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Characteristics of the Dark Web's Online Drug Culture

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Running Head Right-hand: Characteristics of the Dark Web's online drug culture

Running Head Left-hand: Ari Haasio, Piotr Siuda and J. Tuomas Harviainen

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Characteristics of the Dark Web's online drug culture

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Introduction

This chapter focuses on analysing the special features of the Dark Web's drug culture. According to [Gehl \(2018\)](#), the Dark Web can only be reached by using specially configured routing software, such as the Tor browser. It is also anonymous and therefore more private to use, which is the main reason why the Dark Web is used for illicit drug marketing and as a platform to communicate drug-related questions. Due to these reasons, the importance of the Dark Web in the drug trade has increased significantly ([Martin et al., 2021](#)).

There are also drug-related sites on the clear web and drug dealing may take place on social media ([Demant et al., 2019](#); [Anderdal Bakken & Kirstine Harder, 2022](#); [van der Sanden, 2022](#)). In this chapter, we have focused on the specifics of the Dark Web drug culture, as it has become the main online marketplace for illicit drugs ([Haasio et al., 2022](#)). Because of this, users also discuss different aspects of the drug culture there, which makes the environment of high interest to scholars looking at not just drug trading.

Although Dark Web sites play a key role in the drug trade, several websites also have discussions about drug use, give peer information to other users and discuss topics related to drug culture, from music to information security. Some image boards likewise have discussion forums related to reducing and quitting drug use. Those sections are primarily based on peer

support and the possibility to anonymously ask for advice without fear of being stigmatized (Haasio et al., 2022). Maddox et al. (2016) have pointed out that cryptomarkets are not just for selling and buying drugs. Their research about Silk Road's activism proves that discussions about drug policies and personal freedom within a libertarian framework in drugs is a frequently discussed topic.

Drug use is a cultural phenomenon that gives rise to its own subcultures. Allaste (2006) has pointed out that using drugs is partly a consequence of youth cultures. There are also subcultures on the internet based on lifestyles and people's interests and hobbies. Since drug users have their own subculture, it is natural that it can also be seen as a cultural community forming on the internet. Parts of it exist on image boards, but the discussions in many countries are now moving on to private groups on instant messaging services (Zambiasi, 2022).

The present study contributes to a conceptual framework to the drug user culture on the Dark Web. Our investigation opens a new perspective on the study of Dark Web drug culture by pointing out the main feelings and thoughts, which are typical to the discussion, that dominate the discussion culture on marketplaces and image boards specializing in the drug scene. For instance, personal stories about usage history are examples of this kind of cultural feature.

Previous research

The Dark Web's drug scene as a cultural phenomenon has not been widely studied. Research on the drug trade has mostly dealt with the types of products for sale, market shares of different drugs (e.g., Dolliver, 2015; Dolliver & Kuhns, 2016; Scourfield et al., 2019; Windle, 2021), sellers' reputations (Nurmi et al., 2017) or selling practices (Childs et al., 2020). Information needs and information sharing (Harviainen et al., 2020; Haasio et al., 2022), cultural and socioeconomic factors related to the lives of drug on the dark web (Harviainen et al., 2021) and information protection on the dark web market sites (Harviainen et al., 2021) have been also studied, but to a lesser degree. Bilgisi (2019) has studied risk management and trust in online

drug communities. He points out that a new subculture of drug users has emerged on the internet. It makes interaction between people with same interests possible. Trust is one of the key factors in the Dark Web's drug markets. Its significance has been studied in several articles and dissertations (e.g. [Holt et al., 2016](#); [Duxbury, 2018](#); [Bakken & Demant, 2019](#); [Norbutas, 2020](#); [Munksgaard, 2021](#)). A comprehensive study on the drug culture of the dark web and its special features is still waiting to be done.

Drug users' subculture and way of life has been studied in various research articles (e.g. [Marin et al., 2017](#); [Kajanová & Mrhálek, 2019](#); [Giraud, 2020](#)), but these studies are focused on the cultural features of the real world and do not consider the role of the virtual world in the culture and lifestyle of drug users. By the term "real world", we mean the physical environment, and by the term "virtual world", we mean services in the information network.

Conceptual framework and research questions

The theoretical framework of this chapter is based on Maslow's hierarchy of needs, the information needs derived from it ([Wilson, 1981, 1984](#)) and the analysis of the triggers of those information needs ([Wilson, 1981, 1984](#); [Haasio et al., 2020](#)). Also, the idea of otherness presented by [Zygmunt Bauman \(1990\)](#) has influenced our work. Otherness can be understood as the quality or state of being other or different from others, and it is often used to describe someone's being part of a minority group, e.g. being a member of a group like outlaw bikers.

Culture can be defined in many ways. We use [Hofstede's \(1991–1994, p. 5\)](#) definition: "culture is the collective programming of the mind which distinguishes the members of one group or category of people from another". In this case, the drug users can be understood as a cultural group that represents a subculture of disnormative behaviour and disnormative information behaviour ([Haasio, 2013](#); [Haasio, 2019](#); [Haasio et al., 2020](#)). This disnormative behaviour and disnormative information behaviour can be understood as actions which are either against the law or against the generally accepted norms of the surrounding society. For example,

when using drugs is illegal in most countries, the information seeking process concerning drug usage and sales, as well as the act of usage, can be understood to be disnormative.

The background of the drug culture on the internet is also the experience of otherness (see [Bauman, 1990](#)). Drug use is something that creates its mark on a person from the perspective of the rest of society. Stigmatization is something that many users fear (e.g. Ezell et al., 2021). The fact that someone uses drugs unites the users of drug forums on the dark web and acts as a factor promoting a similar otherness ([Haasio, 2015](#)). It is also a way of life, and in some cases it dominates everyday life, depending on the usage frequency, life situation and the substance used ([Haasio et al., 2020](#)).

Way of life also affects the things people do in their everyday life. For example, way of life can be understood as a major motive that affects information seeking behavior (e.g. [Savolainen, 2008](#); [Haasio et al., 2020](#)). Actually, selling and buying drugs on the dark web is a good example of information seeking and information sharing.

Our main research questions are:

- 1) What are the typical features of the Dark Web's drug culture?
- 2) What characteristics are typical of the drug culture on the Dark Web in particular, and what kind of explanatory factors can be found for them?

We approach these questions broadly and seek the common shared features of Dark Web drug culture. On the margins of these two questions, we also signal that 3) there could be differences in this culture in different countries. The Internet is an international, border-crossing platform, but in many cases the illicit drug trafficking and communication happen mostly in domestic sites, in which just the local language is used. This may cause differences in the Dark Web's drug culture in different countries, due to both local culture and legislation as well as the differences in the availability of certain narcotics, and customers' purchasing power, which affects the market especially for higher-priced drugs, particularly heroin. For example, Finland stands out as

a place where a heroin substitute, Subutex, is particularly popular (Haasio et al., 2022). When it comes to regional differences, we do not give any definite answers, and we are only looking for clues based on the first two questions.

Based on the analysis the authors have done for several articles (Haasio et al., 2020; Harviainen et al., 2021; Haasio et al., 2022) and using the qualitative and quantitative analysis of the data discussed later, we claim that there are three dimensions that can be considered special features of the Dark Web's drug culture. These dimensions are thoughts/feelings, values and actions. This chapter summarizes the observations we have made about the cultural features typical for the Dark Web's discussions and actions about drugs.

This chapter analyses the discussion culture of the Dark Web's image boards specializing in the drug scene—selling, buying and discussing drugs and drug culture as part of the user's life and lifestyle. It is based on a qualitative content analysis. In the background, there is an idea of a netnographic way to approach the research object. In other words, “it surveys the nature of online social experience and interaction: the phenomenon we wish to study” (Kozinets, 2015, p. 2). Netnography is a qualitative approach to social media and it analyses where cultural focus on the data is at the centre of the research (Kozinets, 2019).

Data and methods

This study uses data from both Finland and Poland. The Finnish data set contains almost 10000 closely read and analysed messages collected from the Finnish Dark Web site Sipulitori, and 3,104,971 messages submitted between 2017–2020 to another dark web site called Torilauta, analysed with directed searches followed by close readings. Polish Dark Web boards and markets, e.g. Cebulka (which currently lists around 18000 registered users), and forums dedicated to the discussion of illicit drugs (e.g., hyperreal; narkotyki.pl) have also been used as background material for this chapter. The data here was gathered less systematically as a

confirmation of what was seen on Finnish sites. Samples of these data have been used in this chapter to illustrate and verify what is argued.

Our point of view is conceptual and based on the research we have done before. We also lean on the previous studies about drug culture on the web. Our goal has been to summarize and create an interpretation framework that illustrates the special features of the discussion culture of drug sites on the Dark Web.

Results

Multifaced drug culture

Drug culture is not a uniform culture. Rather, it can be understood as a subculture or a counterculture, which is divided into different smaller cultures. Which drugs and how often a person uses them has great importance in the cultural context. The users do make the differentiation themselves based on the type of use. For example, recreational users and the “junkies” who represent the lowest caste within the communities are very different cultural groups. It is the same way with users of cocaine or ecstasy, who have their own demographics distinct from users of other narcotics, possibly excluding amphetamine, which seems to hold a general interest. These differences are also clearly stated in the online discussions belonging to our data. Likewise, cannabis users who use nothing else form their own group, which may also have way of life associated with the use (see e.g. [Girardo, 2020](#); [Haasio et al., 2022](#)). Many, however, seem to use it alongside other drugs, so we postulate that two very different demographics relating to cannabis exist.

In a cultural sense, a person's lifestyle and life management are important. Is all the activity focused on getting the next dose, or is the user a working recreational user? The writings on online forums clearly show that some users have drifted or are drifting outside of mainstream society, and in the worst cases they have lost control of their lives. People who work and have

family lives, whose life management is quite good according to them, represent the other extreme (see e.g. [Haasio et al., 2020](#); [Haasio et al., 2022](#)). [Allaste \(2006\)](#), who studied the lives of Estonian drug users, has found that there are different types of drug users. This has been observed in several other studies, too (see e.g. [Pitkänen et al., 2016](#)). [Tiberg and Nordgren \(2022\)](#), for instance, have studied Swedish court descriptions of convicted users. They distinguish four different user groups in their research: criminals, addicts, ordinary people and recreational users. These groups have very different lifestyles, and the cultural environment differs between them.

Cannabis users can restrict their drug use and are established within their respective societies, in contrast to heroin users who quickly lose control of their lives. It is therefore important to point out the cultural and social context within which a narcotic substance is used. Drug use forms one's identity; for example, the label "cannabis user" is important in a person's identity formation ([Lavie-Ajayi et al., 2022](#)). [Di Placido \(2019\)](#) studied Italian working-class subculture and observed that using drugs is an important aspect of identity. In our view, this supports the idea that a person adopts the cultural features that are typical of cannabis users. He/she becomes attached to this subculture and adopts its core values, which include a normalization of drug use. Another important subcultural group is recreational users, whose drug usage is linked to relaxing on the weekends and also to parties and festivals ([Wilson et al., 2010](#)).

Three dimensions of drug culture

In Finland, the legislation is very strict. The law prohibits possession, use and selling of all kinds of illegal drugs. In Poland, the legislation is equally restrictive ([Malinowska-Sempruch, 2016](#)). Legislation has a significant impact on what kind of drug culture is coming online. Because of the harsh punishments in Finland and Poland, communication cannot be open, and the fear of being punished is always present. It also explains the willingness to use the Dark Web because of the anonymity ([Haasio et al., 2022](#)).

In the following, we analyze the characteristics of the Dark Web's drug culture with the help of three variables typical of the network. They are thoughts/feelings, actions and values which arose from the data (Table 33.1).

Table 33.1 characteristics of the Dark Web's drug culture analyzed with the help of three variables typical of the network

THOUGHTS			
FEELINGS	OBJECTS	ACTIONS	VALUES
Fear, safety	Robbery	Sharing warnings	Safety
Fear, safety	Violence	Sharing warnings	Safety
Caring	Overdose	Sharing own experiences	Safety
		of usage	
Caring	Detoxification	Sharing own experiences	Safety,
		of detoxification	peer support,
		peer information	
Fear	Police, customs	Using Dark Net & Wickr	Anonymity

The three dimensions of Dark Web culture

Three elements of thoughts and feelings were observed from the data. These were fear, safety and caring. In some posts only one of these elements was noticeable; in some other posts, two or three elements were existing.

Confidence

Confidence plays an important role in Dark Web forums. Especially in drug deals, the trust between seller and buyer seems to be important and is discussed widely on the forums. When the

information needs of Finnish Dark Web drug forum Torilauta were analysed, 5.2 percent of the information needs concerned a drug user's identity. There were also many racist comments about certain vendors and buyers, with Roma and immigrants being seen as particularly unreliable as trading partners (Haasio et al., 2020). According to Laferrière and Décarv-Héту (2022), there are four kinds of trust: the ones related to identity, marketing, security and signals that directly express trust.

In the Dark Web's drug culture, vendors have to build trust. One of the ways to convince customers about reliability is reputation, which is formed over time. On the other hand, vendors have to trust the customers, too. In our data there are many examples of mistrust and fear of robberies. If the customer is a new one, there is always a risk of being robbed. Vice versa, the vendors fear scams. On the discussion forums analysed there are warnings about the vendors one should not trust. In some cases, one may lose money or alternatively get a low-quality drug or even something other than what one was buying. In the messages sent by the vendors, "honest deals" and "excellent quality" are often mentioned. Many vendors also state their ethnicity as a sign of better reliability. Vendors fear customers and customers fear vendors (for an exploration of the conflict experiences of drug dealers in online and offline illicit drug markets, see Bergeron et al., 2022). In addition, both groups fear the police, because there is always the possibility of being caught for selling or buying drugs—both of which are illegal in Finland and Poland.

In this chapter, we surveyed 49 online illicit drug market vendors to explore the conflict experiences of drug dealers who participate in online and offline illicit drug markets. The results indicate that conflict and victimization experiences are rare for online drug dealers, but there are still many situations that are not mitigated by using anonymizing technologies like those used on online illicit markets. We demonstrate how these conflicts differ between online and physical drug markets.

In addition to the trading situation, thoughts are also focused on the quality of drugs and the consequences of their use. The quality of the drugs is widely discussed and on different forums, users give feedback on quality (see e.g., Aldridge & Decary-Héту, 2015; Laferrière &

[Décary-Hélu, 2022](#)). Health issues and rehabilitation are also themes that are commonly mentioned. When considering rehabilitation, many of the users do not want to quit all of their drug use. Instead, they may consider stopping use of opioids, but do not want to give up cannabis ([Haasio et al., 2022](#)). Safety plays an important role here, too, as posters are afraid of overdoses and the results of mixed use of different substances or drugs and alcohol.

In addition, technical issues are discussed in forums surprisingly often. Some participants have a significantly high level of knowledge about information technology. Information security and operational security are especially popular subjects. The instant messaging system Wickr and other anonymous services are used for communication, but the anonymity and safety of the Dark Web and Tor network is constantly a topic of discussion.

The discussion is motivated by the fact that the police in these countries have succeeded in shutting down several drug websites on the Dark Web, both in Finland and in Poland, pointing towards strong cooperation between law enforcement agencies. The anonymity of the Tor network and Wickr have been questioned many times in the forums. In terms of fears and feelings, it is typical for drug users to easily assume that their activities are being monitored, and they are more alert than average web users due to frauds and robberies related to the drug trade. Currently, setting up sales based on initial posts on image boards has moved from Wickr to Telegram, which has raised significant forum discussions on potential backdoors in the software, due to its origin.

Thoughts and feelings

When analysing the cultural features of the Dark Web's drug forums, thoughts and feelings are the motives that guide the activity. Anonymity is a prerequisite for an open discussion since the topics deal with illegal activities. Even detoxification and reducing usage are topics that not all the drug users are willing to speak about other than anonymously. [Haasio et al. \(2022\)](#) have observed from a Finnish forum that many participants in the discussions about detoxification are

afraid of being identified. The fear of being stigmatized, especially by those users who have children or who are working, is general. This is due to Finland's strict drug policy. Because of this, the users find peer support very important.

On the Dark Web, the noteworthy thing is anonymity. The anonymity on Dark Web makes it possible to express feelings and ask questions one would not dare to say with one's own name (Gehl, 2018). In the chapter, we go through the actions and activities typical of the drug culture of the Dark Web that we have observed in our data. The aforementioned thoughts and feelings can be found in the background of all such actions.

Information seeking plays a big role in these forums. Information needs are shared in most of the posts, and the role of peer information is important (Haasio et al., 2020). For many users, Dark Web forums offer multiple opportunities for both trading and support. Such users do not want to be in contact with the authorities or social workers, because the use of drugs already fulfills the characteristics of a crime and carries a strong stigma of lacking control over one's life.

Caring also plays an important role in discussions. It is all about sharing peer information and peer support with other users. Even though people communicate anonymously, their background as drug users is the unifying thing. For example, when talking about one's own drug usage, problems related to life management or willingness to reduce drug use, peer support is important. Here Bauman's (1990) idea of otherness is clearly visible, as is Becker's (1963) concept of outsider ethos and identity. The fact that everyone participating in the discussions has experienced similar things makes it possible to acquire peer information and peer support that is considered reliable. Due to the illicit and sensitive subject, many questions cannot be answered by social workers or medical doctors (see also Haasio et al., 2020; Haasio et al., 2022). For example, questions related to optimal dosing and cross effects of different drugs are subjects where one may find answers only from the more experienced drug users.

Sharing information and experiences

According to our data, sharing experiences is common, and people do it to help other users. In our opinion, this shows that drug use is a unifying thing, which is also reflected in the desire to share experiences and thus acts as a community-creating factor. In the background of all of it, there is Bauman's idea of otherness that is experienced by the users. The experienced otherness is not just a unifying thing, but also an important basis to the Dark Web's drug culture, which relies on outsidership and perceived authenticity (Gehl, 2018).

Sharing one's own experiences can also be understood as caring. A good example is dosing: how much can one take, if one has not used a certain drug before? How can a person avoid an overdose? More experienced users guide in dosage and warn about the effects of mixing substances, and recommend what drugs one should take in which order to get a certain effect. According to the participants of the discussions, these points of advice are perceived as very important. Although we may consider these instructions and advice questionable, in some cases they can prevent overdoses and represent strong community support in a marginalized group.

The information that is shared is mostly disnormative (Haasio, 2015; Haasio, 2019). A large part of it relates to illegal things, such as discussions about the sale of drugs. Other discussions which do not deal with selling or buying drugs can be classified disnormative, too. This is because the subjects are, if not illegal, at least questionable and even likely considered reprehensible by most people. Very typical information needs concern, for example, growing cannabis. That is prohibited by the law, but information about the techniques is often shared in these forums.

Although the Dark Web forums we examined are primarily places to initiate trading, there are plenty of discussions on other topics as well. However, the discussions are directly or indirectly related to drug use, the financing of drug use or drug trafficking. Drug-themed music and literature have also occasionally been discussed in these forums. Interesting manifestations of the drug culture of the Dark Web are the previously mentioned discussions about stopping or reducing drug use. Also, health is a topic that users discuss very often.

One cultural feature in Finnish Dark Web sites is prostitution. There is plenty of supply of this kind of service on the clear web, which is targeted for the common people. Drug users, however, publish their advertisements on the Dark Web and regularly ask for drugs as payment and/or want to use drugs with their customers, as well as have sex. These dating ads are clearly targeted at other drug users. Average citizens would not even find them on the Dark Web. On the contrary, the mere mention of drugs would drive them away. There are also ads on the Finnish Dark Web dating sites where the person is not looking for a sex partner, but just wants to find a person with whom they can use drugs. This too potentially denotes issues of safety, as well as a need to share one's experiences with others.

Cultural differences in regional Dark Web markets

On the margins of presenting the features of drug culture on the Dark Web, this study asks whether there could be any differences in this culture in different countries. One must note that the chapter cannot give a definitive answer here, as the data is limited to two countries and does not include the national/regional component. The thoughts/feelings, values and actions are treated universally here. However, we believe that the studied sites signal that Dark Web markets may have some localized features.

Having said this, the research on these features is almost non-existent. Some rare studies show how there are clear geographical differences when it comes to the use of the Dark Web for the drug trade. [Van Buskirk et al. \(2016\)](#) show that there are country-specific differences for the number of sellers, and [Cunliffe et al. \(2017\)](#) demonstrate that in Australia different risks in Dark Web trading depend on the given location. Similarly, [Norbutas \(2018\)](#) claims that “online drug trade networks might still be heavily shaped by offline (geographic) constraints” ([2018](#), p. 92), and “might be more localized and less international than thought before” ([2018](#), p. 92).

As mentioned, though, research on Dark Web locality is still rare. Existing studies focus on English-language sites and not so much on the culture of the drug trade but the numbers and

kinds of drugs being sold—similarly to the aforementioned fact that Finland stands out as a place for trading Subutex, a heroin substitute (something that became visible while we studied the Finnish sites). Nevertheless, we believe that the regional cultural context could also be fundamental for the presented elements, i.e., thoughts/feelings, values and actions of drug users on the Dark Web.

For example, the drug policy of different countries affects the national culture of Dark Web drug forums. Since in Finland possession, use and the purchase and sale of drugs is prohibited by the law, practically all the contents of these sites are by their nature leading to punishable acts. This partially explains why fear is a typical feature of Finnish drug websites, which can be seen in the messages sent there.

The strictness of the legislation may explain the expressions of fear and prejudice observed in online discussions in both Finland and Poland (Malinowska-Sempruch, 2016). In Poland, the so-called “Act on legal highs” (introduced on August 21, 2018), an amendment to the Act counteracting drug addiction, had a major impact on the change in selling drugs and new psychoactive substances (NPS) on the Polish internet. Entering new substances on the list of prohibited compounds became much faster than before. It could be that the main consequence here is the moving of the drug market to the Dark Web and the building of drug culture of fear in online spaces, like other Polish reforms before 2018. A 2010 response resulted in the closure of some 1,400 brick-and-mortar shops where NPS used to be sold, and these impacted migrations of vendors online (European Monitoring Centre for Drugs and Drug Addiction & Europol, 2017; Martinez et al., 2016).

That the drug users represent a special kind of a subculture, and that the drug use is a common feature that unites this group and positions members to the surrounding world and each other, is highly visible and specific in Poland. Wanke et al. (2022) show how in Poland cannabis users are engaged in a boundary-making processes to “detach themselves” from Polish social conservatism (2022, p. 1). In Poland, drug subcultures are linked to the general intoxication cultures. The most obvious and significant dimension of these is alcohol consumption remaining

the leading cause of morbidity and premature mortality among young and middle-aged adults (Nowak et al., 2018; Zatoński et al., 2019). The rate of both alcohol and illicit substance use in Poland is generally high and increasing, but the former is not stigmatized like the latter in the highly conservative society. It is very probable that this kind of social surrounding strongly impacts thoughts/feelings, values and actions of drug users in Dark Web environments, especially the fears they are experiencing.

Discussion

One can say that drug users' subculture on the Dark Web is a culture of otherness and outsidership. The values it represents are largely against the values of the majority of society. Whereas a society sees drug use as a problem and related activities as punishable, on these discussion boards drugs are perceived as a positive thing, or at least as a natural part of everyday life. They are considered to enable expansion of consciousness and escapism. In addition, cannabis users defend their use with the substance's health effects, and users of certain other substances likewise use self-medication for mental health issues.

Fear is a key characteristic of Dark Web culture. It is strongly visible, especially when negotiating drug deals, both for buyers and sellers. Violence, robberies, frauds and police are the main factors that create the fear. Trust can be seen as an important factor and its necessity is often underlined when selling or buying drugs. Fear is also related to many other topics that are central to the drug culture of the web. Dangers of overdose, harmful cross effects of different substances and safety of information technology are some examples.

Anonymity is a prerequisite to all actions because of the subculture's illicit nature. Although the Tor browser is considered quite safe, security-related questions are constantly on users' minds. Information sharing is common, and people are keen to help each other in terms of drug use, plant growing etc.

Peer information and peer support are highly respected and play an important role in drug user's subculture. The communicative aspect and information sharing are important especially on the Dark Web, because often it is the only way to get informed about usage and issues related to it. The information needs and the information shared on the dark web's drug forums can be described as disnormative (see [Haasio, 2019](#)).

The results raise a question of decriminalization of drug use. The fears that users have are partly the result of strict legislation and the fear of being caught. When you do not dare to ask healthcare professionals or social workers for advice on the safe use of drugs or health problems, you rely on peer information. This is typical of Dark Web online drug culture.

Data availability

The data underlying this article are available on Zenodo and Figshare under the following DOIs: <https://doi.org/10.5281/zenodo.10810939>, <https://doi.org/10.6084/m9.figshare.25398268.v1>.

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