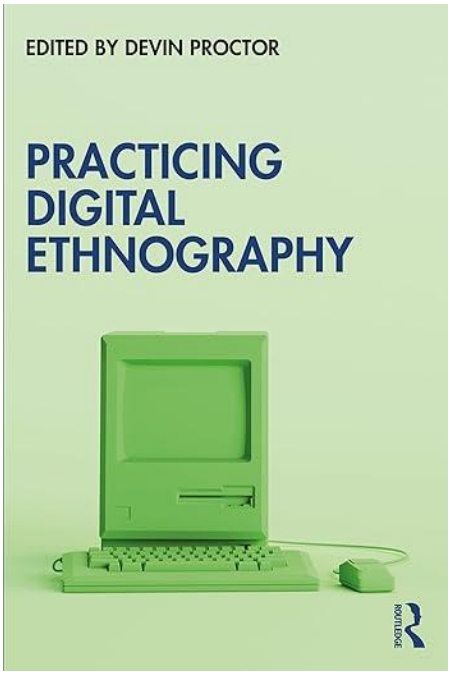

Piotr Siuda, Patrycja Cheba

Case study: Drug trade on the Polish darknet. Releasing control over the research process

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Case study: Drug trade on the Polish darknet

Releasing control over the research process

Piotr Siuda and Patrycja Cheba

The presented case study focuses on digital ethnography of Cebulka, the only Polish-language site used for drug trading on the darknet. Our main argument is that digital ethnographers need to actively gain an understanding of a given community and be involved in its life. However, they should consider incorporating this community into planning and implementing the research at some point, especially when access to the group under study is highly problematic.

This case study is part of a research project financed by the Polish National Science Center titled "Rhizomatic networks, circulation of meanings and contents, and offline contexts of online drug trade," intended to study drug trading online. The project focuses on social media and the darknet, the not-indexed internet accessed by tools like TOR (The Onion Router). This software directs online traffic through multiple relays, significantly decreasing the possibility of tracing the identities and locations of web users.

Cebulka started in 2013, being the heir to the defunct Polish Board & Market. Initially, it functioned without moderation; however, in 2016, PGP keys to encrypt logging and private messages and escrow (money held by a third party, i.e., moderators) for transactions were introduced to bolster users' security and trust, alongside the widely used cryptocurrencies to buy drugs (these sides are called cryptomarkets as using Bitcoin or Monero is the only accepted method of payment) (Barratt and Aldridge 2016; Demant, Munksgaard, and Houborg 2018; Martin et al. 2020; Tsuchiya and Hiramoto 2021). Architecturally, Cebulka is a message board that hosts various threads created by vendors, who may choose to spread their drug offers across several threads or compile them into one. Discussions within these threads can range from evaluating the vendor's credibility through shared experiences to discussing the specifics of the drugs purchased. As of 2024, Cebulka has 59,720 registered

users, although determining the actual size of the community is difficult, if not impossible, due to many temporary accounts or the possibility of multiplying them.

The project identified Cebulka as not only transaction-focused but also as playing a vital role in shaping the narratives and discussions prevalent in the online drug subculture (Hunt and Joe-Laidler 2015; Wanke, Piejko-Płonka, and Deutschmann 2022). We are dealing with a stigmatized community, which is also hard-to-reach (Kaufmann and Tzanetakis 2020) due to the topics discussed and security issues. The difficulty of accessing this community is not so much due to technical problems, such as using TOR and PGP keys to encrypt messages, as these are simple skills to master. This is more an issue of research credibility and establishing trust between researchers and participants, as entering such a community is burdened with mistrust and concealment on both sides (Wright, Klee, and Reid 1998). This has already been well covered in other studies of online drug trafficking sites and other stigmatized or marginalized groups (Kaufmann and Tzanetakis 2020). With this in mind, many researchers consider digital ethnography to provide the best opportunities to establish contact with the studied populations and build the mutual understanding necessary to engage participants.

Barratt and Maddox (2016) emphasize this viewpoint through their examination of the iconic and now-defunct anonymous cryptomarket called Silk Road (Demant, Munksgaard, and Houborg 2018; Barratt, Ferris, and Winstock 2014; Martin 2014), arguing for active engagement. Presenting the stages of their ethnographic research, ethical dilemmas involved, and problems with the volatility of drug trade sites, access, and hate from users, they claim that digital ethnography has a considerable advantage over archival digital traces or Big Data studies. These are usually carried out without overt interaction with the communities under study. Meanwhile, active, participatory research means empowerment for the members of the stigmatized communities. Approaching users means opening channels so they can “keep in touch” with researchers and present their points of view on socially unacceptable activities. Therefore, research becomes more ethical because the balance of power shifts from the research itself to the interaction between researchers and users (Bakardjieva and Feenberg 2001).

The case study presented here supports these views; however, we want to go a step further, arguing that internet-based ethnography should not only actively engage in the community’s life but also give that community some control over the research. The idea is to actively

shape the entire process by members, especially when this would mean enhancing ethical integrity and facilitating access to otherwise elusive communities.

This two-staged study on Cebulka spanned from February 2023 to February 2024. Initially, the first stage focused on exploring threads and profiles. At the same time, the ethics of the entire study were refined iteratively to be finally defined and approved by the School of Social and Political Science IRB at the University of Edinburg[1] and the Faculty of Cultural Studies IRB at the Kazimierz Wielki University in Bydgoszcz, Poland.

When configuring the accounts to browse the site's content, we opted for usernames that do not reveal our real names. This decision was made due to uncertainty about the potential implications of using identifiable handles and with the understanding that we would disclose our identities in the subsequent phase of the study. At first, we followed Gehl's (2014) approach, which is that ethnography in the darknet should be based on pseudonyms because it is not culturally appropriate to do otherwise. Later, we wanted to adopt the dual identity technique indicated by Paechter (2013), aiming to navigate Cebulka both as anonymous users and disclosed researchers, which—as it turned out at the second stage—did not work at all.

Ultimately, the first stage collected 16,842 posts supplemented with 1,299 photos. This rich dataset underwent textual, thematic, and visual analysis. This phase also resulted in the production of internal research team reports totaling 53,171 words, including field data and field notes. From an ethical perspective, this part of the research adopted a "best practices" approach, utilizing several methods outlined in another paper (Harviainen et al. 2021), such as obfuscating all usernames and identifiers like emails or instant messaging numbers found in the posts. The data was carefully curated manually, ensuring that only publicly available information from the sites was released (for ethics, see also Martin and Christin 2016; Haasio, Harviainen, and Savolainen 2020; Harviainen, Haasio, and Hämäläinen 2020).

The second stage assumed interaction with the studied community. Initially, we planned to establish a so-called recruitment thread within one of the forum sections (Barratt and Maddox 2016). We intended to introduce ourselves as researchers and clarify the study's aims to gather the community's perspectives on various topics and recruit participants for interviews. This, however, was intensely discussed within the research team, as there are already many known cases where full disclosure was met with significant hostility from online

communities. For example, Barratt and Maddox (2016) reported trolling and unwanted messages of a sexual nature. Similarly, Hout and Bingham (2013) described instances of high suspicion effectively torpedoing the recruitment process, a challenge also echoed in the findings of Van Hout and Bingham (2013a; 2013b).

For these reasons, we first decided to contact Cebulka's admin (also a community manager) to present our current research and ask permission to create a recruitment post and conduct in-depth interviews with users. We demonstrated the interview questions and the information sheet, including the consent forms. The form emphasized that all data obtained will be managed under the strict research ethics mentioned above. In addition to the standard emphasis on anonymity, we gave respondents many opportunities to choose how the interview might look, asking to potentially record while being open to refusal and proposing to utilize encrypted messengers. We informed respondents thoroughly that we were aware that interviews with drug users and darknet community members must be treated with extra care. Information sheets introduced the team members, offered ORCID iDs and email addresses, and assured participants of our adaptable and responsive approach and empathetic and non-judgmental stance.

Contacting the admin defined the shape of the further investigations. Despite our complete transparency, her initial reaction was very suspicious. The admin explained that the community is highly attached to the principles of OPSEC (operational security). If we started a recruitment thread, it would be met with a very adverse reaction, as the thread would be seen as provocative. She also noted that she would probably delete this post and ban our accounts. The forum's history justified this position; over its more than ten years of existence, there had been two attempts to conduct interviews, which, in her view, turned out to be user profiling operations run by law enforcement agencies.

This initial conversation turned into long-term negotiations about the shape of our research. During these talks, all team members had to properly verify themselves by sending control messages to the indicated secure e-mail box using their university emails. Additionally, the admin set a strict framework for interviews, specifying that they could only be conducted using Cebulka's internal system of asynchronous private messages encrypted by PGP keys. This has wholly reformulated all our previous research-based assumptions on how the interviews might look. On the one hand, imposing encryption eliminated many potential

ethical difficulties, ensuring safety protocols were implemented. On the other hand, the admin imposed a particular procedure designating only two users of her choosing with whom interviews could occur at a given time. When these interviews concluded, we were obliged to report, and only then were we given the next pair of users to reach out to.

After some time, we started identifying with community members. This happened, for example, when Cheba's account was automatically banned due to browsing the website too quickly, resulting in profound stress. Together, we clarified this with the admin; what is more, she granted our accounts higher status, allowing us to view more content in a short time. This identification meant that during regular team meetings, we constantly reminded ourselves that giving up some control does not free us from setting clear boundaries regarding our roles and relationships with respondents. The community occasionally reminded us, as exemplified by the admin's messages, that some of our inquiries were flagged as OPSEC violations. For instance, at one point, the admin suggested that the community was distressed and demanded that the questions about using anonymity tools other than the darknet (e.g., VPN, secure instant messaging) be removed.

Incorporating the community into the study implementation and letting go of complete control of the research process was beneficial for ethical reasons; it bolstered the previously mentioned empowerment of members and allowed us to run the study at all. This does not mean we do not recognize the limitations of the proposed approach. In our case, agreeing to appoint only two interviewees at a given time significantly extended the time needed to gather sufficient interviews. The asynchronous nature of communication and the frequent need to monitor users who did not respond for some time meant that by February 2024, during the four months of the second stage, we had conducted six complete interviews (this research is still ongoing).

Additionally, we realize that exerting substantial influence over the research's procedures and direction by the community may mean less research validity and reliability. For our study, we lost control over who would be selected for interviews. Although the described procedure could be considered a variation of snowball sampling (Parker, Scott, and Geddes 2021), the admin made the decisions arbitrarily. When asked about the selection criteria, she claimed that she was identifying people with extensive knowledge of how the forum functions, first

targeting popular and experienced vendors and then regular customers. Assessing the profiles of our respondents, it can be concluded that they were the site's prominent and active users. For us, agreeing to the rules imposed by the community was necessary. However, we were aware that we could not lose complete control, and one should always be vigilant to ensure that it does not harm research ethics. This was made clear to us when the admin wanted access to the responses of all users interviewed. Naturally, we had to refuse, explaining that sharing was contrary to the ethical guidelines adopted, to which the admin agreed, and that all answers were confidential, encrypted, and stored securely on our hard drives.

Summarizing, this chapter discusses the ethnography of the Polish darknet forum Cebulka, the most significant Polish TOR drug trade space. We claim that digital ethnography should actively engage in the community's life and divest some control over the research to the studied population. Rather than focusing on our research's primary objectives—namely, the meanings attributed to the discussion and trading of drugs—we opted to explain the methodological aspects of our study. We concentrated on the problems and specificity of internet-based ethnography in a particular crime-related environment. As was seen, numerous modifications to standard procedures had to be implemented to gain access to data, especially since some of the posts are hidden, based on the users' status, and the members are highly suspicious and safety-oriented. For us, this particular case study became a new standard for approaching and researching stigmatized and hard-to-reach communities. We also believe this chapter may serve as a guide for other scholars exploring similar sites. Perhaps it could even encourage researchers to use digital ethnography in less controversial settings and evaluate the benefits and drawbacks of their ethical and methodological choices.

Data availability

The data underlying this chapter are available in Figshare, at https://doi.org/10.6084/m9.figshare.25398268.v1, and Zenodo, at https://doi.org/10.5281/zenodo.10810939.

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References

Bakardjieva, Maria, and Andrew Feenberg. 2001. "Involving the Virtual Subject." *Ethics and Information Technology* 2 (4): 233–40. https://doi.org/10.1023/a:1011454606534.

Barratt, Monica J., and Judith Aldridge. 2016. "Everything You Always Wanted to Know about Drug Cryptomarkets* (*but Were Afraid to Ask)." *The International Journal on Drug Policy* 35: 1–6. https://doi.org/10.1016/j.drugpo.2016.07.005.

Barratt, Monica J., Jason A. Ferris, and Adam R. Winstock. 2014. "Use of Silk Road, the Online Drug Marketplace, in the United Kingdom, Australia and the United States." *Addiction* 109 (5): 774–83. https://doi.org/10.1111/add.12470.

Barratt, Monica J., and Alexia Maddox. 2016. "Active Engagement with Stigmatised Communities through Digital Ethnography." *Qualitative Research* 16 (6): 701–19. https://doi.org/10.1177/1468794116648766.

Demant, Jakob, Rasmus Munksgaard, and Esben Houborg. 2018. "Personal Use, Social Supply or Redistribution? Cryptomarket Demand on Silk Road 2 and Agora." *Trends in Organized Crime* 21 (1): 42–61. https://doi.org/10.1007/s12117-016-9281-4.

Gehl, Robert W. 2014. "Power/Freedom on the Dark Web: A Digital Ethnography of the Dark Web Social Network." *New Media and Society* 18 (7): 1219–35. https://doi.org/10.1177/1461444814554900.

Haasio, Ari, J. Tuomas Harviainen, and Reijo Savolainen. 2020. "Information Needs of Drug Users on a Local Dark Web Marketplace." *Information Processing & Management* 57 (2): 102080. https://doi.org/10.1016/j.ipm.2019.102080.

Harviainen, J. Tuomas, Ari Haasio, and Lasse Hämäläinen. 2020. "Drug Traders on a Local Dark Web Marketplace." In *Proceedings of the 23rd International Conference on Academic Mindtrek,* 20–26. Tampere, Finland: ACM. https://doi.org/10.1145/3377290.3377293.

Harviainen, J. Tuomas, Ari Haasio, Teemu Ruokolainen, Lobna Hassan, Piotr Siuda, and Juho Hamari. 2021. "Information Protection in Dark Web Drug Markets Research." In *Proceedings of the 54th Hawaii International Conference on System Sciences,* 4673–80. Grand Hyatt Kauai, Hawaii, USA. https://doi.org/10.24251/HICSS.2021.567.

Hout, Marie Claire Van, and Tim Bingham. 2013. "'Surfing the Silk Road': A Study of Users' Experiences." *International Journal of Drug Policy* 24 (6): 524–29. https://doi.org/10.1016/j.drugpo.2013.08.011.

Hunt, Geoffrey, and Karen Joe-Laidler. 2015. "The Culture and Subculture of Illicit Drug Use and Distribution." In *The Handbook of Drugs and Society,* edited by Henry H. Brownstein, 460–81. John Wiley & Sons.

Kaufmann, Mareile, and Meropi Tzanetakis. 2020. "Doing Internet Research with Hard-to-Reach Communities: Methodological Reflections on Gaining Meaningful Access." *Qualitative Research* 20 (6): 927–44. https://doi.org/10.1177/1468794120904898.

Martin, James. 2014. "Lost on the Silk Road: Online Drug Distribution and the 'Cryptomarket.'" *Criminology & Criminal Justice* 14 (3): 351–67. https://doi.org/10.1177/1748895813505234.

Martin, James, and Nicolas Christin. 2016. "Ethics in Cryptomarket Research." *International Journal of Drug Policy* 35 (September): 84–91. https://doi.org/10.1016/j.drugpo.2016.05.006.

Martin, James, Rasmus Munksgaard, Ross Coomber, Jakob Demant, and Monica J. Barratt. 2020. "Selling Drugs on Darkweb Cryptomarkets: Differentiated Pathways, Risks and Rewards." *The British Journal of Criminology* 60 (3): 559–78. https://doi.org/10.1093/bjc/azz075.

Paechter, Carrie. 2013. "Researching Sensitive Issues Online: Implications of a Hybrid Insider/Outsider Position in a Retrospective Ethnographic Study." *Qualitative Research* 13 (1): 71–86. https://doi.org/10.1177/1468794112446107.

Parker, Charlie, Sam Scott, and Alistair Geddes. 2021. "Snowball Sampling." In *SAGE Research Methods Foundations,* edited by Paul Atkinson et al. SAGE Publications Ltd. http://methods.sagepub.com/foundations/snowball-sampling.

Tsuchiya, Yoichi, and Naoki Hiramoto. 2021. "Dark Web in the Dark: Investigating When Transactions Take Place on Cryptomarkets." *Forensic Science International: Digital Investigation* 36 (March): 301093. https://doi.org/10.1016/j.fsidi.2020.301093.

Van Hout, Marie Claire, and Tim Bingham. 2013. "'Silk Road,' the Virtual Drug Marketplace: A Single Case Study of User Experiences." *The International Journal on Drug Policy* 24 (5): 385–91. https://doi.org/10.1016/j.drugpo.2013.01.005.

Wanke, Michał, Magdalena Piejko-Płonka, and Marcin Deutschmann. 2022. "Social Worlds and Symbolic Boundaries of Cannabis Users in Poland." *Drugs: Education, Prevention and Policy* 29 (4): 334–44. https://doi.org/10.1080/09687637.2022.2046706.

Wright, Sam, Hilary Klee, and Paul Reid. 1998. “Interviewing Illicit Drug Users: Observations from the Field.” *Addiction Research* 6 (6): 517–35. https://doi.org/10.3109/16066359809004369.

[1] University of Edinburg IRB ID: 288628.