



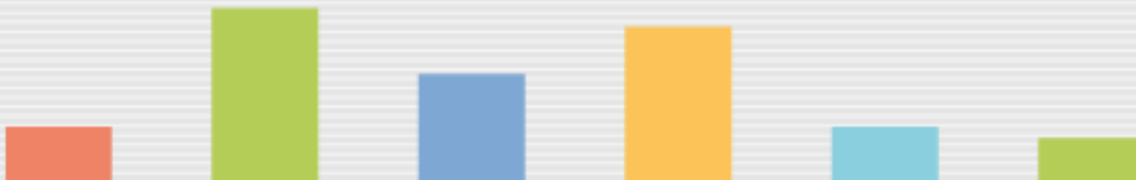
European Monitoring Centre
for Drugs and Drug Addiction

The internet and the sale of illegal drugs, analysis of the situation, challenges and approaches

Jane Mounteney PhD

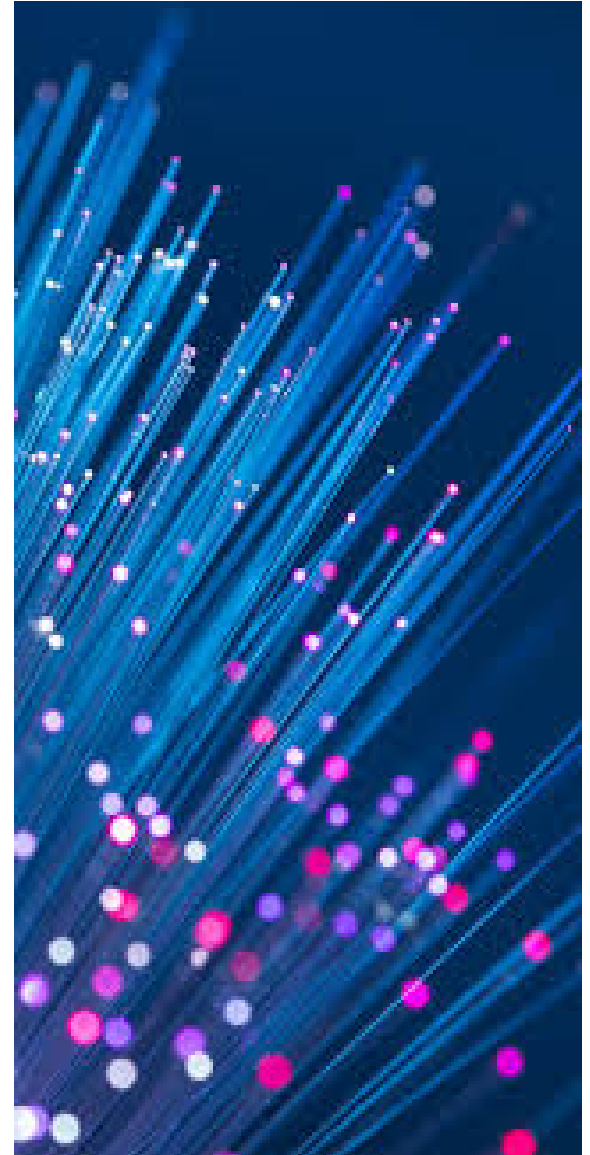
EMCDDA

2nd COPOLAD ANNUAL CONFERENCE, Buenos Aires 16-17 May 2017



I plan to address...

- **Drug markets online**
- **Surface and deep web**
- **Illicit drug sales, patterns and trends**
- **What is the future for IDM?**
- **Challenges and opportunities**



Why internet markets are important?

- A new and rapidly developing phenomenon
- Global in reach and implications
- Drug supply chain - effects all levels and aspects
- Source for very potent substances
- Observable market activity
- More open to monitoring and study

EMCDDA 2006 - first toe in the water

- Internet snapshots
- Online sale of 'legal highs'
- Multi-lingual, new methodology
- Legal highs, mushrooms, GHB/GBL
- Snapshots and EWS risk assessments
- Internet markets study



My sources

The internet and drug markets

21

EUROPEAN DRUG REPORT PACKAGE 2016

A set of interlinked elements allowing full access to the available data and analysis on the drugs problem in Europe

European Drug Report
2016

- Trends and Developments**
providing a top-level analysis of key developments (print and online)
- Statistical Bulletin**
containing full data arrays, graphics and methodological information (online)
- Perspectives on Drugs**
interactive windows on key issues (online)
- Country Overviews**
national data and analyses at your fingertips (online)

PERSPECTIVES

OPINIONS

Disruptive Potential of the Internet to Transform Illicit Drug Markets and Impact on Future Patterns of Drug Consumption

PJ Griffiths¹ and J Mountney¹

The internet facilitates rapid and covert communication, knowledge transfer, and has the potential to disrupt and transform drug market models and associated consumption patterns. Innovation and new trends diffuse rapidly through this medium and new operational models are emerging. Although the online drug markets currently only account for a small share of all drug transactions, the potential of the surface and deep web to provide a new platform for drug sale and exchanges is considerable.

The disruptive potential of the Internet to transform illicit drug markets and impact on future patterns of drug consumption

Internet is transforming these marketplaces and explore some of the potential implications for future patterns of drug use. More recent attention in this area has focused on the emergence of clandestine drug

the possibility of the market taking on global characteristics and at the same time challenging control measures based on physical legal jurisdictions. It also provides new opportunities for more secure communication, both between those operating within the market and with potential consumers.¹

Beyond this, the internet, by facilitating communication and the easy access to information, has the potential to transform traditional markets. Innovation and new trends are likely to diffuse more rapidly. Consumers are able to communicate and share experiences, potentially giving them greater influence. This together with globalisation, increases the potential for new players to enter the marketplace.

The greater anonymity and geographic dispersion that online communication facilitates may, therefore, have both advantages and disadvantages for established organized crime groups active in the drug trade. Communication may become more secure, global sourcing opportunities for illicit drugs or precursor chemicals may increase, and national law enforcement threats may diminish. However, at the same time, the opportunities to use physical

DRUGS AND THE INTERNET

Issue 6, March 2016

Funded by: the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund
Product of: Drugs and New Technologies
Recommended by: Van Buskirk, J., Naicker, S., Bruno, R., Burns, L., Breen, C. & Roxburgh, A. (2016) Drugs and the Internet, Issue 6, March 2016, Sydney: National Drug and Alcohol Research Centre.

To date the availability of illicit drugs in Australia has largely been examined through household surveys and interviews with people who use drugs; indicators such as drug seizures and arrests; and analyses of hospital admissions and drug-related deaths. Over the past decade there has been an increasing awareness and interest in online marketplaces as a source for discussion about and purchase of drugs (Walsh, 2011). The advent of the Silk Road in 2011, as an online



EU Drug Markets Report

In-depth Analysis

2016



2011: Heroin shortages in Europe

2012: Fentanyl outbreaks in Europe

2013: Methamphetamine: availability, use and harms

2014: Internet and drug markets

2015: MDMA market changes

2016: NPS and problem drug use

THIS HIDDEN SITE

as part of a joint law enforcement effort...
the Federal Bureau of Investigation, ICE
and European law enforcement agencies.

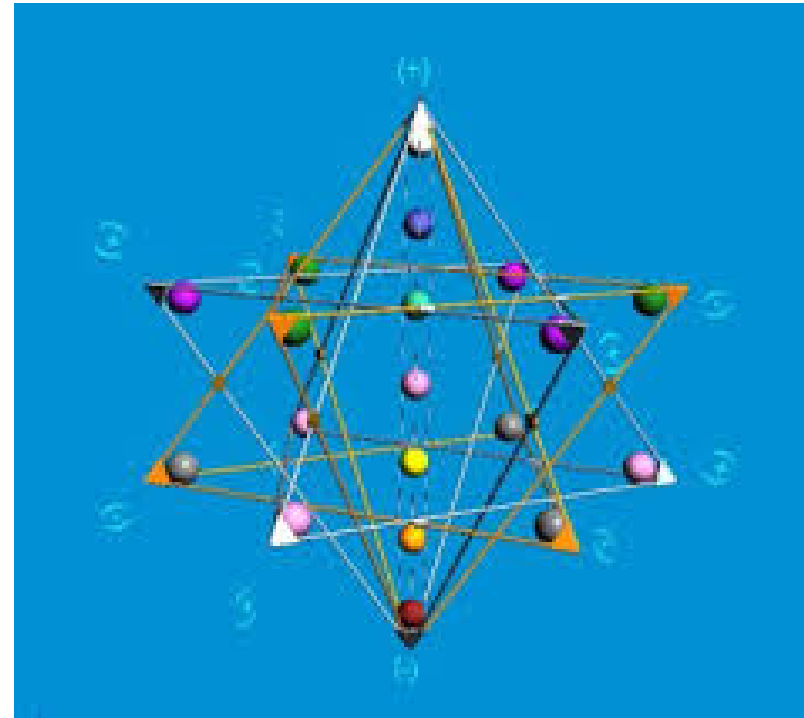
in accordance with the law of Europe
and a protective order obtained by the United States Attorney
in coordination with the U.S. Department of Justice's Civil
issued pursuant to 18 U.S.C. 8732
United States District Court for the Southern District of New York

EC
EUR-POL

Dom Perignon	Facebook	Chupa Chups
Paul Frank	\$100 bill	Grenades
Gold bars	White skull	Red Devil Logo

Trendspotting in a nutshell

- Rapid information assessment
- On new trends, concerns, uncertainty, 'hot' issues
- Complement to routine methods
- Triangulates hard and soft
- data sources (expert opinion, intelligence etc)



Drug markets study objectives...

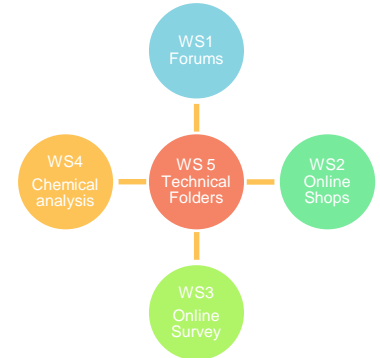
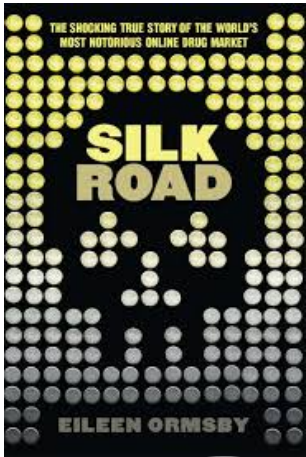
To increase understanding of the online supply of drugs and map the range of internet drug markets in existence.

Focus on

- The role of social media and apps
- Online sale of NPS
- Online sales of medicinal products for illicit use
- Sale of drugs on the deep web



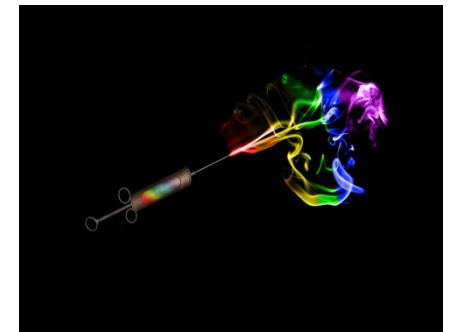
Study experts



THIS HIDDEN SITE HAS BEEN SEIZED

as part of a joint law enforcement operation by the Federal Bureau of Investigation, ICE Homeland Security Investigations, and European law enforcement agencies acting through Europol and Eurojust

In accordance with the law of European Union member states and a protective order obtained by the United States Attorney's Office for the Southern District of New York in coordination with the U.S. Department of Justice's Computer Crime & Intellectual Property Section (Issued pursuant to 18 U.S.C. § 983(j)) by the United States District Court for the Southern District of New York



A range of online markets...

Surface web

- Mainly NPS and counterfeit medicines
- online pharmacies, LH shops, social media,



Deep web

- Cryptomarkets (anonymity, encryption, bitcoin) e.g. Agora, Silk Road
- Mainly established drugs
- Currently low level, but...



U.S. Department of Justice
U.S. Department of Homeland Security
U.S. Department of Justice
FEDERAL BUREAU OF INVESTIGATION

U.S. Immigration and Customs Enforcement

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An iceberg floating in the ocean. The small tip above the water represents the Surface Web, while the much larger submerged part represents the Deep Web. Two callout boxes with arrows point to these respective parts.

**Surface Web (4%
of WWW content)**

**Deep Web (96% of
WWW content)**

Surface web

Deep web

Dark net

Cryptomarkets





Silk Road

anonymous market

messages 0 | orders 0 | account ₪0.00

Search

Go

Shop by Category

- Drugs 11,247
 - Cannabis 2,664
 - Dissociatives 269
 - Ecstasy 1,262
 - Opioids 667
 - Other 551
 - Precursors 102
 - Prescription 2,447
 - Psychedelics 1,213
 - Stimulants 1,551
- Apparel 341
- Art 3
- Biotic materials 2
- Books 912
- Collectibles 14
- Computer equipment 74
- Custom Orders 89
- Digital goods 630
- Drug paraphernalia 330
- Electronics 103
- Erotica 626
- Fireworks 15
- Food 9
- Forgeries 158
- Hardware 27
- Herbs & Supplements 11
- Home & Garden 11
- Jewelry 90
- Lab Supplies 53
- Lotteries & games 53
- Medical 11



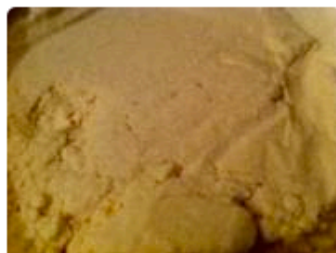
Royal Customers 10G
₪1.66



Decanoate250, (1 x 10ml = 2.500mg)
₪0.39



XTC Pills MDMA 175mg x500
₪19.28



100g Dimethoxbenzaldehyde
₪1.45



LECKERMANN WEEKLY SKUNK IS BACK STRONG
₪0.52



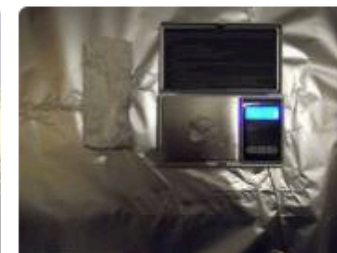
Good Quality Soap Bar | 126g(4.5oz) | UK Vendor
₪2.78



Modafinil 200mg - 300 Pills
₪2.65



0.2g DMT Freebase
₪0.48




1g cocaine high premium quality FLEX - high grade
₪1.32

Browse Categories

- Fraud 4425
- Drugs & Chemicals** 9131
 - Benzos** 696
 - Cannabis & Hashish** 2664
 - Dissociatives** 187
 - Ecstasy** 1087
 - Opioids** 732
 - Prescription** 878
 - Steroids** 196
 - Stimulants** 1652
 - Tobacco** 73
 - Weight Loss** 43
 - Other** 321
 - Paraphernalia** 107
 - Psychedelics** 495
- Guides & Tutorials 1846
- Counterfeit Items 488


Search Results [\[Save Search\]](#)



SAMPLE / 1 gram MDMA 84% pure crystals
Item # 2873 - Ecstasy - [BlackFriday](#) (123)

Buy price
USD 5.49
(0.0224 BTC)


Views: 13855 / Bids: Fixed price
Quantity left: 33



1 box (28 tabs) CRESCENT pharma uk diazepam/valium 10mg
Item # 3112 - Benzos - [ukvaliumsupplier15](#) (182)

Buy price
USD 23.40
(0.0954 BTC)


Views: 3238 / Bids: Fixed price
Quantity left: Unlimited



15 Oxycodone @ \$26 each = \$390
Item # 4617 - Opioids - [dealsthatarereal](#) (249)

Buy price
USD 390.00
(1.5907 BTC)

Views: 3832 / Bids: Fixed price
Quantity left: 4

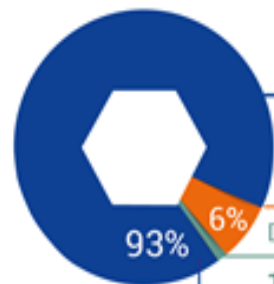


[FREE SAMPLE] by Dr-Oetker
Item # 13644 - Cannabis & Hashish - [Dr-Oetker](#) (171)

Buy price
USD 0.00
(0.0000 BTC)

Views: 7408 / Bids: Fixed price
Quantity left: Unlimited

Darknet markets advertisements



Pharmaceuticals

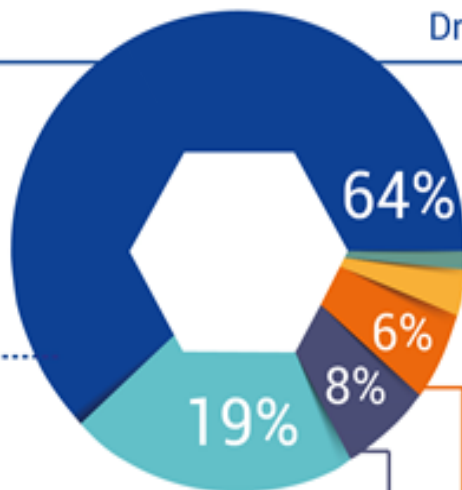
Drugs-related chemicals

1%

Illicit drugs

53% of the advertisements with known shipping locations are shipped from or within Europe.

565.585 reviews were posted to any of the 76.813 crawled advertisements in all categories. This amounts to more than 7 known transactions per advertisement on average.



Drugs & drugs-related chemicals

48.574



1% Firearms & explosives



804

2%

Hacking & Malware



These advertisements are the most interesting for terrorists, because it enables them to buy or manufacture explosives.

1.621

Guides & tutorials



4.367



Other / no classification

6.512

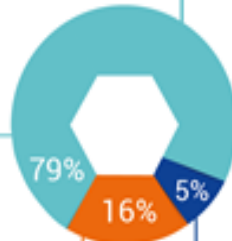
The crawled advertisements in the other / no classification category are custom listings for specific buyers or miscellaneous advertisements that do not fit well within the other categories.

Fraud & counterfeit

14.935



Fraud



Counterfeit goods / products

Counterfeit currency

Dark net markets, cryptomarkets

Combination of technologies:



Tor – communication
anonymity between buyer
and seller

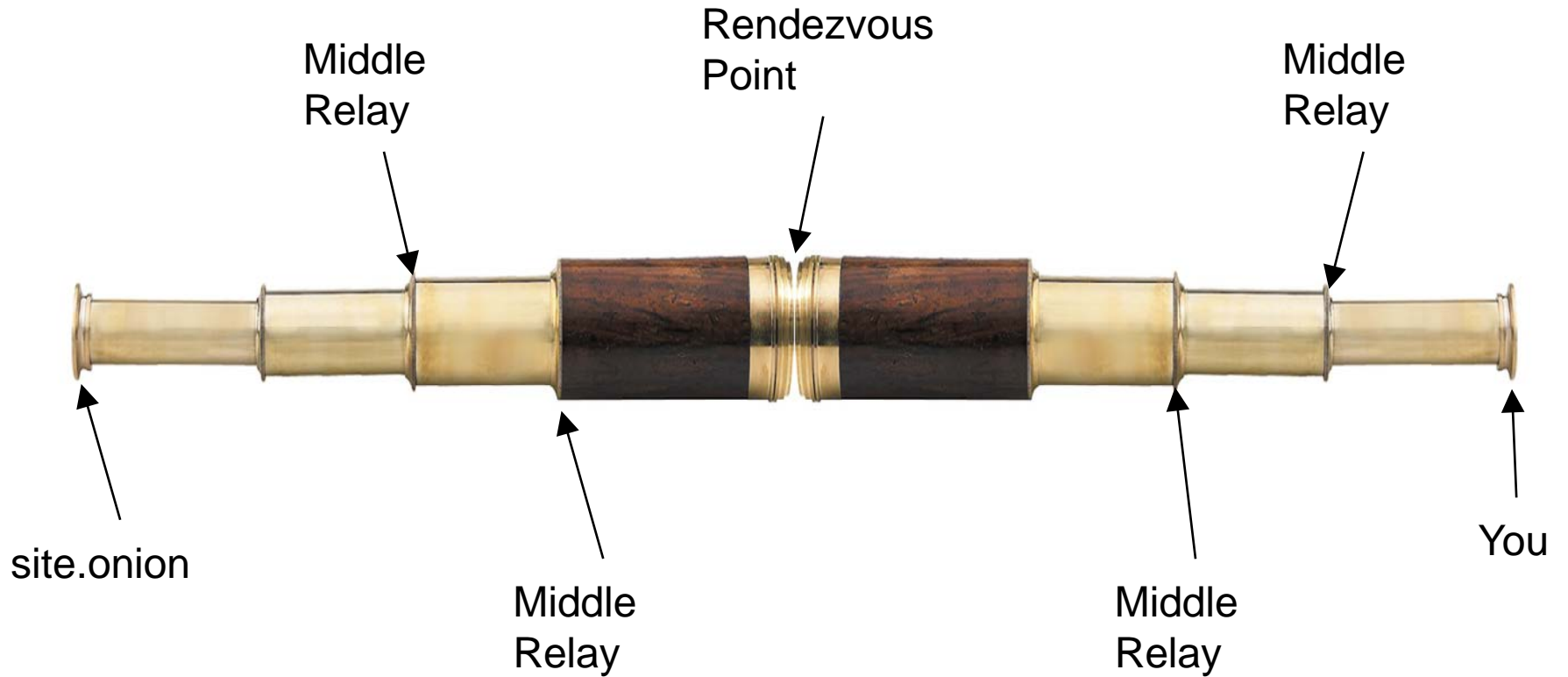


Bitcoin – payment anonymity



Encryption

How does Tor work?



Rating systems



Cryptomarkets rely heavily on trust.
Rating systems provide buyers with a fairly reliable track record of a vendor's previous






Description

Bids

Feedback

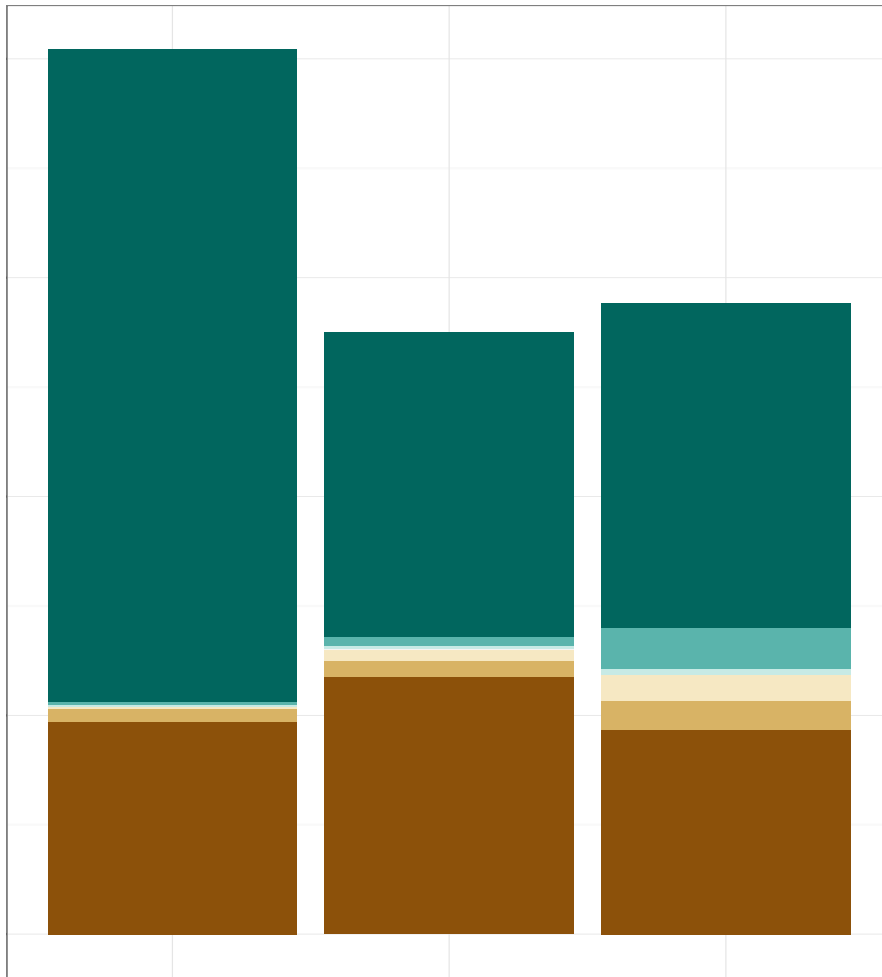
Refund Policy

Listing Feedback

Buyer	Date	Time	Comment
 d**8	March 29, 2015	21:35	
 R**4	March 29, 2015	19:46	Very quick! Well packed. Haven't test yet.
 H**a	March 29, 2015	04:38	Perfect service !! A++
 m**c	March 27, 2015	12:08	Very Fast Shipping and Very Safe and original packaging ! I'm trying that this weekend
 d**8	March 25, 2015	22:17	5 stars for BlackFriday, ordered 1g MDMA and got a little overweight, stealth was so good it almost fooled me, shipping was fast an



Which drugs are sold? Breakdown by volume



Comparison w/ non-EU sales

	Drug sales		Total sales
	Volume(g)	Revenue(€)	Revenue(€)
European Union	5,523,695	79,012,948	86,126,606
Rest of the world	10,877,448	93,332,764	115,736,370
Total	16,401,144	172,345,712	201,862,977

What is the size of the online market?

Currently small but growing drug market

Yearly sales estimates from \$15 million in SR in 2012 (Christin, 2013) to \$ 90 million in 2013 (Aldridge; Décary-Hetu, 2014)

Number of active retailers on the Black Market Reloaded, Sheep Market and Silk Road 2.0 (Van

Bu [Alpaca Marketplace](#)



Why sell online? Top reasons on Silk Road



Higher mark-up
'Educated' and wealthy consumer⁶
Variety of distinctive products



Access /availability

Simplicity of vending
High traffic volume

Safety



CAUTION

Site's anonymity
Economically viable and secure
Low risk
Circumvention of national legislative controls

Why buy online? Top reasons on Silk Road



Access /availability

range of drugs available
by delivery
venient to order online

ty
y vs buying on the streets



Why not?

Bitcoins
Ripped off
Prices
Effort



Better
Poor
High
Vendor
Mem
Harm

Dark net vs alternative source

Percentage reporting the following
Dark net | Alternative source

Experiencing physical violence



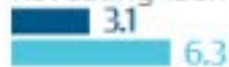
Threats to personal safety



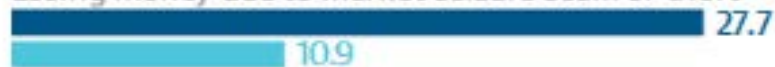
Blackmail



Revealing identity



Losing money due to market seizure scam or theft



Losing money due to currency volatility



Waiting too long to receive a product



Product does not contain the expected substance



Guardian graphic

Source: Global Drug Survey 2015



Global or national?

Many buyers prefer sellers from their home country, less risk with fewer borders to cross.

A new Finnish marketplace established on deep web after Silk Road closed

Most US and Australian vendors not willing to ship drugs across international borders,

Australian buyers prefer local sellers.

Ease of access

Grams Alpha

Q

Home Contact Markets Faq


Admin Message


Grams is in alpha mode, meaning we are just getting started. We would love your input on features to add or take away. Please don't be too harsh this is not a finished product


Advertise

Want to see your ad here? You can advertise your market, product, or service right here and get this ugly green thing out of here! We have no set prices, you can [Contact Us](#) to make an offer.

About 1922 results for 'mdma' (0.1840 seconds)

**2 5 GRAMS BK MDMA BIG CRISTALS HIGHEST QUALITY EUROPE**
[silkroad6ownowfk.onion/items/2-5-grams-bk-mdma-big-cristals-highest-quality-europe](#) **Silk Road 2**
It surprise OUR MAIN PRODUCT IS NOT **MDMA** BK **MDMA** IS SYNTHESIZED And DONE FOR OUR LABORATORY EXCEPTIONAL QUALITY TOTALLY PURE AND ESPECIALLY NICE AND SWEET SMELL AS GOOD **MDMA** WE DO NOT CHEAT A CUSTOMER SELLING FAKE **MDMA** BK **MDMA** SELL AT A GLANCE THAT IS LIKE THE **MDMA** DO NOT BE FOOLED BY SELLERS SELLING COUNTERFEIT PRODUCTS ALWAYS CHOOSE QUALITY PRODUCTS CHOOSE CHEMICALS SPAIN
Vendor chemicals_spain **Price** €0.29177400 **Location** Spain

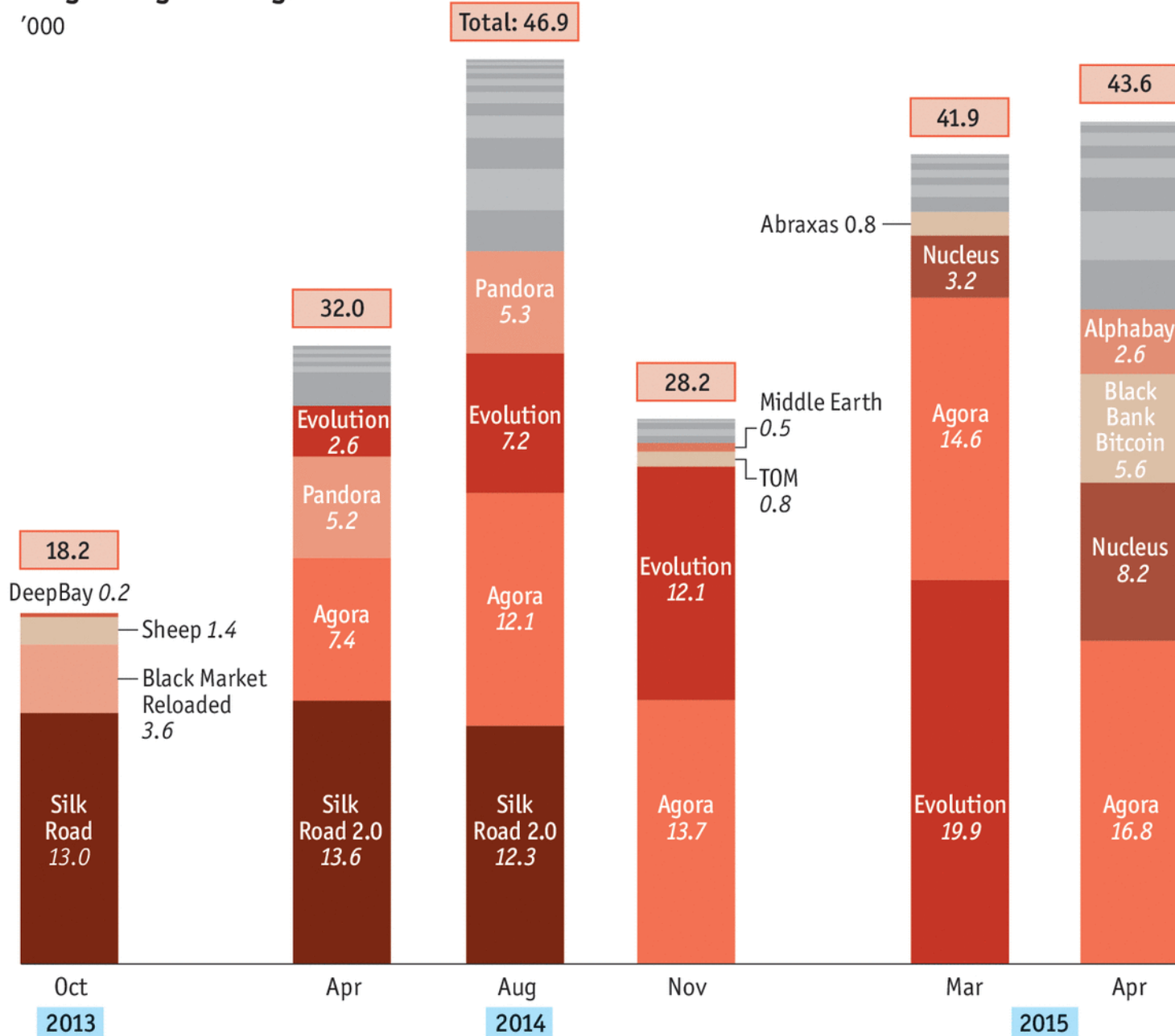
**5 GRAMS BK MDMA BIG CRISTALS HIGHEST QUALITY EUROPE**
[silkroad6ownowfk.onion/items/5-grams-bk-mdma-big-cristals-highest-quality-europe](#) **Silk Road 2**
It surprise OUR MAIN PRODUCT IS NOT **MDMA** BK **MDMA** IS SYNTHESIZED And DONE FOR OUR LABORATORY EXCEPTIONAL QUALITY TOTALLY PURE AND ESPECIALLY NICE AND SWEET SMELL AS GOOD **MDMA** WE DO NOT CHEAT A CUSTOMER SELLING FAKE **MDMA** BK **MDMA** SELL AT A GLANCE THAT IS LIKE THE **MDMA** DO NOT BE FOOLED BY SELLERS SELLING COUNTERFEIT PRODUCTS ALWAYS CHOOSE QUALITY PRODUCTS CHOOSE CHEMICALS SPAIN
Vendor chemicals_spain **Price** €0.48606000 **Location** Spain

**1 5 GRAMS BK MDMA BIG CRISTALS HIGHEST QUALITY EUROPE**
[silkroad6ownowfk.onion/items/1-5-grams-bk-mdma-big-cristals-highest-quality-europe](#) **Silk Road 2**
It surprise OUR MAIN PRODUCT IS NOT **MDMA** BK **MDMA** IS SYNTHESIZED And DONE FOR OUR LABORATORY EXCEPTIONAL QUALITY TOTALLY PURE AND ESPECIALLY NICE AND SWEET SMELL AS GOOD **MDMA** WE DO NOT CHEAT A CUSTOMER SELLING FAKE **MDMA** BK **MDMA** SELL AT A GLANCE THAT IS LIKE THE **MDMA** DO NOT BE FOOLED BY SELLERS SELLING COUNTERFEIT PRODUCTS ALWAYS CHOOSE QUALITY PRODUCTS CHOOSE CHEMICALS SPAIN
Vendor chemicals_spain **Price** €0.19521300 **Location** Spain



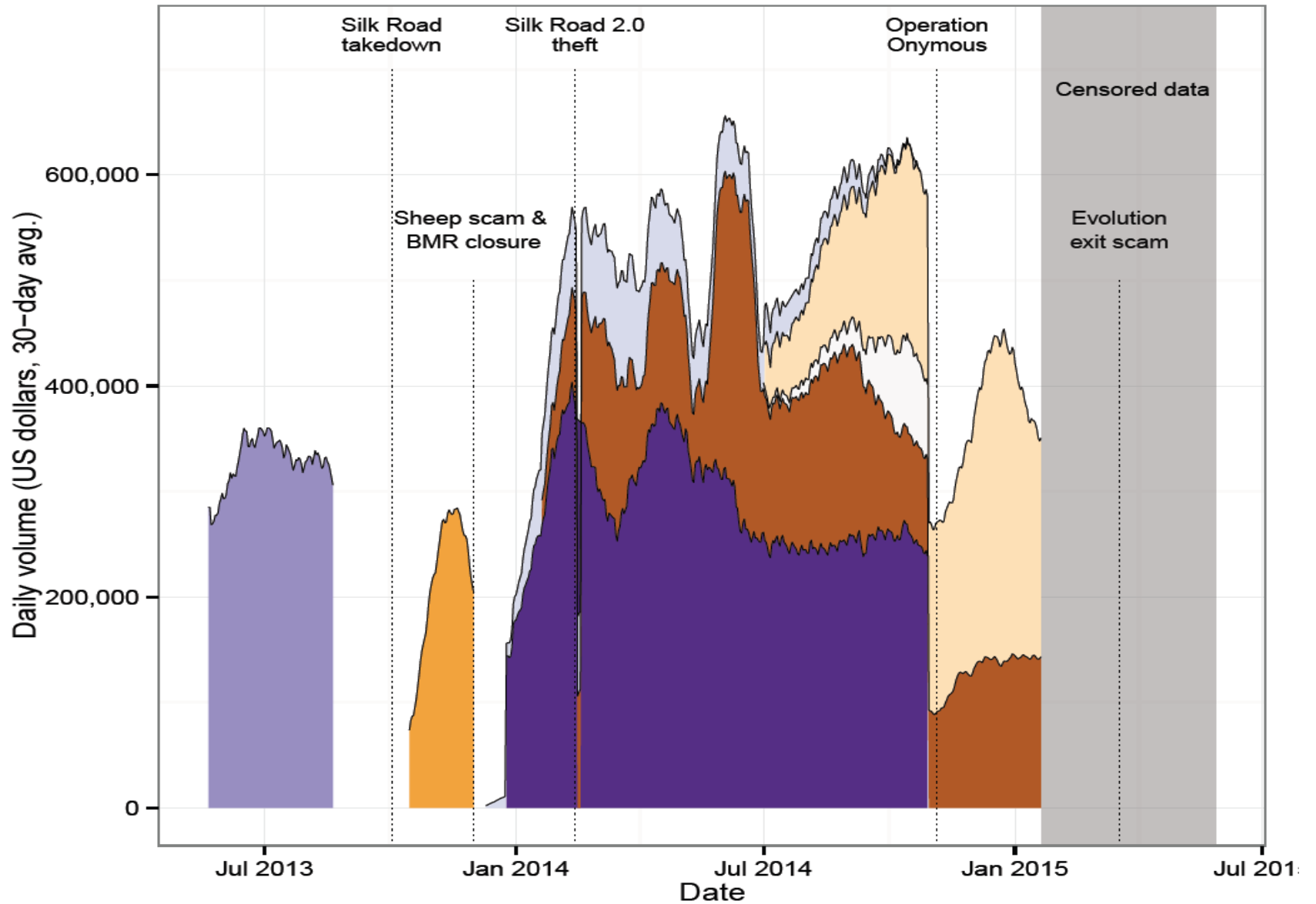
Drug listings on illegal websites

'000

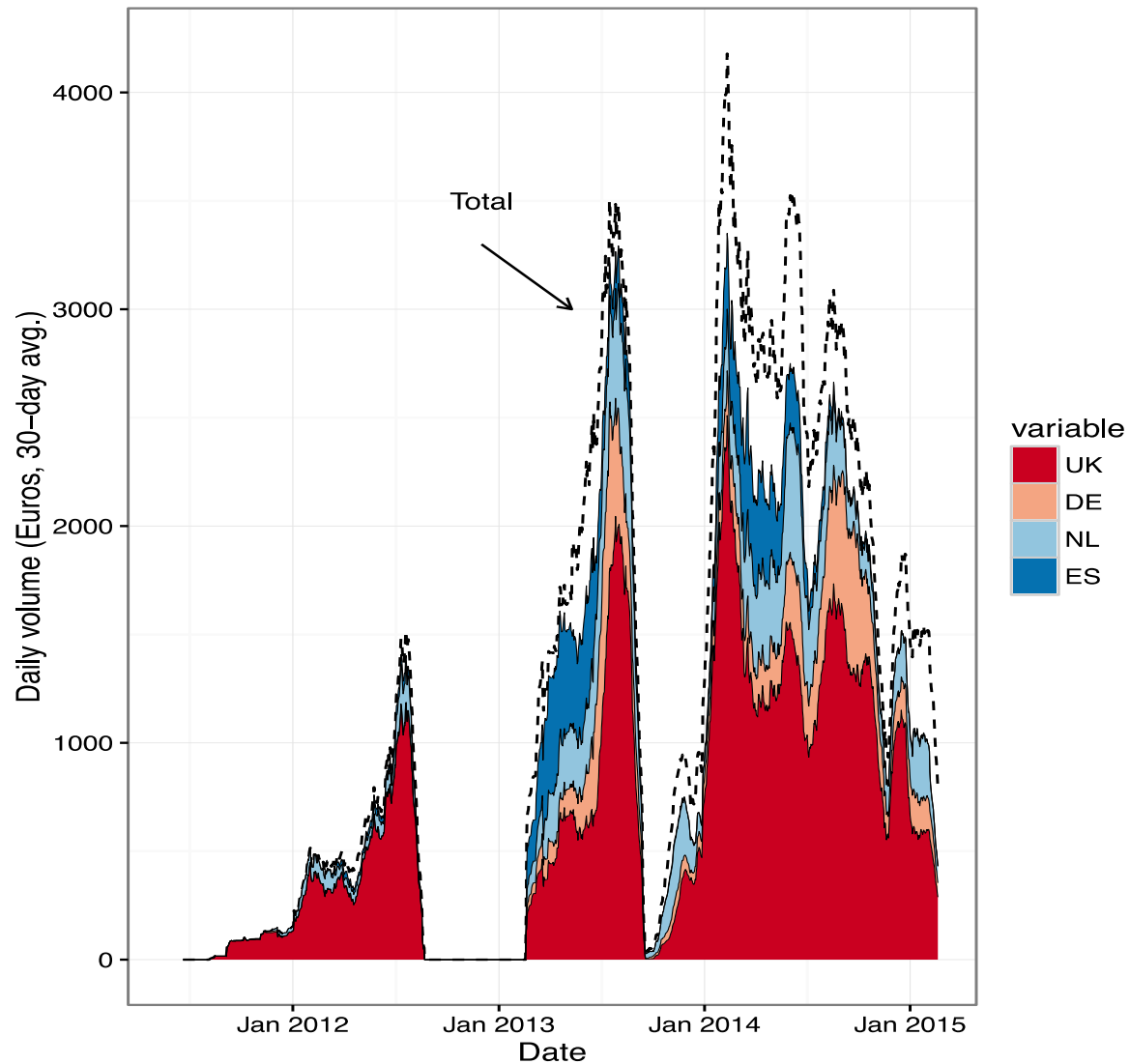


Source: Digital Citizens Alliance

Agora
 BMR
 Evolution
 Hydra
 Pandora
 Silk Road
 Silk Road 2

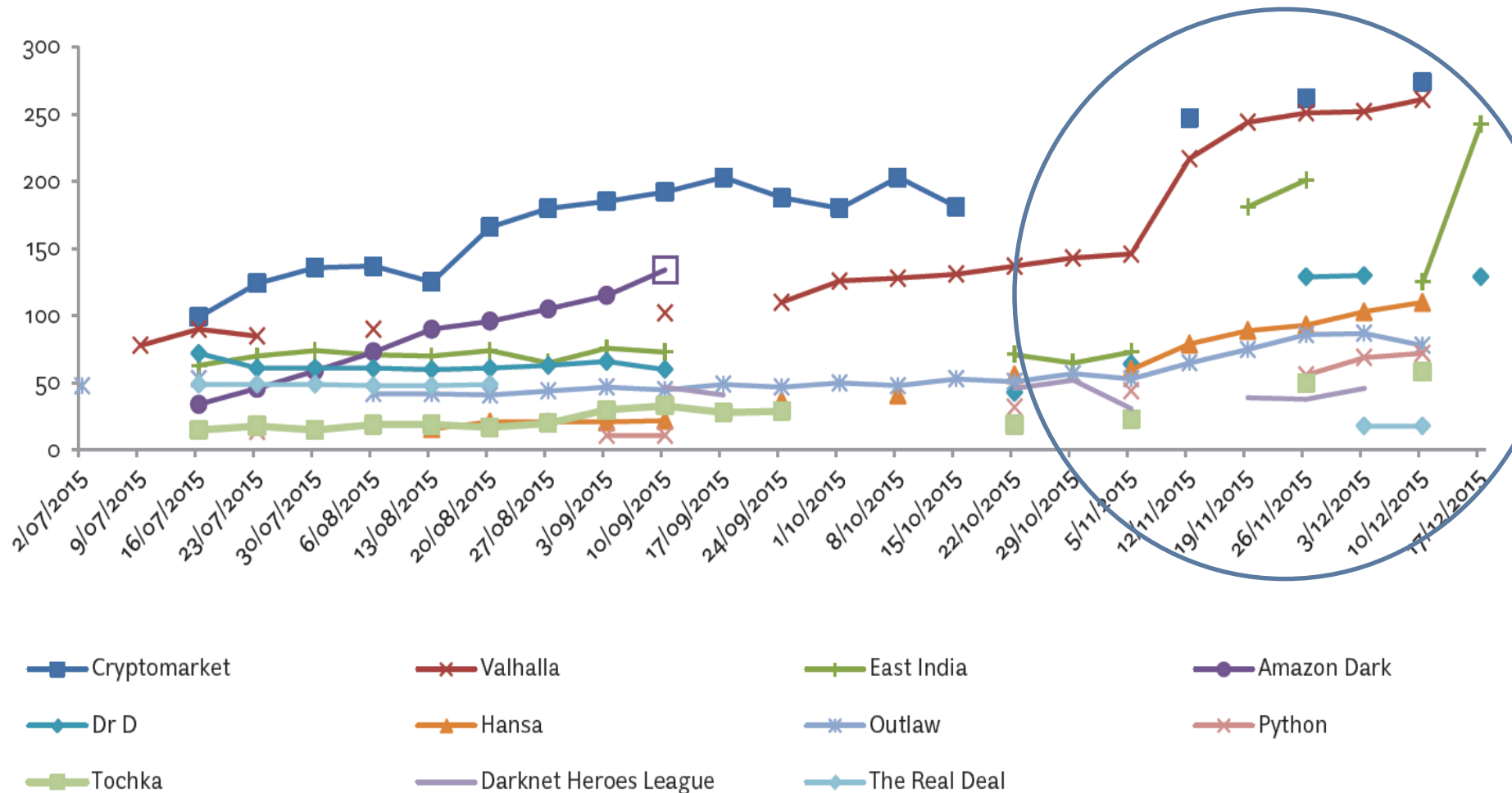


New Psychoactive Substances



IDM trends – complex and unstable

Figure 2: Number of retailers across smaller marketplaces by time point. **NB:** missing data points indicate temporary marketplace outages. Empty markers indicate permanent closure of marketplace.



State of play Darknet drugs market





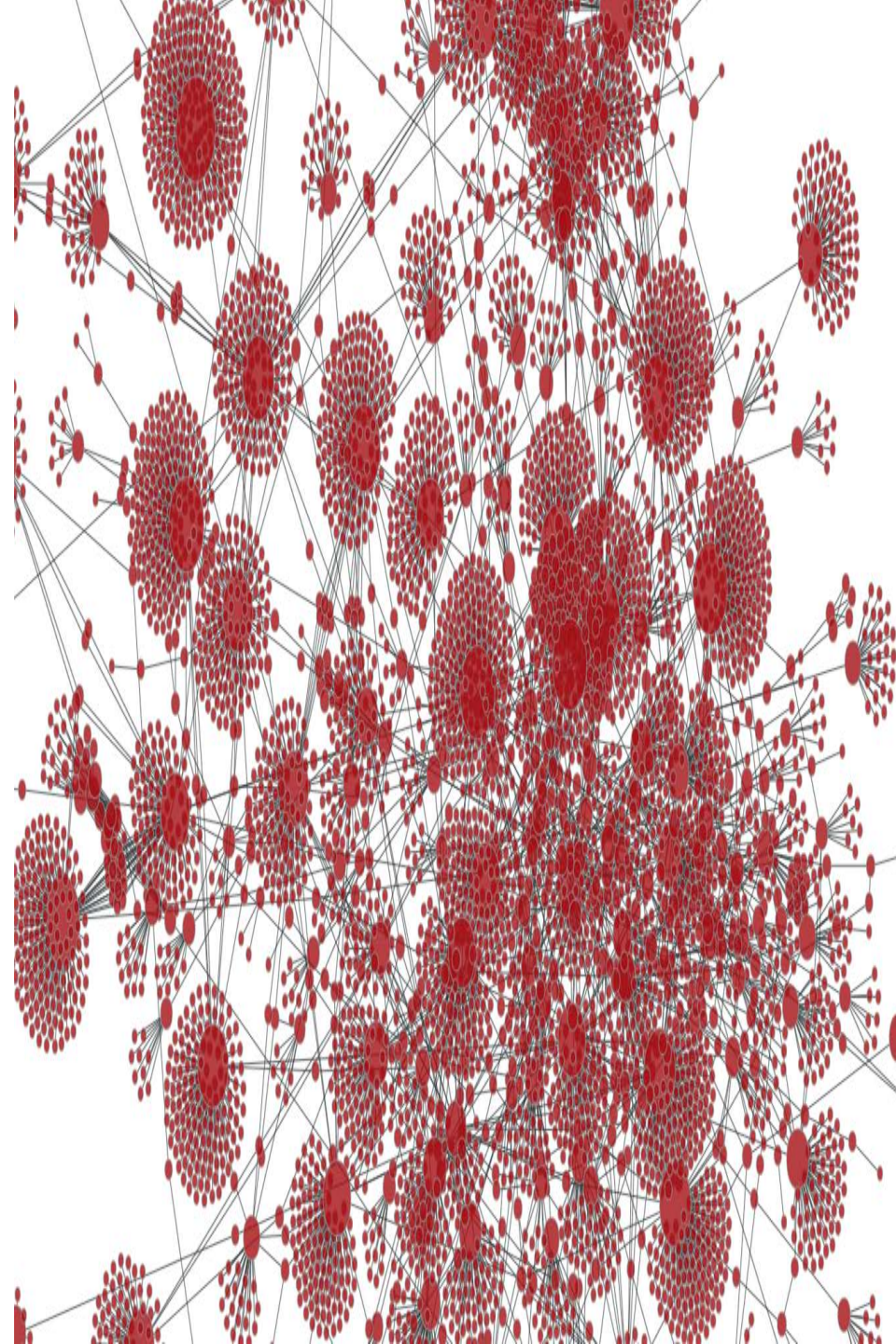
	In February 2016	Developments since 2013
 Cryptomarkets	19 with at least 400 listings	Up from 1 cryptomarket
 Listings	105,811 listings in total 60,337 drugs listings (57%)	A nearly six-fold increase of advertisements for illicit drugs on cryptomarkets
 Transactions	92,774 drugs transactions	The total number of transactions tripled
 Revenues	\$14.2 million \$12 million without prescription drugs, alcohol & tobacco	Revenues have doubled

Figure 1: State of play Darknet drugs market (Source: RAND)

Many types of darknet:
Onion, block chain,
distributed...

Tor	Tribler
I2P	GNUNet
Freenet	OneSwarm
Gigatriberes	ZeroNet
RetroShare	Syndicate



Recent trends

Increased uncertainty in the deep web community as a result of police interventions and vendor scams.

A tendency towards decentralisation of market structures (e.g. shared hosting)

Mechanisms developed to regain buyers' trust



Additional security mechanisms

- Escrow (multi key)
- Reputation and rating systems
- Bitcoin fog
- Adjudication
- Contracts
- Stealth packaging
- Invite only
- Shared hosting, distributed architecture



What is the future for IDM?

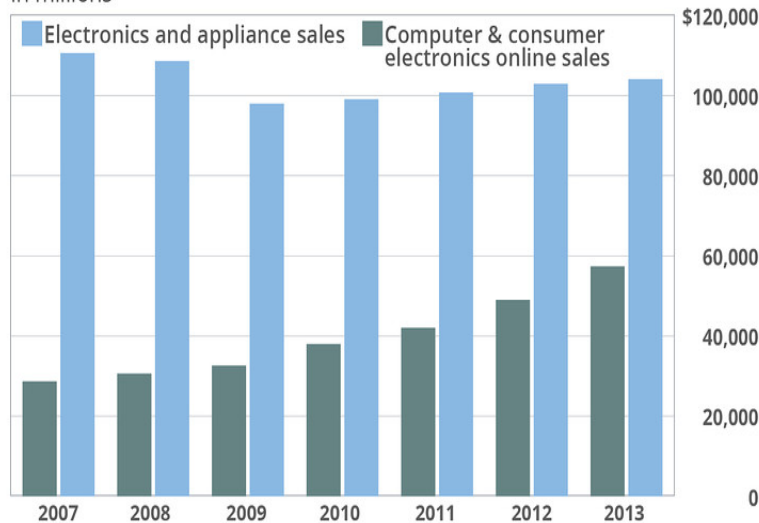


E-commerce - fastest growing retail market in Europe and US



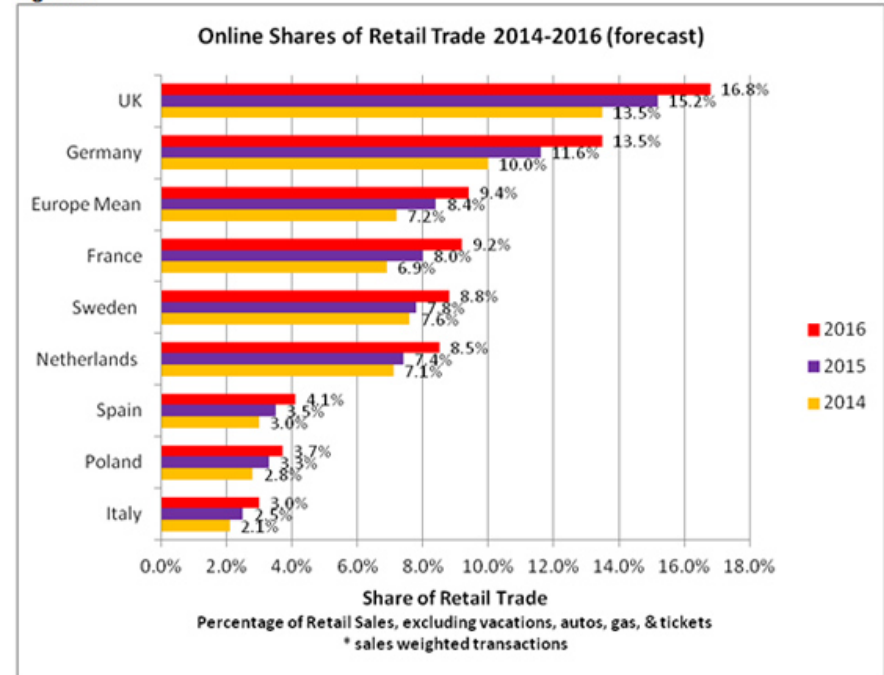
Online versus total sales

In millions



Source: U.S. Census Bureau, eMarketer

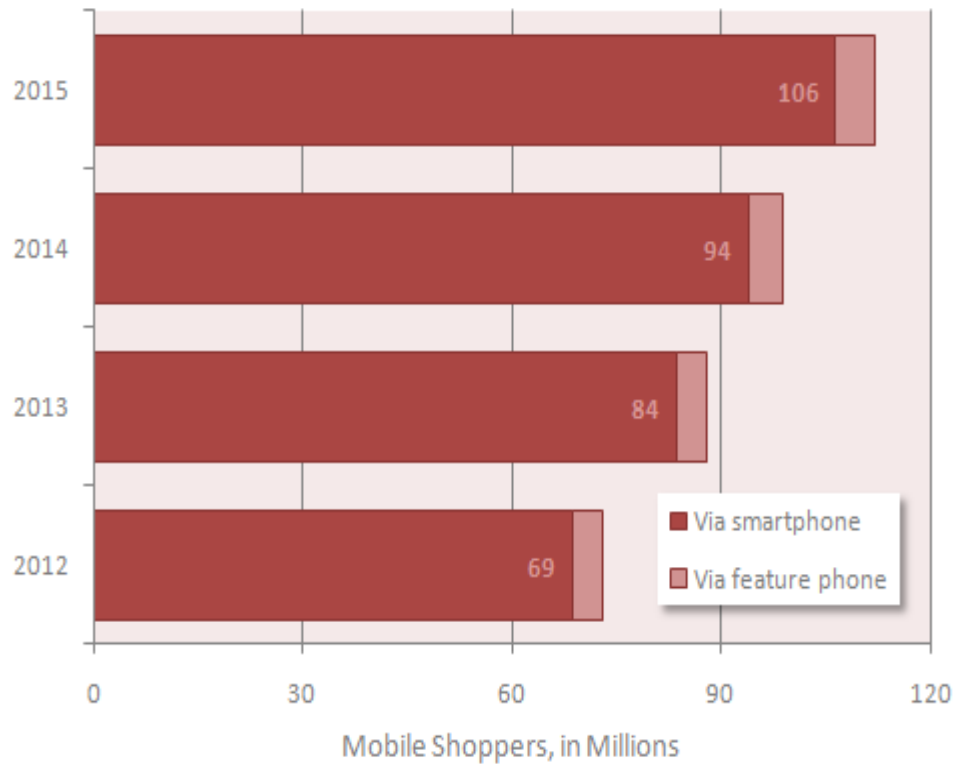
Figure 1



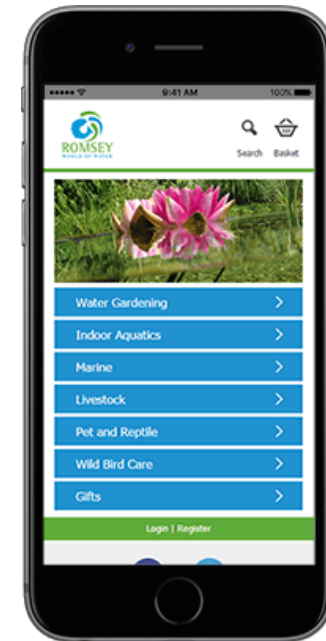
But market share comparatively low in most European countries – 9% av

M-commerce also on the rise

Mobile shoppers, US 2012-2015



Proliferation of mobile shopping app's



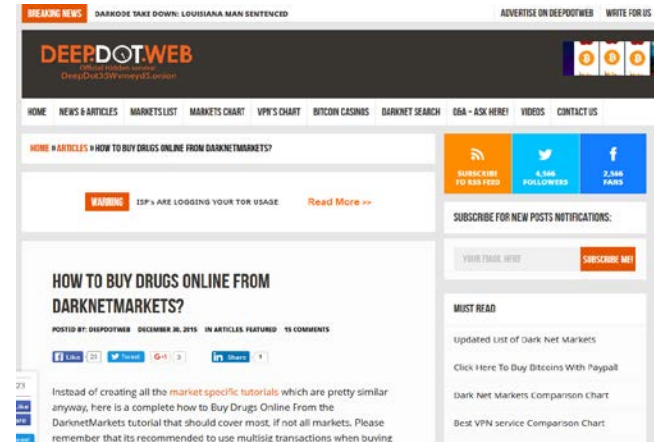
Would be a surprise if D-commerce did not follow suit



Perhaps just a question as to what form it will take

Drivers of change – online markets

- Technology, globalisation and market innovation
- Digital literacy increasing and expanding pool of potential market users.
- Dark net markets – security issues, encryption, digital currencies, anonymous browsing
- Marketing innovations, e.g. deep web search engine GRAMS.
- Cat and mouse game



IDM trends – delivery mechanisms

Small packages and anonymous post boxes



Temporary slow down in overall activity on dark net marketplaces?

Consumers moving to private arrangements with retailers, to avoid the risks

Query – will DNM return to the trend of steady increases in retailer numbers previously observed, or instability continue to typify the operation of darknet markets?



Drugs and New Technologies Issue 6, March 2016
Author: Van Buskirk, et al

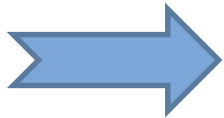
The internet is only really at the beginning of its beginning. *Kevin Kelly (Linked in & Wired)*

The current weakness in all of these markets is the single-server model. A fully distributed cryptomarket increases the difficulty and economic costs of removing such markets from the internet (Loman).



Market security v accessibility conundrum

Open drug scenes



Closed mobile networks



Open cryptomarkets



Closed peer to peer deals



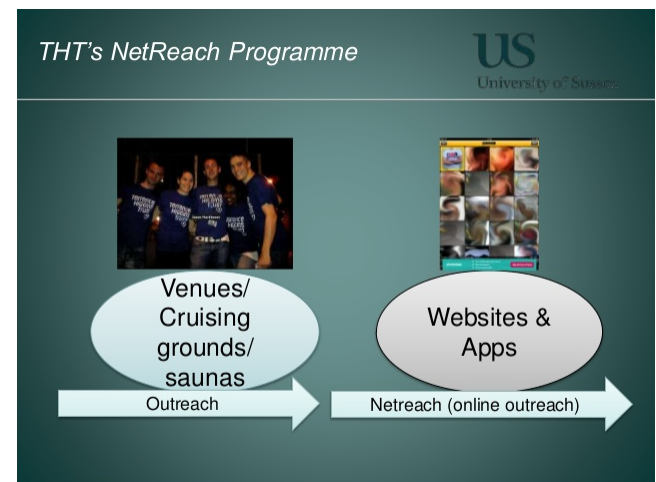
?



Health applications and approaches

Evidence-based online prevention, harm reduction and treatment services

Evaluation of online interventions, law enforcement and health.



Law enforcement approaches



Gaps and issues...

Medicines - the role of online pharmacies - specific EU studies desirable

Role of social media and apps in the demand for and supply of illicit substances

Consumer-level research focusing on sources of drug supply, reasons for choices, experiences.

Testing drugs sold online – linked with sampling strategy

Importance of data triangulation – an area with partial information



Research questions

What is the market size (surface and DNM)?

What trends can be observed? Product, price, purity etc

Do online markets challenge established ones - where do they have a competitive advantage?

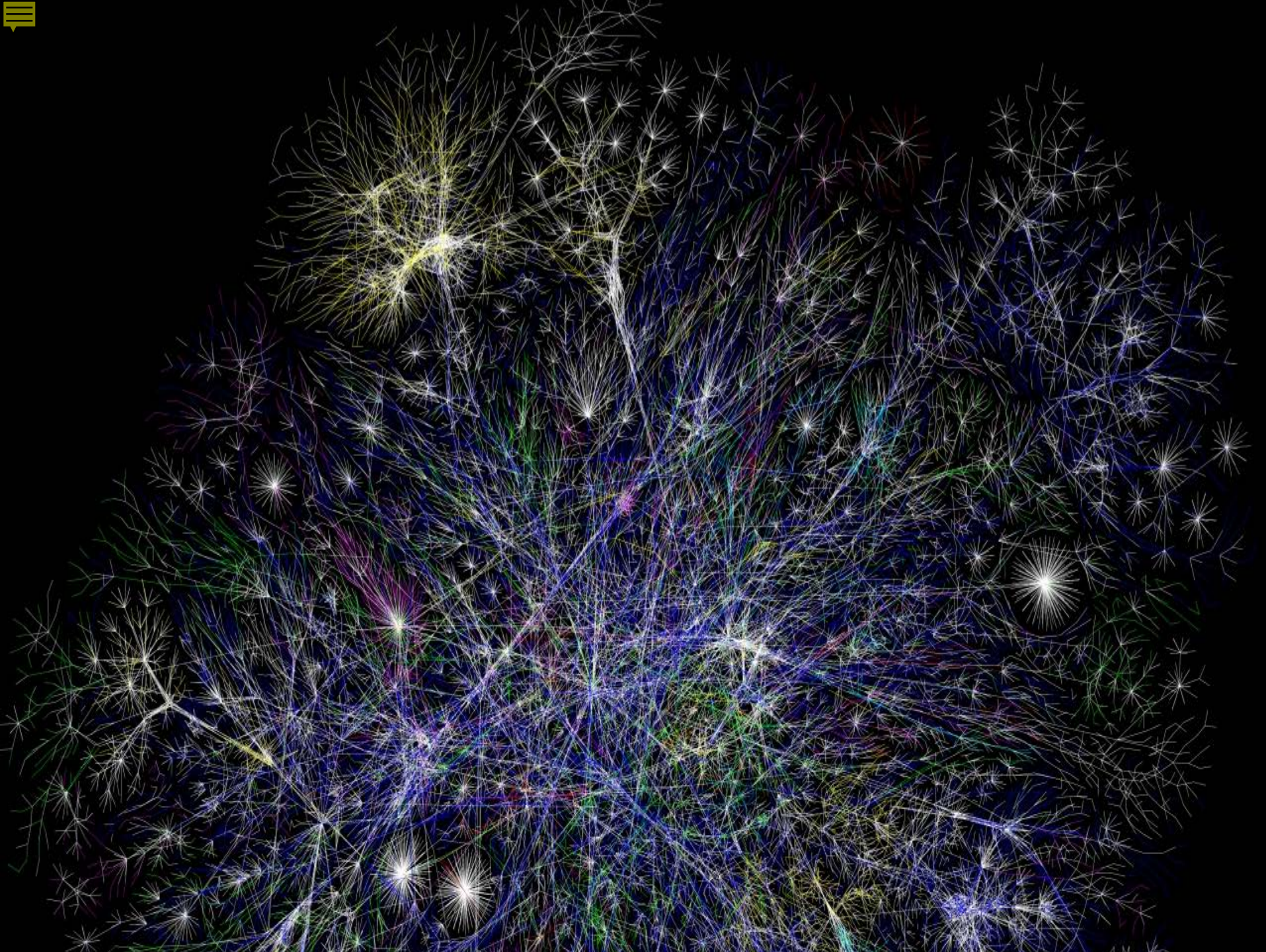
Supply chain - how do online markets interact with offline ones?

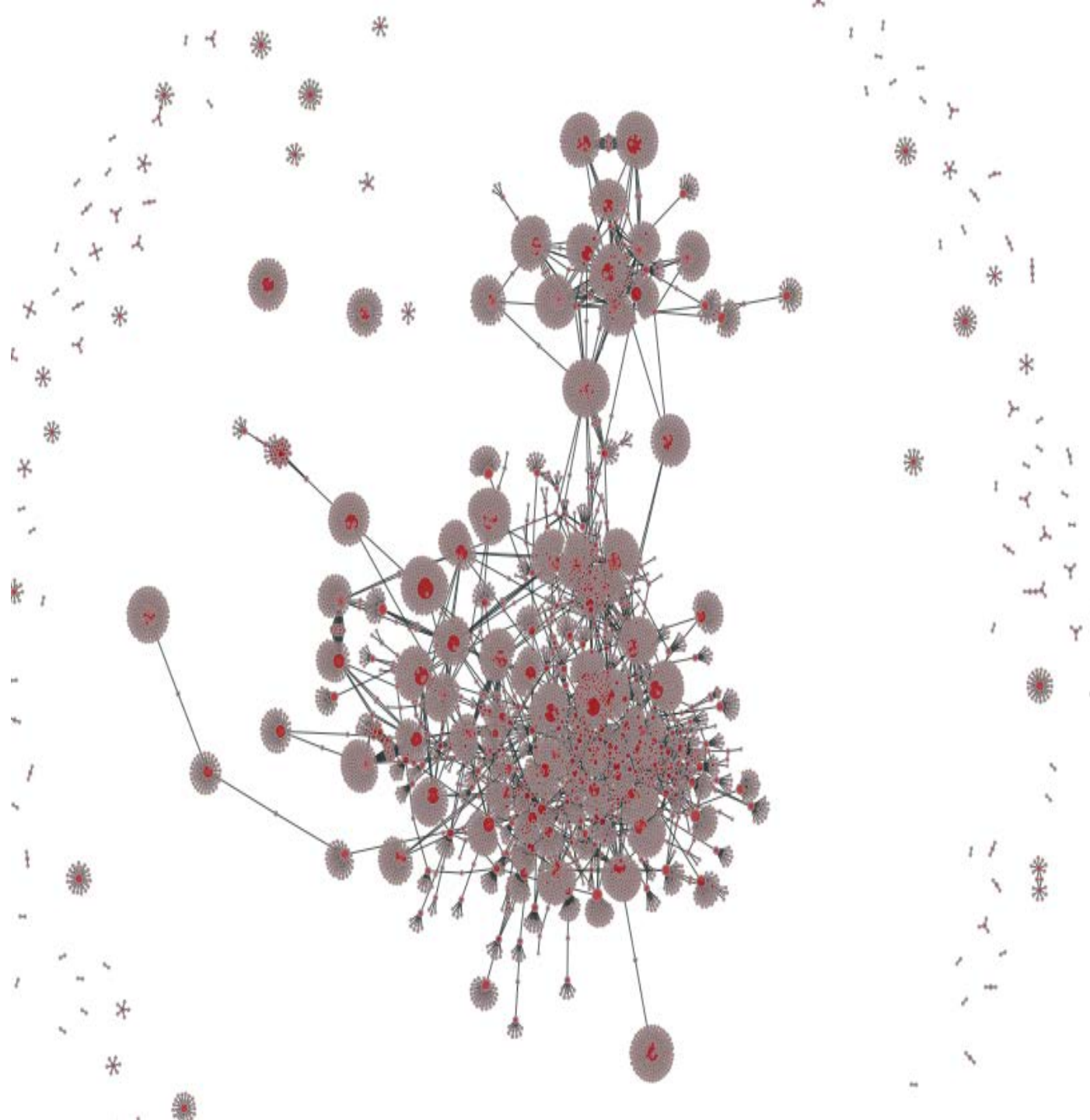
What are the net harms/benefits of dark net markets?

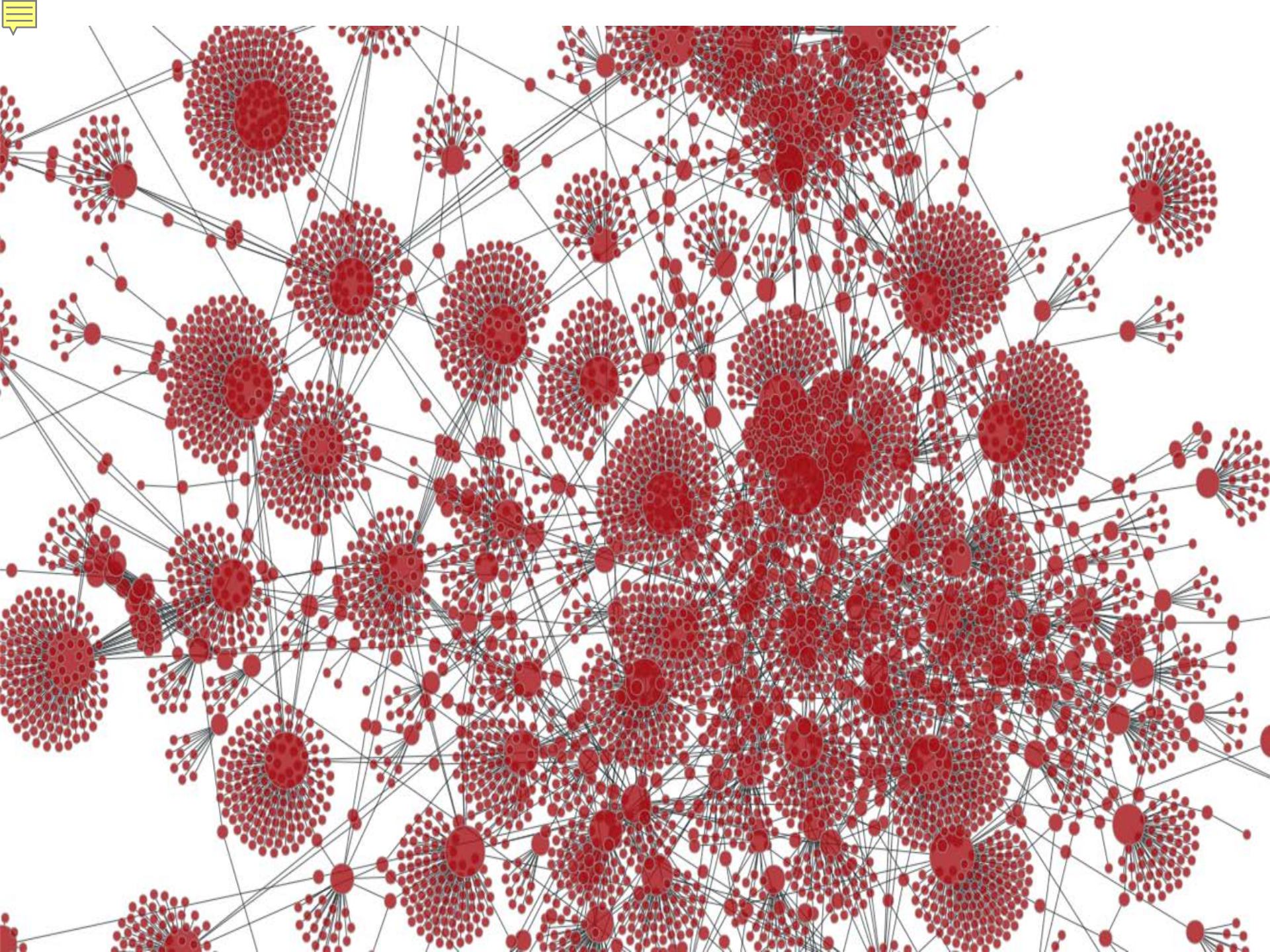
Do individuals who sell on dark net markets fit the same profile as street dealers?

Do people purchase more when they buy online and what effect does that have on use?









Trendspotting and internet drug markets....?



European Commission
Directorate-General for Economic and Financial Affairs

Tor and links with cryptomarkets
Andrew Lewman

**The internet
and drug
markets**

**How the use of the internet is affecting
drug trafficking practices**
Anita Lavorgna

**The drug trade on the deep web: a law
enforcement perspective**
Joost van Slobbe

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**The emergence of deep web
marketplaces: a health perspective**
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Thank you!





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