

I-TREND SASF software: new possibilities in semiautomated monitoring of online shops selling NPS

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Content

1] Monitoring of online shops & contribution of the I-TREND project

2] Examples of I-TREND SASF monitoring outcomes

3] I-TREND SASF in practice

- online interface
- collected data /shop details/
- regular vs ad-hoc search



1] Monitoring of online shops & contribution of the I-TREND project

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NPS webshop monitoring overview

- Psychonaut 2002 methodology based on search engine queries and 'snapshot' - a time-specific picture of the existing website
- EMCDDA (2011): multilingual snapshots used further developed snapshot methodology
- EMCDDA methodology is used in various researches to estimated the size of online market with NPS (e.g Corazza et al., 2014; Burns, Roxburgh, Bruno, a Van Buskirk, 2014) and/or to study availability of particular NPS on webshops (e.g.Meyers et al., 2015; Forsyth, 2012; Corazza et al., 2012)
- CHALLENGES manual search, one time per year, not systematic data gathering, limited information about web shops



The I-Trend project



Workstream 2 aims:

- minimise the human input and maximise the automation of the datagathering process
- allow periodical rather than one-off monitoring
- gather more extensive data than had previously been collected _

Source: Martinez, Kmetonyová, & Běláčková, 2016

The I-TREND SASF software

- *"semi-automated shop finder"*
- open source code & on-going data collection
- automated search of internet in weekly periods
- on average 3 search engines used per country
- search queries names of substances (I-TREND "TOP 10") & "buy" in national language
- first 100 results per search are stored
- results automatically divided into categories 'ehop' and 'others' manual categorisation still needed
- "knowledge database" for any number of searches in the future (e.g. e-shop vs. unrelated webpages)



I-TREND SASF automated vs human input

AUTOMATED

- Regular search of the Internet
- Pre-organized results
- Displayed only the new results 'knowledge database'
- Gathering and updating data about webshop (e.g. IP address, global ranking, domain owner,..)
- Regular screenshots of all webshops

HUMAN INPUT

- •Final selection of webshops from results
- •Final categorization of the webshops
- •manually add a webshop
- •Site information (e.g.city, currency, language ...)
- •AD-hoc search
- check for duplicates in the output



I-TREND SASF - "knowledge database"

Country	all results	webshops	%
UK	12303	609	4.95%
FR	11133	154	1.38%
CZ	16173	42	0.26%
NL	13073	59	0.45%
PL	7041	154	2.19%
Total	59723	1018	1.70%



2] Examples of I-TREND SASF monitoring outcomes



No. of active "unique" eshops selling NPS





Breakdown of identified eshops selling NPS (2014)



Martinez, Kmetonyova & Belackova (2016)



Dynamics of the online market with NPS - "new" vs "sustained"





AD-hoc search prior-to and after deemed control of 4 NPS (no. of shops in CZ, FR, NL, PL & UK all together)





3] I-TREND SASF in practice

- online interface
- collected data /shop details/
- automated vs ad-hoc search



I-TREND SASF - interface





I-TREND SASF - shop details

	1 2 .	Site information	
Shop details	· · · · · · · · · · · · · · · · · · ·		
0600 Ecstasy Naturels – Herbal XTC - Sjamaan.com	Detaile Edit Screenshots - Scrape History -	URL	http://www.sjaena.ah.com/
Unit http://www.sjamaan.com/ First found via Google FR on Jan. 7, 2014, 7:22 p.m	May 31, 2016, 12:30 p.m. May 17, 2016, 8:30 p.m.	Name	0600 Ecotory Naturels - Herbal
Now listed in E-Ship (approved) category.	May 9, 2016, 8:30 a.m. April 29, 2016, 11:30 a.m.	Ship to EU	
Product listing	April 21, 2016, 10:30 p.m. April 26, 2016, 5:30 a.m. April 2, 2016, 5:30 a.m.	Restrictions on delivenes	
Results Deleted	March 31, 2016, 4:30 p.m. March 31, 2016, 4:30 p.m. March 25, 2016, 8:30 p.m.	Which restrictions	
o producia yar	March 18, 2016, 12:30 p.m. March 12, 2016, 10:30 p.m.	Street	
	March 7, 2016, 12:30 p m Feb: 29, 2016. 3:30 a.m.	City	
	Feb. 12, 2016, 1:30 a.m. Feb. 52, 2016, 1:30 a.m. Feb. 5, 2016, 9:30 a.m.	Country	
	Jan. 31, 2016, 9:30 a.m. Jan. 25, 2016, 2:30 p.m.	Country code	
	Jan. 19, 2016, 0.30 p.m. Jan. 14, 2016, 1.30 a.m.	Languages	
	ann. 9, 6010, 12 30 mm. Dec. 31, 2015, 130 a.m.	Translation	

1.Edit icon/Site information

2. List of screenshots made by software for selected website

3. Possible to download a report of selected website

4. History icon - select information about website and download report in csv. file

Form where is possible manually add information about selected website.



I-TREND SASF - AD hoc ("manual") search



- 1. Seeking Substance
- 2. Search engine

3. The no. of Webshops where searched substance is mentioned per category



I-TREND SASF - report

			D	E	F	G	н	1	J	к	L	м
DATE_SEARCS	SEARCH_	SEARCH_STRI	URL_ENGIN	URL_NUN	IP_SHOP	IP_CODE_S	DOMAIN_OWNE	DOMAIN_	DOMAIN_FROM	DAILY_ADDS_	DAILY_PAGEVIE	GLOBAL_RAN
11/9/2013 G	GOOG	"Etizolam" buy	http://buypyrazolam.co.uk/	68	3051390828	US	n/a	n/a	12/13/2012	\$0,20	65	7498
11/9/2013 G	GOOG	"Etizolam" buy	http://chemicalbureau.com/	86	773909115	GB	n/a	GB	10/10/2012	\$0,45	150	-
11/9/2013 G	GOOG	"Etizolam" buy	http://chemicalwire.com/	59	1317633998	GB	-4,77867E+18	n/a	3/4/2005	\$19,16	6388	n/a
11/9/2013 G	GOOG	"Etizolam" buy	http://legalpartypills.net/	84	1078648619	US	n/a	n/a	n/a	\$0,23	77	-
11/9/2013 G	GOOG	"Etizolam" buy	http://researchchemicals.com/	95	1835832665	GB	-4,77867E+18	n/a	12/11/1998	\$0,71	238	14383
11/9/2013 G	GOOG	"Etizolam" buy	http://researchchemist.co.uk/	55	27 283 911 492	US,US	n/a	n/a	4/1/2011	\$1,93	644	1163
11/9/2013 G	GOOG	"Etizolam" buy	http://tkkchems.com/	50	27 283 934 562	US,US	n/a	CA	3/23/2012	\$1,56	520	1503
11/9/2013 G	GOOG	"Etizolam" buy	http://www.buyanychem.com/	79	27 283 915 852	US,US	n/a	GB	11/5/2010	\$1,14	379	28213
11/9/2013 G	GOOG	"Etizolam" buy	http://www.cloud9chemicals.con	59	2919111840	US	n/a	GB	10/16/2010	\$0,65	217	4921
11/9/2013 G	GOOG	"Etizolam" buy	http://www.etizolamshop.co.uk/	6	3571649613	DE	n/a	n/a	8/20/2012	\$1,33	442	6564
11/9/2013 G	GOOG	"Etizolam" buy	http://www.chem-shop.co.uk/	98	3585070958	GB	n/a	n/a	6/3/2009	\$1,20	65	8755
11/9/2013 G	GOOG	"Etizolam" buy	http://www.chemicalservices.net	70	1835827761	GB	-4,77867E+18	n/a	5/15/2012	\$3,88	1293	594
11/9/2013 G	GOOG	"Etizolam" buy	http://www.chems-direct.org/	7	n/a	n/a	-8,90428E+18	GB	n/a	\$0,37	124	-
11/9/2013 G	GOOG	"Etizolam" buy	http://www.chems2u.com/	13	1481638933	SE	n/a	n/a	n/a	\$0,55	183	23508
11/9/2013 G	GOOG	"Etizolam" buy	http://www.legalhighsstore.co.ul	72	n/a	n/a	n/a	n/a	10/14/2011	\$0,60	199	11572
11/9/2013 G	GOOG	"Etizolam" buy	http://www.officialbenzofury.com	1	3093949217	US	-4,77867E+18	n/a	6/14/2010	\$9,23	3076	636
11/9/2013 G	GOOG	"Etizolam" buy	http://www.plantfoodpalace.com	1	3232322226	US	n/a	GB	5/23/2011	\$5,88	1959	-
11/9/2013 G	GOOG	"Etizolam" buy	http://www.purechemicals.net/	5	3272275303	GB	-6,67878E+18	CA	4/14/2010	\$4,35	1449	746
11/9/2013 G	GOOG	"Etizolam" buy	http://www.sarms-supply.com/	31	3331356838	BZ	n/a	n/a	n/a	\$0,20	68	11776
11/9/2013 G	GOOG	"Etizolam" buy	http://www.sensibleseeds.com/	12	27 283 909 672	US,US	n/a	GB	4/14/2000	\$3,71	1235	400
11/9/2013 G	GOOG	"Etizolam" buy	https://researchchemicals4u.co	14	1605115610	GB	n/a	US	2/19/2010	n/a	n/a	6600
11/9/2013 G	GOOG	"Etizolam" buy	https://www.mrlegals.com/	80	27 283 920 432	US,US	n/a	GB	10/15/2010	n/a	n/a	-





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19

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TANKULTAV TEMOCOU

Thank you for your attention!

•The open source code of I-TREND SASF are available at <u>https://github.com/I-TREND/SASF</u>

Please let us know if you are interested in the I-TREND SASF for your own monitoring - we are open to new collaborations!

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