Mind Navigators of Chemicals' Experimenters?
A Web-Based Description of E-Psychonauts

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Abstract

Within online drug fora communities, there are some "educated and informed" users who can somehow provide reliable information on psychoactive compounds and combinations. These users, also called "e-psychonauts," may possess levels of technical knowledge relating to a range of novel psychoactive substances (NPS). The present project aimed at identifying and describing the e-psychonauts' socio-demographic characteristics and their motivations and patterns of drug intake. A netnographic research methodology, carried out through an unobtrusive observational approach of a list of cyber drug communities (blogs, fora, Facebook, and Twitter pages) was carried out. The fora posts and threads were accurately reviewed, analyzed, and compared using the empirical phenomenological psychological (EPP) method. Data were collected between January and February 2014. Psychonauts typically considered themselves as "psychedelic researchers," "new Shamans," "philosophers," or "alchemists." They appeared to be mainly young, males, unmarried, and Caucasians. They presented with good or excellent employment conditions and with a set of key skills, including attention to their inner "soul"; high standards of knowledge about drugs' chemical and pharmacological issues; and high levels of both IT skills and verbal fluency in reporting their own "on drug" experiences. The e-psychonauts seemed to "test" and at times synthesize a range of drugs to achieve the state of consciousness they find most pleasurable. There is the need to improve both the existing levels of professionals' knowledge on this novel generation of drug misusers and to design and develop novel prevention approaches that are able to attract the attention of the e-psychonauts.

Introduction

A PLETHORA OF WEB PAGES and cyber drug communities focusing on recreational drugs have recently appeared on the Internet,[1–8] with some of them (e.g., the pro drug Web sites[9–18]) encouraging drug use itself. There are several types of pro drug Web sites. There are those that specialize in providing drug information, for example drugs' effects, dosage, chemistry, and characteristics of the intake experiences. Examples include Erowid,[9] Lycaeum,[11] DanceSafe,[12] Ravesafe,[13] Ectasy.org,[14] and MAPS.[16] There are also drug fora and blogs, with variable levels of access to a range of internal sections (i.e., BlueLight).[15] Finally, there are vending sites, offering illegal and legal "highs" (i.e., Buy Research Chemicals,[10] herbalhighs.com,[17] and Steroid.com[18]).

In addition, a range of social networks facilitates the exchange of communication and advice relating to drug intake and acquisition.[19–21] Within these online drug fora and blog communities, there are some "educated and informed" users who can somehow provide reliable information about previously unknown compounds and combinations.[22,23] These users, called "e-psychonauts," possess a range of pharmacological and chemical notions relating to the most recent novel psychoactive substances (NPS) that are available from the cybermarket.[22]

The term "psychonaut," originally from the German language *psychonauten*,[24] is a neologism referring to human self-experimentation with psychoactives/NPS, typically carried out to explore the "inner universe"/"psycho-cosmos."[24] In fact, the psychonaut (namely "a sailor of the mind/soul") is a subject who experiences intentionally drug-induced altered states of consciousness.[25,26] Although all psychonauts are drug users, not all drug users are psychonauts.[15] Indeed, being an e-psychonaut requires a self-experimentation attitude toward new drugs and new ways to take drugs ("You must not ever get used to a substance, experimentation is the basis of Psychonautism").[9]

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The recent alarm relating to the spread of the NPS market[27] and the gradual shift from the street to the cyber-drug market may call for the implementation of preventive tools and practices tailored to these new drug users' characteristics.[28] Hence, the present study aimed at identifying and describing the e-psychonauts' socio-demographic characteristics, their motivations of drug intake, and their patterns of drug use, while assessing their most popular online fora and blogs and social networks' related pages.

Materials and Methods

A nonparticipant netnographic qualitative study of a list of cyber drug communities (blogs, fora, YouTube, Facebook, and Twitter pages) was carried out. Netnography is a new qualitative research methodology that applies an ethnographic approach to the study of cultures and online communities.[29,30] A systematic Internet search was conducted on Duckduckgo and Google while including the keywords ''experience,'' ''forum,'' and ''blog,'' combined with the word ''psychonaut.'' The first 10 pages recorded per search term and search engine were consequently analyzed for forum and blog activity relating to the e-psychonauts. Within the time frame January–February 2014, data were collected from 102 unique pro drug Web sites. Some 13,770 forum threads were screened. After removing those web pages that were either duplicates or not relevant to the aims of the study, 1,275 fora threads, authored by some 2,076 users, were considered valid, and they were analyzed using the empirical phenomenological psychological (EPP) method.[31] In line with best practice protocols for online research[23,32–36] and in compliance with unobtrusive and naturalistic features of netnographic research,[30,37] no posts or other contributions to private or public forum discussions were made. The paradigms of observational status, inherent flexibility, and openness of the approach were respected. Conversely, in order to access a range of restricted areas, a formal registration to a range of sites was made. Confidentiality measures applied to the data set included storage in an online, password-protected computer and removal of screen pseudonyms, URLs, and country and city identifiers.[38] In following the EPP protocol, the data set was transferred to a Word document for analysis, using the EPP five-step method.[39] Five themes (e.g., ''The e-psychonauts' socio-demographic features''; ''The first 'psychonautic' experience''; ''The psychedelics' intake experience''; ''The psychonauts' identities''; and ''E-psychonauts' repertories/settings/patterns of drug being misused'') and 42 categories were generated. With the unit of analysis being given by each discussion forum post, the above themes were first identified by L.O. and then confirmed with F.S., with possible disagreements thoroughly discussed. Whenever possible, a quantitative description for each of the socio-demographic characteristics was provided; any unknown information was considered as missing. Validity (e.g., credibility, confirmability, dependability, and transferability), in the form of ''trustworthiness,''[40–42] was attained and maintained with verification of similarities relating to the five themes retrieved across both the self-reporting of e-psychonauts' experiences and the fora activities.

Study approval was granted by the University of Hertfordshire Ethics' Committee (reference code PHAEC/10-42).

Results

Sociodemographic characteristics

Age, gender, and ethnic group. The typical e-psychonauts were in the 15–35 years age range (79–91%), and were males (81–91%), white (80–85%), and Caucasian (80–83%).

Employment status, level of education, and countries of origin. Most users presented with both a university education (60–63%) and good or excellent employment levels (i.e., software engineer, PhD student, teacher, etc.). Some had achieved a postgraduate degree/PhD (15–21%). Typical degrees were in chemistry, mathematics, psychology, philosophy, engineering, and computer sciences. Although possibly influenced by the language used during the searches, typical users were English (45–48%) followed by Spanish, French, and German speakers. Countries of origin included the United States, United Kingdom, and Australia/New Zealand (68–82%).

The first psychonautic experience

A total of 581 fora threads commenting on the first motivation to take drugs were analyzed. The first drug intake experience was typically (51.3% of cases) associated with curiosity (''it made me more curious about everything and really prodded me to seek out answers and experiences for myself''; ''the ability to probe my mind and learn about myself with the aid of such tools is very satisfying to that curiosity''); the initiation into the practice of shamanism (21%; ''they made me do quite a lot of thinking about the overlap between one's direct experience and humanity's shared, naturalist understanding of the world''; ''I was looking for a connection to this world''); self-medication (14.8%); and/or the search of ''highs'' (10.5%).[43–49]

The psychedelics' intake experience

The e-psychonauts aimed here not only at ''taking psychedelics to get high'' but also at familiarizing with the psychedelic landscape (''the psychedelic experience is the doorway between abstractions of the ineffable and a direct experience of it…'').[44] Posting online the ''on drug'' experience report is arguably the trait d'union of all e-psychonauts, increasing the chances to get ''the better substances for the better trips,''[43] hence emphasizing the relevance of the recreational component of the psychedelic experience (''there is a thin line between psychonautism and being a druggie, and it's easy to tip over to the druggie side…'').[49]

A range of ''good practices for the first experience'' online discussions was identified, with advice about best initiation drug (''for the first trip it is best to use shrooms due its trip lasts at most 6 hours while LSD can last up to 12 hours'')[9]; recommended best setting (e.g., safe, sober, without any access to potentially harmful objects or tools, and possibly with only few environmental stimuli); company (always with someone ''who has tripped before, more than once'')[9]; and use of ''trip-toys.'' These toys include books, citrus fruit, crayons, paints for drawing, fluorescent things, and so on, allegedly improving the consumer creativity levels and increasing the chances of feeling a combination of smells, textures, and tastes.

The psychonauts' identities, philosophers, shamans, psychologists, and psychopharmacologists

When analyzing the different cyber drug communities to understand the psychonauts better, a range of different components and identities were identified, including drug users, philosophers, psychologists, psychopharmacologists, psychedelic nerds, and shamans. Indeed, to become "explorers of the mind," psychonauts make use of psychological notions, philosophical theories, alchemistic/pharmacological concepts, and spirituality/shamanic practices,[50] which may increase their ability "to put words on their experiences," "to analyze why you reacted…,"[49] and "to explore the experience of being."[45]

Most psychonauts aimed at undertaking journeys toward the subconscious and unconscious, sometimes referring to themselves as "neo-shamans," "chaos magickians," or "techno-shamans." Neo-shamans aimed at reaching a range of altered states of consciousness to interact with the spiritual world through the ingestion of psychedelics or entheogens.[44,49,51,52]

Unlike psychologists who are typically concerned with understanding other people, psychonauts seem more concerned with understanding themselves through a process of self-exploration. Taking inspiration from Jung and Maslow,[46,49,53] the drug-induced hallucinatory states were described as components of a distinct reality, which may need to be interpreted or better understood. Finally, one of the most popular topics identified focused on the potential therapeutic effects of specific psychedelics/NPS[46] to self-treat a range of mental disorders, including anxiety and depression.

Patterns of drug use

Out of 255 fora threads examined, 51 commented on the first drug experimented by the psychonauts. Although most psychonauts reported that their first psychedelic experience was carried out with alcohol (48%), marijuana/hashish (23%) and mushrooms (21%) were unsurprisingly identified as the first psychoactives experimented with by the subjects. Some 204 fora threads commented on those drugs that were regularly ingested by the e-psychonauts, for example opiates/opioids (e.g., oxycodone/oxymorphone/tramadol/buprenorphine/fentanyl; 39.52%), LSD (19.24%), psilocybin mushrooms (12.98%), and psychedelic phenethylamines (e.g., 2C-B/2C-E/2C-I; 7.34%). Cannabis was reportedly taken in combination with remaining hallucinogens to amplify or extend the drug experience (58%). A group of "shrooms" enthusiast e-psychonauts was identified, with psilocybin (*Psilocybe cubensis/cyanescens/semilanceata/azurescens*) fungi being the most popular (85%).

Discussion

To the best of the authors' knowledge, this paper represents the first systematic study aimed at providing a description of e-psychonauts, which may be of some use in prevention activities. In fact, the expansion of both the web and number of online information sources has arguably facilitated the popularity of the psychonaut style, which may be a cause of particular concern for youngsters and vulnerable individuals, since they are typically associated with complex and idiosyncratic drug use patterns. Indeed, the traditional drug user is likely to ingest any substance with a recreational value ("tripping just for fun," "to party," "to get high"[9,43,47]), without necessarily considering the related addictive potential. Conversely, in choosing their own drugs, the psychonauts seem to value the spiritual, experimental, and research components of the intake experience. In other words, the most significant difference between a psychonaut and a typical drug user is the motivation and philosophical reason behind the drug intake itself.[49,54] Indeed, one could argue that not all drug users are psychonauts or e-psychonauts. Although most psychonauts post in discussion forums, it is likely that there are also many psychonauts not contributing to the fora.

The typical key skills of e-psychonauts included a familiarity with IT procedures and a need to protect their privacy and anonymity while carrying out NPS-related research and purchase activities. Most psychonauts reported both high levels of pharmacological and pharmaceutical knowledge and a positive attitude to impulsive and exploratory activities in response to recently introduced NPS ("…simply tripping out on your favorite drug every now and then does not make you a psychonaut. You have to be interested in new experiences…"[43]). From this point of view, future studies should formally quantify the psychonauts' Temperament and Character Inventory[55] novelty seeking scores.

Taking into account the above findings, the e-psychonauts could be categorized as either "mind navigators" or "chemicals' experimenters." Mind navigators aimed at obtaining their "inner exploration" ("as astronauts explore outer space, they explore inner space…looking to an unknown land known as the human mind"[48,49,56]) through the use of a range of entheogens and plant substances.[9,57] Entheogens facilitate access to a range of areas and realms, including transcendence ("allows the access to the mystical realm/experiencing lucid dreams and out-of-the-body-experiences while sleeping") and meditation and self-help ("psychedelic drugs…have helped me to turn inward and cast this gaze upon myself"; "after the use of psychedelics I have accepted the problems within myself…anxiety and depression have decreased").

Conversely, the chemicals' experimenters, who were here less represented, allegedly ingested drugs/NPS to disseminate the "psychedelic research" findings,[44] specifically relating to the index drug(s) psychoactive effects and safety issues ("I like the idea that the compounds I'm trying are completely new, that's no human has tried them yet…it was kind of my baby, just because it was my original work, obtaining it ad testing it, then posting about it online…").[49] Some chemical experimenters could, however, be considered here as mind navigators as well, since aiming to use drugs as means to achieve intellectual "revelations."

A range of possible differences between genders was identified. Female psychonauts were less represented ("…I know a lot of girls who do trip…I am part of a few forums, and in the psychedelic sections, there is maybe 5% women?…"[46]), rarely shared their psychedelic experiences, or participated in discussions and polls. Conversely, males seemed to present with greater openness to novel, including psychedelic, experiences.

One could wonder about the limitations of carrying out a study while taking into account the online comments only. In

fact, it may be inappropriate to trust information obtained from the Internet without independent verification. However, previous studies from the authors' group[49] have clearly suggested the usefulness of careful analysis of web data in carrying out drug misuse studies.[58,59] Although voters could vote only once with the same username, the data from polls and threads collected may have been subject to responder bias, and some users may have decided not to contribute at all to polls and threads. Since some psychonauts may have protected their privacy more than others, this may limit the generalizability of the current findings. Since most sites allowed access only to adults, some users may have purposely provided unreliable personal data, which may have affected the data's validity. To overcome the above limitations, previous studies (typically limited to only a small range of selected Web sites) have included the administration of ad hoc questionnaires and anonymous online interviews. Despite this, the present data seemed to overall confirm previous findings.[8,35,36,60,61]

One could conclude that there is a need to improve the knowledge on this latest generation of drug users, in order to develop innovative prevention approaches. A range of nonjudgmental online and social media tools, able to attract the attention of the current and potential e-psychonauts, especially youngsters, need to be implemented. These online platforms will specifically need to focus on any health-related risk information. Finally, more knowledge will need to be made available to clinicians and especially mental health professionals, so that they will be better equipped to build up a proper therapeutic alliance with these new drug users.

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