

# **Analýza obsahu webových diskuzních fór jako zdroj dat pro výzkum nových trendů v užívání psychoaktivních látek ve srovnání s daty získanými od jiných populací**

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## **ABSTRACT**

**Background:** One of the most significant new trends in substance abuse today is an unprecedented rate of new psychoactive substances (NPS) emergence on a global drug market. While collection of scientific data about the effects and risks of numerous NPS is a timely process, the substantial amount of information about the very same substances is being exchanged on drug discussion forums, creating a pool of data with a potential for research of the NPS trend.

**Aims:** This dissertation aims to evaluate a potential of internet discussion forum content analysis methods by (i) describing and comparing the characteristics of discussion forum visitors to NPS users who do not visit such forums; and subsequently by comparing the internet forum content analysis results describing (ii) a prevalence of NPS use, (iii) effects and context of NPS use and (iv) discussed internet retailers selling NPS with data retrieved by other methods.

**Methods:** Differences between two groups of internet survey respondents were analyzed using Pearson Chi-square and Student's t-test to address the first aim of this dissertation. Furthermore the results of both quantitative and qualitative content analysis of the Czech internet discussion forums about NPS collected in between years 2013-2014 were triangulated with the other data collected by methods such as internet survey, survey of electronic dance music party attendees, scientific literature review or semiautomatic snapshot method I-TREND SASF for scraping of internet shops selling NPS.

**Findings:** NPS users visiting discussion forums are significantly older, have a higher level of education and are more socially included. They also use both controlled and new psychoactive substances more often and frequently in comparison to the NPS users who do not visit such forums. Although there were (significantly) more psychedelic NPS users among internet forum visitors, there was still a majority of NPS users preferring stimulant and empathogenic NPS used in a company of others or in recreational settings. Despite the fact that discussion forum visitors were subjectively more informed about the NPS that they used in a less risky way, there was no significant difference between the two compared groups in proportion of NPS users that needed to search medical assistance due to side effects of their NPS use.

Only a small percentage (7 %) of all identified NPSs (107) were used in the last year by respondents in all three research samples (internet forum contributors a respondents of internet and dance music party attendees surveys). While almost one third of the NPS identified on discussion forums can be also found being used by a broader population of internet users, only a small part of those (9 %) are adopted (with a delay) by the dance music event attendees. Novelty and legal status of the NPS is not significant for dance music attendees therefore they can prefer substances that are no longer popular amongst the discussion forum contributors.

The content of information about effects and context of 7 NPS (mephedrone, 3-MMC, 4-FA, El Magico, Funky, 2-CB a methoxetamine) use gathered by the qualitative content analysis of discussion forums did not differ from the information obtained by other research methods, confirming that the information originating from experiences of NPS users is valid. Discussion forum contributors were preferring less risky routes of the NPS administration. The only inconsistency of information provided by all methods could have been observed with a branded product El Magico, caused by a different content of the product due to another way of its purchase.

Overlap of quantitative content analysis of discussions about internet shops and semiautomatic snapshot method I-TREND SASF results was limited. Quantitative analysis of drug discussion forums has a broader scope due to the fact that discussion forums contributors were in most cases (75 %) buying from the internet shops in foreign language and these were not monitored by the I-TREND SASF method. Only less than a third of shops in Czech language identified by the I-TREND SASF method were discussed on the internet forums. Their contributors were not aware of the other shops or they did not want to share any information about them.

**Conclusions:** Drug discussion forum visitors have distinctive characteristics and NPS use patterns from other NPS users. Although they are a diverse group, they possess knowledge about NPS, which makes them eligible as respondents in other studies. Quantitative forum content analysis is an appropriate method for identification of new NPS on the market and their names can be used as examples in surveys in order to help respondents with recollection of the NPS term. Qualitative analysis is a valid method for collection of information on effects and risks of NPS. Surveys and other research methods are vital for completing the picture about use in other NPS user groups. Monitoring of internet shops selling NPS should focus on identification of foreign shops delivering their products to Czech Republic. Internet discussion forums content analysis is a promising and versatile but time-consuming method, therefore its automation should be further explored.