone, and that she spent too much time in social media and checking at the phone. Tina Teacher thought smartphone was a distractor when she had to read for exam or write down her thesis, and a working strategy for her was to put it in her bag for the time of working. George Geographer pointed out that technology in general was a disturbance factor, whether smartphone or laptop, which is close during studying and that it was about internet in general rather than only social media. Ethan Economist thought he might have been more successful in his studies if he had studied during times when smartphones did not exist. He also used the strategy to put the phone

into his bag during studies. Sabrina Speech-Language Pathologist told she installed an app to monitor her use of the phone, which she also used for work-related matters. Outside of work, she described her phone use mainly as entertainment use.

Not everyone saw smartphones merely a disturbing factor in study-related situations, rather an assistance and backup:

“No, it hasn't. I might be more of those people for which is nice to leave the phone at home and go somewhere. So, I haven't felt that the sue of smartphone has been problematic for me. I would say that the phone has been more useful in learning situations rather than harmful, such as if the lecturer says something that goes by then I can google it quickly and easily. For me phone has never been a disturbance factor, rather it has been an assistance. In a way, I would say that the smartphone has simplified my studies, not precisely weakened them.”

Emily Economist viewed smartphones as double-edged sword: they might improve but also weaken students study success. As a upside she mentioned that during entrance exams, there were much discussion in Jodel about his branches different credit limits, and she believed this makes them more competitive. As a downside she said was the addiction of checking the phone all the time, which steals the attention of what you are currently doing. Though she mentioned this is not only about Jodel, but mainly due to other social medias such as Facebook, Instagram and WhatsApp. Emily Economist also had solutions to limit her use of smartphone:

“I have come up with a solution that sometimes I "forget" my phone to my apartment (which is quite rare) ... But otherwise you have it with you everywhere, such as when you go to bathroom, etc. I have also noticed that I need to put it away if I want to concentrate. Sometimes I put a timer with 20 or 30 minutes if I read to exams for example. That helps a lot and if noticed that if I don't have the timer then I go more easily to use the phone for entertainment.”

Students were also asked whether Jodel had any connection to their academic performance. In general, the answer was no, but it was viewed more as a friend rather than an enemy in studying. George Geographer thought Jodel was a good place to apply peer support if he has any problem during studies, but he also pointed out that anything that takes concentration away from studying effects negatively on the learning process. Sabrina Speech-Language Pathologist saw Jodel more helpful rather than harmful:

“Maybe it has been helpful such as if you ask something, for example if you ask about library's opening hours or where you could find this information or something else... Sometimes you get good fighting spirit messages there, such as if you are struggling with doing your thesis so then you can get support from there so yeah... Yes, it motivates when you know there are other people in the same position as you are. And you don't want always to complain to some relative that "I have written this for two weeks", so you would rather put it into that neutral place then. But I wouldn't say it would've affected poorly or positively to academic success.”

Jodel is a helpful tool for students to acquire information about different subjects and to get peer-support in ponderous situations. Most of the students used admitted using Jodel during lectures or in other studying related situations, though Matt Medic admitted that at lectures (or in public spaces), he did not dare to use it because Jodel has such colourful themes. Tina Teacher said she might use it when she is having a very boring lecture, but this applies to all other social media as well. George Geographer said he used Jodel

sometimes to get his head out of the study situation as well as other social media. One interviewee, Elizabeth English Student admitted that she never used Jodel during lectures. Ethan Economist said his intention was to use it for entertainment and to get thoughts replenished from the studies or in other words, “adjusting the brain to zero”.

Related to previous question, students were asked whether they used Jodel to entertain themselves in study related situations or not. Most of them used it to kill time, such as Emily Economist, but she admitted that she checked facts somewhere else, such as which calculator should she buy. Tina Teacher compared Jodel to Netflix, meaning that it can be similarly addictive:

“Yeah, I think it's the same as when you watch Netflix, like "I should read now but I'll watch another episode.”

Jodel is also entertaining, as the above-mentioned comment indicates. In studying related situations, the students liked mostly to read other users' stories rather than create their own stories, such as George Geographer described it:

“For the most part I read other people's conversations and many times many of the conversations which I go through seem to be not so interesting for me, but there is always something to be grasped and then you tend to discuss or read the conversation a little bit more and often if there is topic which awakens opinions then I might post something to it.”

In studying situations people might only check what other people have posted there rather than creating their own stories. The use of other social medias rather than Jodel was seen more of a problem and browsing the internet in general. This indicates that Jodel is more of a helpful tool rather than a distractor in the academic world.

The research questions were, why anonymous geosocial applications are used, how is typical use characterized, what kind of positive or negative issues users experienced while being online anonymously and what is the relationship between anonymous geosocial applications and academic performance. In the next chapter, I will answer to these research questions and how the results of this study reflect to the literature posed in the second chapter of this thesis.

5. Findings and discussion

Results from the interviews revealed various reasons why anonymous geosocial applications are used between Finnish university students, but also interesting details on how using it affects their daily lives and how they saw the application on a personal level. Users had encountered both positive and negative issues while being online anonymously. Though they had encountered negative matters, it came clear that the overall experiences in using the app were mainly positive. There was no direct link between students' anonymous geosocial applications use to their academic performance. Previous research suggested smartphone use problematic, as in this study also smartphones were a problem in general, not the use of anonymous geosocial applications. Because the research participants answers were so diverse and came from different perspectives, one could argue that qualitative method and thematic interview as a data gathering technique was very fruitful regarding this research.

For the first research question, findings of this study suggest that *anonymous geosocial applications are used by Finnish university students for various reasons*, such as their potential to reach out many people fast, their ease of use as mobile application in communicating with people who are on the same place as you are. Finally, the anonymity itself was reason to use it. Also searching for information and entertainment were few reasons why anonymous geosocial applications are used. This is in line with Gupta and Brooks (2013) who argued that anonymous social medias main purpose is in sharing content and communicating anonymously on web- and mobile based platforms, and Hinton and Hjorth (2013) outlined the easiness of smartphones to partake with social media anywhere at any time. Anonymous geosocial applications are also used to connect with other people, to find friends, or even companionship in the region the user is located. This is not surprising, since Heston and Birnholtz (2016) stated that anonymous location-based social applications have become every day. People tend to look for answers to some embarrassing matters from these services under the disguise of anonymity, and this was also present in the literature of Heston and Birnholtz (2016) who argued that anonymity may enable positive interactions, such as discussion on sensitive health related topics. Sara West (2016) also categorized Yik Yak posts into seven primary types of posts, which were individual posts, question/advice seeking posts, directed posts, connection posts, joke posts, community-wide warning/notifications and school pride posts. Jodel users also reported all these kinds of posts, which shows that reasons why people use Jodel are very similar of why people used Yik Yak. Anonymous geosocial applications were also seen as local newsfeeds or tabloids where you could check what is going on now.

The other research question was, *how is typical use by Finnish university students characterized?* It became clear that *the typical use of anonymous geosocial applications by Finnish university students can be characterized in many ways*. People use anonymity as a tool to protect their online or offline identities according to Correa et al., (2015), and the results of this study indicate it was the same with the use of Jodel. The most liked discussions in Jodel among students were dating and relationships related as well as actual topics and jokes. Black et al. (2016) reported that besides of campus life, notifications and sex were among the most discussed topics in the app. This finding makes Jodel like Yik Yak. In this study, the students reported that there was a sense of belonging being generated in Jodel, "we-spirit" or a sense of belongingness, where outsiders were discriminated and told to jump into Merikoski (Merikoskeen). This can be said to be similar with Sara Wests (2016) finding, that people worked together as a community to form and preserve collective knowledge, or in other words, a knowledge community in

Yik Yak. The similar thing was also noted by Postmes (2010) who referred to social identity model of deindividuation effects (SIDE theory): in Jodel this was seen so that the individuals identified more with the group and worked towards the goals of the group instead of their own goals, therefore creating a sense of belongingness in Jodel. Results also indicated that gender of the poster was predictable based on factors such as writing style. This was in line with Wu et al. (2017) who was also able to predict poster based on word content of a single post. Chang and Liu (2007) pointed out that people usually ask advice from people, although they have accesses to vast amounts of information. This was also seen in the results of the study since students admitted asking everyday questions from Jodel. Also, local scandals and internal matters between university were being discussed in Jodel and as one student stated, one professor had told his fellow students to calm down in Jodel. These matters show that Jodel has an important role as a channel in discussing university's domestic affairs.

When characterizing the use of Jodel, an analytical lens started to emerge regarding anonymity, locality and sociality. In figure 3 (below) these three dimensions intersect, and in between them are relevancies which were found during the study.

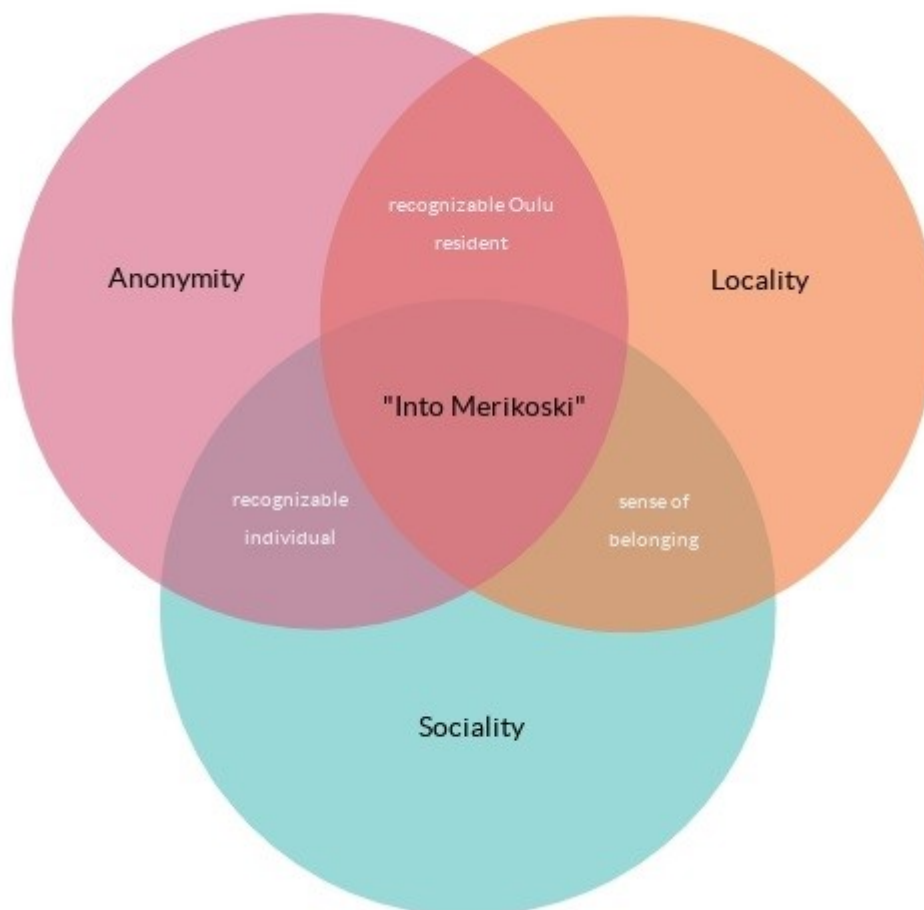


Figure 3. Three dimensions of Jodel.

Jodel holds three dimensions, which are *Anonymity*, *Locality* and *Sociality*. In the section of *Anonymity* and *Locality*, one can determine if someone is Oulu resident or not. Between

Anonymity and *Sociality*, one can predict if the writer of a post can be recognized as friend or whether the writer is male or female. Amid *Locality* and *Sociality* lies local events and sense of belonging that the application produces. “*Into Merikoski*” which is a local mantra or a “meme” repeated in Jodel Oulu, is in the center of the diagram, because *it is profoundly linked to Anonymity, Locality and Sociality*: anonymity provides a frame for people to say these kinds of taboo-like things out loud, sociality so that saying such is a community-minded affair and locality points out to the fact that Merikoski is located in the city of Oulu.

In this study it became apparent that *Finnish university students had both negative and positive experiences when they were online anonymously*. In general, students’ viewpoint was that anonymous communication was easier, such as expressing their viewpoints. This was also noted by Rigby (1995) who thought anonymity is useful because it gives people chance to even say their controversial opinions. Anonymity made people more equal since things such as social status does not matter in anonymous environments, unless you emphasize it in your message. This is in line with Suler (2004) who stated that anonymity acts out as a filter in diminishing social cues and by this making people more equal. Findings of this study also suggest that anonymity enhances self-disclosure, as Ma et al. (2016) stated. A “stranger on a train phenomenon” also existed in Jodel since students reported asking some questions and discussing certain topics anonymously in Jodel which they would not dare to discuss in real life. Ma et al. (2016) stated that people are more likely to disclose all kinds of content in anonymous rather than non-anonymous platforms. This is in line with the finding that in Jodel you could join groups and discuss topics without having the fear of being stigmatized, such as you would in non-anonymous platform Facebook. All these results suggest that anonymity fills a specific need for people to communicate.

Students had also faced negative issues when using Jodel, such as people being negative and mean towards each other. Bernstein et al. (2011) thought anonymous forums are vulgar by their nature, and this may result as making the communication cold and impersonal. Yik Yak got negative media coverage, such as in forms of cyberbullying (Heston & Birnholtz, 2016). The interviewed students had also witnessed cyberbullying in Jodel, and it was mainly targeted for known people, such as “Instagram celebrities”. Trolling was also present in Jodel and as Lopes and Yu (2017) stated, even ordinary people were capable of trolling, and factors such as seeing troll posts and negative mood doubled the odds of becoming a troll, though in this study, there was no link found between these issues and trolling behaviour. Threats, personal attacks and spreading rumours was common in anonymous geosocial platforms due to lack of accountability (Wang et al., 2016), and these negative issues were also present in Jodel, and these features existed there due to its’ anonymous nature. Sara West (2016) claimed that Yik Yak had a deal of racist, sexist, homophobic and hostile posts. Out of these hatred-related posts, Jodel users also reported seeing racist, sexist and hostile, but not homophobic posts, though they had sometimes seen jokes about homosexuality in the app.

The results suggested that *there was no relationship between anonymous geosocial applications and academic performance*, albeit students found Jodel more of a useful tool during their studies. Nevertheless, it came obvious that the students found the use of smartphones undesirable regarding their academic success, and this was in line with the study of Giunchiglia et al. (2017) and Godoi (2018) who found a negative pattern between social media and smartphone usage between university students. In this study it became evident that students preferred social media apps, which is consistent with Lee et al. (2017) study which pointed out that social media apps were in favour with smartphone addicts, and Moqbel and Kock (2016) who stated that SNS addiction increased task

distraction which had undesirable influence on performance. Suliman et al. (2016) reported that males were more prone to become addicts rather than females. In this study, nothing proposed that males would have been more addicted to smartphones than females, as Suliman et al. (2016) stated, that some studies show no difference between two genders and smartphone usage. No one reported being an addict, although they said smartphones were a distracting factor in studying situations and did actions to minimize this distraction, such as leaving their phone home or putting it into their bag when studying.

Next, I will present the findings of this study in tables as a clarification.

Table 4. Reasons why Finnish university students used anonymous geosocial applications, listed.

<i>Reasons why Finnish university students use anonymous geosocial applications</i>
- Ease of use as mobile application
- Possibility to communicate with people who are on the same place as you are
- Potential to reach out many people fast
- Possibility to communicate with people who are on the same place as you are
- Anonymity, to look answers to unmentionable matters
- Information retrieval
- Entertainment
- Connect with other people, find friends or companionship
- Seen as local newsfeed or tabloid

Table 5. How typical use by Finnish university students is characterized.

<i>How is typical use by Finnish university students characterized</i>
- Anonymity is used as a tool to protect online and offline identities
- Dating and relationships as well as actual topics and jokes most discussed topics
- Sense of belongingness or “we-spirit” generated in the application
- Gender of the poster was predictable
- Local scandals and internal matters in university were discussed
- Three dimensions of Jodel: anonymity, locality and sociality

Table 6. Positive and negative issues Finnish university students faced when being online anonymously.

<i>Positive and negative issues Finnish university students faced when being online anonymously</i>
<i>Positive issues:</i>
- Anonymous communication easier, such as expressing viewpoints
- Anonymity made people more equal
- Anonymity enhanced self-disclosure
- Ability to join groups without the fear of being stigmatized
- Fills in a specific need for people to communicate
<i>Negative issues</i>
- People being negative and mean towards each other
- Cyberbullying mainly targeted towards celebrities
- Trolling present
- Threats, personal attacks and spreading rumours
- Racist, sexist and hostile posts

Table 7. Relationship between anonymous geosocial applications and academic performance.

<i>Relationship between anonymous geosocial applications and academic performance</i>
- No direct link found
- Jodel found more of a useful tool rather than addicting application during studies
- Smartphone use and social media apps in general were seen bad
- Nothing indicated that males were more prone to smartphone addiction than females

6. Conclusions

In this study it was investigated why anonymous geosocial applications are used by Finnish university students, how typical use by Finnish university students is characterized, what positive or negative issues Finnish university students experience while being online anonymously and what is the relationship between anonymous geosocial applications and academic performance, and in chapter five these research questions were answered. As it turned out, anonymous geosocial applications have gained popularity in the past years between students. University students find them convenient way to be on track what is happening around them as well as in debating various kinds of topics. Their ability to reach wide audience fast on a certain geographical area states that this is a revolution way of communicating. The significance of Jodel among Finnish university students indicates the finding that even university's internal matters are handled there, such as burning controversies. This is enabled by anonymity since it gives people the protection to say even their unpopular opinions. Anonymity also gives users a chance to discuss avoidable topics and to look answers for taboo-like subjects.

Despite them being an open arena for discussion, these applications have had a deal of downsides, such as trolling and hate speech, which has also become apparent in Jodel, though community moderation works in reducing the overall negative content. Downvoting messages because of opinion was a weak spot of moderation of Jodel, although otherwise this community filtering mechanism was perceived as good in abolishing inappropriate content. As a means of connecting with others, Jodel was used to find friends and companionship. Jodel was also seen as modern tabloid as well as local newsfeed and information channel, such as with local police operations and sport events. The application generated local fellowship, and things such as victory of home team strengthened this communion. From student's perspective, Jodel was a great tool to acquire information on local subjects.

6.1 Limitations

This study had limitations, such as only eight people were interviewed from university of Oulu meaning that this proportion does not represent Finnish university students as a great entity, only a small number of people and their viewpoints. Also, anonymous and sensitive topics were discussed which may have affected the answers and by that to the results of the study. One should also be critical in some issues such as whether the interviewees had trolled or not, or did they find their smartphone use problematic, since the students themselves had assessed these issues.

6.2 Future directions

For future work the significance of this work can be reflected for both developers and users of Jodel as well as for research. From developers' perspective probably, the uppermost finding was that moderation did not work in some cases where messages were downvoted and disappeared from threads. For users' viewpoint this thesis might deepen their understanding of why they use anonymous geosocial applications, and especially Jodel. As of research perspective the most predominant finding were the three dimensions of Jodel, as shown in Figure 3: qualitative research can identify more specific meanings, as this illustration points out. Regarding the three dimensions of Jodel, I suggest that this could be bring forth by focusing on these three dimensions and their cutting areas more

in-depth in future research. Further research could likewise consider the collection of Jodel posts and reflect those to the results of this study. I would also suggest that the importance of Jodel for studying communities would be more thoroughly investigated in some way since this thesis indicated its overall importance among Finnish university students.

References

- Appisen toimitus. 2016. Jodlaa anonyymejä viestejä. DNA. Retrieved 24.4.2017, <https://appinen.dna.fi/artikkeli/jodlaa-anonyymeja-viesteja>
- Aviisi – Tampereen ylioppilaslehti. 2016. Jodel on virtuaalinen vessanseinä jolla kysytään sitä, mitä ei muuten kehdata. Retrieved 7.3.2018: <http://www.aviisi.fi/2016/11/jodel-virtuaalinen-vessanseina-kysytaan-sita-mita-muuten-kehdata/>
- Bernstein, S., Monroy-Hernandez, A., Harry, D., Andre, P., Panovich, K. & Vargas., G. (2011). 4chan and /b/: An Analysis of Anonymity and Ephemerality in a Large Online Community. *Proceedings of the Fifth International AAAI Conference on Weblogs and Social Media*, 50-57.
- Black, E. W., Mezzina, K. & Thompson L. A. (2016). Anonymous social media – Understanding the content and context of Yik Yak. *Computers in Human Behavior*, 57, 17.
- Breithut, J. (2015). Anonymer Trash-Talk an der Uni. Spiegel Online. Retrieved 24.4.2017, <http://www.spiegel.de/netzwelt/apps/jodel-smartphone-app-bringt-den-trash-talk-auf-den-campus-a-1029008.html>
- Cerretani, P. I., Iturrioz, E. B. & Garay, P. B. (2016). Use of information and communications technology, academic performance and psychosocial distress in university students. *Computers in Human Behavior*, 56, 119-125.
- Chang, Y. J. & Liu, H. H. (2007). A general Architecture of Mobile Social Network Services. *International Conference on Convergence Information Technology (ICCIT 2007)*. Retrieved from: <http://ieeexplore.ieee.org/abstract/document/4420252/>
- Cheng, J., Bernstein, M., Danescu-Niculescu-Mizil, C., Leskovec, J. (2017). Anyone Can Become a Troll: Causes of Trolling Behavior in Online Discussions. *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*. 1217-1227.
- Christopherson, K. M. (2007). The positive and negative implications of anonymity in Internet social interactions: “On the Internet, Nobody Knows You’re a Dog”. *Computers in Human Behavior* (2007), 3038-3051.
- Correa, D., Silva, L. A., Mondal, M., Benevenuto, F. & Gummadi, K. P. (2015). The Many Shades of Anonymity: Characterizing Anonymous Social Media Content. *Proceedings of the Ninth International AAAI Conference on Web and Social Media*. Retrieved from: <https://pdfs.semanticscholar.org/a060/4c6de24902f29465443c12e64d0cbeaa17c9.pdf>
- Correa, T., Hinsley, A. W. & Zuniga, H. G. (2009). Who interacts on the Web?: The intersection of users’ personality and social media use. *Computers in Human Behaviour* (2010), 26(2), 247-253.

- Erkkola, J-P. (2008). Sosiaalisen median käsitteestä. *Taideteollinen korkeakoulu*. 2, 39.
- Felisoni, D. D. & Godoi, A. S. (2018). Cell phone usage and academic performance: An experiment. *Computers in Human Behavior*, 117, 175-187.
- Gary T. Marx. 1999. What's in a Name? Some Reflections on the Sociology of Anonymity. Massachusetts Institute of Technology. Retrieved 8.3.2018: <http://web.mit.edu/gtmarx/www/anon.html>
- Giunchiglia, F., Zeni, M., Gobbi, E., Bignotti, E. & Bison, I. (2017). Mobile social media usage and academic performance. *Computers in Human Behavior*, 82, 177.
- Gupta, R. & Brooks, H. (2013). *Using Social Media for Global Security*. Indianapolis, IN: JohnWiley & Sons, 23.
- Heston, M. & Birnholtz, J. (2016). (In)visible Cities: An Exploration of Social Identity, Anonymity and Location-Based Filtering on Yik Yak. *IConference 2016 Proceedings*. Retrieved from: <https://www.ideals.illinois.edu/bitstream/handle/2142/89297/Heston152.pdf?sequence=1&isAllowed=y>
- Hinton, S. & Hjorth, L. (2013). *Understanding social media*. Los Angeles, SAGE.
- Hirsjärvi, S. & Hurme, H. (2000). *Tutkimushaastattelu – Teemahaastattelun teoria ja käytäntö*. Yliopistopaino, Helsinki.
- Hirsjärvi, S., Remes, P. & Sajavaara, P. (1997). *Tutki ja kirjoita*. Kirjayhtymä, Helsinki.
- Holtzman, N. S. & Strube, M. J. (2013). People with dark personalities tend to create a physically attractive veneer. *Social Psychological and Personality Science*, 4, 467e471. Retrieved from: <http://dx.doi.org/10.1177/1948550612461284>
- Jodel Support. 2018. General FAQs. Retrieved 7.3.2018: <https://jodel.zendesk.com/hc/en-us/articles/360001021073-What-is-the-Hometown->
- Jodel. 2017. What is Jodel about? Retrieved 18.4.2017, <https://jodel-app.com/>
- Kang, R., Brown, S. & Kiesler, S. (2013). Why Do People Seek Anonymity on the Internet? Informing Policy and Design. *CHI '13 Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 2658.
- Karjalainen, J. (2018). OYY:n muskarivideolla esiintynyt saamelaisrumpu joutui kohun keskelle – käyttö ja alkuperä selvitetty. Kaleva. Retrieved 4.10.2018, <https://www.kaleva.fi/uutiset/oulu/oyyn-muskarivideolla-esiintynyt-saamelaisrumpu-joutui-kohun-keskelle-kaytto-ja-alkupera-selvitetty/785827/>
- Kossila, E. (2016). Jodlaaminen vai jodelaaminen? Keskustelusovellus sai räjähdysosuus Turussa. Yle Uutiset. Retrieved 25.10.2018, <https://yle.fi/uutiset/3-9219936>
- Kurki, T.-L. (2018). Poliisi etsii epäiltyä ase miestä Oulussa – “Epäilty oli sanonut, että hänellä on repussa ase”. Yle Uutiset. Retrieved 4.10.2018, <https://yle.fi/uutiset/3-10130394>

- Kwon, M., Lee, J.-Y., Won, W.-Y., Park, J.-W., Min, J.-A., Hahn, C., et al. (2013). Development and validation of a smartphone addiction scale (SAS). *PLoS One*, 8, e56936.
- Lee, H., Ahn, H., Nguyen, T. G., Choi, S.-W., & Kim, D. J. (2017). Comparing the self-report and measured smartphone usage of college students: A pilot study. *Psychiatry investigation*, 14, 198-204.
- Lopes, B. & Yu, H. (2017). Who do you troll and Why: An investigation into the relationship between the Dark Triad Personalities and online trolling behaviours towards popular and less popular Facebook profiles. *Computers in Human Behavior*, 77, 74-75.
- Ma, X., Hancock, J. & Naaman, M. (2016). Anonymity, Intimacy and Self-Disclosure in Social Media. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, 3857-3866.
- Matikainen, J. (2012). *Uudet mediamuodot*. In Nordenstreng, Kaarle & Wiio, Osmo A. *Suomen mediamaisema*. Tampere: Vastapaino.
- McKenzie, G., Adams, B. & Janowicz, K. (2015). Of Oxen and Birds: Is Yik Yak a useful new data source in the geosocial zoo or just another Twitter? *Proceedings of the 8th ACM SIGSPATIAL International Workshop on Location-Based Social Networks*, 1-4.
- Moqbel, M., Kock, N. (2016). Unveiling the dark side of social networking sites: Personal and work-related consequences of social networking site addiction. *Computers in Human Behavior*, 55, 109-116.
- Postmes, T. (2010). Social Identity Model of Deindividuation Effects. *Encyclopedia of Group Processes & Intergroup Relations*.
<https://doi.org/10.4135/9781412972017.N245>
- Rigby, K. (1995). Anonymity on the Internet Must be Protected. *Paper for MIT 6.805/STS085: Ethics and Law on the Electronic Frontier, Fall 1995*. Retrieved 13.3.2018: <http://groups.csail.mit.edu/mac/classes/6.805/student-papers/fall95-papers/rigby-anonymity.html>
- Rosaline, B. (2011). *The Scope and Contribution of Qualitative Research*. London, SAGE.
- Routio, P. (2018). Tapaustutkimus. Tuotetiede. *Taideteollisen korkeakoulun virtuaaliyliopisto*. Retrieved 2.10.2018,
http://www.uiah.fi/virtu/materiaalit/tuotetiede/html_files/14111_totea.html
- Saveski, M., Chou, S. & Roy, D. (2016). Tracking the Yak: An Empirical Study of Yik Yak. *Proceedings of the Tenth International AAAI Conference on Web and Social Media*, 671-674.
- Scherkamp, H. (2015). Warum Studenten die App Jodel lieben – und Promi-Investoren auch. *Gründerszene*. Retrieved 24.4.2017,
<http://www.gruenderszene.de/allgemein/jodel-app-erfolg>

- Sorgatz, R. 2009. Macroanonymous is the new microfamous. Retrieved 18.4.2017, <http://fimoculous.com/archive/post-5738.cfm>
- Suler, J. (2004). The Online Disinhibition Effect. *Cyberpsychology & Behavior*, 7(3), 321-325.
- Suliman, S., Aljomaa, Mohammad, F., Al.Qudah, Ismael S. Albursan, Salaheldin F. Bakhiet & Adel S. Abduljabbar. (2016). Smartphone addiction among university students in the light of some variables. *Computers in Human Behavior*, 61, 162-163.
- Suominen, J., Östman, S., Saarikoski, P. & Turtiainen, R. (2013). *Sosiaalisen median lyhyt historia*. Tallinna: Gaudeamus.
- Tuomi J. & Sarajärvi, A. (2002). *Laadullinen tutkimus ja sisällönanalyysi*. Helsinki: Tammi.
- Wang, G., Wang, B., Wang, T., Nika, A., Zheng, H. & Zhao, B. Y. (2014). Whispers in the dark: analysis of an anonymous social network. *Proceedings of the 2014 Conference on Internet Measurement Conference*, 137-138.
- Wang, J.-L., Jackson, L. A., Gaskin, J. & Wang, H.-Z. (2014). The effects of Social Networking Site (SNS) use on college students' friendship and well-being. *Computers in Human Behavior*, 37, 233-235.
- West, S. (2016). Yik Yak and the knowledge community. *Communication Design Quarterly*, 11-20.
- Wiens, M. 2015. Wie die App Jodel Deutschlands Unis erobert. Bento. Retrieved 24.4.2017, <http://www.bento.de/gadgets/wie-der-anonyme-messenger-jodel-deutschlands-unis-erobert-12097/>
- Wu, Y., Minkus, T., Ross & Keith W. (2017). Taking the Pulse of US College Campuses with Location-Based Anonymous Mobile Apps. *ACM Transactions on Intelligent Systems and Technology (TIST)*, 9(1), 2-5.
- Yik Yak. 2017. Our product: Yik Yak helps you find your herd. Retrieved 18.4.2017, <https://www.yikyak.com/about>
- Zheng, X., Lee, M. K.O. (2016). Excessive use of mobile social networking sites: Negative consequences on individuals. *Computers in Human Behavior*, 65, 68-74.

Appendix A. Informing of research participants

Dear research participants,

This interview is part of my Masters' thesis which studies the use of Jodel among university students. Supervisor for this work is Phd Tonja-Molin Juustila.

The goal of this study is to find out why anonymous geosocial application Jodel is being used among university students, their experiences in using it, why they prefer more anonymous services rather than services with their real identity and how using it affects potentially to their academic performance.

People who partake to these interviews are anonymized, and I promise to handle the material with confidentiality. The interviews will be recorded for analyzing and reporting the results of the study, and I promise to dispose the material after my study is ready and published. Any material collected is not given to any external party, and the material gathered during these interviews is being used only for this research.

Best Regards,

Joni Mäntykorpi

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Appendix B. Thematic interview form

Theme interview structure

1. Jodel / Use of Jodel
 - Why is Jodel used?
 - What kind of experiences you have in using Jodel?
 - For how long have you been using Jodel?
 - In what situations do you use Jodel?
 - Why do you use rather Jodel than traditional social media, e.g. Facebook?
2. Content of Jodel
 - What is the most unforgettable experience you've had with Jodel?
 - What kind of discussions do you like in Jodel?
 - Does the content of Jodel differ from the content of traditional social media?
 - Does the content you post to Jodel differ from the content content that you post with your own name?
 - Have you encountered racist, homophobic, sexist or hostile posts in Jodel?
 - Have you seen internet bullying in Jodel?
 - Have you encountered hatespeech in Jodel?
 - 2.1 Moderation of Jodel
 - Does the moderation of Jodel work?
 - If you have moderation rights in Jodel, what kind of content is usually reported?
 - Have you reported any content in Jodel? If you have, what kind of.
 - Does Jodels style of moderation affect whether the content is positive or negative?
 - Does time of the day affect to the posts?
 - What are the most common topics of discussion in Jodel?
 - Does time of the day affect the posts?
 - Is Jodels content more positive or negative?
 - Are you able to identify someones gender in Jodel?
 - How is it with Jodel, the fact that threads you make are not linked to any identity and the posts vanish after time, affect to the posts you create in Jodel?
 - Have you found company from Jodel? Such as companionship, friends, etc.
3. Why anonymous geosocial services?
 - Does Jodels localness affect the content you publish there?
 - How does locality present itself at university of Oulu?
 - Are there any advantages or disadvantages with locality?
 - If you have used Jodel in other cities, are there any differences?
4. Anonymity
 - Is anonymous communication easier than real life communication?
 - Are people more equal in anonymous settings? Does anonymity make people more equal.
 - Why would you open to unknown people anonymously rather than to people who you know?
 - Why people tend to act negatively in anonymous settings?
5. Trolling
 - Have you encountered trolling in Jodel?
 - How can you recognize a troll?
 - What kind of trolling?
 - Is trolling disruptive?
 - Does trolling ruin proper discussion?
 - What causes trolling?
 - Have you trolled?
 - If you have trolled, what has been a trigger for you in doing so? Has your own mood or the subject being discussed affected this?
6. Impact of social media use on academic performance
 - Has the use of smartphone ever become problematic to you during your studies?
 - What kind of connection you see with the use of Jodel to your own academic performance?
 - Do you use Jodel during lectures or other studying related situations?
 - Do you use Jodel to entertain yourself in study situations?
 - In studying related situations, do you read other users stories or post your own stories?