Aigents

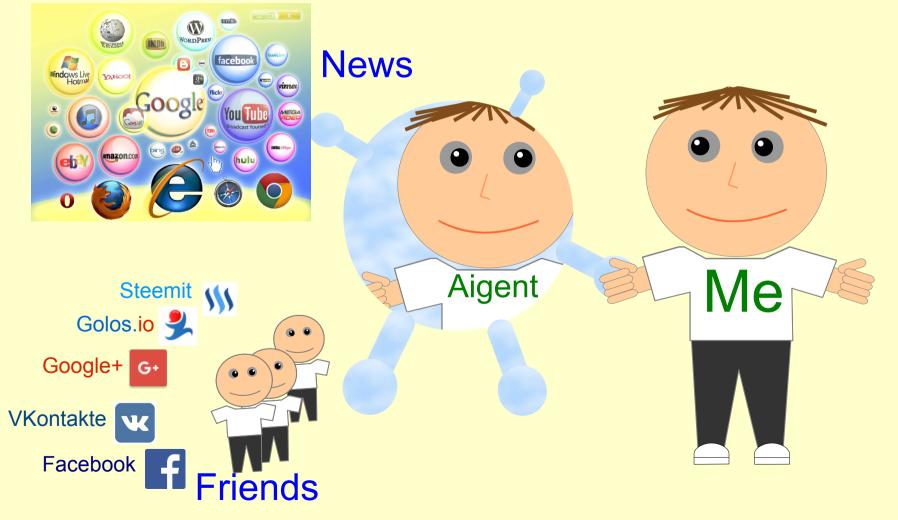
Automatic Intelligent Internet Agents

for personal analytics in social networks and news relevance assessment for online and social media



Anton Kolonin, akolonin@aigents.com

Personal Intelligent Agent serves as a "crystal ball" in the world of social and informational networks, recognizes your preferences, knows your friends and finds what you need



I teach my Aigent while it learns from me

I adjust my

profile and

provide

feedback

☑ Doe John doe@iohn.org

It learns from my interactions with friends

*Aigents Topics ©Sites 8 News ©Friends ©Chat Election Tracker 🐕 📴 🕂 🕊
Input new thing name or template
gfake news
छ { [ai] [agi] [artificial intelligence] [machine learning] [искусственный интеллект
छ{chatbot [chat bot] [personal assistant] bot чат-бот [чат бот] бот [персональны
□ aigents
electoral college
<pre> {artificial based data intelligence network personal} </pre>
<pre> {artificial data facebook google intelligence network personal} </pre>
<pre> {business data information networks personal user web} </pre>
<pre> {facebook get google} </pre>

[] {facebook get networks personal report social}

*Aigents Topics ©Sites 2 News ©Friends ©Chat Election Tracker 🐕 📴 🕇

Input search text

🗆 today

i encourage all of you to use your natural and well-developed skills to adapt to changes here at home as well. . i know this was a hotly contested election we do not all feel the same way about the outcome," said tillerson http://www.reuters.com/article/newsOne/idUSKBN15H2G0

🗆 yesterday

facebook ceo mark zuckerberg famously dismissed the impact of fake news as a red herring that betrayed a lack of faith in democracy https://www.wired.com/2017/02/trump-tech-finds-troll-cant-ignore

✓ yesterday

Okay, Aigents now can be accessible as Facebook or Telegram bot, including capability to retrieve reports on personal activity on social networks with ability to configure contents of the reports manually. First of all, you can connect to your personal Aigent living at https://aigents.com/ (and still accessible by means of Web user interface) in two alternative ways. Use Facebook Aigents bot at https://aigents.com/t/ai

	*Aigents Topics Sites News Friends Chat	tion Tracker 🐕 📴 🕂 💌
1	Input new peer name, surname, email	
	□ Alexander Vorf	f <mark>™</mark>
	□Alexey Drakunov drakunov@gmail.com	f 💽 🚾
	Chernyakov Maxim	f
	Denis Odinokov	f
	Dmitry Orlov dvo.gagarin@gmail.com	f
	Dmitry Sudakov	f <u>×</u>

*Aigents Topics Sites News Friends Chat Election Tracker So Go for Input new site link or URL // Input new site link or URL

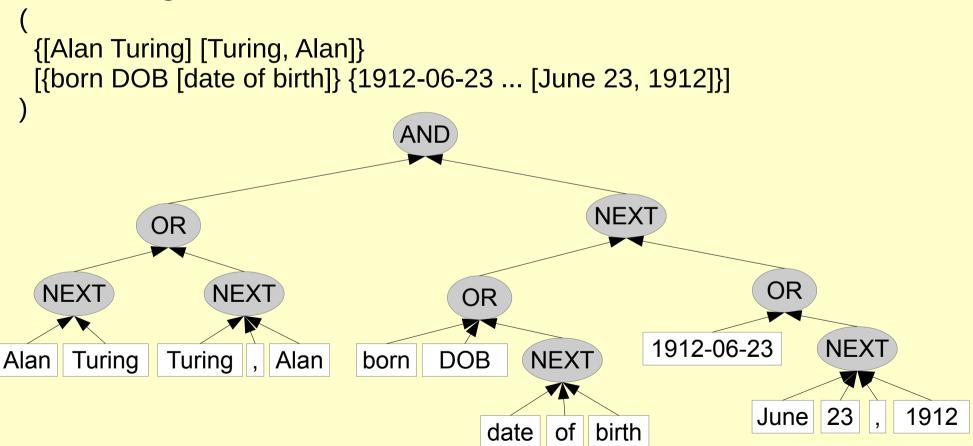
// Input new site link or URL

It extracts and delivers information having it sorted out by relevance

News

are detected by means of hierarchical "patterns" recognizable by Aigents pattern matching engine (like "pattern" for identifying a particular person)

Alan Turing:



News

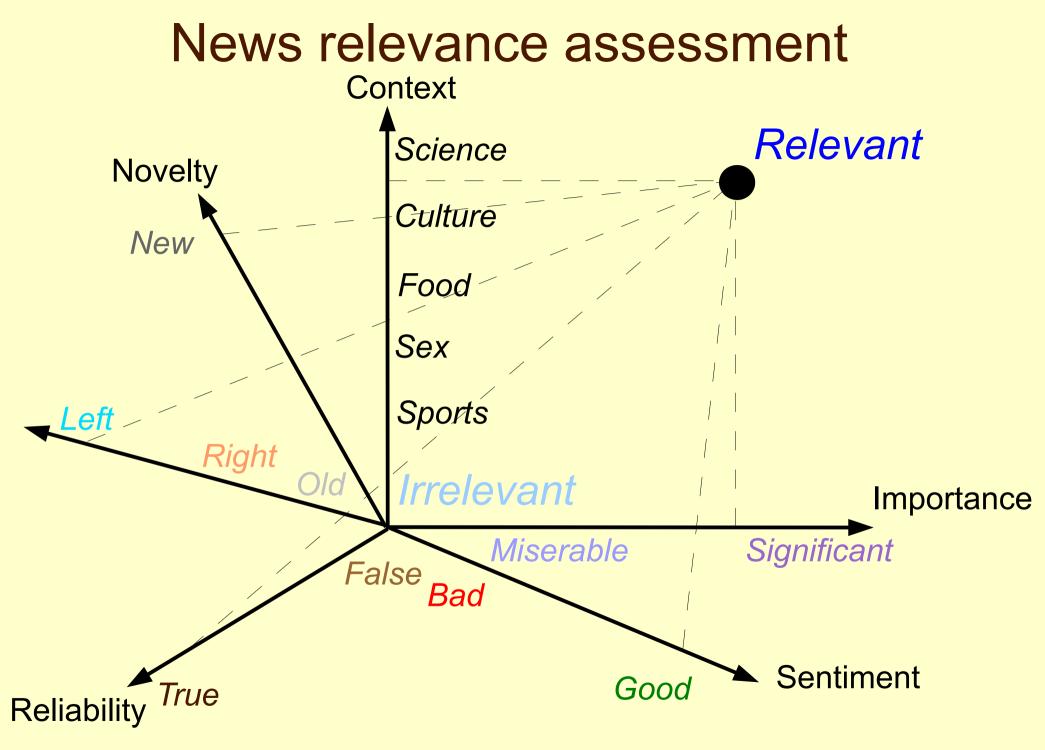
are detected by means of hierarchical "patterns" recognizable by Aigents pattern matching engine (anything can be expressed as an Aigents "pattern")

```
Human Language (e.g. English):
```

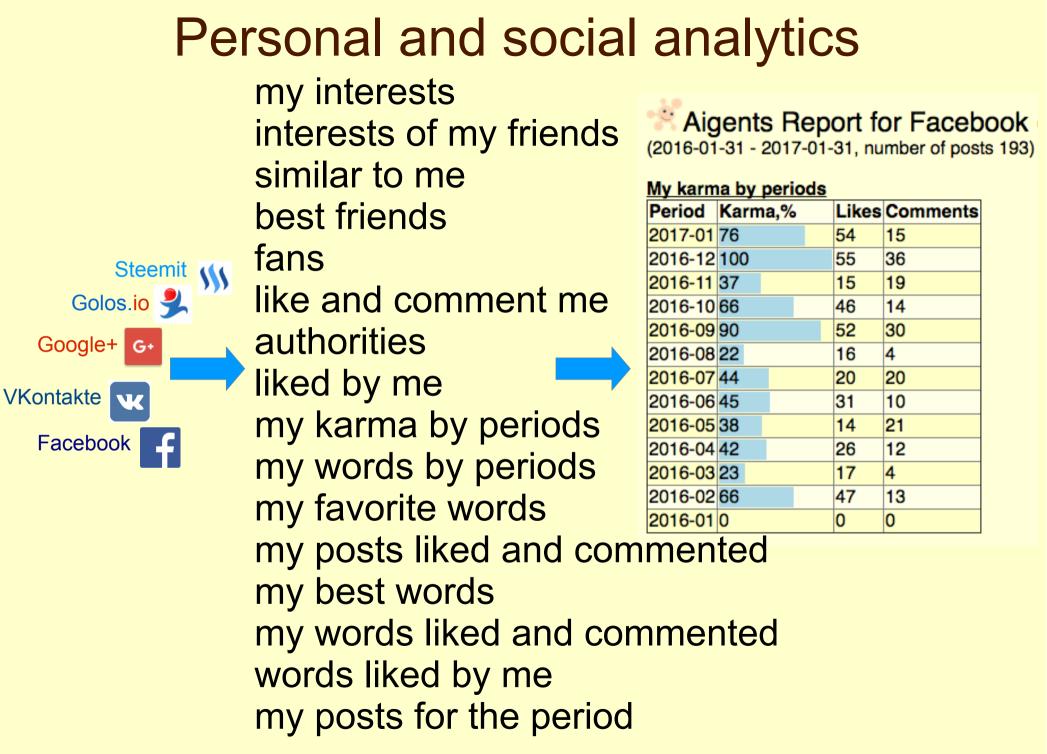
{a abandon /abandon(ed|ing)\$/ abase zygoma /zygot(e|ies|ic)\$/ zymogen}

```
Abstract entity (e.g. English person):
{
  [{Ackerley Acton ... Zaina Zaire} {Evans Jones ... Smith Taylor}]
  [{Evans Jones ... Smith Taylor}, {Ackerley Acton ... Zaina Zaire}]
}
```

```
Specific instance (e.g. Alan Turing):
(
{[Alan Turing] [Turing, Alan]}
[{born DOB [date of birth]} {1912-06-23 ... [June 23, 1912]}]
)
```



News relevance assessment **Personal** and Social relevances Me Friends Ξ C Q Search 会自 🗟 Most Visited 🔻 🍘 Getting Started 🛛 📄 Links 🔻 🦳 Business 👻 🦳 Science 👻 G Gmail - Inbox - a... 📘 Lenta.ru: Главное: (Календарь Google 🦳 Android 🔻 🦳 Landsovet 🔻 🥅 ZO *Aigents Topics @Sites 8 News @Friends & Chat V Election Tracker wired https://www.wired.com/2017/02/trump-tech-finds-troll-cant-ignore 2017-02-01 apparently out of a commitment to "freedom of speech with clear limits." and the day after the election facebook ceo mark zuckerberg famously dismissed the impact of fake news as a red herring that betraved a lack of faith in democracy https://www.wired.com/2017/02/trump-tech-finds-troll-cant-ignore ₹2017-02-01 artificial intelligence inside the poker ai that out-bluffed the best humans https://www.wired.com ₹2017-02-01 facebook ceo mark zuckerberg famously dismissed the impact of fake news as a red herring that betrayed a lack of faith in democracy https://www.wired.com/2017/02/trump-tech-finds-troll-cant-ignore 2017-02-01 fake news overtook facebook https://www.wired.com/2017/02/trump-tech-finds-troll-cant-ignore ₹2017-02-01 social media facebook reboots trending topics-again-as fake news festers https://www.wired.com/category/business ₹2017-01-30 artificial intelligence google's go-playing ai opens the door to robots that learn https://www.wired.com ₹2017-01-30 in a world full of fake news spin https://www.wired.com/2017/01/review-kz-ate-hi-fi-earphones



Personal and social analytics - relationships

	B	est frie	ends				
	R	lank,%	Fri	iend	My likes	Likes	Comments
	1	00	Mis	sha Kolonin	8	8	11
	6	1	Vla	adimir Kirilenko	3	26	5
	4	3	Aig	jents	1	26	40
	4	1	Ви	ктор Голиков	3	10	11
	3	2	Ge	orgy Dralkin	4	7	5
		2	Vla	dimir Zavialov	6	2	6
	1	8	Дм	итрий Кошелев	3	6	3
	8		Ily	a Nenashev	2	1	5
	6			eb Protopopov	1	8	1
	5			ександр Суббот	ин 2	1	3
Authoriti	es 4		Ин	есса Чиликина	2	1	2
Rank,%	Friend	My like	sLike	es Comments			
100	Vladimir Zavialov	6	2	6			
75	Инесса Чиликина	2	1	2			
75	Vyacheslav Popov	1	0	1	Fans		
75	Anton Lobastov	1	0	1	Rank,%	Fri	end
75	Yana Artamonova	1	0	1	100	Aig	ents
75	Anton Karpov	1	0	1	58		udmila Kolonir
60	Александр Субботин		1	3	48		g Baskov
60	Misha Kolonin	8	8	11	42		fik Yamoleev
50	Evgeny Markov	1	1	1	30	Da	nila Akimov
50	Anastasia Blizniuk	1	1	1	27	Mil	hail Nikolskiy
50	Galina NordicWalking	1	1	1	27	De	nis Odinokov
50	Игорь Кондратьев	1	1	1	24	Ма	diha Khan
50	Evgeniy Pluzhnik	1	1	1	23	Vla	dimir Kirilenk
50	Vladislav Bozheday	1	1	1	21	Yul	ia Danilova
46	Georgy Dralkin	4	7	5	21	Vic	tor Smirnov
45	Дмитрий Кошелев	3	6	3	21	Ан,	дрей Толстих
43	Ilya Nenashev	2	1	5	21		ргей Нефедов
38	Tatyana Dubatolova	1	2	1			
30	Raymond de Lacaze	1	2	2			
21	Сергей Шумский	1	5	1			
20	Виктор Голиков	3	10	11			

My likes Likes Comments

Personal and social analytics - interests

My favorite words

Rank,%	Word	My likes	Likes	Comments	Docto	Occure	ancas
100	social	-		26		82	ences
58	report	3	5	20	4	32	
57	web	18		25		32 48	
57	networks			11		40	
56				19		41 45	
	news					45 34	
14	personal	10		22	18		
14	facebook	8	46	13		23	
37	now	15		24		33	
36	google			15		26	
34	email	6		6		23	
34	fresh	1	3	0	1	8	
32	list	2	4	1	2	10	My interests
31	intelligence			24		31	Topics Number of pe
31	steemit	3	5	2	3	11	business, data, information, networks, personal, user, web 63
31	vkontakte	3	5	2	3	11	email, facebook, get, google 34
29	periods	2	4	1	2	9	intelligence 20
28	business	8	32	15	17	25	network 14
26	information	9	41	17	21	26	friends 10
25	get	5	16	8	10	20	email, make 9
25	id	1	1	1	1	6	
25	options	1	3	0	1	6	
25	user	4	28	4	10	24	
25	выявление	1	9	4	1	6	
25	friends	6		9	10	17	
24	posts	4	12	2	7	16	
24	make	6	23	5	8	13	
24	data	9		9		17	
24	network	8		6		15	
23	liked	4	12	2	5	11	
23	bot	4		11		15	
23	agents	4		10	8	17	
		4			5		
21	activity	4	9	4	5	10	

Personal and social analytics - proximity

Similar to me										
Rank,%	Friend	Crosses	My likes	Likes	Comments	Words				
100	Aigents	375	1	26	40	SOCIAI web news networks personal now report intelligence more information google bus				
52	Misha Kolonin	17	8	8	11	more time make good like need computer build over seen took why topether presses some appendix too				
47	Сергей Шумский	15	1	5	1	intelligence learning cognitive human machine best order groups perform distributed seeign anyone uner wave means				
23	Georgy Dralkin	33	4	7	5	более агентов другие сам системы пользователя этом сегод				
22	Vladimir Zavialov	12	6	2	6	time время event знатен сами было лично диклы нично надатникы				
18	Владимир Зюбин	7	0	0	2	webmind проект время действительно воекая вак анариан				
17	Виктор Голиков	14	3	10	11	СЕТИ агентов агент интеллекта антон планетарного решение назад гибридного есть насштаба сожалению арр				
16	Ilya Nenashev	19	2	1	5	будет новости новых поиска пользователя сами было агентами одно				
15	Gleb Protopopov	1	1	8	1	google				
13	Victor Smirnov	10	0	5	2	области может бена россии сами и врепсод выпустить работы интересно				

Personal and social analytics - dynamics

My words by periods										
Period	Karma,%	/o Likes Comments Words								
2017- 02	2	2	0	report facebook user email fresh vkontakte google name social reports options get registered personal networks words periods fans karma available either liked						
2017- 01	75	54	15	personal social interface now information making based news intelligence including bot further us turtle hackers english профессионалам окружения resort reflects events waves audience poor using docryn successfully august al analysis ccuirkoil marches ленту selection заданные plans демо brother наши wind bb a based environment ones time enjoyed taking russians meme onpedenaer наш тему interactive entire tracking ultra многие improved thanks ski nocnarь upgraded usability теме far воспользоваться action model okay st like both corporations directions источники руководителям person improve keep coupled collect week locate part terceks media security public along design наблюдение hospital physical track зарабатывают direction ин						
2016- 12	100	56	36							
2016- 11	37	15	19	Social news now semantic world web released derivative relevance long-term-memory physical совпадения bar based google triggers version and virtual away samewilk rather mass capable halked societs content redundant random дижением соцетью прокансонные мижества thoughts green election штрижами false reading диже way interpature better nonces removal fact-checker murse formula sapte nakear work gopper second kowware bypassing ayeumonaar tab earlier maintained representatives connections actions likes kowaretes apaceare nakey noney nogenereces connagteoux pressure seriously basis maintaining experiences plus comportations gopowere relevant amazon ook						
2016- 10	65	46	14							
2016- 09	89	52	30	ai ads now world social year google hotel presentation news during years study report tolerable state old conference hyped see panel email выявленных think semanticsearch charge committee silly one автоматические stay transportation weird standing эффективной watch series автоматический progress junk новых experts член про market анализ being relevance выдача terrific strongly ежедневно cancers разум completely comera city north arent screenshots eight healthcare linkeddata немедленно seeing антон strings закономерностей course cne						
2016- 08	22	16	4	Social web intelligence conference networks russia pp state knowledge personal adaptive business computational agents international describer internat						
2016- 07	43	20	20	ВЫЯВЛЕНИЕ good learning news demo deep service being предложения seems категорий google мало no in open reports прошлые обращаем наводим microsoft research belonging either кругах bias интересно programming stability area автоматическое верхнему making персонального please finding look собственных еspe house exposition inbox взаимоным шаблонов mathematical дробностью функция развития perfect решение use вышла subject дальше feel очистка flames количеству second начала growing major значки другого орг						
2016- 06	45	31	10	Social networks news google analysis information internet now web business sites things patterns posts demo new based умение going per midde задам комуникация peoples tool автоматическое given making tex learns (naity technopark genare) registrament check users puts gending extract textore colleagues useful support full kits deep away kitesuring rather provided android ближайшие utheath updates						

Personal analytics based on text with IBM Watson "Personality Insights"

Summarv

You are shrewd.

Studying human social environment and state with social network data

> Anton Kolonin Institute of Cytology and Genetics SB RAS Aigents Group Novosibirsk, Russia akolonin@gmail.com

> > table

Abstract-The paper describes approach, practical solution and intermediate results for self-driven exploration of personal interests structure and nearest social environment for an individual in order to correct their own behavioral patterns and interactions with communication partners on social networks on

Keywords-collective consciousness; mental state; personal awareness; social network

I. INTRODUCTION

Tight connectivity of humans in modern world-wide social networks is rapidly increasing and now is getting close to connectivity of human brain. Importance of the latter transition for evolution and humanity could not be underestimated because of amount of nodes and links in modern computer networks is exponentially growing with addition of artificial agents being involved in "hybrid" human-computer networks. It becomes critically important to understand phenomena of social interactions in such over-connected societies, so that effects of social behavior based on collective consciousness could be well understood, predictable and manageable - from perspective of humans exposed to modern information networks and from perspective of entire society.

One of the key factors of modern social communities across the world is high volatility and scale of social dynamics, with social clusters being created, updated, merged, split and disappeared rapidly, which leads to qualitative changes in principals of social organization [1]. The impact of social network communications on each individual interacting with Internet on daily basis is normally underestimated by average human. At the same time, it can be significant enough to alter state of consciousness of a single person or entire community [2]. That means, having ability to measure impact of digital social environment of a human or society instrumentally would he beneficial for a person or entire society, so they could adapt to the social environment and/or correct their course of action in its recard

II. APPROACH AND PRACTICAL SOLUTION

We consider approach for building computational model encompassing knowledge acquired by entire society by means of evidence supplied by each of it members, called "social

evidence-based knowledge representation" [3]. In this work we focus on the nearest social surrounding of a person interacting with social networks - in attempt to build personal mental model identifying contextual clusters of private interest as well as capture structure if inter-personal relations in the nearest environment, building collective consciousness model of the community that person is belonging to. This would potentially let person identify their state within their social environment and increase their personal awareness.

To achieve this goal, we build software application which extracts social network data for specific user, given their agreement and then extracts patterns of "natural classification" [4] from it and evaluate different sorts of social relationship within the social cluster the user belongs to.

ly interests	
fapics	
nain, brings,	special, technopark
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Children week	Agohqunu Zkuhoahytonre, Qoaxpigu Regeninu
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boog	Moi Funx, Kiytuka Niytegi
igents, suită, uman, nternet, ystem, used	United Today, Gausiaga Jelenn, Purja Kazmegir, Esinu Repurga, Pila Regenn, Jonton Gauquik Zano, Valoro Gantonayan, Bajka Mihana, Ko Kohver Hotocuya, Rectorear, Koaughine, Lihorthy, Tuensen Kommun, Isan Emrore, Ulipanamo Resus, Kylaka Hyle, Glasgiah Bayasa, Tuaha Wataruna, Kohvert Bonnon, Jelenos Eupensen, Karpens ao Gapate, Xjahao Euge, Gayash Rikopre
rests" of g	g "natural classification" technology to unravel "clusters of given user (upper table) and "clusters of fiends' interests" (bottom gents Report for social network.

We use Aigents software application and web service [5] in order to collect information on personal environment of a human in social network. Each user of the application can connect Aigents service to number of social networks (such as Facebook, VKontakte or Google+) and let it collect public data from it. Most of social networks are substantially restricted in regard to scope of information that can be collected to endorsed application programmatically, so in most

You are authority-challenging: you prefer to challenge authority and traditional values to help bring about positive changes. You are solemn: you are generally serious and do not joke much. And you are unstructured: you do not make a lot of time for organization in your daily life.

Your choices are driven by a desire for discovery.

You are relatively unconcerned with both tradition and taking pleasure in life. You care more about making your own path than following what others have done. And you prefer activities with a purpose greater than just personal enjoyment.

Curiosity

Self-expression

Practicality

Liberty

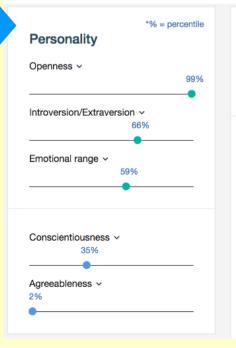
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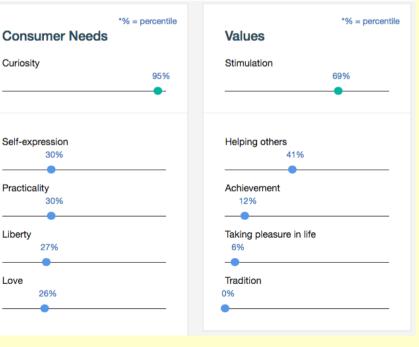
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Personal analytics and news – via Aigents bot on Facebook and Telegram

			E Telegram	Aigents bot		Media	Edit
https:	:// www	messenger.com/t/aigents	☆ 🕹 🗄		my email akolonin@gmail.com	LLLUL	
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Fri		Ask one of the three - "news", "sites" or "topics" and get	what my name, surname?	٢	Anton what sources https://www.wired.com/2017/01/mike- pompeos-cia-director-hearing-3-questions-congress-must ask, times yesterday text	12:12:15	PM
Fri		Your name election, surname tracker.	my facebook report		Mike Pompeo's CIA Director Hearing: 3 Questions Congress Must Ask Tensions between the incoming administration and the intelligence community mean it's more important than even that the Senate asks tough questions.	r	
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Personal analytics, news detection and relevance assessment - problems

News detection

 Automatic "deep pattern learning" based on implicit (page level) and/or explicit (fragment level) feedback

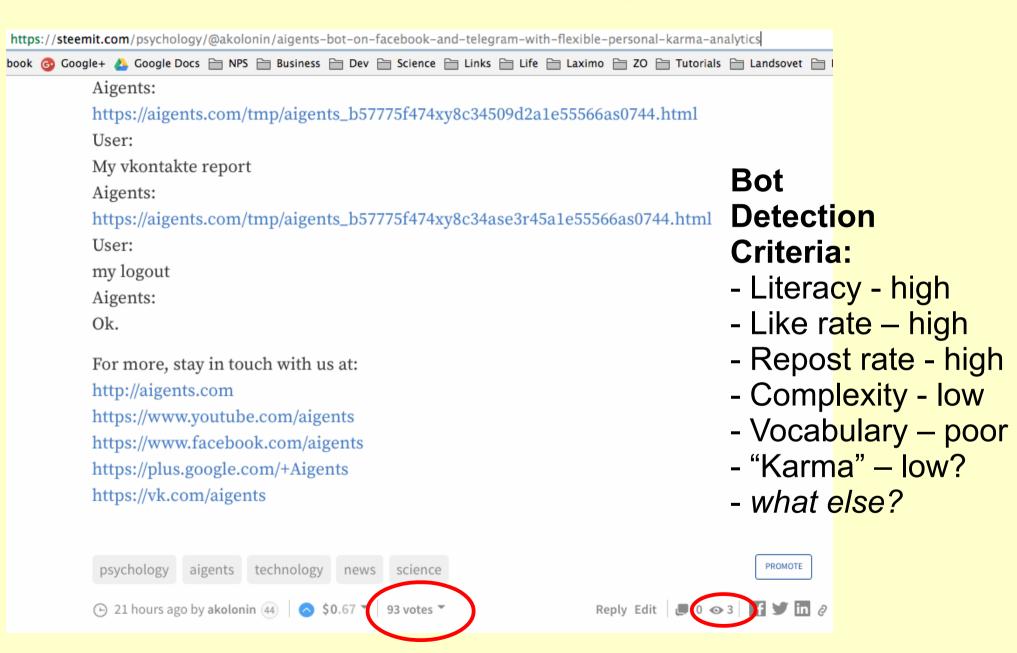
Personal analytics

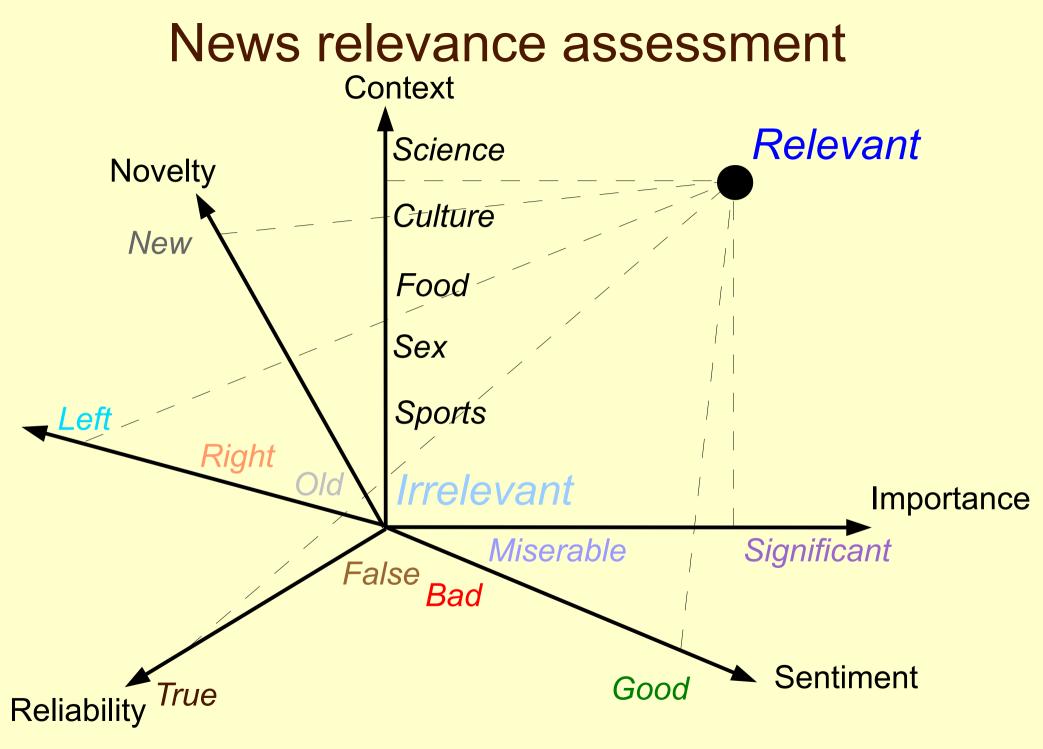
- Fine-grained contextual relationships and mutual compatibilities (need model)
- Psycho-type and values model (need libraries of patterns)
- "Botness" detection (need model and libraries of patterns)

Relevance assessment

- Personal experience based
- Social experience based
- Text based
- Author based
- Source based

Personal and social analytics - "botness"





News relevance assessment

Personal experience – based: *Do similar news are treated relevant by me?*

Social experience – based: *Do similar news are treated relevant by my friends?*

erictucker Gerictucker Anti-Trump protestors in Austin today are not as organic as they seem. Here are the busses they came in. #fakeprotests #trump2016 #austin



Text – based: Does this text contains signs of relevance or irrelevance?

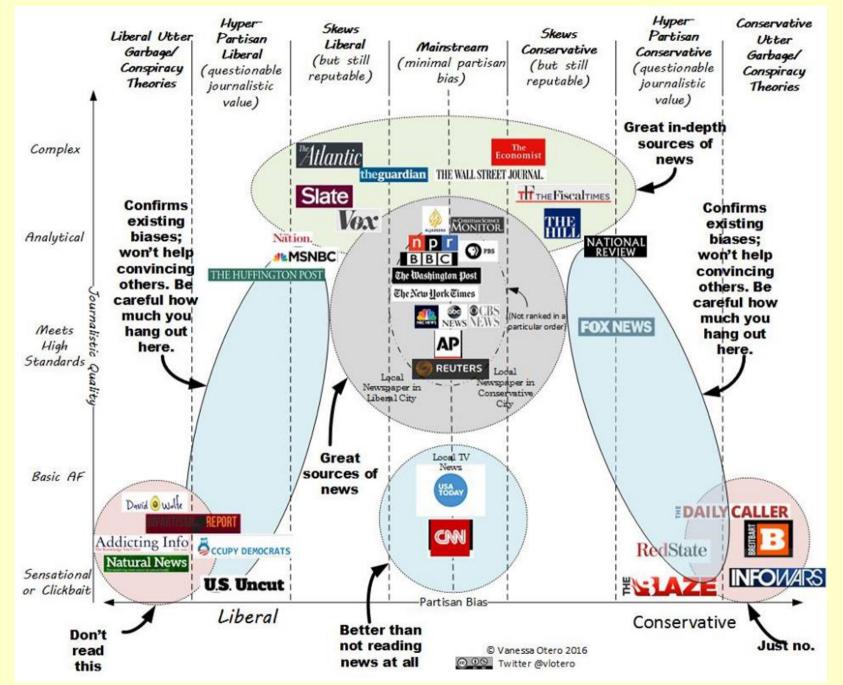
Author – based: Does author of this text can be thought as relevant?

Source – based: Does sources of this text can be thought as relevant?

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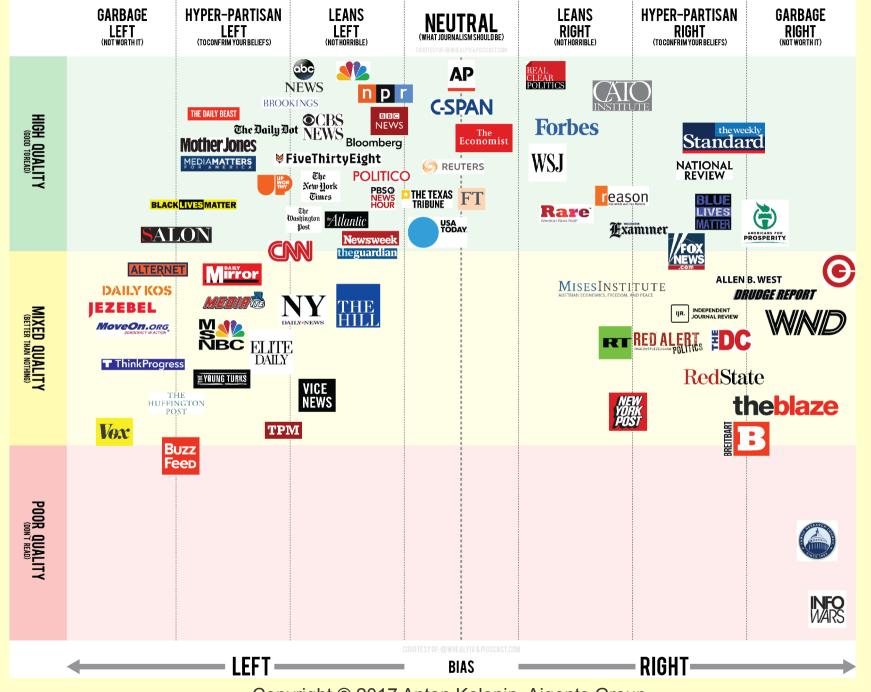
8:43 PM - 9 Nov 2016

US media bias map ("left-biased view")



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US media bias map ("right-biased view")



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