

Cryptocurrencies & Darknet



December 2018

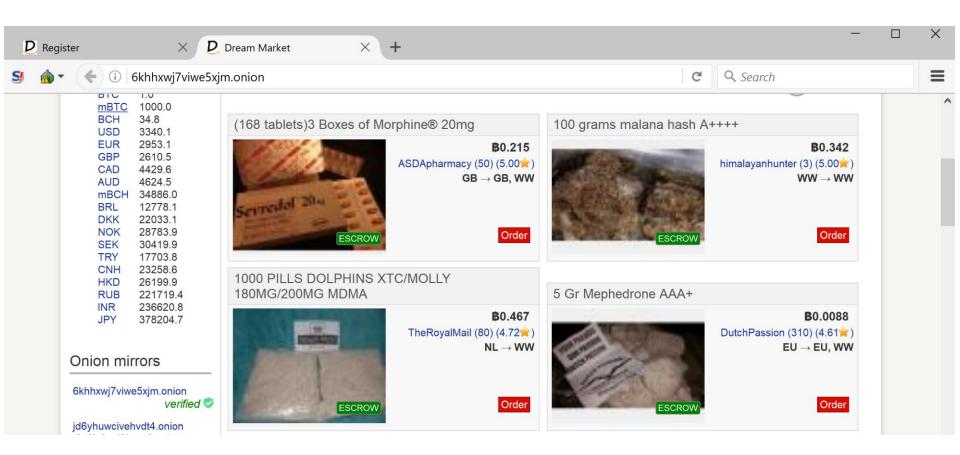


Today

- Risks & Threats
- How it works 3 main concepts
- Is it possible to investigate?
- What UNODC is doing
- Future plans



Darknet - drugs





Concept 1 - Addresses



Open Source JavaScript Client-Side Bitcoin Wallet Generator





Features

- Fast
- Anonymous
- Cheap

Do criminals use it?



Criminal misuse

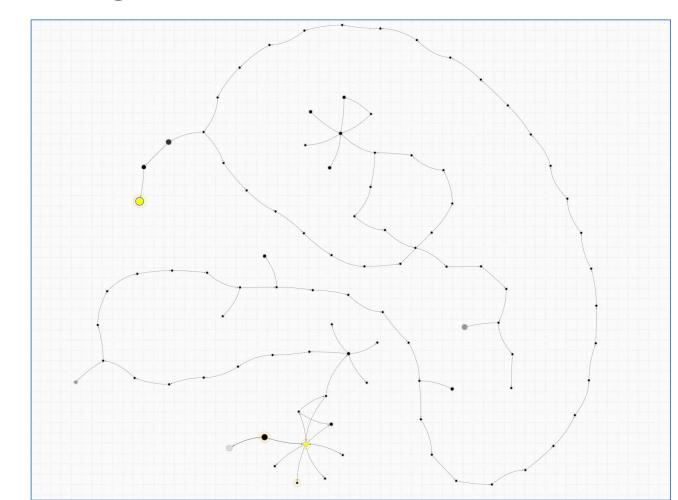
Drugs





Criminal misuse

Money laundering



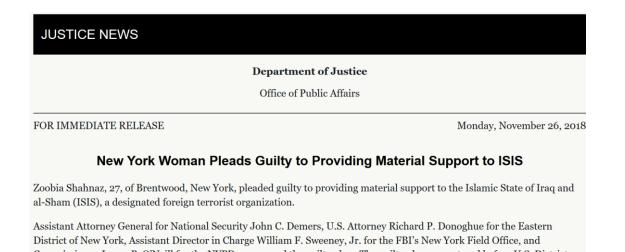


Terror Financing

Campaigns

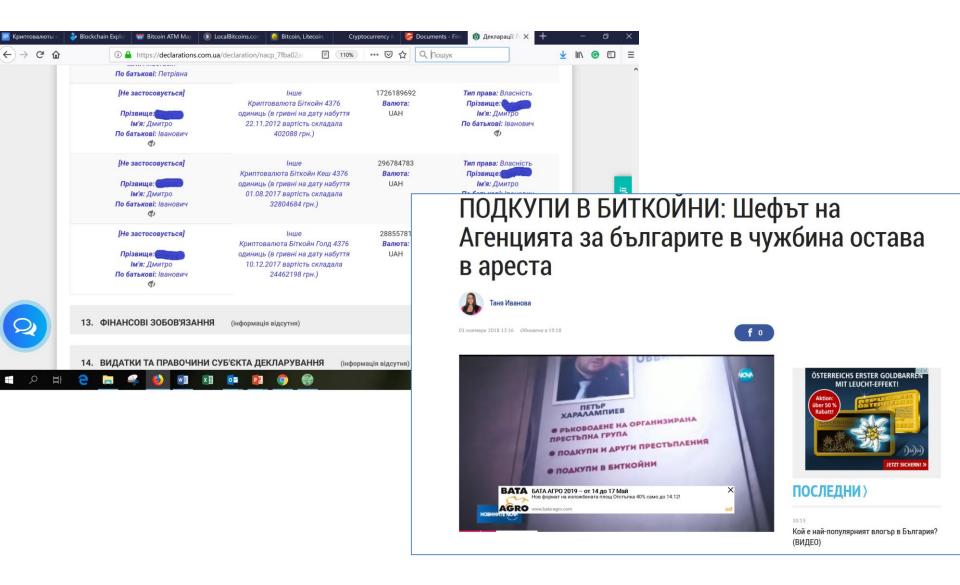


Transfers





Can it be used for corruption?



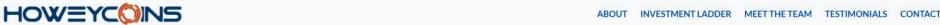


Ransomware





Ponzi schemes, fraud







Is it real?

Market cap

Top 100 Cryptocurrencies by Market Capitalization

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Cryptocurrencies -		Exchanges - Watchlist	t				USD ▼ Next 100 →	View All
#	Name	Market Cap	Price	Volume (24h)	Circulating Supply	Change (24h)	Price Graph (7	/d)
1	Bitcoin	\$59 741 829 186	\$3 429,77	\$4 707 305 941	17 418 625 BTC	-1,91%	many -	000
2	× XRP	\$12 430 420 576	\$0,303722	\$362 226 655	40 926 963 305 XRP *	-1,39%	may may	
3	♦ Ethereum	\$9 249 763 665	\$89,16	\$1 736 394 235	103 746 155 ETH	-3,25%	Juman.	***
4	🛭 Stellar	\$2 165 960 869	\$0,113014	\$193 388 636	19 165 374 391 XLM *	-4,65%	Juman	***
5	1 Tether	\$1 878 900 267	\$1,01	\$2 928 816 902	1 856 421 736 USDT *	-0,21%	mmy	***



Is it real?

Transactions

Transactions avg. per

hour

10,725

1,535

Cryptocurrency statistics

Prices | Charts | Correlations Share: 6 y w 6 6 8 f Q+1 Layout: Horizontal / Vertical XRP **Ethereum** Bitcoin **Bitcoin Cash** Litecoin Monero (explorer, top100) (explorer, top100) (explorer, top100) 17,418,554 BTC 40,926,963,305 XRP 103,746,225 ETH 33,475,083 BCH 59,546,446 LTC 16,638,603 XMR Total 1BTC = \$ 3,433.99 USD 1 XRP = \$ 0.304 1 ETH = \$ 89.12 USD 1BCH = \$ 104.13 USD 1LTC = \$ 24.04 USD 1 XMR = \$43.18 Price bitfinex: 89.39 USD hitbtc: 3,525.9 USD hitbtc: 100.88 USD hitbtc: 24.68 USD USD bitfinex: 3,437.1 USD bitfinex: 0.306 USD ethfinex: 89.39 USD gdax: 96.33 USD gdax: 23.45 USD bitfinex: 43.37 USD gdax: 3,349.98 USD bitstamp: 0.298 USD hitbtc: 192.51 USD bitfinex: 24.06 USD hitbtc: 44.5 USD gdax: 87.06 USD bitstamp: 3,345.33 USD kraken: 0.298 USD kraken: 86.93 USD kraken: 95.6 USD bitstamp: 23.5 USD kraken: 42.01 USD kraken: 3,345.9 USD exmo: 0.312 USD hitbtc: 91.59 USD bitstamp: 95.69 USD kraken: 23.43 USD exmo: 44.25 USD 1 USD = 0.00029 BTC bittrex: 0.298 USD 1 USD = 0.011 ETH 1 USD = 0.0096 BCH 1 USD = 0.042 LTC livecoin: 41.83 USD 1 USD = 3.29 XRP 1 USD = 0.023 XMR **Market Capitalization** \$59,815,218,119 USD \$12,455,829,425 \$9,245,385,876 USD \$3,485,888,254 USD \$1,431,385,015 USD \$718,515,552 USD USD Transactions last 24h 257,404 36,845 528,828 6,774 22,052 3,888

282

919

162

22.035



Where is it?

Everywhere

GLOBAL BITCOIN NODES DISTRIBUTION

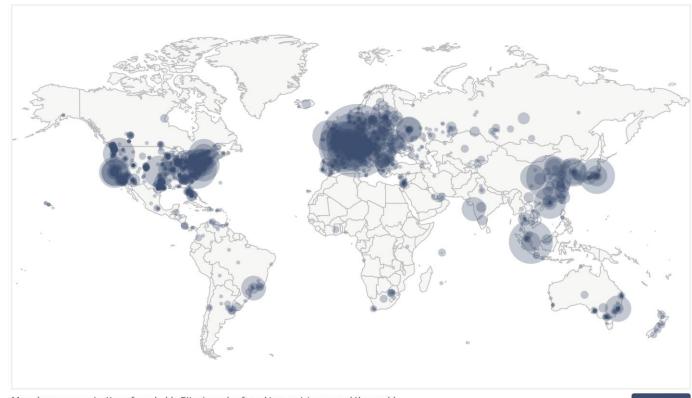
Reachable nodes as of Wed Dec 12 2018 06:58:35 GMT+0100 (за центральноєвропейським стандартним часом).

9687 NODES

24-hour charts »

Top 10 countries with their respective number of reachable nodes are as follow.

RANK	COUNTRY	NODES
1	United States	2389 (24.66%)
2	Germany	1858 (19.18%)
3	France	673 (6.95%)
4	China	489 (5.05%)
5	Netherlands	468 (4.83%)
6	Canada	382 (3.94%)
7	United Kingdom	322 (3.32%)
8	Singapore	275 (2.84%)
9	Russian Federation	267 (2.76%)
10	Japan	247 (2.55%)



30 - 772 EUR

40 - 611 EUR

EUR

EUR

3,054.19

Купить

Купить

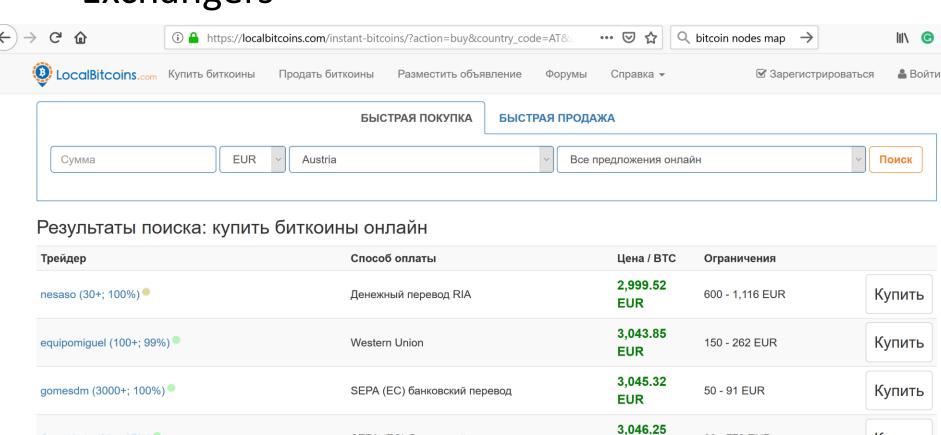


Want to buy/sell?

Exchangers

GreekCoin (30+; 97%)

riclas (15 000+; 100%)

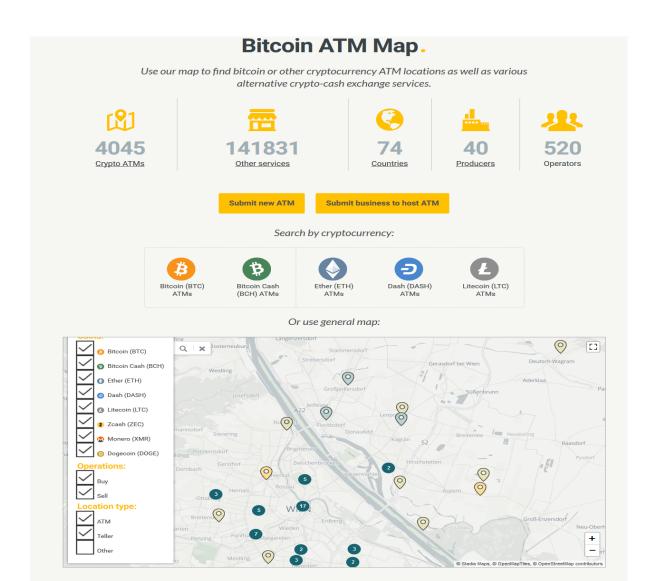


SEPA (EC) банковский перевод

SEPA (EC) банковский перевод



ATMs





How to investigate?

Just another financial tool

Need to know 3 major concepts



Concept 1 - addresses



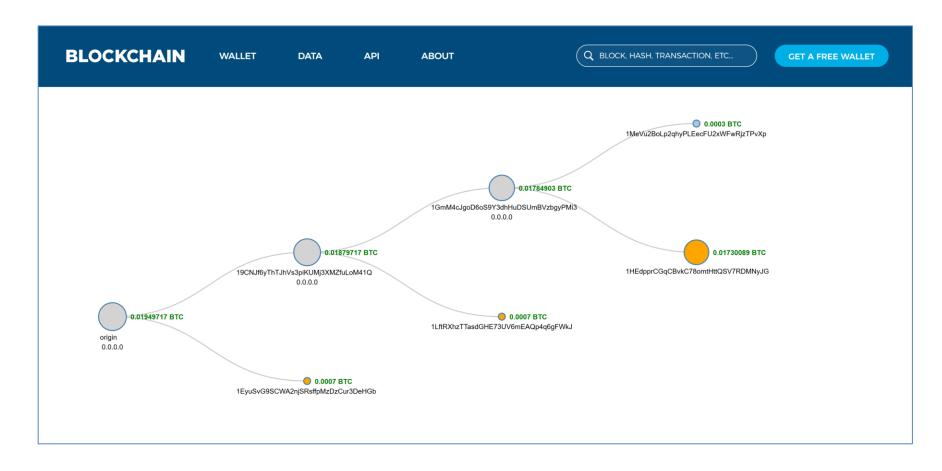
Open Source JavaScript Client-Side Bitcoin Wallet Generator





Concept 2

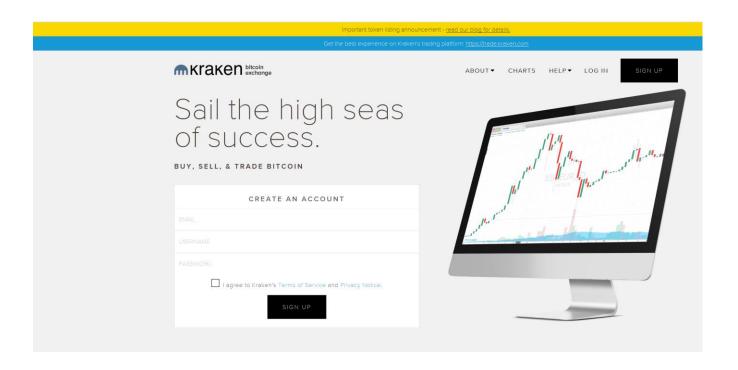
All transactions are in a blockchain





Concept 3

Links to the real world - exchanges





UNODC Training Course

Training on Cryptocurrencies

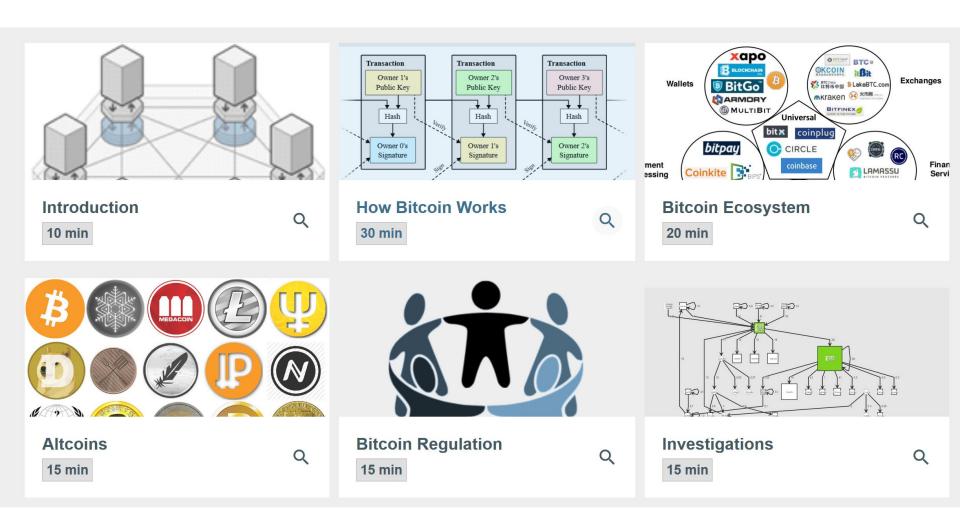
Focus on Bitcoins

Altcoins included





Course Contents





Cryptocurrencies Course

eLearning course

Classroom training (2 or 3 days)

Real-life exercises

 Trainers – practitioners (industry, FinCEN, DHS, FIUs)



Audience

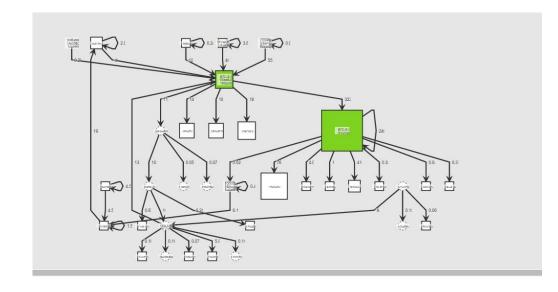
- FIU
- Cybercrime
- Law Enforcement
- Prosecutors
- Supervisors
- Policy Makers





Results

- In 2-3 days you will:
- Understand how cryptocurrencies work
- Know where to find information



- Can track and investigate bitcoins
- Able to train others
- Know the major risks of cryptocurrencies and ways to mitigate risks



So far

- Train-the-trainers: 4 events, 98 trainers
- Total: 20 trainings 2016-2018, 534 participants
 - Egypt
 - Thailand
 - South East Asia
 - West Central Asia
 - Latin America
 - Africa
 - Balkans
 - Belarus, Ukraine, Moldova
 - **–** ...



e-Learning

- www.imolin.org
- 7 languages
- Free access
- Over 10 000 users



How to get it

eLearning: just go to http://www.imolin.org/

- Classroom: contact UNODC
 - Up to 25 people
 - Internet connection
 - Computers minimum one per 2 persons
 - English ideally



Partnerships

- OSCE
- UNODC RP for Afghanistan and neighbour countries
- UNODC CrimJust/Cocaine Route



Plans for future

- Trainings and awareness raising still a drop in the ocean, much more is needed
- Train-the-trainers
- Supervision/regulation
- Cooperate with FATF on AML/CFT standards



Thank you!



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