Psychonaut web mapping project: sistemi avanzati per il monitoraggio della rete Internet

DRUGS ON THE WEB: METHODS AND FINDINGS OF THE EC-FUNDED PSYCHONAUT WEB MAPPING SYSTEM

Fabrizio Schifano, Paolo Deluca, Ornella Corazza and Zoe Davey
on behalf of the Psychonaut Web Mapping Group

(2010)



INTRODUCTION

I. Background/Aims

II. Project Details

I. Methodology

I. Results

I. Future Directions



PSYCHONAUT WEB MAPPING PROJECT

- Background
  - Lack of evidence based information on novel compounds and emerging trends
  - Need for accurate information on novel recreational drug compounds/combination and their alleged effects, side effects etc to provide to health professionals and health agencies
  - Psychonaut 2002 project (Schifano et al., 2006):
    - » The Internet as a unique source of information
    - » Database of 102 novel compounds/combinations

- Aims
  - To regularly monitor the web with regards to novel recreational drugs
  - To develop an online database and monitoring system
  - To technically evaluate novel compounds and combinations for which some level of diffusion in the EU is confirmed



PSYCHONAUT WEB MAPPING PROJECT

- Project Details
  - 2-year EC funded (January 2008 – December 2009)
  - Principal Investigator:
    - » Professor Fabrizio Schifano, University of Hertfordshire
  - Project Manager:
    - » Dr Paolo Deluca, St George's University of London
  - Associated Partners:
    - » UK: St George's University of London (Main Beneficiary)
    - » Finland: A-Clinic Foundations (A-Klinikka)
    - » Norway: Bergen Clinics Foundation
    - » Italy: Servizio Salute Regione Marche
    - » Belgium: De Sleutel
    - » Spain: IMIM-IMAS
    - » Germany: University of Duisberg-Essen
    - » UK: University of Hertfordshire
  - 14 Collaborating Partners from 10 countries



Methodology

1. Web Monitoring
   - Websites, forums, chatrooms, newsgroups, E-Bay, YouTube
   - Qualitative exploratory searches using Google (1-5 times per week)
   - Generic search queries e.g., ‘legal highs’, ‘smart drugs’, ‘research chemicals’
   - 8 languages (English, German, Norwegian, Finnish, Swedish, Spanish, Italian, Dutch)
   - 203 websites searched internally
   - 106 websites, web forums, online shops etc monitored daily (n = 21), weekly (n = 32), monthly (n = 53)

2. Database
   - Database information:
     - » Substance name (common, binomial, chemical, trade, slang)
     - » Origin/description/basic effects/active constituents
     - » Purchase availability
     - » Information available on Erowid websites
     - » No of PubMed articles
     - » URL/site details
     - » Category: Herbal, Chemical, Pharmaceutical, Not Known (NK)



Methodology

2. Technical Folders:
   - M12-24 (updates every 6 months)
   - Selection criteria:
     - » Little or no evidence of existing literature on abuse/misuse of compound (few or no hits on PubMed)
     - » Has been identified in searches in at least 2 European countries
     - » Evidence that the compound/combination is available to purchase online
     - » Evidence to suggest that compound/combination is psychoactive
   - Information from online resources using specific Google search queries e.g., '[substance name] drug forum', '[substance name] synthesis', '[substance name] to buy'
   - Further information from YouTube, Google Insights, available evidenced-based literature, and 'key informants'
   - 30 fields



Psychonaut WEB MAPPING Project (2008 - 2009)

[INSERT NAME – MOST COMMON]	
Binomial name	Please delete if not relevant
Family	Please delete if not relevant
Genus	Please delete if not relevant
Species	Please delete if not relevant
Chemical Name	Please delete if not relevant
Synonyms/colloquial terms	Please delete if not relevant
Type	Herbal or Chemical, or Herbal, Chemical

Origin	
Active constituents	
Chemical characteristics of active constituents (provided that these data are available)	**I. [INSERT NAME]** **IUPAC Name:** **Molecular Formula:** **Molecular Weight:** **CAS-Number:**

Appearance (pictures; sketches etc)	
Appearance of commercial product (pictures)	
Video Links (images of substance being used/other video about the substance)	
Google insights	

Available information on purchase price (state currency i.e., euro/pound/US dollar etc)	

Modalities of intake (i.e., ingestion; smokeable formulation; snorting; intravenous etc), together with information on the preparation of the compound prior to its intake	

Historical use (if applicable)	
Current use/medicinal use	

© Psychonaut EWS Project
www.psychonautproject.eu

Information on recreational use/misuse in the EU (or elsewhere)	
Use in combination with other compounds	
Status	Known, Novel, or Not Known
Legal status	Legal or controlled

Pharmacological/toxicological characteristics: -pharmacokinetics -pharmacodynamics	
Toxicological effects (please report both animal and human data, if available)	
Desired psychoactive effects	
Physical/medical untoward effects	
Psychopathological disturbances associated with its use	
Related fatalities (if any reported)	

Bibliography
Sitography (internet resources used for the preparation of this technical folder)

© Psychonaut EWS Project
www.psychonautproject.eu

Methodology

2. Data collection and storage
   - Password protected online database
   - Methods for recording data from online resources – taking into account stability and accessibility:
     - » Specific URL of web page
     - » Screenshot of relevant sections of web page
     - » Conversion of longer web pages to PDF
     - » Historical archiving (Blue Crab)
     - » Anonymising web user details
   - Technical folders available online in English and downloadable as PDF

2. Dissemination → ***CURRENT FOCUS***
   - Access to database and technical folders via password only
   - Restricted to health professionals, researchers and health agencies
   - To request access go to website **www.psychonautproject.eu** and sign up to mailing list



Results

- Database:
  - **412** novel compounds and combinations in total
  - **30%** herbal compounds
  - **35**% chemical compounds (includes well known pharmaceutical products)
  - **35%** odd/idiosyncratic combinations
    - » Chemical
    - » Herbal
    - » Pharmaceutical
    - » Combination
    - » NK
- Thesaurus of slang terms and region specific language (multilingual)
- Drug Forums
  - Key features
  - Methods for carrying out research



Results

- Technical Folders
  - 43 technical folders uploaded, including:

Herbal	Chemical	Pharmaceutical	Combination
Ephedra	2C-B	Benzydamine	Happy Caps
Gotu Kola	4-AcO-MET	GBL, GHB, 1,4-BD	Minikikke/Superkikke
Ikathazo	5-MeO-AET	Lyrica	Spice
Jurema	5-MeO-MiPT	Norspan	
Kanna	Bromodragonfly		
Peyote	Herkinorin		
Phalaris	HU-210		
Salvia	JWH-018		
Sassafras	JWH-073		
Sinicuichi	MDPV		
Syrian Rue	Mephedrone		
Wild Dagga			



Identifying Emerging Trends

- Spice
  - Smoking blend containing synthetic cannabinoids e.g., JWH-018
  - Appeared in or around 2004



» Schifano, F., Corazza, O., Deluca, P., Davey, Z., et al. (In Press). Psychoactive drug or mystical incense? Overview of the online available information on Spice products. *International Journal of Culture and Mental Health.*

» Mustata, C., Torrens, M., Pardo, R., Perez, C., The Psychonaut Web Mapping Group., & Farre, M. (2009). Spice drugs: Cannabinoids as a new designer drugs [Spanish]. *Adicciones, 21(3),* 181- 186.



Identifying Emerging Trends

- Mephedrone
  - Research chemical → 4-Methylmethcathinone
  - Appeared in or around 2007
  - Stimulant compared variously to amphetamine, ecstasy, and cocaine
  - Miaow, 4-MMC, MMCat/MCAT, MD3, Roxy, Krabba, Mefedron, and various trade names
  - Sold as powder or in capsules
  - Sold as “plant feeder” and/or “not for human consumption”







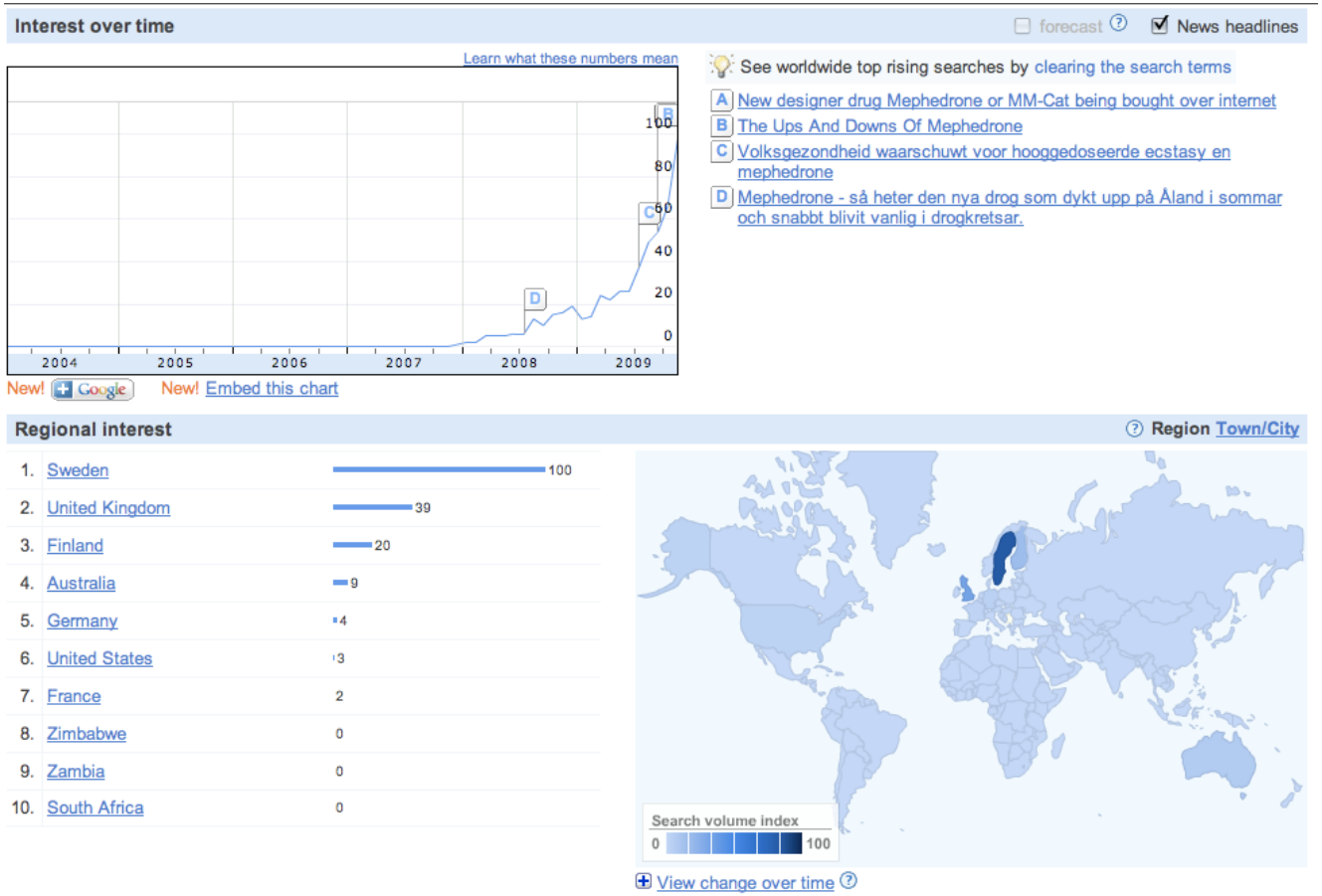






Identifying Emerging Trends

- Google Insights Search – Mephedrone





Identifying Emerging Trends

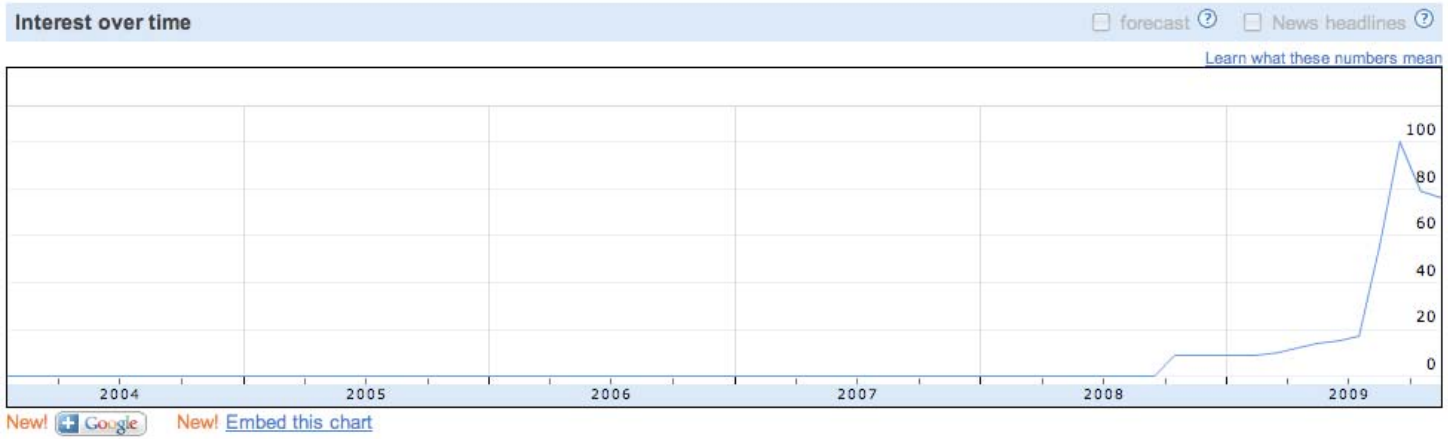
- Ivory Wave (Vanilla Sky)
  - One of several products currently being marketed as “bath salts”
  - Appeared in or around April 2009
  - Was purported to contain the cocaine analogue (-)-2-β-Carbomethoxy-3-β-(4-fluorophenyl)tropane (β-CFT, WIN-35,428) as well as MDPV (Methylenedioxypyrovalerone)
  - Reportedly the product(s) of the first UK based synthesis
  - Associated with a number of negative side effects and increasing concern





Identifying Emerging Trends

- Google Insights Search – Ivory Wave





Future Directions

- Dissemination
  - International Psychonaut Web Mapping Conference, Ancona, 18 September 2009
  - Database Access – professional networks, health agencies, health professionals, researchers
  - Website: **www.psychonautproject.eu**
  - Email: **zdavey@sgul.ac.uk** or **info@psychonautproject.eu**

- Maintain Psychonaut Web Mapping Database
  - New compounds/combinations
  - Changes to details of existing compounds/combinations (e.g., legislation)
  - Continue web monitoring
  - Use information submitted by health professionals and agencies (Contribute Form)



ReDNet Project

Recreational Drugs' European Network: an ICT prevention service addressing the use of novel compounds in vulnerable individuals

- Aims
  - Develop and pilot drug prevention and drug information services using different ICT tools (including SMS, Virtual Worlds, Facebook, YouTube, and Smartphone applications)
  - Use the information already contained in the Psychonaut Web Mapping Database to develop these services, together with input from the target groups

- Target Groups
  - Young people (16-24) and those misusing drugs who generally don't have access to appropriate information and or treatment services
  - Professionals in contact with this group (including, health professionals, educators, social services etc)

- Project details
  - 2-year EU funded (Expected start date: April 1st, 2010)
  - Project Lead: Prof. Fabrizio Schifano (University of Hertfordshire)
  - 10 associated partners from 8 countries and 15 collaborating partners from 12 countries



ReDNet Project

Recreational Drugs' European Network: an ICT prevention service addressing the use of novel compounds in vulnerable individuals

- Partners:

UK:	1. University of Hertfordshire
	2. Institute of Psychiatry, King's College London
	3. DrugScope
Norway:	Bergen Clinics Foundation
Belgium:	De Sleutel
Italy:	Servizio Salute Regione Marche
Spain:	IMIM/IMAS
Germany:	University of Duisberg-Essen
Hungary:	SZMI-NDI
Poland:	Institute of Psychiatry and Neurology



FURTHER INFORMATION

- **Website**

  www.psychonautproject.eu

- **Email**

  zdavey@sgul.ac.uk

  or

  info@psychonautproject.eu

