# Drugs and Community on the Internet

## A Study of Drug Trends, Risk Management and Trust in Online Drug Communities

Ola Røed Bilgrei

# Acknowledgements

I finally stand at the finish line, proud, a little tired, but most of all excited. Now, as the dissertation is finished, it allows me some time to reflect on the past few years. In this context, I would like to express my gratitude to everyone who has helped me along the way.

First, I would like to thank the Norwegian Institute of Public Health (NIPH) and the former Norwegian Institute for Alcohol and Drug Research (SIRUS) for providing financial support for this project. I would especially like to thank my former research director, Anne Line Bretteville-Jensen, who gave me the opportunity to pursue this project in the first place – thank you so much for believing in me. Thanks also to my current director, Elisabeth Kvaavik, for your great support.

The 'qualitative crew' at SIRUS/NIPH has played a crucial part in the project, providing constructive feedback on all my papers and creating a stimulating arena for discussions. Many people have taken part in the group, but I would like to say a big thank you in particular to the core team, consisting of Kristin Buvik, Janne Scheffels, Marit Edland-Gryt, Øystein Skjælaaen, Rikke Tokle and Thomas Anton Sandøy. In this context, I would like to give special thanks to Thomas Anton, for our fruitful discussions, your inspiring points of view and for managing our shared workload with such ease.

I am also very grateful to my two supervisors, Willy Pedersen and Sveinung Sandberg. Thank you, Willy, for your encouragement and for making me believe in myself. Your experienced feedback has been valuable throughout the process. Dear Sveinung, thank you so much for always being available, interested and providing me with the best guidance a PhD student could ever hope for. Your sociological insight and ability to inspire has truly made a difference – thank you for showing me how academia could be fun.

To all you guys on the internet: thank you for introducing me to an online world that keeps fascinating. I am very grateful for everything you have shared.

# Summary

In contemporary society, the internet has become the most widely used source of information about illicit drugs and their use. Within online drug-related discussion forums, large groups of anonymous members interact, gather user-relevant information and share their drug experiences with others. This recent development has generated a variety of research that study the online interaction between drug users. However, few have investigated the topic based on information from those who gather and co-produce the online content. In this dissertation, I study online drug communities with an analytical focus on the members who make up such websites. The aim is to understand how participation in online drug communities influences those involved.

Based on observations of online discussions within a Norwegian internet drug forum and in-depth interviews with 29 forum members recruited from two Norwegian drug forums, this dissertation helps to provide new understandings of how drug users relate to and use the online information that they gather and co-produce. Through three published articles, I show how forum members contribute to the development of online drug discourses that shape their attitudes towards specific drugs, also highlighting the possible deterrent effect of such sites. Such experiential learning is however dependent on trust, and I argue that the development of collective identities, subcultural authenticity and online reputations, enables forum members to evaluate the credibility of the online information and those who write it. This community perspective, where members cooperate in the exchange of a cumulative body of drug-related knowledge, influences perceptions of risks and supports notions of participants as being informed, responsible and empowered.

Importantly, the theoretical insights gathered from this dissertation have a broader range of impact than those solely relating to online drug communities, as it highlight the broader framework in which people increasingly use the internet to access and share health-related information. It shows how the decentralisation of authority on the internet help create online

platforms on which new producers of health information emerge. These discursive communities promote narratives that often contradict official recommendations and may cause people to make independent health-related judgments. They therefore challenge traditional hierarchies in the dissemination of risks and undermine the communicative control of such content. Especially for an activity such as drug use which has been subject to scaremongering, stigmatization and criminalisation, these online communities provide drug users with powerful cultural tools as they are increasingly narrating themselves through an abundance of online content.

# Table of Contents

## List of Publications

Article 1:    Bilgrei, O. R. (2016). From "herbal highs" to the "heroin of cannabis": Exploring the evolving discourse on synthetic cannabinoid use in a Norwegian Internet drug forum. *International Journal of Drug Policy,* 29, 1-8.

Article 2:    Bilgrei, O. R. (2018). Broscience: Creating trust in online drug communities. *New Media & Society,* 20 (8), 2712-2727.

Article 3:    Bilgrei, O. R. (2019). Community-consumerism: Negotiating risk in online drug communities. *Sociology of Health & Illness,* published online 23 January 2019.

# 1. Introduction

In contemporary society, the internet has become the most widely used source of information about illicit drugs and their use (Eurobarometer, 2008). Within online drug-related discussion forums, large groups of anonymous members interact, gather user-relevant information and share their drug experiences with others, regardless of physical or temporal proximity (Barratt, 2011; Belenko et al., 2009; Griffiths, Sedefov, Gallegos, & Lopez, 2010; Murguía, Tackett-Gibson, & Lessem, 2007; Wax, 2002). This development has generated recent academic interest, where such discussions are found to be characterized by a concern for safety and harm reduction among users (Bancroft, 2017; Boothroyd & Lewis, 2016; Soussan & Kjellgren, 2014) and framed in a way that privileges the pleasures of getting high (Barratt, Allen, & Lenton, 2014). The interactive element within such forums has also created arenas for members to provide social support and empowerment for individuals coping with addiction recovery (D'Agostino et al., 2017; Sowles, Krauss, Gebremedhn, & Cavazos-Rehg, 2017), developing grounds for political drug-related activism (Maddox, Barratt, Allen, & Lenton, 2016). However, most studies on online drug-related communities rely solely on observations of online discussions, leaving members' experiences and the consequences of such online affiliations largely undiscovered.

Drawing on in-depth interviews with 29 members from two Norwegian internet drug forums and analysis of online discussions, this study seeks to improve current knowledge of the consequences of members' participation in such globalised networks of drug users. Insight into how members navigate and make use of the online information they gather and co-produce is crucial in order to explore its effects in members' everyday offline lives. In this dissertation, I do so by emphasising how online communities relate and contribute to current drug trends, how members navigate and evaluate the trustworthiness of online user-generated drug information, and how members actively make use of such online information when negotiating drug-related

risks and their drug-using identities. Importantly, this study touches upon wider sociological debates within the field of health, risk and the internet. Throughout the dissertation, I highlight the ways in which the internet has increasingly become a platform for health-related discourses that are generated bottom-up, thus challenging established scientific, political and professional boundaries, creating space for the construction of new narratives about health and lifestyle.

The recent scholarly interest in online drug-related communities has shown that such sites serve as arenas for peer harm reduction and negotiations of drug-related risks (Bancroft, 2017; Barratt et al., 2014; Boothroyd & Lewis, 2016; Chiauzzi, DasMahapatra, Lobo, & Barratt, 2013; Rönkä & Katainen, 2017; Soussan & Kjellgren, 2014; Tackett-Gibson, 2008; Van Hout & Hearne, 2017). Unlike most official discourses concerning drug use, where politicians, healthcare representatives and the media portray the use of drugs as a negative risk which must be controlled and restricted, Hunt and colleagues (2007) argue that users themselves rather emphasise the meaning of drug use, and the social and cultural contexts in which use occurs. These negotiations of risk thus entail an interplay between individuals, the actions of other individuals, their communities and social environments (Rhodes, 1997), and may reflect a clear distance between official and user assessments of risks (Hunt et al., 2007).

As Bancroft (2017) argues, the notion of risk within online drug communities becomes a construct towards which drug users act, rather than just a potential negative outcome. The struggle over what risk is and what it entails is therefore subject to negotiations amongst groups, based on variations in power, authority and credibility (Beck, 1992; Douglas, 1992). Due to the rapid development of internet technology and widespread access to information (Lemire, Sicotte, & Paré, 2008), this balance of power is being challenged (Murguía et al., 2007; Tackett-Gibson, 2008), causing an ever-changing digital landscape where internet users are free to both consume and create information, thereby challenging the way knowledge is created, contested and understood.

12

In this dissertation, I will follow these broad sociological discussions through the study of online drug-related communities. I rely on systematic analysis of qualitative interview data and observations of online forum discussions in order to shed new light on the online migration of drug users. As most studies of internet drug forums rely solely on observations of online discussions, the combination of data in this project helps expand upon and provide new understandings of how online communities contribute to current drug trends, and how members navigate and make use of the online user-generated drug information that they gather and co-produce. This insight also helps to illuminate broader societal changes in the way information is shared, negotiated and contested on the internet, giving rise to differing views that can challenge established scientific, political and professional boundaries.

**Internet Use in Norway**

The recent development of online communication has been made possible by the rapid proliferation of internet technology in people's everyday lives. In Norway and most western countries, access to and use of the internet has increased rapidly. During the late nineties, less than a fifth of Norwegian households had access to the internet. However, after the turn of the millennium, computers gradually became more affordable and internet connections got faster. This development rapidly increased the use of the internet and, by 2018, 96% of Norwegian households had access to the internet and 93% of Norwegians aged 16-74 years accessed the internet every day (SSB, 2018). In contrast, an average of 87 % of EU households had access to the internet and 72% of EU citizens accessed the internet every day (Eurostat, 2018). This highlights the widespread access to and use of the internet in Norway compared with other European countries.

Today, most Norwegians use the internet to access email, social media and banking services, read newspapers or search for information about goods and services (SSB, 2018).

However, an increasing proportion also uses the internet to search for health-related information (H. Andreassen, Sandaune, Gammon, & Hjortdahl, 2002; H. K. Andreassen, Wangberg, Wynn, Sørensen, & Hjortdahl, 2006; SSB, 2018; Wangberg, Andreassen, Kummervold, Wynn, & Sørensen, 2009). The number of people in Norway using the internet to access health-related information has doubled since 2006, from 33 to 66 percent in 2018 (SSB, 2018).

According to these surveys, internet use in Norway has not only accelerated during the last two decades – but also how and for what purposes people use the Internet has witnessed a recent change. More and more people are constantly online, using their smartphones to access the internet and people are increasingly using the internet to access a broad range of health-related information (SSB, 2018). In doing so, they are faced with an ever-expanding and multifaceted online arena, were everyone is entitled to their opinion and, not least, offered a public arena to speak their voice, thus transforming the way health-related information is shared and discussed.

**Online Health Discourses and Web 2.0-Technology**

As discussed, the widespread access to and use of the internet has revolutionized people's ability to gather and share health-related information (Flanagin & Metzger, 2008). Parallel to the digitalisation of society, a plethora of health information has been made available, and the emergence of new producers of health information has led to structural changes in the process of diffusion and appropriation of health knowledge (Lemire et al., 2008). As Lankes (2008) argues, this change is moving us towards a society based on greater information self-sufficiency and decentralisation of authority. The phrase 'just google it' thus seems to carry with it real consequences, as search engines have become the most prevalent tool used to search for information online (Fallows, 2005), creating a levelling effect that puts all information at the same level of accessibility (Burbules, 1998).

14

The internet initially started as a theoretical conceptualisation of "The Intergalactic Computer Network" amongst Pentagon colleagues in 1963, and has had consequential effects on how we communicate and access information (Leiner et al., 1997). The first version of the internet, known as ARPANET[1], offered opportunities for both research and communication in the late 1960s (Jones, 1998b). For the first time in history, it was possible to transmit messages through an interconnected network of computers (Leiner et al., 1997). The network expanded during the 1970s, and the first transatlantic satellite link connected the Norwegian Seismic Array (NORSAR) to the ARPANET in 1973, making Norway the first country outside the United States to be connected to the network (NORSAR, 2018).

By 1985, the internet was a well-established technology that supported a broad community of researchers and developers, and it started gaining popularity amongst regular users for daily computer-based communication (Leiner et al., 1997). In the late 1980s, a number of commercial internet providers emerged and the first ever web browser was released in 1993 (Leiner et al., 1997). Simultaneously, rapid technological development took place and several high-speed links were established, making the internet a much more robust and user-friendly tool. As a result, internet use exploded during the 1990s (Stempel, Hargrove, & Bernt, 2000), and it is now the most widely used tool for accessing information (Fallows, 2005).

Already in the late 1990s, much of the information on the internet was health-related, and access to health information was one of the most popular reasons for using it (Eng et al., 1998). Alongside this development, the burgeoning wave of consumerism in medicine caused a vigorous debate in the sociological literature concerning the changing social position and status of the medical profession (Lupton, 1997b). Not only did the internet represent a technological advancement, the new media also popularised a great deal of medical knowledge and made it accessible to a public whose rising educational level permitted many people to

---

[1] The Advanced Research Projects Agency Network (ARPANET).

grasp it. Thus, the anti-authoritarian trends seen during the 1970s, combined with higher levels of education and a stronger belief in the efficacy of self-care, caused the traditional asymmetric relationship between doctor and patient to be challenged (Haug, 1988). The internet played a significant role in this development. Parallel to the digitalisation of society, a plethora of health information was made available, and the emergence of new producers of health information led to structural changes in the process of diffusion and appropriation of health knowledge (Lemire et al., 2008).

In the early 2000s, the term 'Web 2.0' began to emerge and highlighted the principles and practices that could be seen in the changing online technologies and use of the Internet (O'Reilly, 2010). The concept did not imply a new version of the internet, but rather displayed the steady development in the changing use of the internet, where online content could be more easily generated and published by users (Kamel Boulos & Wheeler, 2007). Often termed "the social web", the notion of Web 2.0 thus implied an interplay between online software and internet users, where users act simultaneously as both readers and writers. As O'Reilly (2010) argues, "Web 2.0 is the world in which the former audience, not a few people in a back room, decides what's important" (p. 232), thereby highlighting the fundamental shift in power of online content, creating network effects through an architecture of participation.

The online encyclopaedia Wikipedia, launched in 2001, is a relevant example in this context. Until 2001, the equivalent was Encyclopaedia Britannica – a well-respected encyclopaedia dating back to 1768, which earned a reputation of excellence. In stark contrast, Wikipedia was launched as a website where no central organisation would control editing. Rather, as the famous quote states, Wikipedia was launched as a free encyclopaedia that anyone could edit (Wikipedia, 2018). Today, Wikipedia is one of the world's most popular websites. This shift, characterised by the ever-increasing internet apps generated by user content, such as

16

blogs, online marketplaces, peer-to-peer technology, forums and social media, has marked a fundamental shift in the way the internet has developed in the 21st century.

While the development of Web 2.0 technology marked a shift in the possibilities offered on the internet, its characteristics were not new. The idea of the internet as a leaderless, free space for information echoes from its origins. As Leiner et al (1997) argued in the late 1990s, the rapid expansion of the internet was fuelled by realisation of its capacity to promote information sharing. As Power (2013) vividly argues, these political undertones played a major role in the very foundation of the internet, as:

> Info-anarchists and cyber-utopians not only laid the foundations for the internet, but would act as outriders for the free software movement. The net's founding mothers and fathers wanted to share their knowledge, and everyone else's knowledge, all at once, all the time, for free, with no centralized control system. Instead, they preferred – and created – a devolved, leaderless model of equalized authority (Power, 2013, p. 55).

Against this backdrop, one can assert that the basic idea of the internet was a virtual space inspired by anarchy, shaped and developed by the users themselves. Everything should be open, everything should be available, and the result should be a product of the users' own actions. In other words, the internet was based on an ideological concept of flat power structures and a culture characterised by sharing, openness and cooperation. This was also evident in those leading the technological revolution that constituted the internet. As Walsh (2011) argues, the very origins of the internet were bound up with the exuberant experimentation with psychedelic drugs in Silicon Valley during the 1960s. Allegedly, Steve Jobs, cofounder of Apple, and other leading programmers claimed that the use of the psychedelic drug LSD helped the thought processes in tackling the challenges of computing (Walsh, 2011).

While these ideological principles are still evident on the internet, the increased surveillance and censorship have reduced the global accessibility or freedom to use online spaces (Barratt, Lenton, & Allen, 2013), and fostered alternative spaces within the dark web where internet users can congregate (Maddox et al., 2016). Most notably, the dark web has attracted attention not only for the proliferation of various cryptomarkets (Martin, 2014), but also for the formation of supportive communities and the development of political activism (Maddox et al., 2016). As Kahn and Kellner (2004) argue, these new media developments make possible the reconfiguring of politics and culture, where online subcultures have materialised as a wide diversity of individuals and groups that have used emergent technologies in order to help create new social relations and forms of political opportunity. These subcultures, while varying and non-uniform, are involved in the online circulation and democratisation of alternative information and culture, and have enabled a plethora of alternative cultures to flourish (Kahn & Kellner, 2003).

Such online communal structures have also become an increasingly important platform for self-empowerment in health (Lemire et al., 2008; van Uden-Kraan et al., 2008), and offer an opportunity for people to seek meaningful social relationships online (Williams & Copes, 2005). Especially for risky activities, such communal affiliation is likely to develop because of its subcultural character and need for mutual aid in reducing risk (Fine & Holyfield, 1996). Members may also express distrust of 'experts' and 'authorities' that provide official information, whom they perceive as lacking the specialist knowledge that they possess (Sumnall, Evans-Brown, & McVeigh, 2011). As such, medicine is simply one authority amongst many within such communities (Monaghan, 1999), and the established distinctions between professions and expertise are transcended (Hardey, 1999).

This development entails that expert knowledge, such as medicine and science, is no longer simply accepted at face value, but rather open to scepticism (Lupton, 1997a). The digital

18

landscape in which these communities thrive thus creates new opportunities for cooperation, anonymity and information sharing, while also posing challenges as the information is not subject to quality control. Insight into how internet users navigate and make use of such information is therefore important. The scope of this dissertation is to shed new light on the ways in which internet users gather and share information, and how they utilise such information in their everyday offline lives. I use the empirical example of online drug communities, while offering a broader theoretical take on the increasing use of the internet to access and share health-related information in contemporary society.

**Content of the Dissertation**

This study of online drug communities relies on a broad range of theoretical perspectives from sociology, media studies and social medicine, as well as empirical work from a number of recent contributions within the field of online culture and drug-related research. The findings appear in three published journal articles that together form the dissertation.

In Chapter 2, I review and discuss the theoretical perspectives that has inspired the work on this dissertation. Although I have devoted considerable space to theoretical discussions within the published papers, I will in this chapter show how the theoretical contributions are tied together. I begin with a review of the empirical studies that have focused on online drug communities and discuss them in relation to subcultural theory. This leads to a further discussion of the concept of risk and the use of the community metaphor placed on online social relations. I conclude by offering a theoretical perspective on how to study and further theorise online drug communities.

In Chapter 3, I present a detailed description of the methodological and analytical work involved in the dissertation. In contrast to the published articles, this introduction allows for an extended elaboration and discussion of the methodologies involved. The online nature of such

a phenomenon enables the use of innovative methods, while also posing some specific challenges which I will discuss.

Chapter 4 contains a summary of the three research papers involved in the dissertation. In the first article (Bilgrei, 2016), I explore the evolving discourse on synthetic cannabinoid use in a Norwegian internet drug forum. Based on interviews with forum members and observational data spanning a seven-year period derived from the selected drug-related forum, the article analyses the evolving discourse on synthetic cannabinoid use and how it influenced members of the forum in their views and representations of the drugs. The second article (Bilgrei, 2018) expands upon the first article by emphasising the role of trust in online settings. With an emphasis on the group mechanisms of such communities, this study shows how forum members evaluate the trustworthiness of online user-generated drug information. In the third and final article (Bilgrei, 2019), I explore the social organisation of risk in online drug communities. The study highlights the social mechanisms involved in the information self-sufficiency and decentralization of authority on the internet, in which members create an alternative frame of reference for drug use and associated health.

In Chapter 5, I discuss further the role of the internet for contemporary drug cultures and conclude based on the published research articles.

## 2. Theoretical Perspectives

In this chapter, I review and discuss the theoretical contributions that have inspired the work on this dissertation. It draws on several contributions from both sociology, media studies and social medicine, as well as empirical work from a number of recent contributions within the field of online culture and drug-related research. I begin by reviewing the literature relating to online drug communities and discuss its findings in relation to subcultural theory. A common denominator within these studies is their harm reductive features, I therefore discuss further the theoretical concept of risk and how the notion of community may be understood when applied to online social relations. The chapter concludes by offering a theoretical perspective on how to study and conceptualise online drug communities in contemporary digital society.

### Online Drug Communities and Subcultural Theory

Usually defined as groups of people who are represented as non-normative and marginal as a result of their interests and practices (Gelder, 2005), subcultures have traditionally been understood in terms of what they do and where they do it. Following the urban ethnographers of the early Chicago school, subcultures were seen as contingent on physical space and geography, in which cultural similarity and locality served as a basic premise for such groups (A. K. Cohen, 1955; Park, 1915). However, the later cultural studies offered by the Birmingham school marked a shift in focus from territory to style, where subcultures were seen as a style-based cultural phenomena, yet still dependent on face-to-face interaction (Hebdige, 1979).

Although subcultural theory has seen a great deal of development since these important contributions, the rapid development of the internet has marked a contemporary shift in the way subcultures are understood and conceptualised. These theories rather emphasise online arenas as a resource for the affiliation and expression of subcultural identity, where people construct a

wide variety of non-mainstream identities and communicative practices, detached from physical space and geography (Kahn & Kellner, 2003; McArthur, 2009). The internet facilitates sites of interaction, many of which associated with particular interest communities or subcultures (Hodkinson, 2005). As Williams (2006) argues, the internet thus "functions as a subcultural resource, a form of subcultural expression, and a medium for subcultural existence" (p. 194).

Following these contemporary theories of online subcultures, the internet seems to offer resources for people to develop social bonds and gain an insight into how their peers perform subcultural selves – promoting culturally bounded networks of people who come to share the meaning of specific ideas and practices through interaction (Williams & Copes, 2005). The absence of locality rather emphasises the fluid nature of new digital media, where people can roam freely through a plethora of alternative communities in search of new kinds of belonging. However, as noted by early subcultural theorists such as Cohen (1955) and Hebdige (1979), subcultures are usually the result of shared social problems. Especially for activities such as drug use, such subcultural affiliation is likely to occur because of its deviant character and need for mutual aid in reducing risk (Fine & Holyfield, 1996). Becker's (1963) seminal study of the social construction of deviance provided a useful framework for understanding how groups of 'outsiders' offered internal support, and thus provided members of deviant subcultures with protection and isolation from societal judgements. He also argued that deviant acts such as drug use was a result of social experiences, where individuals learned to define the activity as pleasurable and desirable, and the associated meanings and dispositions for drug use were intrinsically social (Becker, 1953).

Norman and colleagues (2014) argue that contemporary drug communities on the internet facilitate similar group mechanisms such as those previously proposed by Becker (1953). On the internet, members can learn how to use various drugs, recognise their effects

and enjoy their sensations, all within a virtual world that offers far more effective interaction and communication between drug users (Norman et al., 2014). Kataja and colleagues (2018) also lean on the proposed framework of Becker (1953), arguing that online drug communities constitute a kind of virtual academy, where members produce and circulate knowledge relating to the pleasures and risks of combining substances, emphasising that experienced users mediate their expertise to those less experienced. In a marketing context, the internet has thus become a valuable source of information about drugs and their use (Deluca et al., 2012; Hillebrand, Olszewski, & Sedefov, 2010; Sumnall et al., 2011).

Some scholars argue that the availability of such information could have significant effects on patterns of drug use (Bogenschutz, 2000). It may contribute to greater awareness of new drugs (Griffiths et al., 2010; Schifano et al., 2009; Vardakou, Pistos, & Spiliopoulou, 2011), and some raise concerns about young people being particularly susceptible to such communications, as they have little previous experience of drugs and are often adept at navigating the internet (Wax, 2002). Users' perception of the drugs as safe, combined with positive publicity on the internet, may attract potential users (Freeman et al., 2012).

In article 1 (Bilgrei, 2016), I study this issue further and explore how the use of synthetic cannabinoids was discussed in a Norwegian internet drug forum over a seven-year period. In combination with interviews with forum members, I found that the online discussions largely influenced members in their views and representations of the drugs. However, the online discussions relating to synthetic cannabinoid use changed over time: What initially began as an enthusiastic embracement of the new drugs ended up with a community rejection based on negative reviews from users. The study highlights the narrative mechanisms of online drug communities (Agar & Reisinger, 2004), where the discourse relating to specific drugs is accentuated, as people rely on peer stories of personal experiences to evaluate them. I therefore

conclude that online drug communities may be important in the development of new drug trends, whilst also stressing their potential as a deterrent.

Duxbury's (2015) study of online drug discussions draws similar conclusions, arguing that knowledge is produced on internet drug forums through social processes of information sharing and the relating of personal experiences. Following a community perspective, he argues that the need to understand the effects of different drugs shapes the online interaction into a form of 'citizen science', where the sharing of drug information becomes an ethical practice. The knowledge production within internet drug communities thus acts as an altruistic endeavour, where drug users share their experiences so that others may experiment more safely. This morally charged perspective is elevated due to forum members' awareness of social attitudes that stigmatise drug users, which in turn leads to a generalised distrust of institutional science and medicine (Duxbury, 2015).

This perspective is reflected in several studies of online drug communities, where forum members express distrust of 'experts' and 'authorities' which provide official drug information, whom they perceive as lacking the specialist knowledge that they possess (Sumnall et al., 2011). Amongst the drug users themselves, online user-generated information is therefore usually rated as more trustful and reliable (Agar & Wilson, 2002; Falck, Carlson, Wang, & Siegal, 2004; Monaghan, 1999). In article 2 (Bilgrei, 2018), I study how issues of trust are resolved in online drug communities. I found that forum members acknowledge the lack of formal quality control over online user-generated content and that some of the information can be misleading. However, through the evolving online interaction, members develop cooperative ways of assessing the online content and those who communicate it, thereby enabling online community trust. With an emphasis on the group mechanisms of such communities, the study shows how the development of collective identities, subcultural authenticity and online reputation promotes community trust, rather than diminishing it.

Boothroyd and Lewis (2016) propose a similar understanding to Duxbury (2015), arguing that online drug forums constitute an ethical practice, where they produce platforms for harm reduction from below. This perspective leans on the concept of phronesis, where the ethos of the community represents an "ecology of practices", including specific knowledge, behaviours, ideologies and social practices. These findings highlight the significant shifts in power offered by the emergence of online life, as it has shifted from a top-down, professionalised discourse of harm reduction (Irwin & Fry, 2007), to one that is peer-generated and user-led (Boothroyd & Lewis, 2016).

Several scholars have explored such harm reductive approaches in the study of online drug communities. Soussan and Kjellgren (2014) argue that forum members support each other through the exchange of an extensive and cumulative amount of knowledge about drugs and how to use them safely. Through their analysis of online drug discussions, they found that the discussions centre on themes relating to uncovering the substance facts, providing information on dosage and administration, the sharing of subjectively experienced effects and that members offer support and safety. They conclude that harm reduction appears to be the common denominator that permeates online drug discussions (Soussan & Kjellgren, 2014).

Bancroft (2017) concludes in a similar fashion. Through analysis of discussions in online cryptomarkets, he argues that such sites can provide a community infrastructure that supports the exchange of drugs and configures them as risky but manageable objects. Within cryptomarkets, members develop a risk infrastructure that offers technical tools, shared knowledge and shareable judgements to manage risk. This works along the four axes of cultural normalisation/pathologisation, chemical potency, legal/policy and market, each of which requires a set of practices and orientations to manage successfully. He concludes that, through the online interaction, members challenge prevailing 'expert' risk narratives and thus produce

a counter-public health, where they are able to articulate narratives of drug use that resist stigmatisation, pathologisation, and criminalisation (Bancroft, 2017).

Following these empirical studies, the harm reductive element of online drug forums also seems to carry with it the development of counter-public health narratives and political resistance. As Barrat and colleagues argue (2014), there is evidence that the internet is being used as a tool for resistance by drug users facing dominant drug discourses. While the internet does not inherently function as a site of resistance, it does provide a platform for conversation through which resistance can take place. Through their analysis of online drug forum discussions, they found that the forums serve as sites of negotiation concerning how drug use should be practised, focusing on both harm reduction and those who privilege pleasure and the thrill of risk over concerns about harm (Barratt et al., 2014). Similarly, Tackett-Gibson (2008) notes that, in addition to being constructed, drug-related risks are also contested on the internet, arguing that:

> ...the development of the internet, and more importantly the growth of online communities, various groups previously excluded from the public discourse defining risk, now frequently participate. They contribute competing views of risk and harm often in stark contrast to those offered by ''official'' authoritative sources. Online drug-related communities develop their own experts, redefine drug use risk and establish methods of managing the consequences of risky behaviour (Tackett-Gibson, 2008, p. 247).

This entails a shift from the local and geographically limited thesis of Becker (1953), where the opportunities offered by the internet enable a reconfiguring of the way in which drug use and its associated pleasure and harm is negotiated and contested. While acknowledging that the

increased global internet surveillance and censorship has reduced the availability or freedom to use online spaces for such activities (Barratt et al., 2013), Maddox and colleagues (2016) argue that the internet facilitates a shared experience of personal freedom within a libertarian philosophical framework, where open discussions about stigmatised behaviours are encouraged and supported. The online communities thus resonate with traditional beliefs about the purpose and meaning of the internet to change society through radically reconfiguring the relationships of power, information and exchange. They argue that it facilitates social resistance through the use of online technology to build an alternative reality which enables peer-to-peer trading of drugs and associated discussions concerning drug use (Maddox et al., 2016).

In article 3 (Bilgrei, 2019), I develop the concept of "community-consumerism" in order to offer new understandings and further theorise the social organisation of risk in online drug communities. I argue that the information self-sufficiency and decentralisation of authority on the internet helps members to create an alternative frame of reference for drug use and associated health, which support notions of forum participants as being informed, responsible and empowered. The article highlights how the emergence of new producers of health information on the internet has led to structural changes in the process of diffusion and appropriation of health knowledge, and thus creates space for the construction of new narratives about health and lifestyle.

To sum up, these empirical studies provide an understanding of how drug users and the associated culture have exploited and adapted to the possibilities offered by new digital media. Rather than being dependant on locality, the new subcultures on the internet emphasise the fluid nature of digital technology, where the online interaction offers subcultural resources, a place for subcultural expression and a medium for subcultural existence (Williams, 2006). Similar to early subcultural theory (A. K. Cohen, 1955; Hebdige, 1979), online subcultures seem to be solutions to shared social problems. The new internet subcultures, represented here by online

drug communities, thus provide resources for users to reconstruct narratives to maintain or alter their sense of self-identity (Hardey, 1999), where people with similar experiences and problems gather in an attempt to stay better informed. The online drug communities are characterised by a concern for safety and harm reduction, with members articulating narratives of drug use that resist stigmatisation, pathologisation and criminalisation (Bancroft, 2017; Barratt et al., 2014; Boothroyd & Lewis, 2016; Duxbury, 2015; Kataja et al., 2018; Maddox et al., 2016; Norman et al., 2014; Soussan & Kjellgren, 2014; Tackett-Gibson, 2008). This perspective revitalises a discussion of risk theory and the consequences of the community metaphor placed on online subcultural relations.

**The Social Organisation of Risk in Online Drug Communities**

As discussed previously, online drug communities enables a reconfiguring of how drug-related risks are negotiated and understood (Bancroft, 2017; Boothroyd & Lewis, 2016; Duxbury, 2015; Soussan & Kjellgren, 2014; Tackett-Gibson, 2008). These findings entail a shift in power, involving an understanding of risk as something malleable, which changes over time and between groups. This resonates with Beck's (1992) influential work on the concept of 'risk society'. He states that risk has become the organising feature in modern society, as social life revolves around a preoccupation with risk and the potential for harm.

An important claim in this context is that definitions of risks are "politically reflexive" (Beck, 1992, p. 21). This entails that institutions such as the media and legal and scientific professions have a substantial role in the production of risk definition and management, which leads to the fact that risk knowledge "can be changed, magnified, dramatized, or minimized within knowledge, and to that extent [risks are] particularly open to social definition and construction" (Beck, 1992, p. 23). What risk is and what it entails are therefore subject to a struggle between various actors over time, where power, authority and credibility are central.

As argued by Tackett-Gibson (2008), the development of modern technology, and especially the internet, has challenged this balance of power, where new groups are given space to interact, construct and contest notions of risk. As such, those previously excluded from the public discourse defining risk, now frequently participate. Thus, in risk society, "conflict erupts as various interests try to define risk, manage it, modify standards of behaviour, and allocate or diminish consequences" (Tackett-Gibson, 2008, p. 247).

As Peretti-Watel (2003) argues, the risk culture of contemporary society leads to a social stigma attached to unhealthy behaviours. Risky behaviours tend to be labelled as deviant behaviours because they may affect collective wealth. Based on a study of young cannabis users, Peretti-Watel (2003) argues that people deny personal risks and justify nonconforming lifestyles. His theory of risk denial entails that "people neither seek risk purposely nor endanger themselves unconsciously. They just find 'good reasons' to deny it" (Peretti-Watel, 2003, p. 39). Similarly, Hunt et al (2007) argue that most drug users resist the public portrayal of drugs as an entirely negative risk. Rather, they emphasise the meaning of drug use, and the social and cultural contexts in which use occurs, reflecting a clear distance between official and user assessments of risks (Hunt et al., 2007).

Importantly, these types of denials are considered to be learned skills and dependent on various social factors. As such, they do not exist in a vacuum, but rather appear as skills that people acquire through various forms of interaction. In contemporary digital society, the internet appears to be a decisive platform for such learning. Through the communicative processes that take place on the internet, people learn subcultural norms, values and how to avoid risks, and they develop strategies to make sense of and justify their actions (Holt & Copes, 2010). Following this perspective, the negotiations of risk and personal health seem to be largely dependent on social and cultural factors, underpinning a constructivist view on risk.

In this context, Rhodes (1997) argues that research into health-related risks seems to rest on two explanatory paradigms: the individual and the social, where the latter holds analytical emphasis on the interplay between individuals, the actions of other individuals, their communities and social environments, thus constituting a sociocultural theory of risk (Rhodes, 1997). However, in the former realist approach, risk is viewed as a taken-for-granted objective phenomenon, where the focus of research is placed on identifying risks, mapping their causal factors, building predictive models of risk relations and people's responses to various types of risks (Lupton, 1999). Such models of individual-level change are self-evidently limited in their capacity to explain, encourage or sustain sufficient change to adequately reduce or prevent harm, Rhodes (2009) argues. In contrast, a sociocultural theory of risk "shifts the unit of analysis from individual factors to social factors, such as particular social interactions, relationships or situations, with the aim of understanding how risk behaviour is socially organised" (Rhodes, 1997, p. 213).

Such a view offers a critique on a tendency in public health and the behavioural sciences to emphasise harm as a primary determinant of individual action and responsibility. As Lupton (1993) argues, the meaning of risk has changed in western societies – according to its original usage, risk was a neutral term, referring to probability, or the mathematical likelihood of an event occurring. It may thus relate to either a positive or a negative outcome, depending on the event in question. However, it is no longer neutral; rather, risk has come to mean danger. In public health, a discourse of risk has evolved, where individuals or groups are labelled as being at high risk (Lupton, 1993). In this context, Rhodes advocates a shift in perspective which rather emphasises "the meanings which participants attach to their actions as produced through social interaction itself" (Rhodes, 1997, p. 213). In other words, the sociocultural theory of risk shifts the focus from the individual alone, to the social situations and structures in which they find themselves.

30

Inherent in this view is that definitions of risk are the outcome of social processes, where a moral distinction is drawn towards those at risk. Traditionally, the general public has been dependent on intermediaries, such as scientists, government officials and the media to inform them about risks. Risk definitions can therefore be used as hegemonic tools that cause stigmatisation and serve to maintain the power structure of society (Lupton, 1993). However, the digital revolution caused by the internet has enabled groups to resist and negotiate such labels. As argued above using the example of online drug communities, those previously excluded from the public discourse defining risk now frequently participate (Tackett-Gibson, 2008). The communal aspects of such online sites enables groups to form bottom-up, with actors reconstructing hegemonic narratives to maintain or alter their sense of self-identity (Bancroft, 2017; Barratt et al., 2014; Boothroyd & Lewis, 2016; Duxbury, 2015; Maddox et al., 2016; Soussan & Kjellgren, 2014).

According to this interactionist perspective, echoing Becker (1953, 1963), online drug communities provide users with the resources to define the activity as pleasurable and desirable, and ways to manage the risks involved (Kataja et al., 2018; Norman et al., 2014). These resources are dependent on various social factors and learned through interaction. Therefore, the focus of study emphasises the ways in which risk is socially organised and, in this case, how the internet operates as a mediating platform for such discourses. According to Lupton's (1999) and Rhodes (1997) sociocultural theory of risk, this perspective encourages a better understanding of how risk logics are produced and operate at the level of situated experience.

This perspective is relevant when exploring the new drug subcultures on the internet, where risk management seems to be the common denominator (Soussan & Kjellgren, 2014). The harm reduction from below on such sites, as reviewed by Enghoff and Aldridge (2019), leverages the community-based narratives of illicit drug experiences and lifestyles to better understand how people who take illicit drugs adapt to risk. However, this depends on the fact

that the relationships within such groups are of such value that members have confidence in one another and that some form of community develops. With no physical contact and few cues with which to evaluate each other, this online world is a long way from the classical conceptions of community. This raises important questions as regards whether community is even possible on the internet, and if so, how can it be understood?

**Community as Communication?**

The vast amount of research into online groups tends to refer to the social spaces where people interact as some sort of community. As a sociological concept, the term has a long history, although its understanding and use is heavily debated. Today, with the widespread use of and access to the internet, the concept of community has been revitalised, with its understanding being ascribed to new types of social groups that only exist on the internet. However, what do we imply with the concept of community?

Early studies of the concept of community were usually harmonious, with a focus on cohesion and integration, largely associated with an ideal of the pastoral village. Seminal theorists, such as Tönnies (1955) and Durkheim (1964), emphasised collective groups and strong interpersonal ties in their conceptions of community, brought together by face-to-face interaction, a shared focus and a common purpose, language and identity. The need for physical proximity was a prerequisite in these theoretical frameworks, with community being developed through interaction with people living close to each other. However, the emergence of the internet has changed this situation, with human interaction switching to platforms that are no longer confined to temporal or physical boundaries. This development has necessitated a reconfiguration of how the term 'community' is understood and conceptualised in contemporary digital society.

The rapid growth and use of the internet caused a vital academic interest due to the new interactive opportunities created by computer-mediated communication. As individuals migrate online, the arenas of interaction have been discussed in the same way as past changes in the physical organisation of societal interactions, leading to both utopic and dystopic views (Haythornthwaite, 2007). It has been described as taking people away from "real" face-to-face interactions, resulting in individual alienation and depression (Kraut et al., 1998; Nie, 2001; Nie & Erbring, 2002; Putnam, 2001). Involvement in online communities has also been seen as taking resources and attention away from local communities, reducing our civic engagement and thereby impoverishing our overall quality of life (Nie, 2001; Putnam, 2001). On the other hand, such dystopic views are often matched by utopic views, which argue that online communication frees us from the constraints of geography (Sproull, Kiesler, & Kiesler, 1992) and thereby increasing our connectedness to others (Howard, Rainie, & Jones, 2001; Jones, 1998a; Kazmer & Haythornthwaite, 2001; Quan-Haase, Wellman, Witte, & Hampton, 2002).

Thus, the notion of online community is highly debated and contested. Yet online research methods have attracted considerable attention amongst the social sciences. The richness of social interactions enabled by the internet has gone hand in hand with the development of methodologies for documenting those interactions and exploring their connotations (Hine, 2008). Whilst the internet has provided new scope for computer-mediated communication, it has also provided a basis for relationships increasingly being created through online interaction and groups (Rheingold, 1993). As Turkle (1995) argues, the widespread access to and use of the internet is leading to the creation of new kinds of communities in which people from all over the world participate, people who may have fairly intimate relationships with each other, yet never physically meet (Turkle, 1995, pp. 9-10). Although the term "virtual" may misleadingly suggest that these communities are less real than physical communities, these social groups still have a real existence for their participants and may have consequential effects

on many aspects of behaviour (Kozinets, 2002). The internet can thus serve as an important platform for socialisation in informal networks and can give young people the opportunity to articulate and define a sense of self and identity (Vrasidas & Veletsianos, 2010).

As Calhoun (1998) argues, the internet has facilitated an enormous increase in communication in a host of styles and on a host of topics. However, online groups and networks are not supplements to those with strong face-to-face dimensions; rather, they reach a category of people who share a common interest. Although these communities may be larger than the immediate personal networks of individuals, Calhoun does not overstate the consequences of such groups, as they do not facilitate getting to know other people in the multiplicity of their different identities (Calhoun, 1998). Similarly, Averweg and Leaning (2012) argue that online communities are seen as communities of choice, rather than of geographical accident, where individuals can choose to communicate on a variety of issues. This view also holds emphasis on the importance of a critical mass of members within the online community, where a feeling of obligation towards the community evolves (Averweg & Leaning, 2012). Others, such as Fernback (2007), offer a symbolic perspective, where online communities are viewed as being detached from geography and rather oriented towards symbolic processes (Fernback, 2007). In this sense, community includes processes of social solidarity, material processes of production and consumption, law-making and symbolic processes of collective experience and cultural meaning.

The community perspective that Fernback (2007) suggests is based on Cohens (1985) symbolic framework. In his work, Cohen (1985) focused on groups of people that had something in common which distinguished them from others. This view was highly relational, implying both similarity and difference, with the empirical focus lying within the boundaries of the community. Such boundaries could take various forms, although Cohen's perspective highlighted the symbolic aspect and the meanings that people ascribe to it. The study of

34

community thus focused on the symbolic aspect of community boundaries and how people create such meaning in their everyday encounters (A. P. Cohen, 1985). Similarly, Anderson's (1983) focus on imagined communities, held emphasis on the cognitive and symbolic structures of community, and less on social dimensions. As Delanty (2003) argues, this led to a view of community as shaped by what separates people, rather than by what they have in common.

Following this critique, Delanty (2003) advocates a different view, arguing that contemporary communities should instead be viewed as communities of communication. In doing so, he states that individuals are not tied to only one community, but rather have multiple and overlapping bonds. They may enter and exit the group, which may lack continuity over time, and the new social bonds are global in scope. As such, community should be viewed as discursively constituted, based on a new search for belonging, expressed in unstable, fluid, open and highly individualized groups. Community is thus not an underlying reality, but rather constructed in actual processes of mobilisation. In this sense of community, "what is distinctive is not merely a normative vision of an alternative society, (…) but the construction of a communicative project that is formed in the dynamics of social action" (Delanty, 2003, p. 112).

Following this perspective, community emerges from the mobilisation of people around a collective goal. Similarly, Friedland (2001) propose a theory of communicatively integrated communities, in which he leans on Habermas' (1984, 1987) model of communicative action and argues that older forms of intimacy has been replaced by new, networked forms of personal community. The central premise is that public talk does not form easily or at random, it emerges from communities in which people formulate problems, find solutions, apply and test those solutions, learn from them, and correct them if they are flawed (Friedland, 2001, p. 360). According to Friedland (2001), such communicatively integrated communities thus allow the formation of robust democratic networks.

In his two-volume piece, Habermas argues that communication is of great value for the existence of community (1984, 1987). The theory of communicative action articulates that communication is a form of social action, whereby language and society form an entity that is linguistically created and sustained. The very fact that social action is articulated through language implies the possibility of a shared conception of truth, justice, ethics and politics. This entails an orientation towards a possible agreement with another person and the tacit assumption of a shared world. Following this premise, Habermas (1989) later argued how modern societies institutionalised spaces for public discourse, distinct from the state, rather a space of the public, formed in new spaces such as the coffee house, public libraries, a free press and wherever public debate took place outside formal institutions. In this sense, the idea of 'communication community' means that social relations in modern society are organised around communication rather than by other media, such as authority, status or ritual (Delanty, 2003). Therefore, community is never complete, but always in the process of being made.

Today, one would probably include the internet as one of the spaces listed by Habermas. If we accept that the essence of community is the communicative process, and communication is the means by which shared perspectives bind members of a group together and help to define them as a community, then the 'community as communicative process' metaphor is alive and well on the internet. As such, online communities may be one of the best examples of communication communities, since people can unite around a common commitment to share information in a communicative context outside of which it does not always exist (Delanty, 2003). Based on this view of community, Delanty (2003) proposes that "people from diverse backgrounds can come together in communal activism united by a common commitment and the solidarity that results" (p. 122). Sustained only by processes of communication outside of which they have no reality, these fluid and temporary forms of social relations are not based on strong ties, but rather communities of strangers. The internet thus "brings together strangers in

a sociality often based on anonymity and where a 'new intimacy' is found in which politics and subjectivity are intertwined" (Delanty, 2003, p. 171).

In the study of online drug-related communities, such a theoretical take on the concept of community makes sense, as it highlights the fluidity of online groups and the importance of communication in creating new forms of belonging. Importantly, this perspective also holds emphasis on the radical force of community, in which its communicative basis entails social action and mobilisation, while at the same time acknowledging the plurality of such communities in contemporary digital society. As such, the proposed view of community as expressed in communication, allows researchers to go beyond the fixed components which previous community concepts entailed, focusing instead on the variety of expressions, in which highly unstable and flexible groups form based on common goals and in search of belonging. As Calhoun (1998) argues, community is not a place or a small-scale population aggregate, but a mode of relating which is variable in extent.

For the study of drugs use – an activity considered to be high-risk, stigmatized and possibly entailing legal consequences – the formation of such anonymised communities on the internet may be expected. They represent a solution to shared problems, just as subcultures have always done (Becker, 1963; A. K. Cohen, 1955; Hebdige, 1979). However, the use of the internet highlights how drug users adapt to technological change, creating new opportunities for cooperation, regardless of space and time, providing consequential effects on the social organisation of risk, and reconfiguring the way in which we understand contemporary subcultures and how we conceptualise community on the internet. Although this development was not prominent at the time of Habermas' (1987) writings, his argument relating to the potential for protest are still relevant. He concludes that "ascriptive characteristics (…) serve to build up and separate off communities, to establish subculturally protected communities supportive of the search for personal and collective identity [and] to foster the revitalization of

possibilities for expression and communication" (p. 395). This point resonates with the idea of community as enabled by communication, and with the argument of online drug communities as a potential platform for identity- and health-related negotiations, through which resistance may occur. However, a pertinent question in this context is how we can study and conceptualise the consequences of participation in such online communities. How can we bridge the above insights with the offline consequences for those who make use of such online information?

**Studying Online Drug Communities**

As has been argued so far, the contemporary subcultures on the internet promote alternative environments through which members learn subcultural norms, values and how to avoid risks, and they develop strategies to make sense of and justify their actions (Holt & Copes, 2010). The internet has thus extended into a subcultural resource that drug users exploit – it has become a medium for subcultural existence and expression, and it facilitates the global transmission of subcultural knowledge without the need for physical contact with other members of the subculture (Holt, 2007; Williams, 2006; Williams & Copes, 2005). Various media, such as the internet, are integral to the formation of subcultures, as they play a significant role in both their origin as well as prolonging their lifecycle. The media exist as systems of communication, critical to the circulation of ideas, images, sounds and ideologies that bind cultures together (Thornton, 1995). However, despite the massive interest in online communities and subcultural movements, there have been few attempts to analyse the offline consequences of participation in such online groups.

This gap has led to what Holt (2007) describes as a lack of any "real considerations of the role of virtual and real experiences in the development and structure of deviant subcultures, despite the growing number of online deviant subcultures" (p. 172). Based on this claim, he encourages researchers to consider how subcultures may be structured by people's experiences

in social environments in the real world and in cyberspace (Holt, 2007). Such a discussion contains an epistemological denomination, as it entails ways of conducting research, gathering data and analysing them. I have previously argued for an approach to community as a phenomenon of culture that is linguistically created and sustained. This perspective holds emphasis on community as a communicative process, in which shared stories bind members of a group together and help to define them as a community. The value of a research design that includes both online forum observations and interviews with those who contribute to the discussions may help fill the gap that Holt (2007) encourages.

The so-called narrative turn in the social sciences, with its understanding of humans as fundamentally storytelling creatures, puts communication at the centre of inquiry (Maruna, 2015). Within this perspective, identity is conceptualized as an internal narrative by which people live by the stories they tell (Bruner, 1987). There are countless forms of narratives in the world, each of which branches out into a variety of media (Barthes, 2004). The multitude of stories people tell may thus help us to understand the complex nature of values, identities, cultures and communities (Sandberg, 2010). I previously argued for a view of online communities as constituted by communication, through which shared conceptions of the world are articulated through language. Narrative inquiry extends this argument by stating that stories are what constitute a community and, not least, the object of inquiry (Presser & Sandberg, 2015). This constructivist approach privileges language and stresses that narratives are made available by social order and culture (Presser, 2009).

Against this backdrop, community is arguably enabled by communication. Following this perspective, narratives may be viewed as the essential building blocks of all cultures (Sandberg & Tutenges, 2015). They are used when actors make sense of their activities and even when they make sense of themselves. However, such stories do not exist in a vacuum, rather they can be found in popular movies, books, music, television and not least on the

internet. Such socially circulating stories, or formula stories (Loseke, 2007), refer to narratives of typical actors engaging in typical behaviours within typical plots leading to expectable moral evaluations. Social actors might use their understanding of such circulating formula stories as yardsticks with which to evaluate their own experiences, and they become cultural resources for crafting narratives of personal identity (Loseke, 2007). These stories are continually created, modified and challenged, and they draw selectively upon lived experiences (Presser, 2009). Narratives are thus taken from the social context, where actors rely on ways of self-presenting and thinking that they have learned, and therefore tells us something important about identities, cultures and communities (Sandberg, 2010).

Narrative inquiry can prove fruitful for a number of reasons. Within the suggested framework of this dissertation, its relevance becomes apparent when asking the fundamental question: where do the drug users' stories come from? If one accepts the premise that narratives exist within cultures and communities – as resources that actors can use selectively and reflexively – the internet appears to be one of the most relevant canons of such formula stories in contemporary digital society. As members interact within online communities, they are also involved in symbolic processes of creating collective experience and cultural meaning (Fernback, 2007), which over time develops into a discourse that structures the generation, activation and diffusion of these ideas and practices (Williams & Copes, 2005). Therefore, the social context in which actors interact helps to develop a repertoire or "tool kit" (Swidler, 1986) of stories that actors can utilise in diverse social settings. The social circulating formula stories then become cultural resources for crafting narratives of personal identity (Loseke, 2007).

Communication communities, as argued by Delanty (2003), enable a sense of collective identities, shaped not only by relations between insiders and outsiders, but also by expansion in the community of reference and the construction of discourses of meaning. These however, need to be negotiated in a variety of dimensions, highlighting the constructivist aspect of this

perspective, in which the cultural dimensions of community are enabled by the storytelling that frames identity-forming narratives (Friedland, 2001). Participation in an online community therefore includes participation in the narratives of that culture, a general understanding of its stock of meanings and their interrelationships (Richardson, 1990).

For drug users, this perspective becomes even more important, as the activity itself includes a potential health risk, and could lead to stigmatisation and criminalisation. The need to justify one's actions to both oneself and others becomes even more important. Similar to the theory proposed by Becker (1963), the online drug communities offer internal support and provide members with protection and isolation from societal judgement. The diversity of health information that has been made available on the internet also offers greater information self-sufficiency and decentralisation of authority, in which drug users reconstruct notions of risk and negotiate their deviant labels. As I have argued, these communities provide drug users with cultural resources for constructing narratives of personal identity, thus illustrating the significant overlap in the experiences of individuals on the internet and in their everyday offline lives.

When studying the significance of the internet for drug users in contemporary society, such insight could prove to be valuable. Rather than solely focusing on the content of online discussions, research would benefit from a stronger emphasis on the consequences of such discussions. Narrative analysis, with a focus on community as a process that is linguistically created and sustained, could provide the missing link. In the next chapter, I will further introduce the analytical potential of such inquiry.

# 3. Methodology

In the following section, I review and discuss the methodological aspects of the dissertation. All three articles follow a qualitative design, where I seek to explore the social life within online drug-related discussion forums and the ways in which members use the information that they gather and co-produce. The data is two-fold, consisting of in-depth interviews with 29 members from two Norwegian internet drug forums, as well as selected transcripts from discussions within one of the forums. I have also spent numerous hours lurking on the forums – reading and following the evolving discussions between members. The online nature of such social phenomena enables the use of innovative methods, while also posing some specific challenges that I will discuss in the following.

## Entering a Virtual World of Drug Users

As a fresh sociologist coming straight from the university, I was in 2011 offered a position at the Norwegian Institute for Alcohol and Drug Research (SIRUS), which involved contributing to a project on the use of synthetic cannabinoids in Norway. I eagerly replied positively to take part in the project, only to find myself sitting in the office scratching my head, not knowing what I had agreed to do. What was synthetic cannabinoids? I did not have a clue. I therefore did what we all do when searching for answers in the 21st century – I googled it.

My search yielded thousands of results. Many of the hits were links to vendors selling various "legal highs" and some were media reports, but the most numerous were links to various forums where people discussed the use of synthetic cannabinoids. I was intrigued by the sheer number of such discussions and I started reading. A fascinating world of anonymous avatars who shared their drug-related experiences revealed itself. Forum members shared their drug experiences in a detailed manner, they discussed drug-related policy, they asked for advice on

how to consume drugs safely, and some shared personal stories of misery in seek of support. The forums revealed themselves as small societies, with their own defined rules that regulated the interaction, as well as social norms defining appropriate ways of behaving. Social positions were defined on the basis of previous interaction, which created a hierarchy of members based on their previous conduct. I got lost in the never-ending discussion threads, fascinated not only by the detailed level of information that it provided, but also in the sociological complexity of such a social phenomenon. This curiosity fuelled the development of a research design that finally ended up as this dissertation.

In Norway, there are several discussion forums of various sizes and fields of interests. From my initial browsing, I learned that there were two online drug-forums with the largest crowds in terms of numbers of both views and posts. Based on this information, I selected the two forums as sites for data collection and sampling purposes. One of the forums covered a wide range of topics, including a section solely dedicated to discussions on drugs. This section had several sub-sections devoted to specific drugs and their use. Most discussions related to recreational drug use, covering substances such as cannabis, MDMA, cocaine, amphetamines, LSD, psilocybin and new psychoactive substances (NPS). This forum is hereinafter referred to as 'the recreational drug use forum'.

The second forum had a different profile and was devoted to discussions on body-enhancing substances, such as anabolic steroids and growth hormones. Unlike the recreational drug use forum, the bodybuilding forum comprised two separate parts: One was devoted to an online marketplace where vendors offered a wide variety of doping agents. The second was a discussion forum, where members discussed aspects related to bodybuilding, doping use and associated topics. This forum is referred to as 'the bodybuilding forum'.

The recreational drug use forum was open to the public and one only had to be a member in order to write posts. All the discussions on the forum were thus open for people to read,

44

regardless of whether or not they were members. Within the bodybuilding forum, one had to register with an e-mail-address in order to access the website. I therefore registered as a member on both forums, by signing up with my email-address and creating a nickname. I was then free to roam the two forums as an insider.

After I had registered as a member, I spent numerous hours lurking on both forums, reading the evolving discussions between members. This process was unstructured, with the goal of exploring their structure and getting a sense of the internal rules and norms. Like most forum structures, both the selected forums were based on the members' discussions and their defining content. While the forums' administrators created the interface, the interaction between members was what constituted their content. The evolving discussions thus created an ever-changing flow of information, in which the forums were never an end product, but always in the process of being made. In addition to the forums' administrators, the content was also monitored by several moderators. Their tasks were to make sure that members followed the rules on the forums and that discussions were addressed in the relevant sub-categories. Members who started a new topic of discussion were ascribed the term 'thread-starter'. Their initial posts could vary from simple questions to lengthy posts containing vivid descriptions of personal experiences. Members replied by writing posts directed at the thread-starter, and the discussion often evolved by members debating each other's replies. This could result in lengthy threads with hundreds of posts that had existed for several years.

In both forums, members created a profile that comprised a nickname and a profile image. It was also possible to include a quotation of choice. Importantly, whenever members posted messages on the forums, their previous interaction was visualised, contributing to a hierarchy of members based on their previous conduct. In the recreational drug forum, members could react to other member's posts, similar to a "like" on Facebook. Whenever they posted a new message, the numbers of posts and "likes" were visualised alongside their nickname and

profile picture. Thus, the ratio between the number of posts and "likes" provided a basis for assessing the quality of the contributions of an individual member. Similarly, on the bodybuilding forum, members were assigned a rank. For example, members with a short history on the forum were defined as "new members". Over time, their membership could develop and they earned a higher rank based on their level of involvement. In Thornton's (1995) terms, these features contributed to a hierarchical division of members, where the members' previous conduct reflected their degree of success on the forums. They were ascribed a certain position within the forums through their online interactions and their ways of managing the social rules. This sort of subcultural capital (Thornton, 1995) was embodied in the form of "being in the know", by mastering the field-specific knowledge and the slang used on the forums. Not least, the constant visualisation of member's previous interactions created predictability in terms of social roles, making it clear who was a "noob"[2] and who was a "vet"[3].

A striking feature of both forums was the seemingly orderly fashion in which the interaction took place. Even though members were anonymous and sanctions were limited to potential exclusion from the forums, I witnessed few incidences of trolling[4] or similar violations of social norms or rules. The interaction within the two forums thus exhibited a degree of care and respect between members. Nevertheless, I still observed incidents where the hierarchical division between members became apparent. This inequality became most apparent in cases where the forums' internal rules and norms were breached, and usually appeared if members posted threads that the more experienced members considered to be obvious or unnecessary,

---

[2] Noob (or n00b) is derived from the term 'newbie' and refers to a person who is lacking in skill or knowledge, due to a lack of experience. The term is usually used in a derogatory sense in online settings.

[3] 'Vets' refers to veterans, namely those who display a certain amount of experience and knowledge and who have participated on an internet forum for a long time.

[4] 'Trolling' refers to the deliberate act of making an unsolicited and/or controversial comment on an internet forum with the aim of provoking an emotional reaction. The term is analogous to the fishing technique of "trolling", where colourful baits and lures are towed behind a slow-moving boat in order to lure the fish.

46

thus lowering the quality of the discussion. They often received sarcastic responses, with experienced members typically answering: "How you ever heard of google?" or "There's hundreds of threads with this topic already. Please check the forum before you write a post". Through these informal and public sanctions, the experienced members displayed their level of competence within the social system, while also highlighting the ways in which the forums appeared to be stable. While both forums had a written set of rules that guided the content of discussions, as well as moderators who ensured that members complied with these rules, the informal norms within the communities seemed to play a stronger role in guiding the interaction. Through my informal lurking, I learned that the interaction on the forums was just as much a display of authenticity and subcultural capital, as it was an arena in which to seek information and share personal experiences.

**Online Recruitment and Sample**

The initial lurking within the forums also had an additional goal, namely to seek out relevant members to recruit to the research project. My only sampling criterion was that members had written a recent post that showed that they had used an illicit drug. I began gathering the nicknames of members who met this criterion, and I tried to cover both experienced members (in terms of the number of posts and how long they had been members) and those who were seemingly quite new to the forums. Within the communities, there were features that allowed members to communicate directly through a private messaging service and I used this as a starting point for establishing contact with potential interviewees. With the help of my initial lurking, I used the list of members and contacted them directly with a short introduction to the research project and issues concerning anonymity. If they agreed to take part or wanted more information, they were encouraged to contact me through the forum's messaging service, by phone or e-mail.

Approximately 100 members from both forums were contacted. Many did not reply and others were sceptical, and only a few replied positively to take part immediately. Those who did not respond were sent a follow-up request two or three weeks later. If they did not reply, no further efforts were made to recruit them. Those who were sceptical or simply wanted additional information, were given a more detailed description of the research project and what their potential participation would entail. Given the discursive nature of the forums, one of the members I contacted started a thread where he expressed scepticism and asked others if they had been contacted. The discussion evolved between the members and they were concerned about whether I really was the person I claimed to be. Based on the growing concern amongst some of the members, I decided to post a message on the thread, in which I provided information about myself and the research project, also providing my email-address and telephone number in order to verify my identity. This was my only public interaction on the forum. After my post, the thread-starter decided to take part in the interview. The day after the interview, he posted a new message on the thread, on his own initiative, about his experiences with me and the interview, fortunately describing it in positive terms. Several of the other members I had conducted interviews with followed, posting their positive experiences on the thread, which helped me to gain a level of trust and reduced the threshold for others who were unsure about whether or not to participate.

This sampling experience was a result of my online recruitment strategy. Beforehand, I had not expected such publicity, but in retrospect, I believe that this reaction was pertinent and something I should probably have expected. If I had hypothetically written a thread about my experiences of an illegal drug on an internet forum, and a stranger from a state-owned institution had contacted me and wanted to talk to me about it, I would probably have been sceptical too. The immediate reactions of the members were therefore understandable and they used the forums in the way they knew – they shared their experiences for others to learn and they debated

whether or not to participate in the research project. Fortunately, the thread-starter not only decided to participate, he also wrote about his experiences in positive terms and thus acted as a gatekeeper in my further contact with the other members. He had evaluated me and vouched for my project, thereby making it easier for me to recruit further members.

Although the thread concerning my recruitment of forum members turned out to be positive and helped me to recruit more interviewees, many members still did not reply. Of the approximately 100 members that I contacted (approximately 50 from each forum), 29 members agreed to take part in the project. Fifteen of these were recruited from the bodybuilding forum and the remaining 14 were recruited from the recreational drug forum. The final sample were all males, aged between 16 and 48. The average age of those recruited from the bodybuilding forum was higher than those recruited from the recreational drug forum. This age difference was not surprising, as the age of onset of anabolic steroid use in Norway is higher than that for other illicit substances (Sandøy, 2013). Another factor is that selections of drug users generated through the internet tend to predominantly consist of young people (P. G. Miller & Sønderlund, 2010).

In their review of the use of the internet to research hidden populations of drug users, Miller and Sønderlund (2010) argue that such a sampling technique provide access to previously under-researched target groups and improves confidentiality for respondents. It is also a fast way of reaching potential participants, as it facilitates an increased ease of entry to the field of study. However, they note the potential disadvantage in the lack of representativeness of samples (P. G. Miller & Sønderlund, 2010). The review however focuses on survey methods, where the importance of representativeness is different from that of qualitative explorative designs.

The unilateral gender distribution in the sample was not intended, but probably a result of my recruitment strategy, and may reflect the gender composition within the two selected

forums. At least for the bodybuilding forum, this is pertinent, as studies of anabolic steroid users show a strong predominance of males (Sagoe, Molde, Andreassen, Torsheim, & Pallesen, 2014; Sandøy, 2013). In this case, I was not surprised to only encounter men. I was more surprised by the gender balance amongst the recreational drug forum sample. Although studies of drug users in general show a higher proportion of men than of women (EMCDDA, 2018), little evidence is available concerning the gender composition within online drug-related forums. Still, Miller and Sønderlund's (2010) review of online recruitment of drug users suggests that most members are young males, which in this case corresponds with the final sample. Use of the internet for sampling purposes thus represent an efficient and economical alternative, and may help researchers reach a previously hidden and geographically dispersed group of drug users, although limitations in terms of age and gender balance should be recognised. Another limitation may be self-selection bias, i.e. that those who respond positively to participate are those who feel committed to the forums and have a stronger sense of their community structures. The final sample in this study therefore reflects an availability sample from the Norwegian online context, and the findings does not necessarily reflect practices in other social contexts.

**Interviews with Forum Members**

The final sample, consisting of 29 forum members all agreed to participate in in-depth interviews with the aim of exploring issues concerning drug use and their involvement on the forums. My initial aim was to conduct all interviews face-to-face, but I soon realised that it was not feasible. This was mostly due to the geographical spread amongst the interviewees. As noted by several researchers, logistical considerations when conducting qualitative research can be problematic due to time and financial constraints (Deakin & Wakefield, 2014), which is particularly challenging for researchers whose participants are geographically dispersed

50

(Sedgwick & Spiers, 2009). I therefore offered those who lived a long way from Oslo (where I live) the option of conducting the interview via Skype. They all agreed to this alternative.

However, some expressed concern over issues of anonymity and explicitly wanted to conduct the interviews via Skype. These cases solely concerned members who were recruited from the bodybuilding forum, which must be seen in context with recent policy changes in Norway concerning the use and possession of doping agents.[5] Consequently, the sample from the bodybuilding forum was in the process of being criminalised due to their use of anabolic steroids and some were therefore reluctant to meet face-to-face. Instead, they opted to communicate via internet-based software that they were familiar with and which also enabled various kinds of encryption to be used. I agreed to this request and ended up conducting twenty-two of the interviews via Skype and the remaining seven face-to-face.

All of the interviews were conducted between 2012 and 2013, and the interviewees decided both the time and the location of the interviews. The Skype interviews were conducted on my office computer, usually during the afternoon. The interviewees were at home on their private computers or laptops. I called them at the time we had scheduled and, after obtaining approval from the interviewees, I launched a plug-in software called MP3 Skype Recorder in order to record the conversations.[6] I did not intend to use a webcam during the interviews and only the audio was recorded. During one of the interviews, I experienced some issues with the internet connection, causing occasional lag in the audio. This was not problematic enough to cancel the interview, but it did cause some stuttering and reduced the natural flow. This experience served as a reminder of one of the potential weaknesses of relying on technology to

---

[5] The Norwegian Parliament adopted a ban on the use of doping agents in 2013. This resulted in an amendment to Section 24(a) of the Medicines Act, which states that it is forbidden without lawful access to acquire, possess or use substances which are deemed to be a doping agent pursuant to Section 234, first paragraph of the Criminal Code. A breach of the ban can be punished through a fine or imprisonment for up to six months, or both.

[6] The audio recordings from the Skype interviews proved to be of higher quality than those from the face-to-face interviews, as most of the online interviews were conducted using headphones.

conduct interviews. Fortunately, I did not experience any further technological issues during the remaining Skype interviews.

There has been growing interest amongst researchers in the use of online tools such as Skype to gather qualitative data (Deakin & Wakefield, 2014; Hanna, 2012; Seitz, 2016). Although a number of researchers have raised concerns over the absence of non-verbal cues in online interviews (Chen & Hinton, 1999; Hay-Gibson, 2009; O'Connor, Madge, Shaw, & Wellens, 2008), the lack of opportunity to create a positive ambience for the interview (Opdenakker, 2006; Seitz, 2016) and the need to have technological competence in order to participate, obtain software and maintain an internet connection for the duration of the interview (Deakin & Wakefield, 2014), there are still a number of benefits to such a research strategy. Most notable of these is the reduced cost compared with in-person interviews, ease of access, the possibility of reaching a more geographically dispersed sample of people and, last but not least, the reduction in time needed to conduct the interviews (Deakin & Wakefield, 2014; Hanna, 2012; Janghorban, Roudsari, & Taghipour, 2014). In addition, Hanna (2012) argues that the researcher and the participants in the study are able to remain in a 'safe location' without imposing on each other's personal space, thus maintaining a neutral yet personal location. It is also suggested that such online interviews may allow for responses that are more reflective and can be advantageous when asking sensitive or embarrassing questions (Madge & O'Connor, 2004). Overall, the use of Skype as a methodological tool is not 'a quick fix'. While it opens up new possibilities for researchers, it still brings with it a number of potential weaknesses that researchers should reflect on.

However, using Skype was partly a pragmatic choice for this particular project – I was able to reach a larger sample of geographically dispersed forum members, compared with a research design that only allowed face-to-face interviews. It also served as a solution for those who were cautious of meeting a stranger to talk about illegal and sensitive activities, and helped

me to make contact with people I would not otherwise have reached. In addition, the use of Skype was also a way of meeting the forum members on their own terms. They were all well-acquainted with the use of various apps or communication software in their everyday lives. They spend numerous hours online and the sample could thus be viewed as digital natives. As such, Skype was a normal way of communicating for them and it thus expanded the topic of conversation during the interviews – which basically revolved around their ways of using online communication to navigate their drug use. The use of Skype also turned out to be a valuable way of gathering additional data that I had not originally planned to obtain.

During one of the first interviews I conducted on Skype, I asked a follow-up question about the interviewees' collection of certain specific drug-related information on the internet forum of which he was a member. Unexpectedly, he sent me a link (via Skype) to the forum thread we were discussing. He asked me to click on the link and we ended up discussing its content. This was a possibility I had not given any thought to when planning the data gathering, but after this experience, I began incorporating it in every interview, asking for concrete examples and encouraging the interviewees to send me links. This created an interactive element during the Skype interviews that I greatly benefited from. Not only did it provide concrete topics for further discussion during the interviews, which gave me an insight into how members interpreted the online discussions on the forums, it also provided specific threads, numerous other websites and additional ethnographic data which helped me gain further knowledge of the online arena I was studying. The possibility of roaming the internet in real-time together with the interviewees has to my knowledge been overlooked in the literature concerning online interviews so far, and should be added to the possible benefits of such a design.

The face-to-face interviews were conducted during the same time period as the Skype interviews, and they were carried out at my office in downtown Oslo, Norway. All interviewees

were able to decide the location of the interviews. I was flexible and they were encouraged to suggest a place, while I also suggested my office as a possible location. They all opted for the latter. Unlike the Skype interviews, I was able to have more control over the interview situation in terms of influencing the ambiance. These minor details, such as offering coffee or tea and a few snacks, probably did not affect the quality of the data, but they did help to communicate gratitude towards the interviewees and create a welcoming atmosphere.

All the interviews, both those conducted on Skype and those conducted face-to-face, were guided by a list of topics relating to the interviewee's drug use and their involvement on the forums. The guide mainly acted as an aid in the interview situation, in terms of providing reminders and suggestions for topics to cover. It had a thematic structure, where the questions, or themes were largely open-ended and allowed each interview to follow its own path based on the interviewees' stories. The design was thus exploratory in nature, with the pre-defined themes acting as a way of entering the experiences and reflections of the interviewees, while the open-ended design allowed a reflective stand, where I constantly adjusted the interviews as new information emerged. Inspired by Rubin and Rubin (2005), such an iterative design allows the researcher to adjust to the field of study throughout the project by adding new questions and modifying the interview guide.

The interviews, while open-ended and flexible, were however structured around a few main topics, the most prominent being the interviewees' use of drugs and their involvement on the online forums and how it was intertwined. Through these overarching themes, my goal was to gain an insight into particular social interactions, relationships or situations, and the stories or narratives that sustained these experiences. I usually began the interviews by asking about the interviewees' upbringing and adolescence, guiding them towards their first experiences with both online media and drugs. Interestingly, the latter was largely concerned with the cultural representations that they had accessed on the internet, rather than reflecting experiences with

personal use. Most had started reading about drugs on the internet at an early age, long before they initiated their own use. As such, these stories provided an insight into the process of becoming a drug user and how their initial experimentation was guided by their access to user-generated information on the internet.

The latter part of the interviews was geared more towards the present time, and the interviewees' drug use and involvement on the forums at the time of the interviews. Themes in the interview guide covered topics such as the interviewees' use of various drugs and associated experiences, both positive and negative, as well as issues concerning drug-related knowledge, the internet, trust and notions of drug-related risks.

**Observations of Forum Discussions**

In article 1 (Bilgrei, 2016), my goal was to explore the evolving discourse relating to synthetic cannabinoid use, using both interviews with forum members and observational data from forum discussions. I therefore used the recreational drug use forum as a site from which to collect observational data. One strength of this data source is the possibility of collecting historical data spanning a long period of time, thereby enabling a longitudinal analysis of the evolving online discourse. Additionally, the unobtrusive nature of such data allows researchers to observe knowledge production and community dynamics amongst drug users directly (Enghoff & Aldridge, 2019).

The recreational drug use forum has a feature that enables members to search the content on the forum. In the same way as when they use an ordinary internet search engine, members can enter keywords that search the entire history of the forum for matches. At the time of data gathering in December 2014, the forum contained over 260,000 posts relating to drug use. As I was interested in discussions concerning the use of synthetic cannabinoids, I performed a search

for the terms "synthetic cannabinoids", "spice"[7], and "JWH"[8]. The search yielded 115 discussion threads. However, synthetic cannabinoids were only mentioned briefly in many of these threads, and only those where synthetic cannabinoids were the main topic of discussion were kept for further analysis. Of the initial 115 discussion threads, 56 met the criteria. They spanned the period from early 2007 to December 2014. The threads had a varying number of posts. The longest contained over 400 posts, but most were shorter. In total, the 56 discussion threads that were selected contained 1909 posts. The threads were copied in their existing form to a Word document using snipping tool software. This ensured that all the information, such as members' pseudonyms, profile images, statistics and the date and time of each post, was retained, which also made it possible to retain the existing timeline of the evolving discussions. The data thus gave an insight into each of the threads specifically, as well as the online interaction and debates between forum members.

The objective of the article (Bilgrei, 2016) was to explore and analyse the evolving discussions relating to the use of synthetic cannabinoids. As the online discussion threads were organised according to date and time, the existing timeline was already intact, thus providing an insight into how the drugs were described when they first hit the market and how they evolved. This unique feature provides researchers with a relatively easy, fast and inexpensive method for acquiring relevant data (Mann & Stewart, 2000), which in this case spanned seven years of online discussions. The possibility of tracking users' descriptions back in time was a strength of this design, particularly in the case of synthetic cannabinoids, which were introduced to the market under the guise of being a natural product. In general, the unobtrusive nature of such data provides an additional advantage of such a methodology, as it has not been created specifically to fulfil the aims of any research projects. On the other hand, the absence of an

---

[7] "Spice" was one of the most popular brands containing synthetic cannabinoids at the time of data gathering.

[8] "JWH" is the chemical name for one of the most widely used synthetic cannabinoids.

active data collector means that such data only covers whatever the person generating it chooses to include, which could result in relevant details being omitted, creating a bias in the online data (Enghoff & Aldridge, 2019).

**Ethical Considerations**

As a technological and methodological arena, the internet is still in its infancy (Lee, Fielding, & Blank, 2008). Although several scholars are now turning to the internet for research purposes and using a vast array of online research methods, there is still considerable debate about the ethics involved (Eynon, Fry, & Schroeder, 2008). However, the ethical considerations still overlap with those of traditional offline research, with emphasis on the principles of confidentiality, anonymity and informed consent, while also posing some specific challenges that are unique to internet research (Buchanan, 2011; Eynon et al., 2008; NESH, 2018). According to the Norwegian National Research Ethics Committees (NESH, 2018), four factors are of particular relevance in the ethical assessment of internet research, namely the degree of publicity involved in the online expressions, the sensitivity of the information, the vulnerability of the people concerned, and the interaction and impact of the research (NESH, 2018, p. 5).

During this research project, a number of steps were taken to safeguard the privacy of the participants, and the study was approved by the Norwegian Social Science Data Services (NSD). Firstly, all the interviewees were given written information on the research project, either through the forums' message services or through encrypted email. The text contained information on the overall purpose and goal of the project, information relating to the interviews and the use of an audio recorder, issues relating to privacy and anonymity and the fact that they were free to withdraw from the project at any time without having to justify this further. All the interviewees chose to remain anonymous throughout the project and no personally sensitive data were gathered, with the exception of age and the part of the country in which they lived.

During the interviews, the interviewees were reminded of the ethical guidelines that applied and they gave oral consent to participate in the project. No effort was made to obtain written consent, as this would have made it difficult for the interviewees to retain their anonymity, especially for those who were interviewed on Skype. When presenting the data, their online identities are not used and the interviewees are all referred to using pseudonyms.

Research data should normally be collected through informed participation and through obtaining the consent of those being studied. However, there are a number of exceptions to this principle, including observation in open arenas and public places (NESH, 2016). The distinction between public and private may however be more difficult to put into practice in internet research. Therefore, not all information that is openly available on the internet is necessarily public, and NESH uses the term "expected publicity" in order to further reflect on whether the informants understand and expect that their online actions and expressions are public (NESH, 2018, p. 10). Whether discussion forums should be viewed as private or public is not clear-cut, but the stricter the entry requirements, the more care should be taken (NESH, 2018). Internationally, the general consensus seems to be that if online discussion forums are open and accessible to everyone with an internet connection, they constitute a public space (Roberts, 2015). However, the observation of natural conversations by 'lurking' is associated with serious ethical considerations (Brownlow & O'Dell, 2002), largely because the researchers collect data about people who have not consented to participate in the research (NESH, 2018). Thus, a number of steps were taken in order to secure the privacy of those involved.

When gathering the online data, I did not reveal my presence to the members of the forum. As the forum is open to the public and has no access restrictions, I chose to consider the data I acquired as publicly available data and I did not obtain the consent of the members or the forum administrators. This decision was based on the fact that members were already anonymous, that I did not collect any personally sensitive information and that the data was

publicly available to anyone with an internet connection. However, because the subject matter being studied could be seen as sensitive and because I believe that online identities should also be treated as private, I took a number of steps in order to secure the privacy of both the forum members and the forum itself. Thus, when referring to the online data, the selected forum and the online pseudonyms used by forum members are not referred to by name, recognising that these online identities could be as valuable as offline identities (Buchanan, 2011; Markham & Buchanan, 2012; Roberts, 2015). In addition, since all my articles are published in international journals, quotes were translated from Norwegian to English, which prevent them from being traced to their existing form. This further secures the privacy of both individuals and the forum itself. Combined, I believe that these measures highlight the value and need for privacy associated with online identities, especially because of the sensitive nature of this research.

**Data Analysis**

After the interviews were conducted, a research assistant transcribed the audio-recordings verbatim into Word format. They were then read carefully, and I gave feedback to the assistant if I had any questions or suggestions for improvement. The transcripts were then imported into the qualitative analysis software HyperRESEARCH (version 3.5.2), which enabled me to analyse the interview material in a more rigorous way. It has been suggested that such methodological tools support the validation, reliability and generalisability of qualitative data analysis (Hesse-Biber, Dupuis, & Kinder, 1991). Whilst I do not believe that the strength of qualitative research lies in its ability to generalise, I do believe that such computer-based software provides researchers with an effective tool to conduct their analysis in a more transparent and rigorous way. In addition, the pragmatic reasons for using computer-based software should not be understated, as it makes it easier to manage the large amounts of data usually generated from in-depth interviews.

The interviews were coded over several stages in HyperRESEARCH. I started from a relatively short and thematically oriented codebook that reflected the initial interview guide, such as the interviewees' upbringing and adolescence, their knowledge and representations of drugs, and how they used online social media in this respect, as well as various stories relating to their own drug-related experiences. From this broad structure, I developed the codes more specifically and in more detail, with an emphasis on stories that contained information about specific interactions, contexts or situations. My focus, reflected in the overarching theme of this dissertation, was geared towards the forum members' ways of using online resources when managing their own drug use and negotiating their identities as drug users. As such, I developed several codes that referred to the interplay between the online content and the members' narratives. Several passes over the interviews were made in order to ensure that the final codebook was applied to all of the interviews.

An example in this context was a code I called 'drug knowledge'. I initially applied this code to every story where the interviewees' presented their drug-related knowledge. I then re-read the coded material and applied several new codes, such as the context of the information they presented, where they had obtained it, who they relied on and how they used the information. Through these passes over the coded material, a number of patterns and similarities emerged and importantly, through this inductive approach, I further developed the specific topics for the research articles. For example, one quote in the 'drug knowledge' code contained the term 'broscience', which later became the starting point for an entire article (Bilgrei, 2018). In this quote, one of the interviewees spoke of the online user-generated information with ambivalence. He acknowledged that, although some of the information could be false and misleading, the internet was his primary source of drug-related knowledge. It was clear that he (and the other forum members) somehow evaluated the trustworthiness of the online content. This sparked my interest – I re-read the material and applied new codes that related to the

60

process of evaluating trust on the internet. Thus, what initially began as a single broad code, developed into several sub-codes through an inductive process, where my understanding, concepts and associated theory were developed on the basis of the empirical material (Järvinen & Mik-Meyer, 2017). The categories and theoretical conceptualisation developed in article 3 (Bilgrei, 2019) were also the result of a similar inductive process.

However, in article 1 (Bilgrei, 2016), the analytical process differed from that of the second article (Bilgrei, 2018) and the third article (Bilgrei, 2019), as a result of differences in the empirical material and the scope of the article. In contrast to the latter two articles, the first was aimed more at a specific case, namely the evolving discourse relating to the use of synthetic cannabinoids. This perspective was developed in order to provide a concrete example of how interaction on the forums shaped members representations of a specific drug. Thus, I relied on data from both online discussions and interviews with forum members, with the aim of exploring the relationship between members' online interactions and their views and representations of the drugs. The design had a longitudinal character, as I tracked the online discussions back in time. This also helped systematise the analysis, as the online data gathered from the forum was already organised in the form of a timeline. I had several passes over the discussion threads, whilst simultaneously relating the interviewees' accounts to the existing timeline gathered from the forum. Through this process, I gradually observed 'turning points' in the data, noting specific online discussion threads or quotes from the interviews that marked a shift in the evolving discourse. Thus, the 'dialogue' between the online data and the interviews helped to relate the online content to the experiences of those involved, thus embedding their social reality in online settings within their everyday offline lives.

These analytical steps provide an insight into the categorisation process involved with qualitative inquiry, where I have emphasised an inductive approach in the study of online drug communities and the members involved. Such a qualitative design holds emphasis on the

meanings and interpretations from the perspective of those being studied, by highlighting the interaction between actors and the social contexts in which it occurs (Järvinen & Mik-Meyer, 2017). As Denzin and Lincoln (2000) argue, "this means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2000, p. 3). Importantly, the emphasis on social processes and contexts as Järvinen and Mik-Meyer (2017) propose, with a focus on analysing how actions are shaped and enabled by social surroundings, is valuable when studying the interplay between online and offline phenomena. Following Holt's (2007) solicitations, this means emphasising how subcultures can be structured by people's experiences in social environments in the real world and on the internet.

I have previously suggested how narrative inquiry can help inform such an analysis. However, within the framework of this dissertation, I have not followed such an analytical procedure in a strict sense. I have rather been inspired by it and some of the analytical focus has been placed on highlighting how stories are created and added meaning as a result of interaction, and how people use these stories when making sense of themselves and their actions. More concretely, I have been interested in how narratives are produced in the discursive environment that constitutes online drug communities, and how members use these stories to make sense of themselves and their actions. This constructivist approach, as suggested by Presser (2009), states that narratives are made available by social order and culture. Such socially circulating stories, or formula stories (Loseke, 2007), are taken from the social context, where actors rely on ways of self-presenting and thinking that they have learned (Sandberg, 2010). As Riessman argues (2008), these stories do not fall from the sky; they are rather created and received in different social contexts and therefore tell us something important about identities, cultures and communities (Sandberg, 2010). As such, narratives are social artefacts, and their production is

continually being influenced by the social circumstances in which they are created, modified and challenged (Loseke, 2007; Riessman, 2008).

In contemporary digital society, social actors are exposed to a wide variety of multiple narratives. On the internet, people produce and publish content through an architecture of participation (Kamel Boulos & Wheeler, 2007; O'Reilly, 2010), which in turn provides resources for internet users to reconstruct narratives to maintain or alter their sense of self-identity (Hardey, 1999). As Brookman (2015) argues, people have a limited repertoire of language from which to choose, and they can therefore end up relying on the socially circulating stories on the internet when making sense of themselves and their actions. As Gubrium and Holstein (1998) argue, this process increasingly deprivatises stories, with their ownership being increasingly mediated by widely available communicative frameworks in which they circulate. The general point is that narratives are embedded in, and emerge from, discourse (Brookman, 2015, p. 210), that is, the social realities that people enter into and use in conducting their everyday activities and interactions (G. Miller & Fox, 2004). Accordingly, online communities provide a backdrop for the emergence and adoption of new narrative discourse (Brookman, 2015), which helps to create a toolbox of stories that members can utilise in diverse social settings.

In the study of online drug communities, such insights could inspire further development as regards how to study and analyse the consequences of members' participation in such globalised networks of drug users. As for this particular dissertation, I was inspired by this analytical perspective in article 3 (Bilgrei, 2019). In this study, the aim was to explore the social organisation of risk within the communities, by drawing on in-depth interviews with forum members. The article highlights how members leaned on the online resources they had acquired within the communities when presenting and negotiating their drug-using identities. The discursive environment in which they interacted thus created a basis for interpretations and

discussions, through which they developed ways of coping with their risky labels. In a similar way to Brookman's (2015) argument, their interaction within the discursive environment helped to create a narrative repertoire that they could utilise. As such, this way of relating the online content to the members' narrative strategies in their offline lives could provide the missing link that Holt (2007) solicits.

Importantly, this analytical perspective could provide valuable insight when considering the broader framework in which people increasingly use the internet to access and share health-related information. In the plethora of discursive environments on the internet, new producers of health information arise which, through interaction, develop new stories relating to personal health and risk (Hardey, 1999; Lemire et al., 2008; Manning, 2014). These developments cause people to make independent health-related judgments, often in stark contrast to official recommendations (Hardey, 1999; Hibbard & Weeks, 1987; Lupton, Donaldson, & Lloyd, 1991; Monaghan, 1999). As such, there will only be an increased need for insight into the consequences of actors' participation in such discursive networks. In this chapter, I have briefly outlined the potential of narrative inquiry, emphasising a constructivist perspective when studying the stories that actors use when making sense of themselves and their surroundings. This entails recognising that such stories do not fall from the sky, but are instead the result of interaction, which in turn can guide the behaviour of those involved.

# 4. Summary of the Research Articles

This chapter presents a summary of the research articles involved with the dissertation. I will introduce the three articles and present their main findings and contributions to the field of study. Article 1 highlights the possible deterrent effect of online drug-related communities and the ways in which they contribute to current drug trends. Article 2 extends the former by exploring issues of trust in online settings. In the third and final article, I develop the concept of "community-consumerism" in an effort to theorise the social organisation of risk within online communities. Overall, the articles provide original insight into the consequences of members' participation in online drug-related communities and allow for an analytical and theoretical discussion of the consequences of online social media and associated drug use.

**Article 1**

Bilgrei, O. R. (2016). From "herbal highs" to the "heroin of cannabis": Exploring the evolving discourse on synthetic cannabinoid use in a Norwegian Internet drug forum. *International Journal of Drug Policy,* 29, 1-8.

The first article in the dissertation explores the evolving discourse on synthetic cannabinoid use in a Norwegian internet drug forum. Based on observations of forum discussions and in-depth interviews with forum members, the article illustrates how members co-operated in the exchange of an extensive and cumulative body of knowledge relating to synthetic cannabinoid use, and the way in which this evolving discourse influenced members of the forum in their views and representations of the drugs.

  In the early 2000s, the global drug market proliferated with a wide range of new drugs, marketed as legal substitutes to cannabis (EMCDDA, 2015; Vardakou, Pistos, & Spiliopoulou, 2010). However, the online vendors that offered the products did not reveal the actual

psychoactive compounds that caused the intoxicating effect, but rather claimed that a mix of exotic herbs produced the cannabis-like effect (Schifano et al., 2009). It was not until late 2008 that researchers revealed the psychoactive substances that caused the intoxicating effects to be synthetic cannabinoids (Auwärter et al., 2009). By then, the drugs had been available on the market for several years and uncertainty linked to the products actual content caused members of online drug discussion forums to debate the effects of the new drugs. As a result, the first user reports from people using synthetic cannabinoids were mainly disseminated through online forums, underlining the importance of the internet not only as a source of the drugs but also as a means of marketing and raising awareness of the products (Griffiths et al., 2010).

Based on an analysis of 56 discussion threads containing 1909 entries, spanning the period from early 2007 to December 2014, as well as interviews with 14 forum members, the first article found an evolving and increasingly negative discourse relating to the use of synthetic cannabinoids. From an initial buzz, which had great significance for the proliferation of the drugs when they were first introduced to the market, the online discussions changed over time, with forum members eventually ending up warning others not to use them based on negative reviews. These stories revealed how members of the online community co-operated in shaping attitudes towards the use of the drugs and how they used the online information to guide their drug use.

The article suggests that the narrative mechanisms embedded in such online drug cultures should be emphasised. This perspective entails that the stories shared amongst users are of great importance for the perceived attractiveness of a given drug, making drug experience as much to do with perception, culture, and subculture as with pharmacological properties (Agar & Reisinger, 2004; Hunt, Bergeron, & Milhet, 2013). The narrative mechanism thus influences knowledge of, associations with and understanding of drugs, and could be important in understanding the trajectory of new and emerging drug trends in contemporary digital society.

**Article 2**

Bilgrei, O. R. (2018). Broscience: Creating trust in online drug communities. *New Media & Society,* 20 (8), 2712-2727.

The second article in the thesis expands upon the findings of the first article by addressing notions of trust in online settings. Article 1 concludes that the narrative mechanisms embedded in online communities influence knowledge of, associations with and understanding of drugs. This entails that the drug experiences shared online form the basis of experiential learning, sometimes referred to as 'broscience', a portmanteau of 'brother' and 'science'. However, the plethora of, and access to, internet-based information has also raised the issue of credibility or quality of information found online (Metzger, 2007), and scholars have become concerned with people's ability to critically approach the content they encounter (Hargittai, Fullerton, Menchen-Trevino, & Thomas, 2010). This could pose a danger to those seeking drug-related information on the internet and stresses the importance of exploring how issues of trust are resolved within online communities.

Based on in-depth interviews with 29 members from two Norwegian internet drug forums, the second article in the dissertation explores how trust is evaluated and enacted in online communities. The analysis show that members are ambivalent towards the drug-related information that is shared online. They acknowledge that a lot of the information is questionable, false and potentially dangerous, but they still use the forums to guide their drug use. By drawing boundaries towards official drug information and claiming that forum members are responsible, they construct shared narratives that promote trust within the community. They also use the way members write as an expression of subcultural competence and authenticity, in which they assess their credibility and initial trustworthiness. Finally, the previous conduct of members creates reputations linked to online identities that they use as a

basis for evaluating trustworthiness. These findings touch upon the ambivalence of trust in an online setting and highlight the communal process that facilitates online community trust.

Theoretically, the article builds on the notion of community trust, where the rhetorical construction of community provides a foundation for trust between forum members (Boyd, 2002). This perspective views trust as being highly interactional and negotiated, with emphasis on the interactive and communal processes. Fine and Holyfield (1996) argue that within voluntary communities, one must be socialised to risk and to competence, and that the communities must establish procedures through which trustworthiness is created. The community therefore represents a cocoon to protect members from the risks associated with the activity. Although the internet may limit trust because of its anonymity (Sztompka, 1999), the forum members who were interviewed had to accept their awareness of the unknown, unknowable and unresolved, and thus suspend their uncertainty over the actual trustworthiness of the online content (Möllering, 2001). With an emphasis on the group mechanisms of such communities, the study shows how the development of collective identities, subcultural authenticity and online reputation promotes community trust, rather than diminishing it. This was enabled by the communal features in which members cooperated, debated and defined their surroundings, all encompassed by the process of boundary work and evolvement of subcultural structures within their communities.

**Article 3**

Bilgrei, O. R. (2019). Community-consumerism: Negotiating risk in online drug communities. *Sociology of Health & Illness,* published online 23 January 2019.

In the third and final article, I offer the concept of community-consumerism as a way of understanding the social organisation of risk within online communities. The theory of consumerism in medicine offer a perspective on the changing social position and status of the

68

medical profession, where the traditional asymmetric relationship between doctor and patient has been challenged due to the rapid growth in alternative sources of information on the internet (Haug & Lavin, 1983; Lupton, 1997a, 1997b; Lupton et al., 1991). This development encourages pluralist approaches to health (Hardey, 1999), where groups are formed based on the free flow and circulation of information (Kahn & Kellner, 2003), and where risk has become a construct towards which drug users act, rather than just a potential negative outcome (Bancroft, 2017). As Rhodes (1997) argues, such a sociocultural theory of risk shifts the unit of analysis from individual factors to social factors, with the aim of understanding how risk behaviour is socially organised.

Drawing on in-depth interviews with 29 members from two Norwegian internet drug forums, the article illustrates how participating in such forums influences notions of risk, and how it supports notions of participants as being informed, responsible and empowered. Firstly, the forums facilitated an easy exchange of user-generated drug information, which helped members to present themselves as informed and competent. Secondly, members used the communal resources on the forums to negotiate their drug-using identities, resisting stigmatisation and arguing for a responsible drug-using identity. Thirdly, the social inclusion and sense of community within the forums formed the basis for collective support, which helped to empower those involved. Conceptualised as community-consumerism, the findings highlight the social mechanisms involved in the information self-sufficiency and decentralisation of authority on the internet, where members created an alternative frame of reference for drug use and associated health.

# 5. Discussion and Concluding Remarks

In this dissertation, I have through three published articles, highlighted the consequences of drug users' participation in online communities devoted to discussions of illicit drugs. The combination of data in this project, with both observations of online discussions and in-depth interviews with forum members, has helped provide new understandings of how drug users relate to and use the online information that they gather and co-produce. Based on a systematic analysis of qualitative data, I have shown how forum members contribute to the development of online drug discourses which shape their attitudes towards specific drugs, also highlighting the possible deterrent effect of such sites (Bilgrei, 2016). Such experiential learning is however dependent on trust, and I argue that the development of collective identities, subcultural authenticity and online reputations, enables forum members to evaluate the credibility of the online information and those who write it (Bilgrei, 2018). This community perspective, in which members cooperate in the exchange of a cumulative body of drug-related knowledge, influences conceptions of risks, and supports notions of participants as being informed, responsible and empowered (Bilgrei, 2019).

Importantly, these empirical findings highlight how the internet has become increasingly a platform for health-related discourses that are generated bottom-up. The interactive elements on the internet and the rapid proliferation of Web 2.0-technology have helped to create online platforms where new producers of health information have emerged (Lemire et al., 2008). As a result, people are more self-sufficient in gathering information, leading to decentralisation of authority (Lankes, 2008), where people challenge traditional hierarchies in the dissemination of risks (Manning, 2014). Consonant with the theory of consumerism in medicine (Haug, 1988; Haug & Lavin, 1983; Lupton, 1997b), these developments has led people to question authority and make independent judgments by seeking alternative sources of information (Hardey, 1999; Hibbard & Weeks, 1987; Lupton et al., 1991;

Monaghan, 1999). These online communities thus challenge the traditional linear models of communication, where the old 'experts' and their 'expert knowledge' are destabilised by the accelerating and multiplying flows of information that are produced by new media (Manning, 2014).

Within these developments, online subcultural groups have used the emergent technologies to help produce new social relations and forms of political possibility, in support of the online circulation and democratisation of alternative information (Kahn & Kellner, 2003, 2004). These online groups represent a continuation of the physical subcultures; they do not necessarily replace them, but rather extend them through the global circulation of subcultural knowledge (Holt, 2007; Thornton, 1995; Williams, 2006; Williams & Copes, 2005). As argued in article 1 (Bilgrei, 2016), forum members interpret and discuss their drug experiences with their online peers, which in turn leads to discursive representations that influence knowledge of, associations with and understanding of drugs. Such communal affiliation is likely to occur because of its subcultural character and need for mutual aid in reducing risk, especially for an activity that is deemed both risky and deviant, and possibly also stigmatised and criminalised (Fine & Holyfield, 1996; Holt & Copes, 2010). As such, online drug communities have materialised as sites that facilitate cooperation and trust (Bilgrei, 2018), with an emphasis on harm reduction, where drug-related risks are negotiated and contested (Bancroft, 2017; Boothroyd & Lewis, 2016; Duxbury, 2015; Soussan & Kjellgren, 2014; Tackett-Gibson, 2008). Through such cooperative processes, the interactive elements within online communities can create powerful norms, beliefs and meanings, which in turn may shape how community members behave (Enghoff & Aldridge, 2019).

An important claim in this context is that the above resources are developed and learned from the online context in which drug users interact. The online communities represent sites for experiential learning, not simply limited to the practicalities of using drugs, but importantly as

subcultural arenas that facilitate the production of narratives that drug users can utilise in diverse social settings (Loseke, 2007; Presser, 2009; Sandberg, 2010). As I conclude in article 3 (Bilgrei, 2019), members use these communal resources to negotiate their drug-using identities. Through their online interaction, forum members utilise the interactive and subcultural resources to redefine narratives of personal health (Friedland, 2001; Hardey, 1999), and to develop strategies that make sense of and justify their actions (Holt & Copes, 2010). Therefore, the significance of such websites in drug users' offline lives becomes apparent when analysing their stories as constituent of their online social interactions, as it enables the study of online social learning and 'meaning-making' among people who take illicit drugs (Enghoff & Aldridge, 2019). Through such an epistemological perspective, the important link between people's experiences on the internet and in the physical world is highlighted.

In adherence to this, I have argued for an approach to online communities as a cultural phenomenon facilitated by communication. Through such a perspective, I hold emphasis on the highly unstable and flexible character of such online groups, and the fluid environment in which they operate. Unlike traditional communities, where local, face-to-face interaction is privileged, this perspective rather emphasises the communicative process (Delanty, 2003), where shared stories bind members of a group together and help to define them as a community (Friedland, 2001; Sandberg & Tutenges, 2015). This allows looser bonds and weaker commitment, and is compatible with the assumption of people as not fully emerged into one singular community, but rather as loosely engaged in a plurality of groups, based on various fields of interests. As Calhoun (1998) argues, such online communities may transcend spatial communities, but they do so by linking together people with similar interests. Therefore, they do not necessarily forge connections between people who are sharply different from one another, but rather enhance 'categorical identities' which offer a greater capacity for interaction based on personal choices of taste and culture (Calhoun, 1998).

In this context, a certain modesty is appropriate when drawing conclusions from the results of this dissertation. Although online drug communities offer new ways of cooperation, regardless of space and time, these interactive elements do not fully replace the importance of local and physical communities in drug users' offline lives. Rather, the internet seems to matter much more as a supplement to face-to-face communities, rather than as a substitute for them (Calhoun, 1998). As such, it is important to recognise that members' participation in the forums are not binding and there are few consequences if one violates the internal rules or norms. It is also easy to fabricate online identities, and participants may develop multiple avatars. In addition, the online communities will unfortunately be of little help in an emergency, which rather shifts the focus onto the local and offline communities of which they are part. Therefore, both the online and offline communities in which drug users interact are important sites for harm reduction. This study has focused on the online environment, not in an effort to undermine the local or the physical, but rather to illustrate the changes that are taking place in a society in which our relationships are increasingly embedded in both online and offline worlds. As such, I have highlighted the potential benefits of peer harm reduction that such online drug communities promote and how members utilise these online resources in their everyday offline lives. However, there is still a need for more insight into how these processes might shape the drug-using practices of those involved, and ultimately how new producers of health information on the internet might influence wider trends in the way people navigate the ever-expanding flow of health-related information.

In this dissertation, I have highlighted how online drug communities contribute to the shaping of new and emerging drug trends, how issues of trust are resolved on the internet and how participation in online drug communities influences notions of risks. Together, these studies show how the internet contribute in shaping knowledge of, associations with, and understandings of drugs, and how members use these online resources when making sense of

their drug-using identities. Through their interaction within the online communities, members are involved in the production of an evolving discourse that they use to cope with their risky and stigmatised labels. These narratives centre on harm reduction and promote the responsible use of drugs. As such, members recognise the risks inherent in their drug use, but they use the internet as a way of managing these risks. The online landscape in which these communities thrive thus highlights the information self-sufficiency and decentralisation of authority on the internet, where new health-related narratives are produced on the margins of science. The importance of these developments will only increase in the future, as our point of reference are increasingly embedded in an ever-expanding plethora of online sources.

# References

Agar, M., & Reisinger, H. S. (2004). Ecstasy: Commodity or Disease? *Journal of Psychoactive Drugs, 36*(2), 253-264.

Agar, M., & Wilson, D. (2002). Drugmart: Heroin epidemics as complex adaptive systems. *Complexity, 7*(5), 44-52.

Anderson, B. (1983). *Imagined communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.

Andreassen, H., Sandaune, A.-G., Gammon, D., & Hjortdahl, P. (2002). Nordmenns bruk av helsetilbud på internett. *Tidsskriftet for Den norske legeforeningen, 122*(17), 1640-1644.

Andreassen, H. K., Wangberg, S. C., Wynn, R., Sørensen, T., & Hjortdahl, P. (2006). Helserelatert bruk av internett i den norske befolkningen. *Tidsskriftet for Den norske legeforeningen, 126*(22), 2950-2952.

Auwärter, V., Dresen, S., Weinmann, W., Müller, M., Pütz, M., & Ferreirós, N. (2009). 'Spice'and other herbal blends: harmless incense or cannabinoid designer drugs? *Journal of Mass Spectrometry, 44*(5), 832-837.

Averweg, U. R., & Leaning, M. (2012). Social media and the re-evaluation of the terms 'community' ,'virtual community and' 'virtual identity' as concepts of analysis. *i-Manager's Journal on Information Technology, 1*(4), 1-12.

Bancroft, A. (2017). Responsible use to responsible harm: illicit drug use and peer harm reduction in a darknet cryptomarket. *Health, Risk & Society, 19*(7-8), 336-350.

Barratt, M. J. (2011). Discussing illicit drugs in public internet forums: Visibility, stigma, and pseudonymity. In M. Foth, J. Kjeldskov, & J. Paay (Eds.), *Proceedings of the 5th International Conference on Communities and Technologies* (pp. 159-168). New York: ACM.

Barratt, M. J., Allen, M., & Lenton, S. (2014). "PMA sounds fun": negotiating drug discourses online. *Substance use & misuse, 49*(8), 987-998.

Barratt, M. J., Lenton, S., & Allen, M. (2013). Internet content regulation, public drug websites and the growth in hidden Internet services. *Drugs: education, prevention and policy, 20*(3), 195-202.

Barthes, R. (2004). Introduction to the Structural Analysis of Narratives. In M. Bal (Ed.), *Narrative theory: Critical concepts in literary and cultural studies* (pp. 65-116): Routledge.

Beck, U. (1992). *Risk Society: Towards a New Modernity*. London: Sage.

Becker, H. S. (1953). Becoming a Marihuana User. *American journal of Sociology, 59*(3), 235-242.

Becker, H. S. (1963). *Outsiders: Studies in the Sociology of Deviance*. New York: Free Press.

Belenko, S., Dugosh, K. L., Lynch, K., Mericle, A. A., Pich, M., & Forman, R. F. (2009). Online illegal drug use information: an exploratory analysis of drug-related website viewing by adolescents. *Journal of Health Communication, 14*(7), 612-630.

Bilgrei, O. R. (2016). From "herbal highs" to the "heroin of cannabis": exploring the evolving discourse on synthetic cannabinoid use in a Norwegian Internet drug forum. *International Journal of Drug Policy, 29*, 1-8.

Bilgrei, O. R. (2018). Broscience: Creating trust in online drug communities. *New Media & Society, 20*(8), 2712-2727.

Bilgrei, O. R. (2019). Community-consumerism: negotiating risk in online drug communities. *Sociology of Health & Illness*, Early view 23 January 2019.

Bogenschutz, M. P. (2000). Drug information libraries on the Internet. *Journal of Psychoactive Drugs, 32*(3), 249-258.

Boothroyd, D., & Lewis, S. (2016). Online Drug Scenes and Harm Reduction from Below as Phronesis. *Contemporary Drug Problems, 43*(3), 293-307.

Boyd, J. (2002). In Community we Trust: Online Security Communication at eBay. *Journal of Computer-Mediated Communication, 7*(3).

Brookman, F. (2015). The Shifting Narratives of Violent Offenders. In L. Presser & S. Sandberg (Eds.), *Narrative Criminology. Understanding Stories of Crime* (pp. 207-234). New York and London: New York University Press.

Brownlow, C., & O'Dell, L. (2002). Ethical Issues for Qualitative Research in On-line Communities. *Disability & Society, 17*(6), 685-694.

Bruner, J. S. (1987). Life as narrative. *Social research, 54*(1), 11-32.

Buchanan, E. A. (2011). Internet Research Ethics: Past, Present, and Future. In M. Consalvo & C. Ess (Eds.), *The handbook of Internet studies* (pp. 83-108). Oxford: Wiley-Blackwell.

Burbules, N. C. (1998). Rhetorics of the Web: Hyperreading and critical literacy. In I. Snyder (Ed.), *Page to screen: Taking literacy into the electronic era* (pp. 102-122). London and New York: Routledge.

Calhoun, C. (1998). Community without Propinquity Revisited: Communications Technology and the Transformation of the Urban Public Sphere. *Sociological inquiry, 68*(3), 373-397.

Chen, P., & Hinton, S. M. (1999). Realtime Interviewing using the World Wide Web. *Sociological Research Online, 4*(3), 1-19.

Chiauzzi, E., DasMahapatra, P., Lobo, K., & Barratt, M. J. (2013). Participatory research with an online drug forum: a survey of user characteristics, information sharing, and harm reduction views. *Substance use & misuse, 48*(8), 661-670.

Cohen, A. K. (1955). *Delinquent Boys: The Culture of the Gang*. Glencoe, Ill.: Free Press.

Cohen, A. P. (1985). *The Symbolic Construction of Community*. London: Routledge.

D'Agostino, A. R., Optican, A. R., Sowles, S. J., Krauss, M. J., Lee, K. E., & Cavazos-Rehg, P. A. (2017). Social networking online to recover from opioid use disorder: A study of community interactions. *Drug & Alcohol Dependence, 181*, 5-10.

Deakin, H., & Wakefield, K. (2014). Skype interviewing: reflections of two PhD researchers. *Qualitative Research, 14*(5), 603-616.

Delanty, G. (2003). Community. London: Routledge.

Deluca, P., Davey, Z., Corazza, O., Di Furia, L., Farre, M., Flesland, L. H., . . . Pasinetti, M. (2012). Identifying emerging trends in recreational drug use; outcomes from the Psychonaut Web Mapping Project. *Progress in Neuro-Psychopharmacology and Biological Psychiatry, 39*(2), 221-226.

Denzin, N. K., & Lincoln, Y. S. (2000). Introduction: The Discipline and Practice of Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (Vol. Second Edition). Thousand Oaks, London, New Delhi: Sage Publications.

Douglas, M. (1992). *Risk and Blame: Essays in Cultural Theory*. London: Routledge.

Durkheim, E. (1964). *The Division of Labour in Society*. New York: The Free Press.

Duxbury, S. W. (2015). Information creation on online drug forums: How drug use becomes moral on the margins of science. *Current Sociology, 66*(3), 431-448.

EMCDDA. (2015). *New psychoactive substances in Europe. An update from the EU Early Warning System*. Luxembourg: Publications Office of the European Union.

EMCDDA. (2018). *European Drug Report 2018: Trends and Developments*. Luxembourg: Publications Office of the European Union.

Eng, T. R., Maxfield, A., Patrick, K., Deering, M. J., Ratzan, S. C., & Gustafson, D. H. (1998). Access to health information and support: a public highway or a private road? *Jama, 280*(15), 1371-1375.

Enghoff, O., & Aldridge, J. (2019). The value of unsolicited online data in drug policy research. *International Journal of Drug Policy*, Available online 31 January 2019.

Eurobarometer. (2008). Young people and drugs. Retrieved from:

http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_401_en.pdf

Eurostat. (2018). ICT usage in households and by individuals. Retrieved from:

http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

Eynon, R., Fry, J., & Schroeder, R. (2008). The Ethics of Internet Research. In N. Fielding, R. M. Lee, & G. Blank (Eds.), *The Sage handbook of online research methods* (pp. 23-41). London: Sage Publications.

Falck, R. S., Carlson, R. G., Wang, J., & Siegal, H. A. (2004). Sources of information about MDMA (3, 4-methylenedioxymethamphetamine): perceived accuracy, importance, and implications for prevention among young adult users. *Drug and Alcohol Dependence, 74*(1), 45-54.

Fallows, D. (2005). *Search Engine Users: Internet searchers are confident, satisfied and trusting - but they are also unaware and naïve.* Washington, DC: Pew Internet & American Life Project.

Fernback, J. (2007). Beyond the diluted community concept: a symbolic interactionist perspective on online social relations. *New Media & Society, 9*(1), 49-69.

Fine, G. A., & Holyfield, L. (1996). Secrecy, Trust, and Dangerous Leisure: Generating Group Cohesion in Voluntary Organizations. *Social psychology quarterly, 59*(1), 22-38.

Flanagin, A. J., & Metzger, M. J. (2008). Digital Media and Youth: Unparalleled Opportunity and Unprecedented Responsibility. In M. J. Metzger & A. J. Flanagin (Eds.), *Digital media, youth, and credibility* (pp. 5-28). Cambridge, MA: The MIT Press.

Freeman, T. P., Morgan, C. J., Vaughn-Jones, J., Hussain, N., Karimi, K., & Curran, H. V. (2012). Cognitive and subjective effects of mephedrone and factors influencing use of a 'new legal high'. *Addiction, 107*(4), 792-800.

Friedland, L. A. (2001). Communication, community, and democracy: Toward a theory of the communicatively integrated community. *Communication research, 28*(4), 358-391.

Gelder, K. (2005). Introduction: The Field of Subcultural Studies. In K. Gelder (Ed.), *The Subcultures Reader* (pp. 1-15). London and New York: Routledge.

Griffiths, P., Sedefov, R., Gallegos, A., & Lopez, D. (2010). How globalization and market innovation challenge how we think about and respond to drug use: 'Spice' a case study. *Addiction, 105*(6), 951-953.

Gubrium, J. F., & Holstein, J. A. (1998). Narrative practice and the coherence of personal stories. *Sociological Quarterly, 39*(1), 163-187.

Habermas, J. (1984). *The Theory of Communicative Action, Vol. 1: Reason and the Rationalization of Society*. London: Heinemann.

Habermas, J. (1987). *The Theory of Communicative Action, Volume 2: Lifeworld and System: A critique of functionalist reason*. Cambridge: Polity Press.

Habermas, J. (1989). *The Structural Transformation of the Public Sphere*. Cambridge: Polity Press.

Hanna, P. (2012). Using internet technologies (such as Skype) as a research medium: A research note. *Qualitative Research, 12*(2), 239-242.

Hardey, M. (1999). Doctor in the house: the Internet as a source of lay health knowledge and the challenge to expertise. *Sociology of Health & Illness, 21*(6), 820-835.

Hargittai, E., Fullerton, L., Menchen-Trevino, E., & Thomas, K. Y. (2010). Trust Online: Young Adults' Evaluation of Web Content. *International journal of communication, 4*, 468-494.

Haug, M. R. (1988). A Re-examination of the Hypothesis of Physician Deprofessionalization. *The Milbank Quarterly, 66*(2), 48-56.

Haug, M. R., & Lavin, B. (1983). *Consumerism in medicine: Challenging physician authority*. Beverly Hills, California: Sage.

Hay-Gibson, N. (2009). Interviews via VoIP: Benefits and Disadvantages within a PhD study of SMEs. *Library and Information Research, 33*(105), 1756-1086.

Haythornthwaite, C. (2007). Social networks and online community. In A. N. Joinson, K. Y. A. McKenna, T. Postmes, & U.-D. Reips (Eds.), *Oxford Handbook of Internet Psychology* (pp. 121-139): Oxford University Press.

Hebdige, D. (1979). *Subculture: The Meaning of Style*. London: Routledge.

Hesse-Biber, S., Dupuis, P., & Kinder, T. S. (1991). HyperRESEARCH: A computer program for the analysis of qualitative data with an emphasis on hypothesis testing and multimedia analysis. *Qualitative Sociology, 14*(4), 289-306.

Hibbard, J. H., & Weeks, E. C. (1987). Consumerism in health care: Prevalence and predictors. *Medical Care, 25*(11), 1019-1032.

Hillebrand, J., Olszewski, D., & Sedefov, R. (2010). Legal highs on the Internet. *Substance use & misuse, 45*(3), 330-340.

Hine, C. (2008). Virtual Ethnography: Modes, Varieties, Affordances. In N. Fielding, R. M. Lee, & G. Blank (Eds.), *The Sage handbook of online research methods* (pp. 257-270). London: Sage.

Hodkinson, P. (2005). Communicating Goth: Online Media. In K. Gelder (Ed.), *The Subcultures Reader* (pp. 564-574). London & New York: Routledge.

Holt, T. J. (2007). Subcultural evolution? Examining the influence of on-and off-line experiences on deviant subcultures. *Deviant Behavior, 28*(2), 171-198.

Holt, T. J., & Copes, H. (2010). Transferring Subcultural Knowledge On-line: Practices and Beliefs of Persistent Digital Pirates. *Deviant Behavior, 31*(7), 625-654.

Howard, P. E., Rainie, L., & Jones, S. (2001). Days and Nights on the Internet: The Impact of a Diffusing Technology. *American Behavioral Scientist, 45*(3), 383-404.

Hunt, G., Bergeron, H., & Milhet, M. (2013). *Drugs and Culture: Knowledge, Consumption and Policy*. London: Ashgate Publishing, Ltd.

Hunt, G., Evans, K., & Kares, F. (2007). Drug Use and Meanings of Risk and Pleasure. *Journal of Youth Studies, 10*(1), 73-96.

Irwin, K. S., & Fry, C. L. (2007). Strengthening drug policy and practice through ethics engagement: an old challenge for a new harm reduction. *International Journal of Drug Policy, 18*(2), 75-83.

Janghorban, R., Roudsari, R. L., & Taghipour, A. (2014). Skype interviewing: The new generation of online synchronous interview in qualitative research. *International journal of qualitative studies on health and well-being, 9*(1), 24152.

Jones, S. G. (1998a). Information, Internet, and Community: Notes Towards an Understanding of Community in the Information Age. In S. G. Jones (Ed.), *CyberSociety 2.0: Revisiting Computer-Mediated Communication and Community* (pp. 1-34). Thousand Oaks: Sage

Jones, S. G. (1998b). Introduction. In S. G. Jones (Ed.), *Cybersociety 2.0: Revisiting Computer-Mediated Communication and Community*. Thousand Oaks: Sage.

Järvinen, M., & Mik-Meyer, N. (2017). Kvalitative analysetraditioner i samfundsvidenskapelig forskning. In M. Järvinen & N. Mik-Meyer (Eds.), *Kvalitativ analyse. Syv traditioner*. Copenhagen: Hans Reitzels Forlag.

Kahn, R., & Kellner, D. (2003). Internet Subcultures and Oppositional Politics. In D. Muggleton & R. Weinzierl (Eds.), *The post-subcultures reader* (pp. 299-314). Oxford, New York: Berg.

Kahn, R., & Kellner, D. (2004). New Media and Internet Activism: From the 'Battle of Seattle' to Blogging. *New Media & Society, 6*(1), 87-95.

Kamel Boulos, M. N., & Wheeler, S. (2007). The emerging Web 2.0 social software: an enabling suite of sociable technologies in health and health care education 1. *Health Information & Libraries Journal, 24*(1), 2-23.

Kataja, K., Törrönen, J., Hakkarainen, P., & Tigerstedt, C. (2018). A virtual academy of polydrug use: Masters, novices and the art of combinations. *Nordic Studies on Alcohol and Drugs, 35*(6), 413-427.

Kazmer, M. M., & Haythornthwaite, C. (2001). Juggling Multiple Social Worlds: Distance Students Online and Offline. *American Behavioral Scientist, 45*(3), 510-529.

Kozinets, R. V. (2002). The Field Behind the Screen: Using Netnography for Marketing Research in Online Communities. *Journal of Marketing Research, 39*(1), 61-72.

Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukophadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist, 53*(9), 1017-1031.

Lankes, R. D. (2008). Trusting the Internet: New Approaches to Credibility Tools. In M. J. Metzger & A. J. Flanagin (Eds.), *Digital media, youth, and credibility* (pp. 101-122). Cambridge, MA: The MIT Press.

Lee, R. M., Fielding, N., & Blank, G. (2008). The Internet as a Research Medium: An Editorial Introduction to the Sage Handbook of Online Research Methods. In R. M. Lee, N. Fielding, & G. Blank (Eds.), *The Sage handbook of online research methods* (pp. 3-20). London: Sage.

Leiner, B. M., Cerf, V. G., Clark, D. D., Kahn, R. E., Kleinrock, L., Lynch, D. C., . . . Wolff, S. S. (1997). The Past and Future History of the Internet. *Communications of the ACM, 40*(2), 102-108.

Lemire, M., Sicotte, C., & Paré, G. (2008). Internet use and the logics of personal empowerment in health. *Health policy, 88*(1), 130-140.

Loseke, D. R. (2007). The Study of Identity as Cultural, Institutional, Organizational, and Personal Narratives: Theoretical and Empirical Integrations. *The Sociological Quarterly, 48*(4), 661-688.

Lupton, D. (1993). Risk as Moral Danger: The Social and Political Functions of Risk Discourse in Public Health. *International journal of health services, 23*(3), 425-435.

Lupton, D. (1997a). Consumerism, Reflexivity and the Medical Encounter. *Social science & medicine, 45*(3), 373-381.

Lupton, D. (1997b). Doctors on the medical profession. *Sociology of Health & Illness, 19*(4), 480-497.

Lupton, D. (1999). Introduction: Risk and Sociocultural Theory. In D. Lupton (Ed.), *Risk and Sociocultural Theory: New Directions and Perspectives*. Cambridge: Cambridge University Press.

Lupton, D., Donaldson, C., & Lloyd, P. (1991). Caveat emptor or blissful ignorance? Patients and the consumerist ethos. *Social science & medicine, 33*(5), 559-568.

Maddox, A., Barratt, M. J., Allen, M., & Lenton, S. (2016). Constructive activism in the dark web: cryptomarkets and illicit drugs in the digital 'demimonde'. *Information, Communication & Society, 19*(1), 111-126.

Madge, C., & O'Connor, H. (2004). Online methods in geography educational research. *Journal of Geography in Higher Education, 28*(1), 143-152.

Mann, C., & Stewart, F. (2000). *Internet Communication and Qualitative Research: A Handbook for Researching Online*. London: Sage.

Manning, P. (2014). *Drugs and Popular Culture in the Age of New Media*. London and New York: Routledge.

Markham, A., & Buchanan, E. (2012). Ethical Decision-Making and Internet Research. *Recommendations from the AoIR Ethics Working Committee*.

Martin, J. (2014). *Drugs on the Dark Net: How Cryptomarkets Are Transforming the Global Trade in Illicit Drugs*. Basingstoke: Palgrave Macmillan.

Maruna, S. (2015). Foreword: Narrative criminology as the new mainstream. In L. Presser & S. Sandberg (Eds.), *Narrative Criminology. Understanding Stories of Crime*. New York and London: New York University Press.

McArthur, J. A. (2009). Digital Subculture: A Geek Meaning of Style. *Journal of communication inquiry, 33*(1), 58-70.

Metzger, M. J. (2007). Making sense of credibility on the Web: Models for evaluating online information and recommendations for future research. *Journal of the American Society for Information Science and Technology, 58*(13), 2078-2091.

Miller, G., & Fox, K. J. (2004). Building Bridges. The Possibility of Analytic Dialogue Between Ethnography, Conversation Analysis and Foucault. In D. Silverman (Ed.), *Qualitative Research. Theory, Method and Practice* (pp. 24-44). London: Sage.

Miller, P. G., & Sønderlund, A. L. (2010). Using the internet to research hidden populations of illicit drug users: a review. *Addiction, 105*(9), 1557-1567.

Monaghan, L. (1999). Challenging medicine? Bodybuilding, drugs and risk. *Sociology of Health & Illness, 21*(6), 707-734.

Murguía, E., Tackett-Gibson, M., & Lessem, A. (2007). *Real Drugs in a Virtual World: Drug Discourse and Community Online*. Plymouth: Lexington Books.

Möllering, G. (2001). The Nature of Trust: From Georg Simmel to a Theory of Expectation, Interpretation and Suspension. *Sociology, 35*(2), 403-420.

NESH. (2016). Forskningsetiske retningslinjer for samfunnsvitenskap, humaniora, juss og teologi. Retrieved from:

https://www.etikkom.no/globalassets/documents/publikasjoner-som-pdf/60125_fek_retningslinjer_nesh_digital.pdf

NESH. (2018). Forskningsetisk veileder for internettforskning. Retrieved from: https://www.etikkom.no/globalassets/documents/publikasjoner-som-pdf/forskningsetisk-veileder-for-internettforskning/forskningsetisk-veileder-for-internettforskning-ia.pdf

Nie, N. H. (2001). Sociability, interpersonal relations, and the internet reconciling conflicting findings. *American Behavioral Scientist, 45*(3), 420-435.

Nie, N. H., & Erbring, L. (2002). Internet and Society: A Preliminary Report. *IT & Society, 1*(1), 275-283.

Norman, J., Grace, S., & Lloyd, C. (2014). Legal high groups on the internet–The creation of new organized deviant groups? *Drugs: education, prevention and policy, 21*(1), 14-23.

NORSAR. (2018). NORSAR becomes the first non-US node on ARPANET, the predecessor to today's Internet. Retrieved from: https://www.norsar.no/about-us/history/arpanet-article774-270.html

O'Connor, H., Madge, C., Shaw, R., & Wellens, J. (2008). Internet-based Interviewing. In N. Fielding, R. M. Lee, & G. Bank (Eds.), *The Sage handbook of online research methods* (pp. 271-289). London: Sage.

O'Reilly, T. (2010). What is Web 2.0? In H. Donelan, K. Kear, & M. Ramage (Eds.), *Online Communication and Collaboration*. Abingdon: Routledge.

Opdenakker, R. (2006). *Advantages and Disadvantages of Four Interview Techniques in Qualitative Research*. Paper presented at the Forum Qualitative Sozialforschung/Forum: Qualitative Social Research.

Park, R. E. (1915). The City: Suggestions for the Investigation of Human Behavior in the City Environment. *American journal of Sociology, 20*(5), 577-612.

Peretti-Watel, P. (2003). Neutralization theory and the denial of risk: Some evidence from cannabis use among French adolescents. *The British journal of sociology, 54*(1), 21-42.

Power, M. (2013). *Drugs 2.0: The Web Revolution That's Changing How the World Gets High*. London: Portobello Books.

Presser, L. (2009). The narratives of offenders. *Theoretical Criminology, 13*(2), 177-200.

Presser, L., & Sandberg, S. (2015). What Is the Story? In L. Presser & S. Sandberg (Eds.), *Narrative Criminology. Understanding Stories of Crime*. New York and London: New York University Press.

Putnam, R. D. (2001). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.

Quan-Haase, A., Wellman, B., Witte, J. C., & Hampton, K. N. (2002). Capitalizing on the Net: Social Contact, Civic Engagement, and Sense of Community. In B. Wellman & C. Haythornthwaite (Eds.), *The Internet in Everyday Life* (pp. 291-324). Oxford: Blackwell.

Rheingold, H. (1993). *The Virtual Community: Homesteading on the Electronic Frontier*. Cambridge: MIT Press.

Rhodes, T. (1997). Risk theory in epidemic times: sex, drugs and the social organisation of 'risk behaviour'. *Sociology of Health & Illness, 19*(2), 208-227.

Rhodes, T. (2009). Risk environments and drug harms: A social science for harm reduction approach. *International Journal of Drug Policy, 20*, 193-201.

Richardson, L. (1990). *Writing Strategies: Reaching Diverse Audiences*. Newbury Park, CA: Sage.

Riessman, C. K. (2008). *Narrative Methods for the Human Sciences*. Thousand Oaks: Sage.

Roberts, L. D. (2015). Ethical Issues in Conducting Qualitative Research in Online Communities. *Qualitative Research in Psychology, 12*(3), 314-325.

Rubin, H. J., & Rubin, I. S. (2005). *Qualitative Interviewing*. Thousand Oaks, CA: Sage.

Rönkä, S., & Katainen, A. (2017). Non-medical use of prescription drugs among illicit drug users: A case study on an online drug forum. *International Journal of Drug Policy, 39*, 62-68.

Sagoe, D., Molde, H., Andreassen, C. S., Torsheim, T., & Pallesen, S. (2014). The global epidemiology of anabolic-androgenic steroid use: a meta-analysis and meta-regression analysis. *Annals of epidemiology, 24*(5), 383-398.

Sandberg, S. (2010). What Can "Lies" Tell Us About Life? Notes Towards a Framework of Narrative Criminology. *Journal of Criminal Justice Education, 21*(4), 447-465.

Sandberg, S., & Tutenges, S. (2015). Meeting the Djinn: Stories of drug use, bad trips and addiction. In L. Presser & S. Sandberg (Eds.), *Narrative criminology: Understanding stories of crime* (pp. 150-173). New York and London: New York University Press.

Sandøy, T. A. (2013). *Anabole steroider i Norge - En oversikt fra befolkningsundersøkelser*. Oslo: Norwegian Institute for Alcohol and Drug Research (SIRUS).

Schifano, F., Corazza, O., Deluca, P., Davey, Z., Di Furia, L., Farre', M., . . . Peltoniemi, T. (2009). Psychoactive drug or mystical incense? Overview of the online available information on Spice products. *International Journal of Culture and Mental Health, 2*(2), 137-144.

Sedgwick, M., & Spiers, J. (2009). The Use of Videoconferencing as a Medium for the Qualitative Interview. *International Journal of Qualitative Methods, 8*(1), 1-11.

Seitz, S. (2016). Pixilated partnerships, overcoming obstacles in qualitative interviews via Skype: A research note. *Qualitative Research, 16*(2), 229-235.

Soussan, C., & Kjellgren, A. (2014). Harm reduction and knowledge exchange—a qualitative analysis of drug-related Internet discussion forums. *Harm Reduction Journal, 11*(25), 1-9.

Sowles, S. J., Krauss, M. J., Gebremedhn, L., & Cavazos-Rehg, P. A. (2017). "I feel like I've hit the bottom and have no idea what to do": Supportive social networking on Reddit for individuals with a desire to quit cannabis use. *Substance abuse, 38*(4), 477-482.

Sproull, L., Kiesler, S., & Kiesler, S. B. (1992). *Connections: New Ways of Working in the Networked Organization*. Cambridge: MIT Press.

SSB. (2018). Bruk av IKT i husholdningene. Retrieved from:

https://www.ssb.no/statbank/list/ikthus

Stempel, G. H., Hargrove, T., & Bernt, J. P. (2000). Relation of Growth of Use of the Internet to Changes in Media Use from 1995 to 1999. *Journalism & Mass Communication Quarterly, 77*(1), 71-79.

Sumnall, H., Evans-Brown, M., & McVeigh, J. (2011). Social, policy, and public health perspectives on new psychoactive substances. *Drug Testing and Analysis, 3*(7-8), 515-523.

Swidler, A. (1986). Culture in Action: Symbols and Strategies. *American sociological review, 51*(2), 273-286.

Sztompka, P. (1999). *Trust: A Sociological Theory*. Cambridge: Cambridge University Press.

Tackett-Gibson, M. (2008). Constructions of Risk and Harm in Online Discussions of Ketamine Use. *Addiction Research & Theory, 16*(3), 245-257.

Thornton, S. (1995). *Club Cultures: Music, Media, and Subcultural Capital*. Cambridge: Polity Press.

Turkle, S. (1995). *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster Paperback.

Tönnies, F. (1955). *Community and Society* (C. P. Loomis, Trans.): Courier Corporation.

Van Hout, M. C., & Hearne, E. (2017). New psychoactive substances (NPS) on cryptomarket fora: an exploratory study of characteristics of forum activity between NPS buyers and vendors. *International Journal of Drug Policy, 40*, 102-110.

van Uden-Kraan, C. F., Drossaert, C. H., Taal, E., Shaw, B. R., Seydel, E. R., & van de Laar, M. A. (2008). Empowering processes and outcomes of participation in online support groups for patients with breast cancer, arthritis, or fibromyalgia. *Qualitative health research, 18*(3), 405-417.

Vardakou, I., Pistos, C., & Spiliopoulou, C. (2010). Spice drugs as a new trend: mode of action, identification and legislation. *Toxicology Letters, 197*(3), 157-162.

Vardakou, I., Pistos, C., & Spiliopoulou, C. (2011). Drugs for youth via Internet and the example of mephedrone. *Toxicology Letters, 201*(3), 191-195.

Vrasidas, C., & Veletsianos, G. (2010). Theoretical Foundations of Social Computing and Virtual Communities. In P. Zaphiris & C. S. Ang (Eds.), *Social Computing and Virtual Communities* (pp. 1-20). Florida: CRC Press.

Walsh, C. (2011). Drugs, the Internet and change. *Journal of Psychoactive Drugs, 43*(1), 55-63.

Wangberg, S., Andreassen, H., Kummervold, P., Wynn, R., & Sørensen, T. (2009). Use of the internet for health purposes: trends in Norway 2000–2010. *Scandinavian journal of caring sciences, 23*(4), 691-696.

Wax, P. M. (2002). Just a Click Away: Recreational Drug Web Sites on the Internet. *Pediatrics, 109*(6), 1-4.

Wikipedia. (2018). Main paige. Retrieved from: https://en.wikipedia.org/wiki/Main_Page

Williams, J. P. (2006). Authentic Identities: Straightedge Subculture, Music, and the Internet. *Journal of Contemporary Ethnography, 35*(2), 173-200.

Williams, J. P., & Copes, H. (2005). "How Edge Are You?" Constructing Authentic Identities

  and Subcultural Boundaries in a Straightedge Internet Forum. *Symbolic Interaction,*

  *28*(1), 67-89.