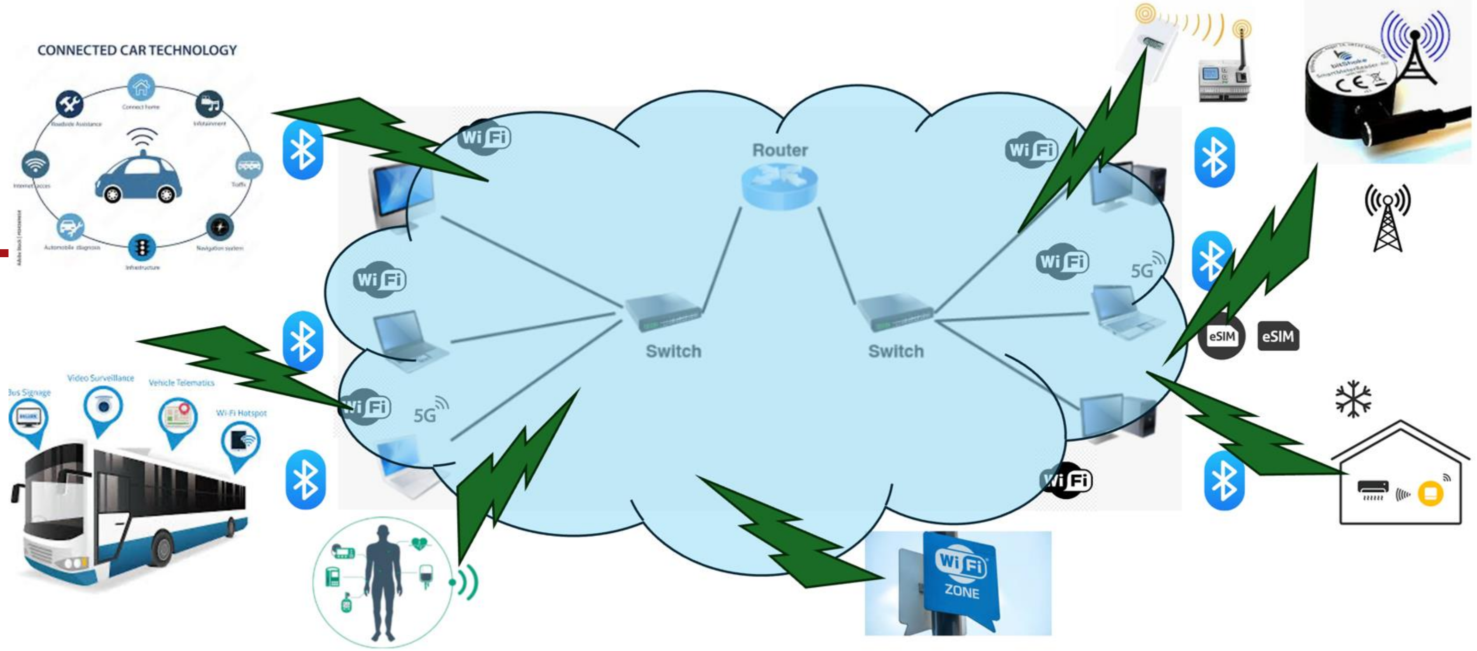
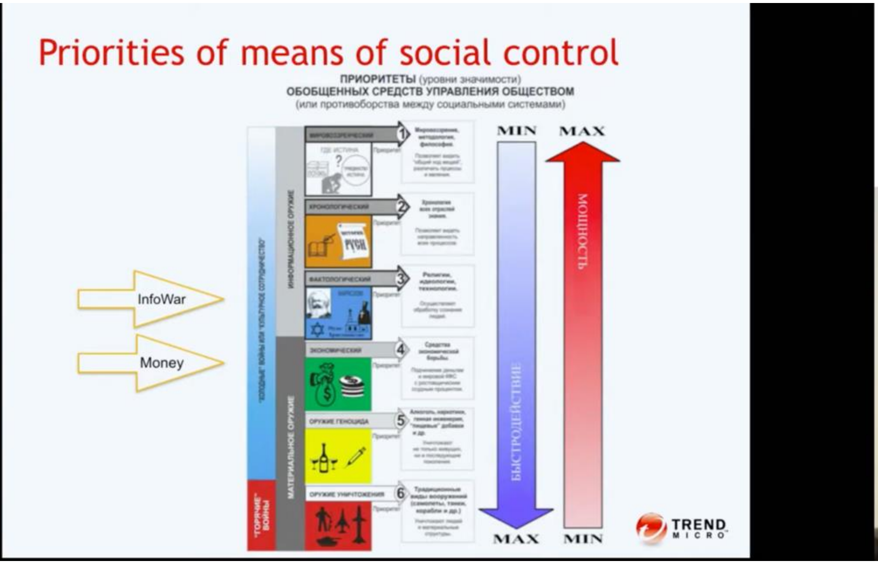
IoT hacks humans - unexpected angles of Human Process Compromise

Vladimir Kropotov (Presenter)+
Fyodor Yarochkin, Robert McArdle

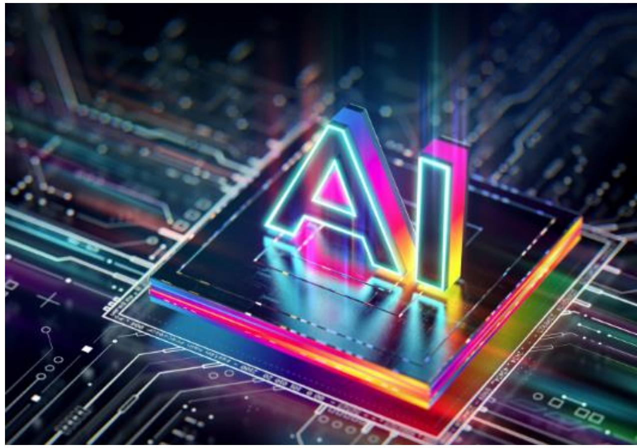




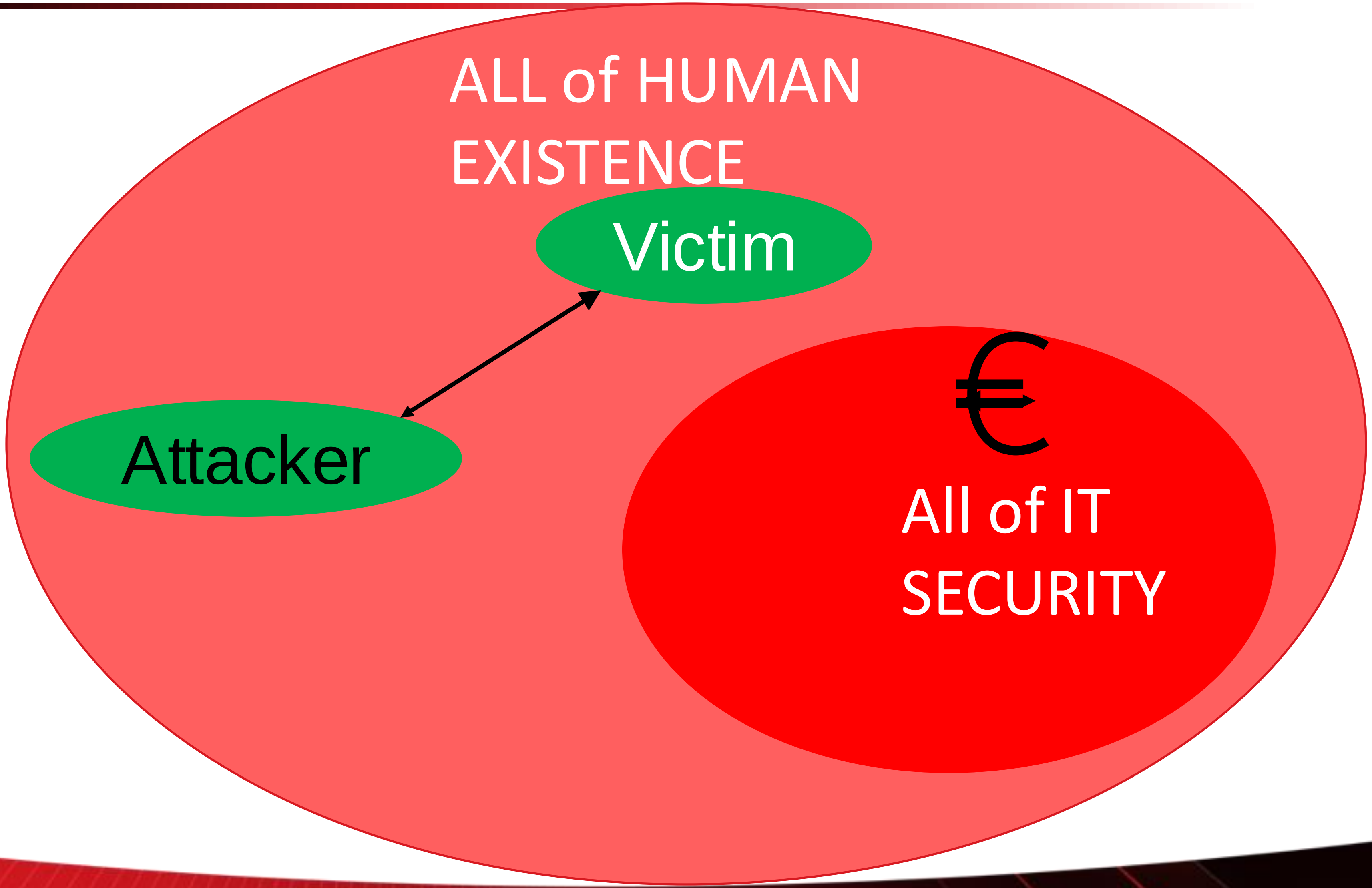
Priorities of means of social control

ПРИОРИТЕТЫ (уровни значимости)
ОБОБЩЕННЫХ СРЕДСТВ УПРАВЛЕНИЯ ОБЩЕСТВОМ
(или противоборства между социальными системами)

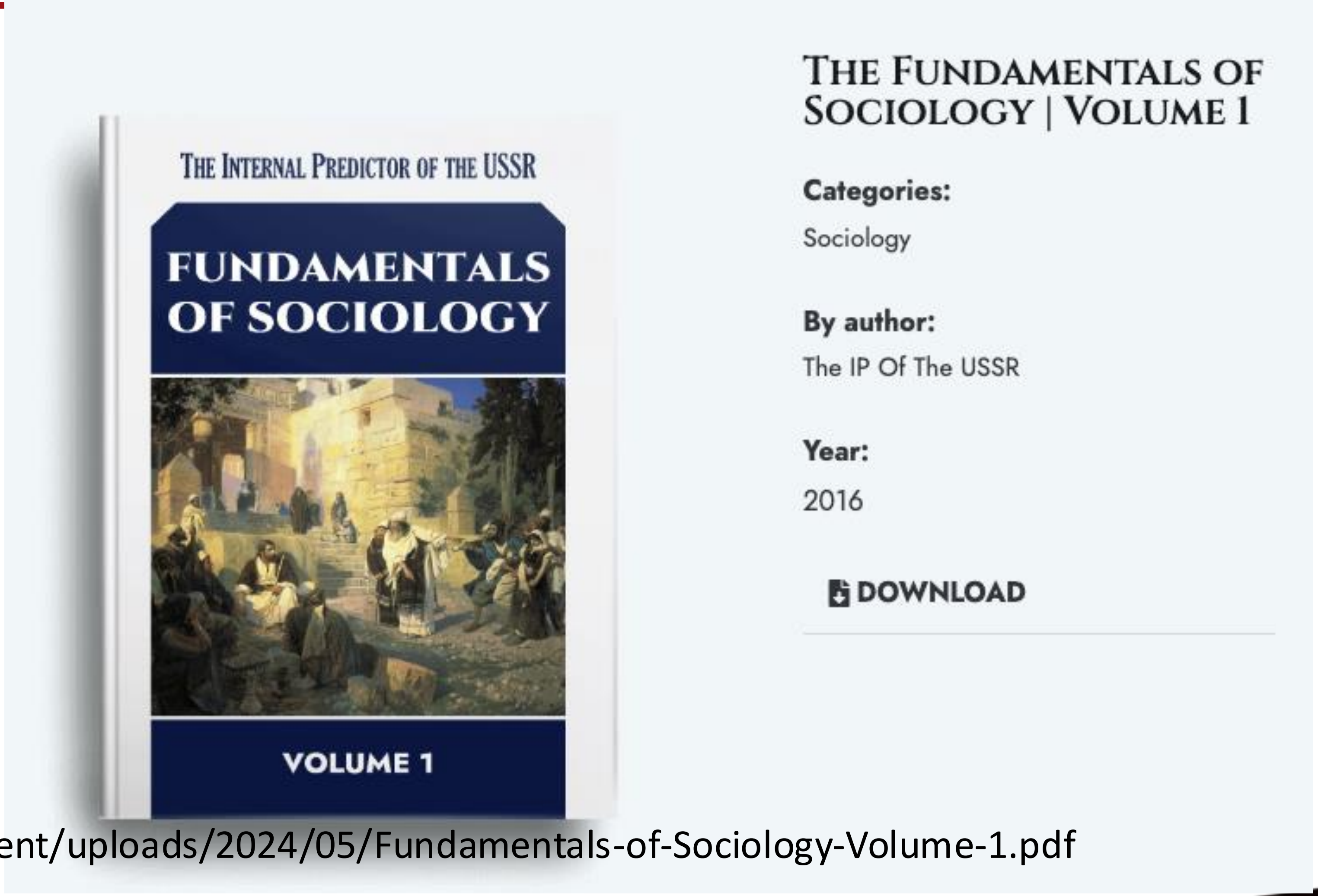
InfoWar
Money
"ХОЛОДНЫЕ" ВОЙНЫ ИЛИ "КУЛЬТУРНОЕ СОТРУДНИЧЕСТВО"
"ГОРЯЧИЕ" ВОЙНЫ
ИНФОРМАЦИОННОЕ ОРУЖИЕ
МАТЕРИАЛЬНОЕ ОРУЖИЕ
МИРОВОЗЗРЕНЧЕСКИЙ
1
Мировоззрения, методологии, философии.
ГДЕ ИСТИНА
?
ХРОНОЛОГИЧЕСКИЙ
2
Хронологии всех отраслей знания.
ФАКТОЛОГИЧЕСКИЙ
3
Религии, идеологии, технологии.
ЭКОНОМИЧЕСКИЙ
4
Средства экономической борьбы
ОРУЖИЕ ГЕНОЦИДА
5
Алкоголь, наркотики, генная инженерия, "пищевые" добавки и др.
ОРУЖИЕ УНИЧТОЖЕНИЯ
6
Традиционные виды вооружений (самолеты, танки, корабли и др.)
Приоритет
MIN
MAX
БЫСТРОДЕЙСТВИЕ
MAX
MIN
МОЩНОСТЬ
TREND MICRO



Human Process Compromise is a variation Business Process Compromise



The IP Of The USSR



THE FUNDAMENTALS OF SOCIOLOGY | VOLUME 1

Categories:

Sociology

By author:

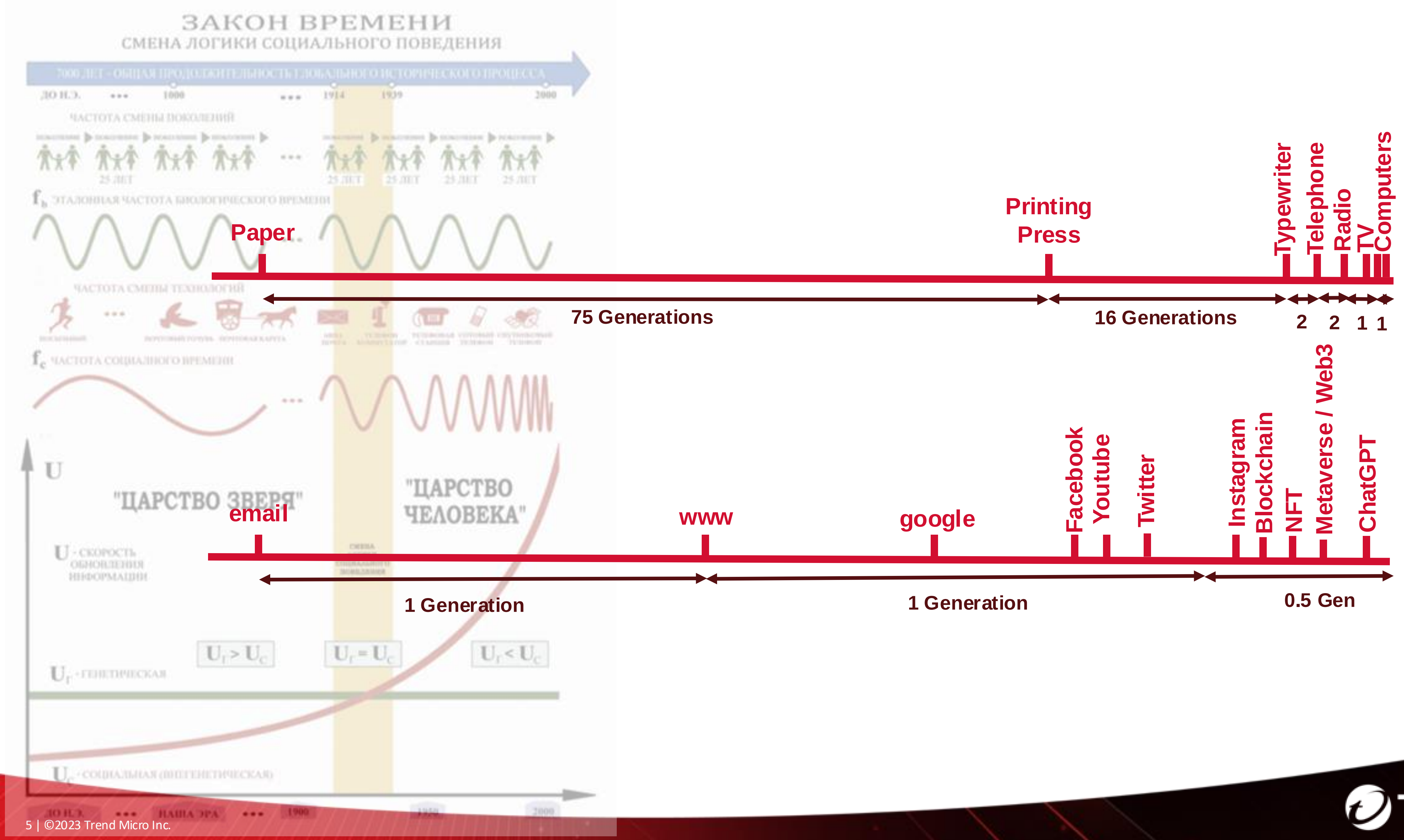
The IP Of The USSR

Year:

2016

DOWNLOAD

https://rv-css.com/wp-content/uploads/2024/05/Fundamentals-of-Sociology-Volume-1.pdf



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ЧАСТОТА СМЕНЫ ТЕХНОЛОГИЙ
f_c ЧАСТОТА СОЦИАЛЬНОГО ВРЕМЕНИ
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"ЦАРСТВО ЧЕЛОВЕКА"
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$U_С$ - СОЦИАЛЬНАЯ (ЭПИГЕНЕТИЧЕСКАЯ)
ДО Н.Э.
НАША ЭРА
1900
1950
2000

Paper

Printing Press

Typewriter

Telephone

Radio

TV

Computers

75 Generations

16 Generations

2 2 1 1

email

www

google

Facebook

Youtube

Twitter

Instagram

Blockchain

NFT

Metaverse / Web3

ChatGPT

1 Generation

1 Generation

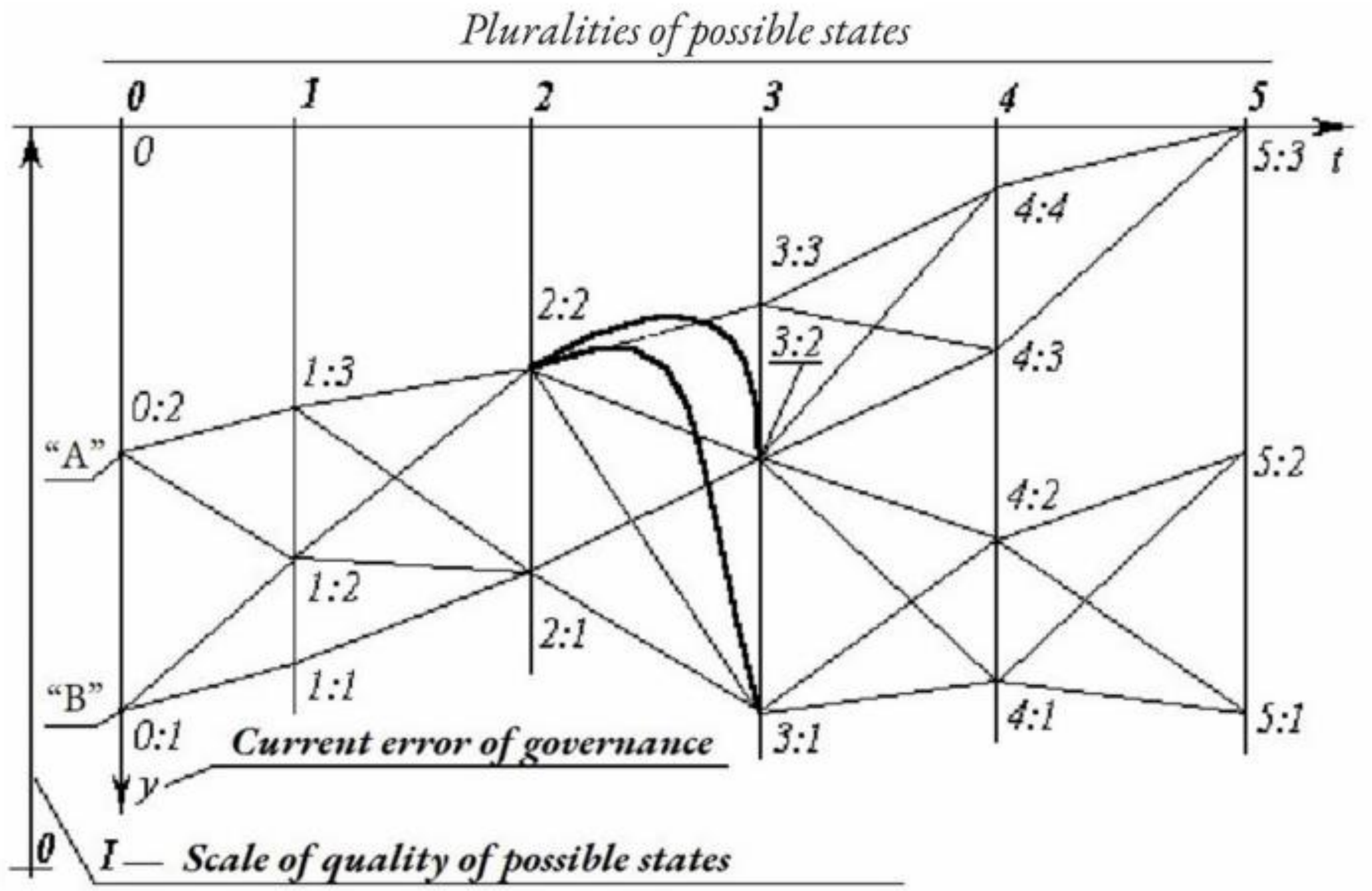
0.5 Gen

Stability in terms of the predictability of behaviour

- Stability in terms of the predictability of the behaviour of an object (process) in a certain measure under the impact of: the external environment, changes of the object (process) itself, governance.

VS

Dynamic programming approach


Pluralities of possible states
0
1
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3
4
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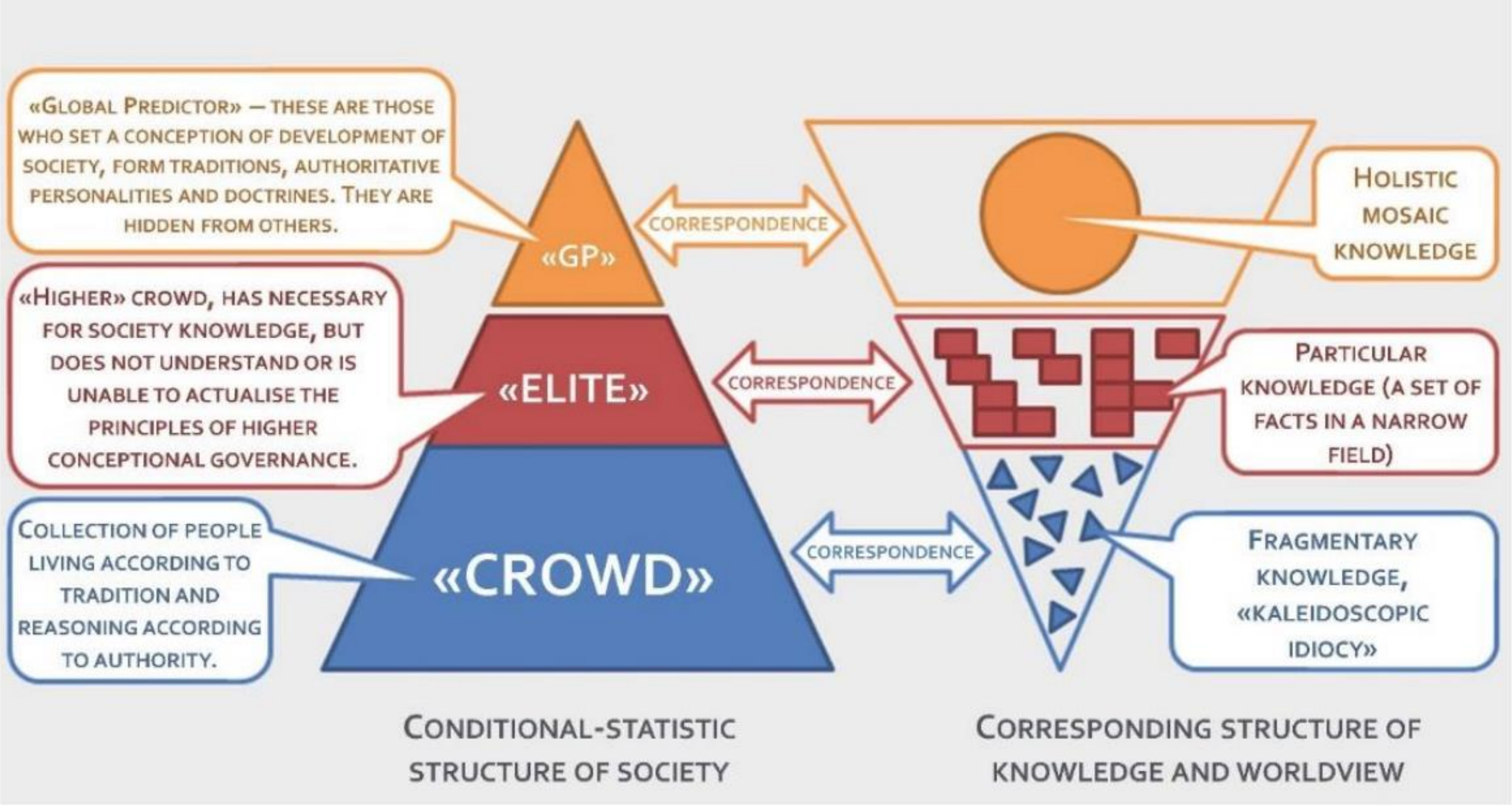
t
0
5:3
4:4
3:3
2:2
3:2
4:3
1:3
0:2
"A"
5:2
4:2
1:2
2:1
1:1
"B"
0:1
3:1
4:1
5:1
Current error of governance
y
0
I — Scale of quality of possible states



«Global Predictor» — these are those who set a conception of development of society, form traditions, authoritative personalities and doctrines. They are hidden from others.

«Higher» crowd, has necessary for society knowledge, but does not understand or is unable to actualise the principles of higher conceptional governance.

Collection of people living according to tradition and reasoning according to authority.

Holistic mosaic knowledge

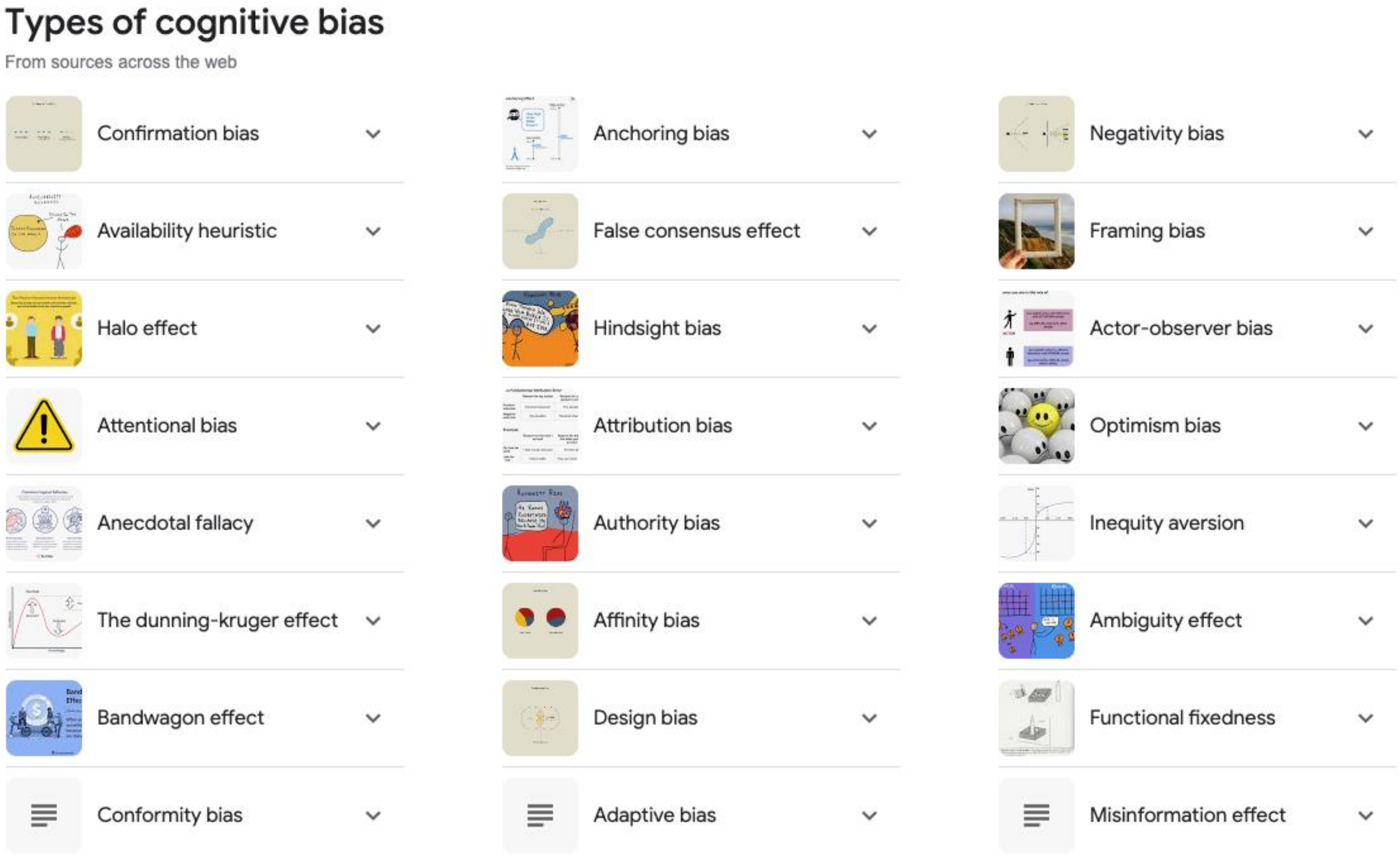
Particular knowledge (a set of facts in a narrow field)

Fragmentary knowledge, «kaleidoscopic idiocy»

Conditional-statistic structure of society

Corresponding structure of knowledge and worldview

Crowd-“elite” pyramid

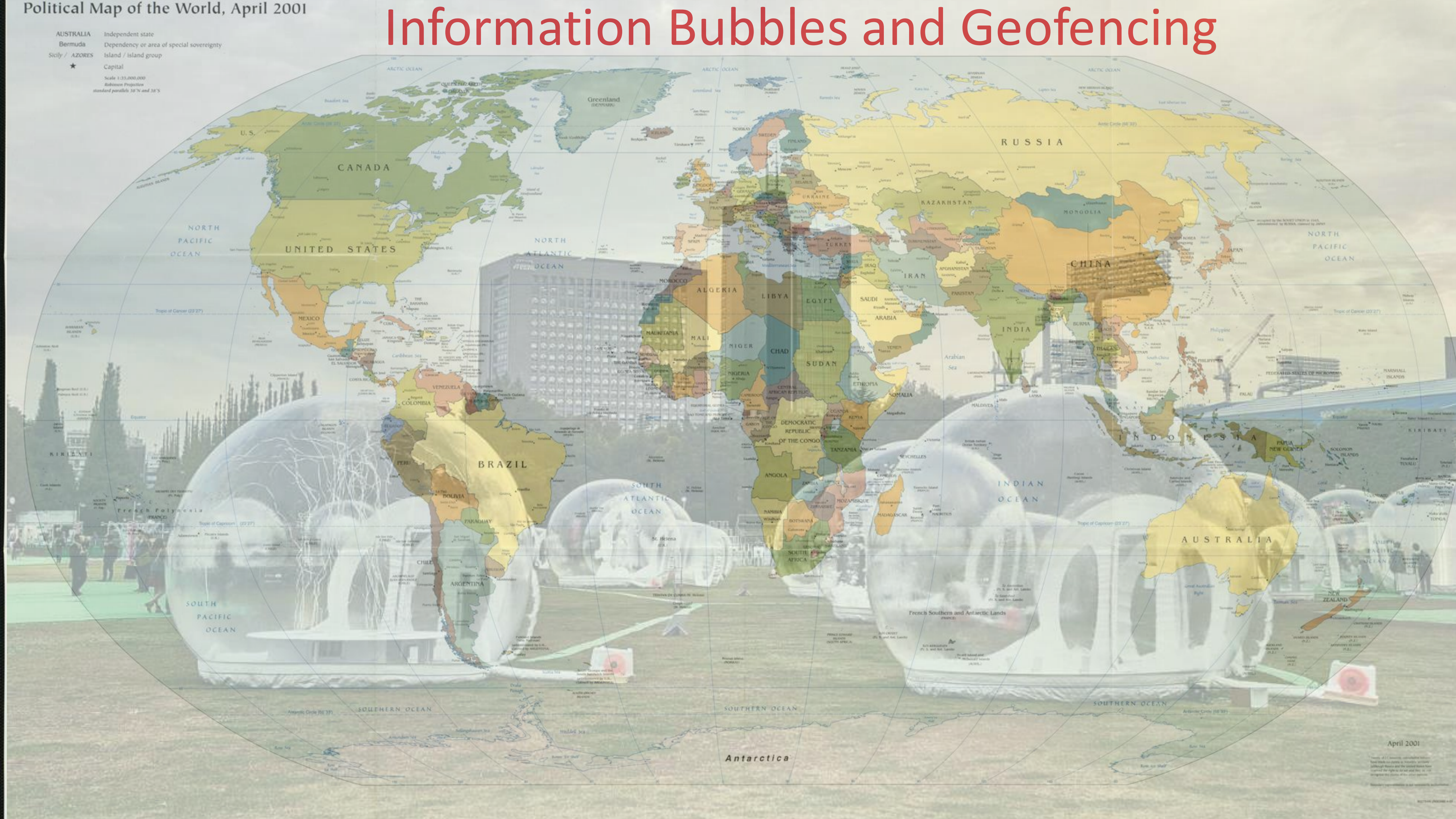


Types of cognitive bias

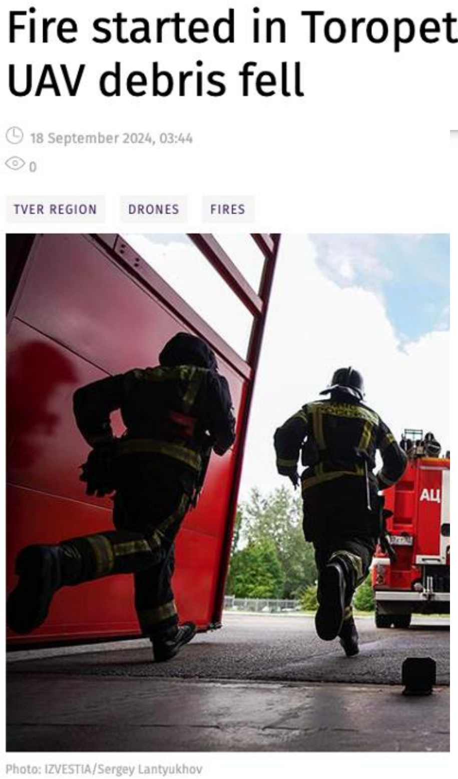
From sources across the web

- Confirmation bias
- Availability heuristic
- Halo effect
- Attentional bias
- Anecdotal fallacy
- The dunning-kruger effect
- Bandwagon effect
- Conformity bias
- Anchoring bias
- False consensus effect
- Hindsight bias
- Attribution bias
- Authority bias
- Affinity bias
- Design bias
- Adaptive bias
- Negativity bias
- Framing bias
- Actor-observer bias
- Optimism bias
- Inequity aversion
- Ambiguity effect
- Functional fixedness
- Misinformation effect

Information Bubbles and Geofencing



Reading news inside the bubbles example



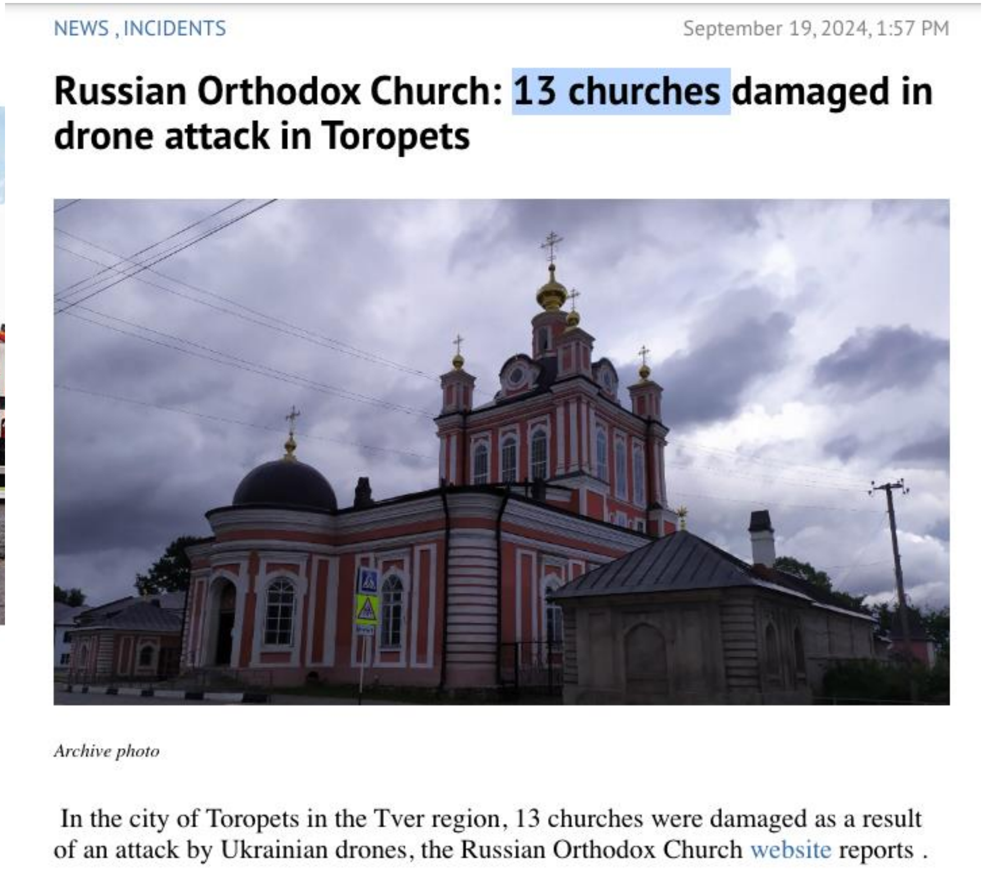
Fire started in Toropets, Tver region after UAV debris fell

18 September 2024, 03:44

0

TVER REGION DRONES FIRES

Photo: IZVESTIA/Sergey Lantyukhov

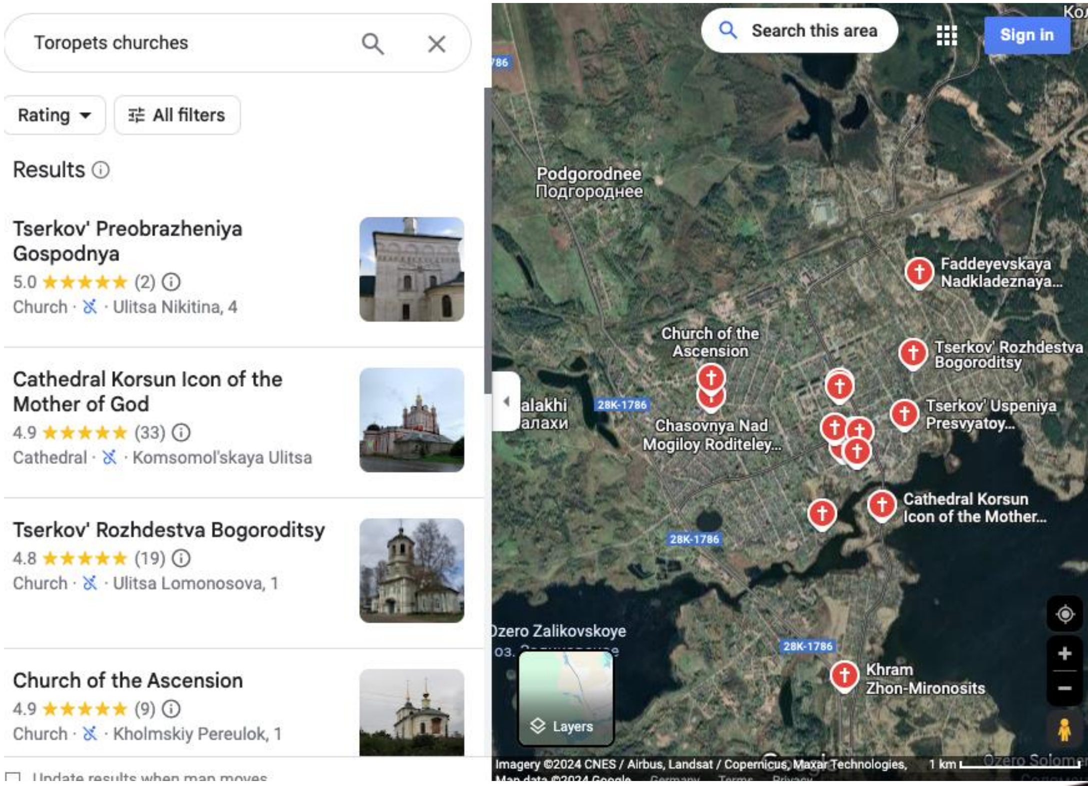


NEWS , INCIDENTS September 19, 2024, 1:57 PM

Russian Orthodox Church: 13 churches damaged in drone attack in Toropets

Archive photo

In the city of Toropets in the Tver region, 13 churches were damaged as a result of an attack by Ukrainian drones, the Russian Orthodox Church website reports .



Toropets churches

Rating All filters

Results

Tserkov' Preobrazheniya Gospodnya
5.0 ★★★★★ (2)
Church · Ulitsa Nikitina, 4

Cathedral Korsun Icon of the Mother of God
4.9 ★★★★★ (33)
Cathedral · Komsomol'skaya Ulitsa

Tserkov' Rozhdestva Bogoroditsy
4.8 ★★★★★ (19)
Church · Ulitsa Lomonosova, 1

Church of the Ascension
4.9 ★★★★★ (9)
Church · Kholmskiy Pereulok, 1

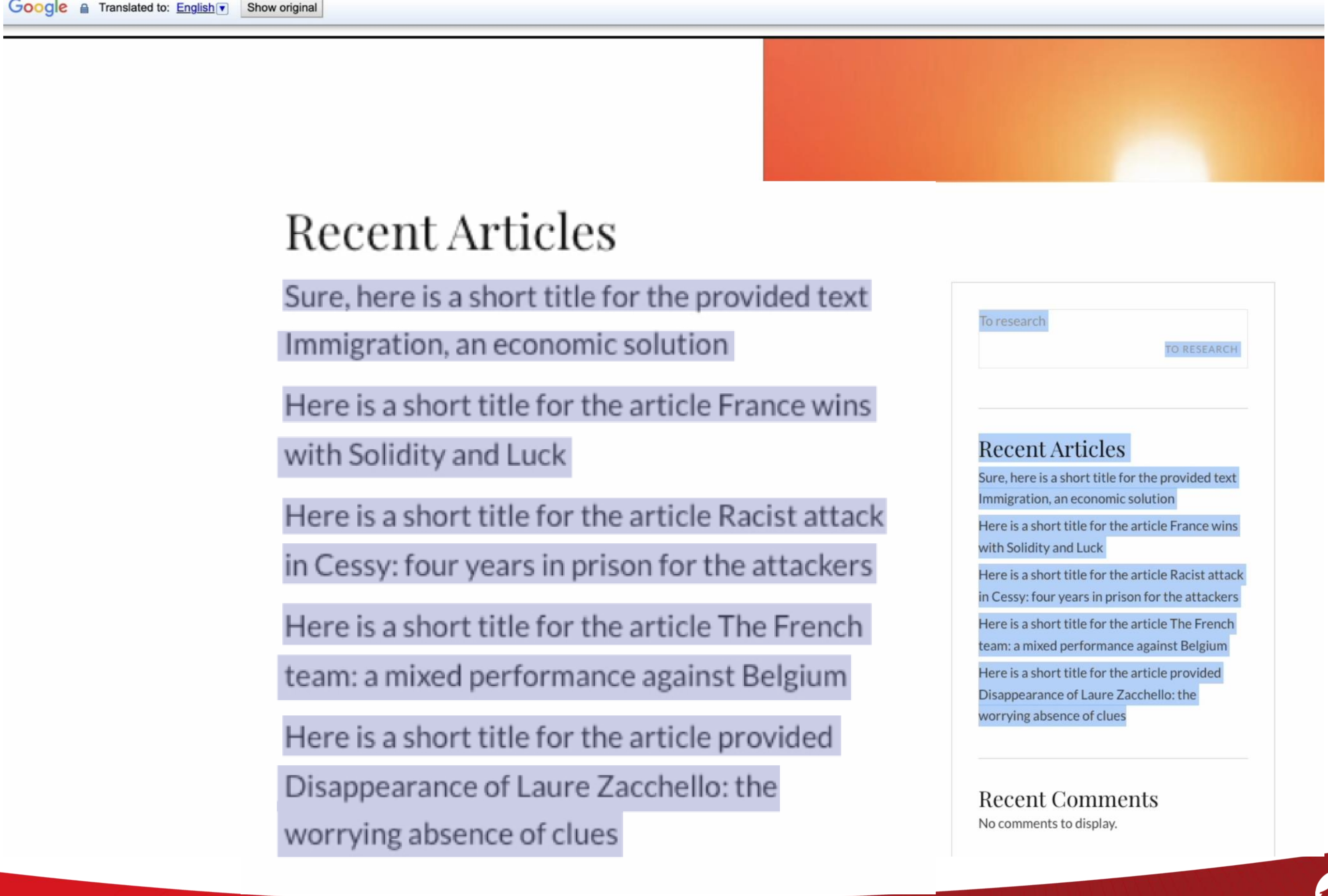
□ Update results when map moves

Search this area
Sign in
Podgorodnee
Подгороднее
Faddeyevskaya Nadkladeznaya...
Church of the Ascension
Tserkov' Rozhdestva Bogoroditsy
alakhi
алахи
28K-1786
Chasovnya Nad Mogiloy Roditeley...
Tserkov' Uspeniya Presvyatoy...
Cathedral Korsun Icon of the Mother...
28K-1786
Ozero Zalikovskoye
28K-1786
Khram Zhon-Mironosits
Layers
Imagery ©2024 CNES / Airbus, Landsat / Copernicus, Maxar Technologies,
1 km

Jumping outside the Bubbles

- VPN + LLM one of the options to jump outside the Bubble

Artificial Iintelligence Angle



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Recent Articles

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Here is a short title for the article provided Disappearance of Laure Zacchello: the worrying absence of clues

Recent Comments

No comments to display.

Roles and current status of AI

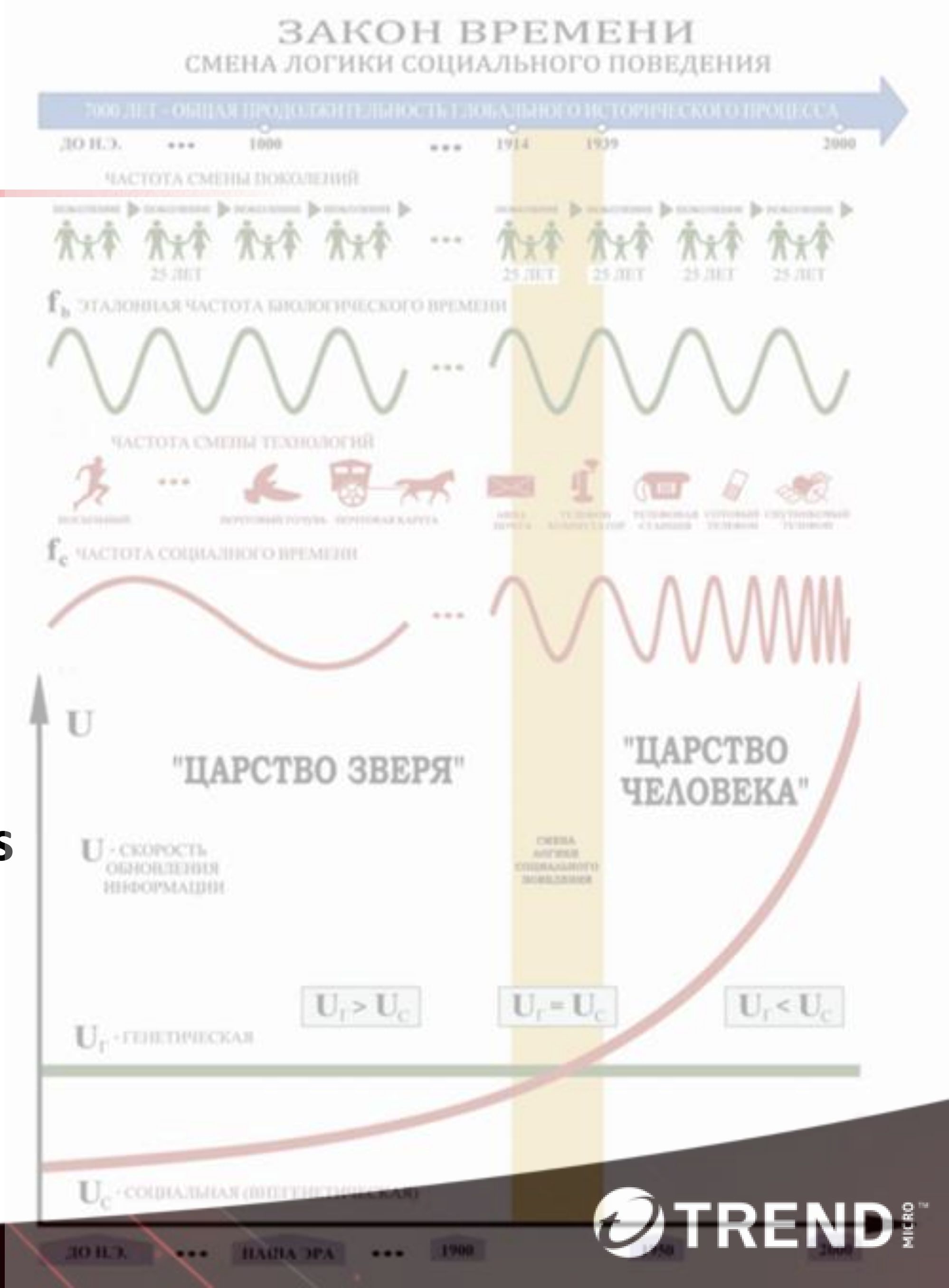
- Connecting the dots and extracting patterns
- Understanding and producing information in the foreign languages and with consideration of the cultural specifics
- Adopting information flow to the particular target audience or even personality
- **It used human generated datasets for the training already**
- **IoT data can be a source to adjust and adopt AI models in (near) realtime**

IoT angle of HPC - What IoT knows about humans

SMART PRINTER
SMART BULB
SMART AIRCON
SMART TV
SMART VACUUM
SMART COFFEE MAKER
SMART CAMERA
SMART REFRIGERATOR
SMART LOCK

Why IoT Angle

- **Not So secured** (too many limitations, too many architectures to secure)
- **Not So regulated** (New devices appear way ahead regulations)
- **Provides additional and unexpected connectivity and coverage**
- **Not represented** enough **in** the majority of **Risk models**
- Widely exloited by Criminals and National States Interests aligned groups
- Widely leveraged for variety of similar activities



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ЧАСТОТА СМЕНЫ ТЕХНОЛОГИЙ
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"ЦАРСТВО ЧЕЛОВЕКА"
U - СКОРОСТЬ ОБНОВЛЕНИЯ ИНФОРМАЦИИ
СМЕНА ЛОГИКИ СОЦИАЛЬНОГО ПОВЕДЕНИЯ
$U_Г > U_C$
$U_Г = U_C$
$U_Г < U_C$
$U_Г$ - ГЕНЕТИЧЕСКАЯ
U_C - СОЦИАЛЬНАЯ (ЭПИГЕНЕТИЧЕСКАЯ)
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- Widely exloited by criminals
- Widely exloited by National States Interests aligned groups
- Widely leveraged for variety of similar activities

Filling the timing gaps induced by the time law

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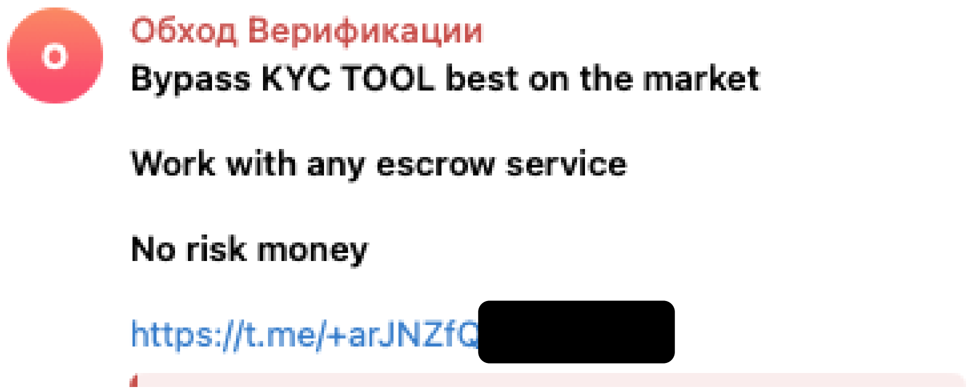
$U_С$ - СОЦИАЛЬНАЯ (ИНТЕЛЛЕКТУАЛЬНАЯ)
ДО Н.Э.
НАША ЭРА
1900

Too much trust in IoT



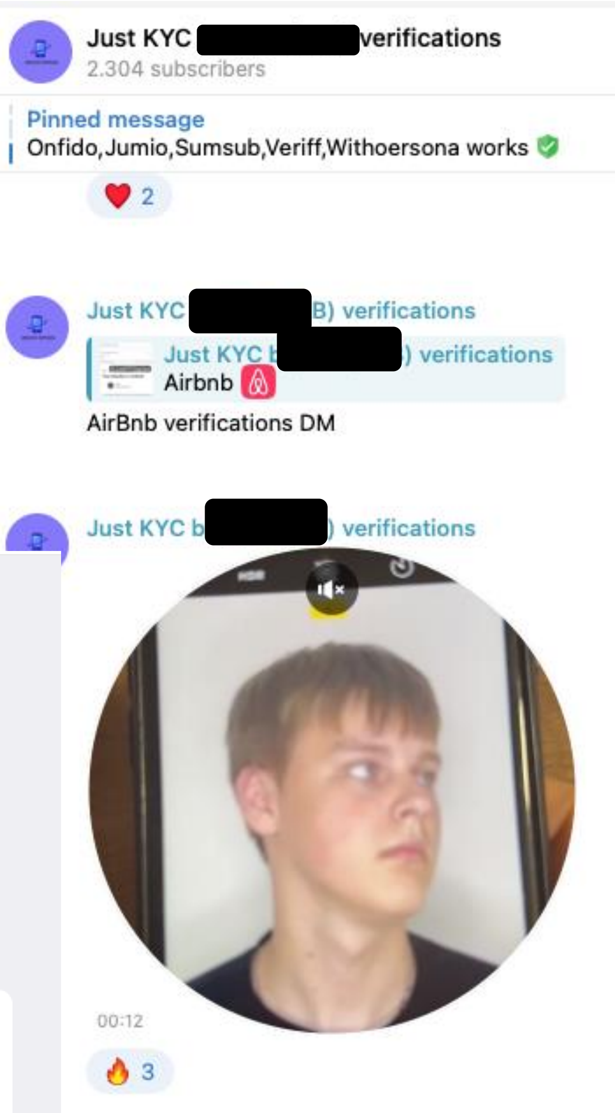
Обход Верификации

Bypass KYC TOOL best on the market

Work with any escrow service

No risk money

https://t.me/+arJNZfQ[redacted]



Just KYC [redacted]verifications
2.304 subscribers

Pinned message
Onfido,Jumio,Sumsub,Veriff,Withoersona works ✓

❤️ 2

Just KYC [redacted]B) verifications

Just KYC [redacted]) verifications
Airbnb

AirBnb verifications DM

Just KYC b[redacted] verifications

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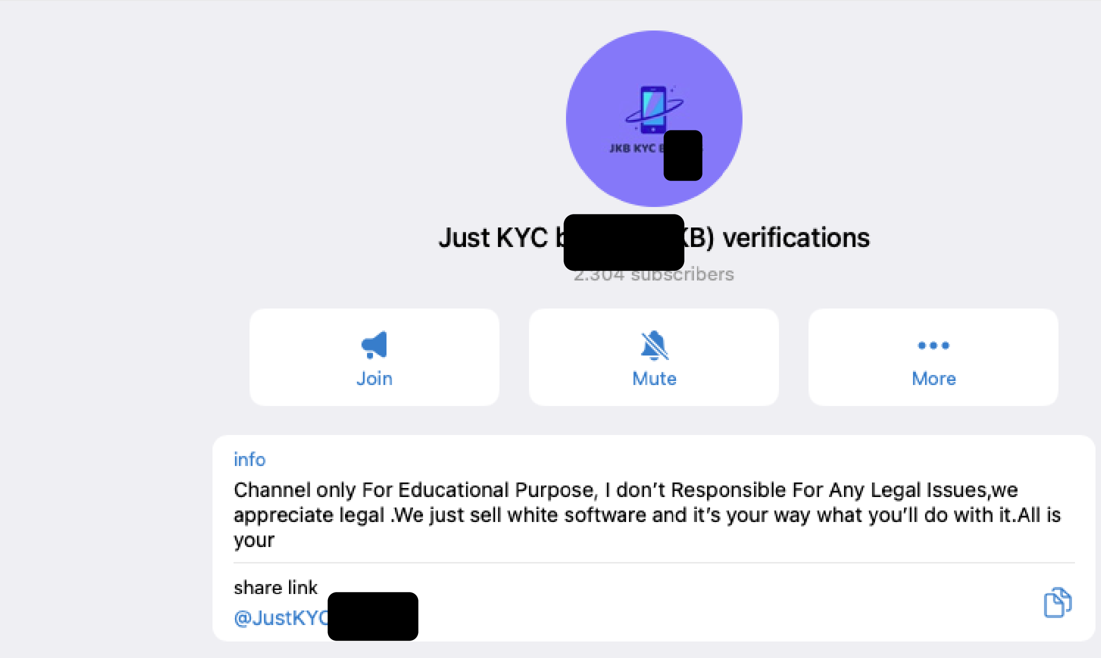

JKB KYC [redacted]

Just KYC b[redacted]B) verifications
2.304 subscribers

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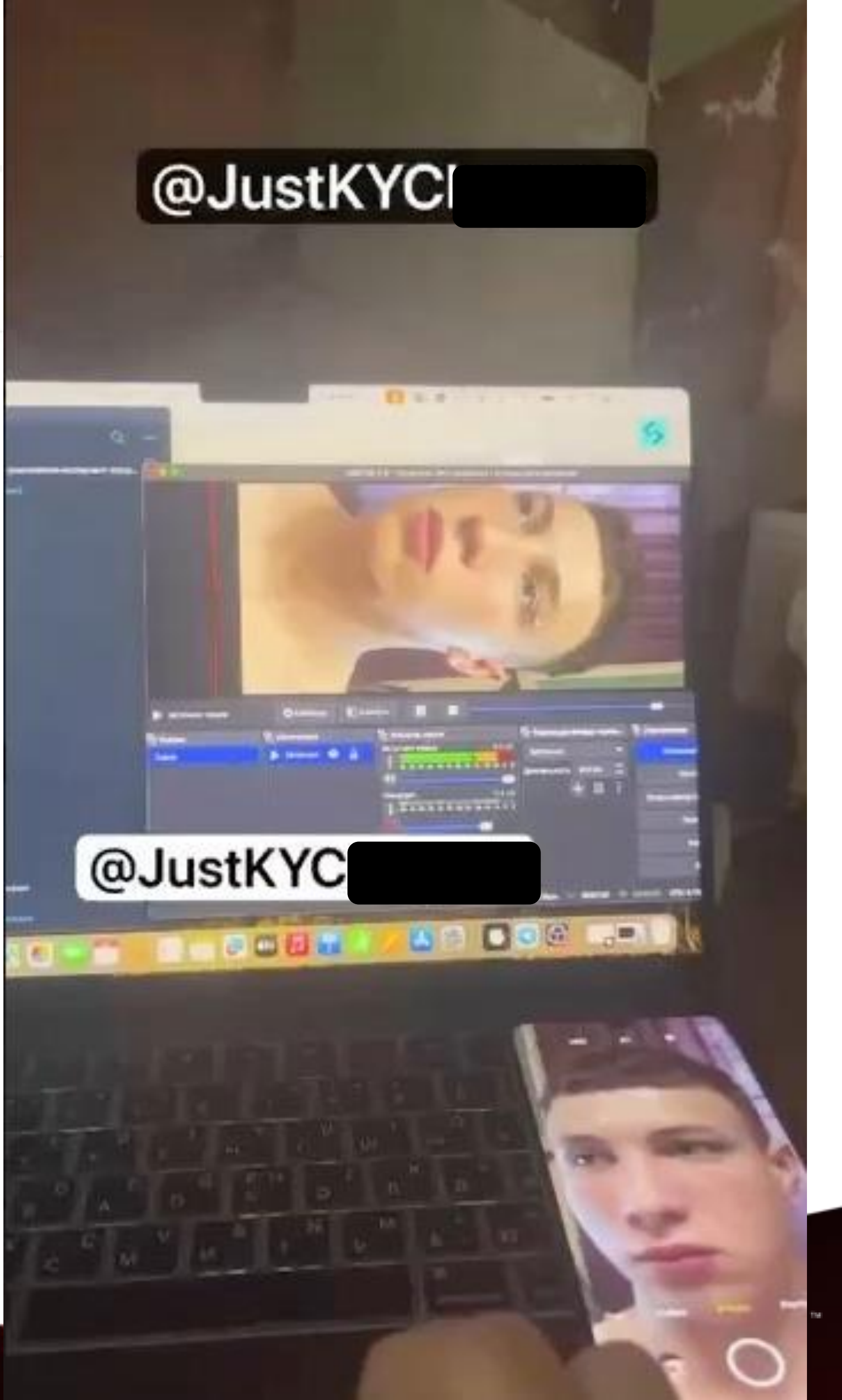
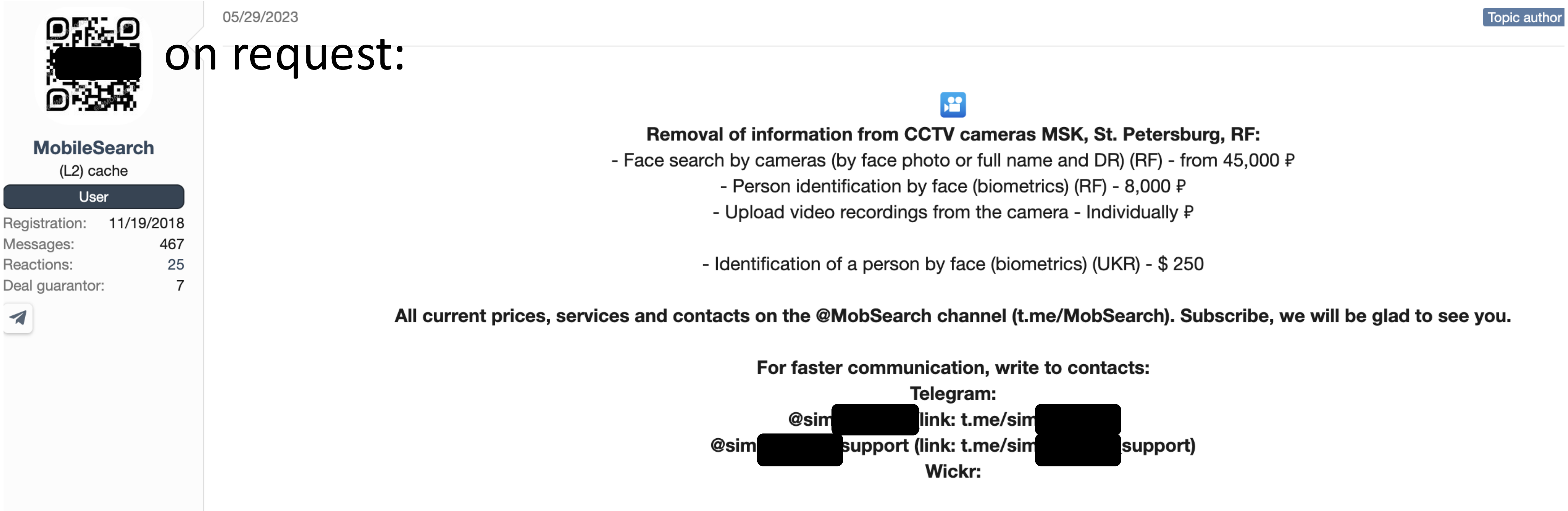
info
Channel only For Educational Purpose, I don’t Responsible For Any Legal Issues,we appreciate legal .We just sell white software and it’s your way what you’ll do with it.All is your

share link
@JustKYC[redacted]



IoT and Biometrics Agle

- Facial recognition systems are connected to city cameras.
- Underground offers a service of collecting data from CCTV cameras on request:



[redacted]

MobileSearch

(L2) cache

User

Registration:	11/19/2018
Messages:	467
Reactions:	25
Deal guarantor:	7

05/29/2023

Topic author

Removal of information from CCTV cameras MSK, St. Petersburg, RF:

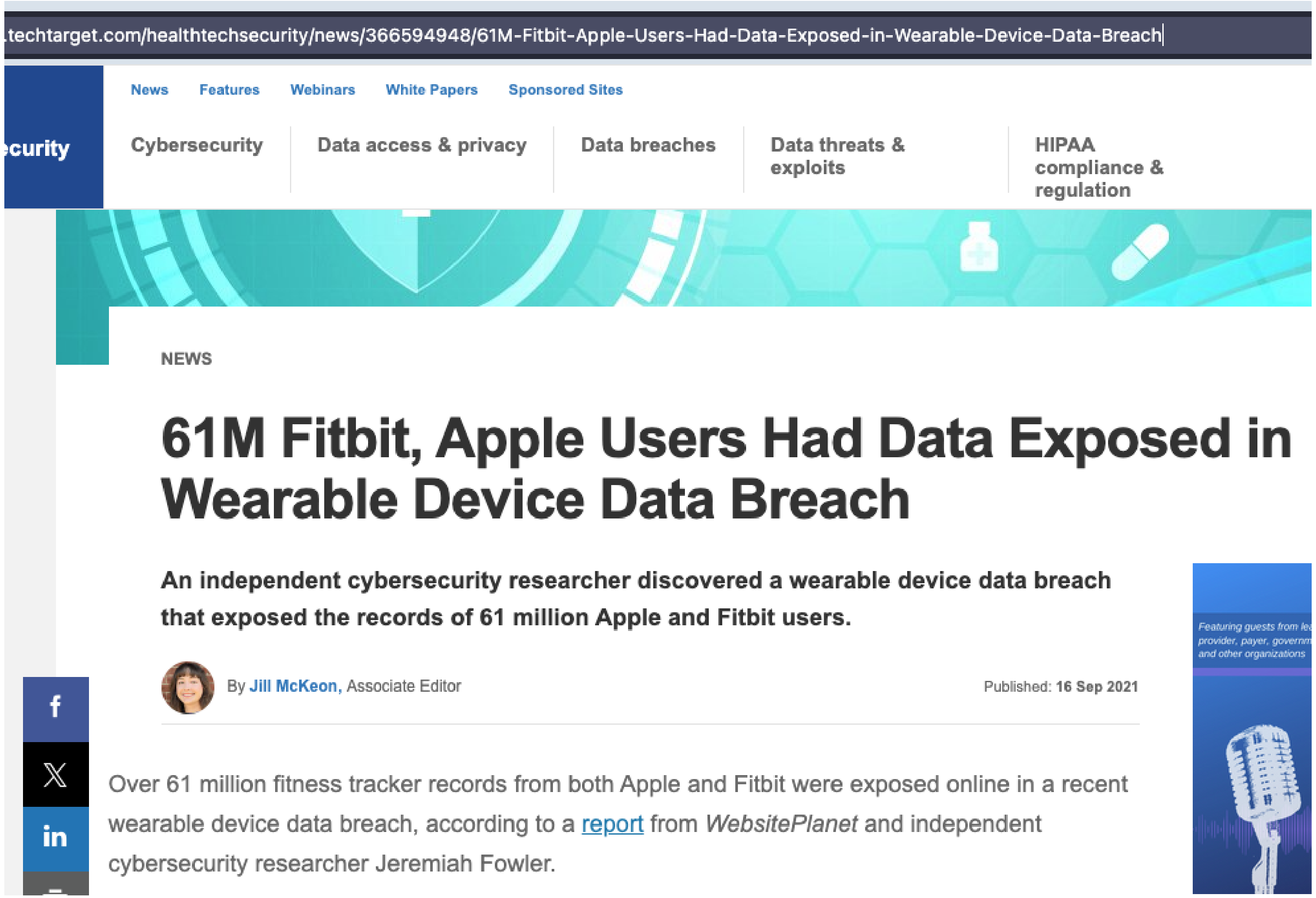
- Face search by cameras (by face photo or full name and DR) (RF) - from 45,000 ₽
- Person identification by face (biometrics) (RF) - 8,000 ₽
- Upload video recordings from the camera - Individually ₽

- Identification of a person by face (biometrics) (UKR) - $ 250

All current prices, services and contacts on the @MobSearch channel (t.me/MobSearch). Subscribe, we will be glad to see you.

For faster communication, write to contacts:
Telegram:
@sim[redacted]link: t.me/sim[redacted]
@sim[redacted]support (link: t.me/sim[redacted]support)
Wickr:

Iot cloud



NEWS

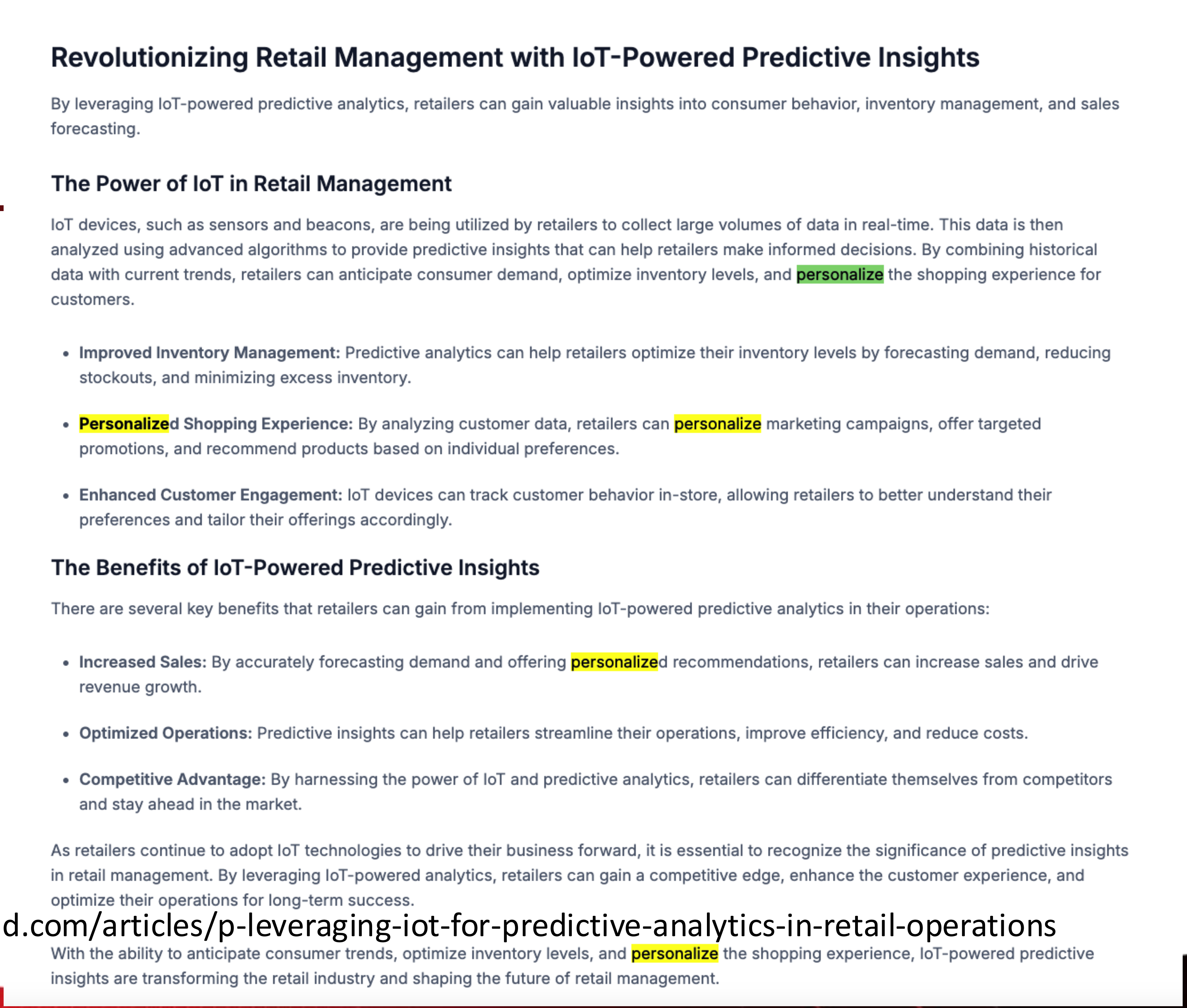
61M Fitbit, Apple Users Had Data Exposed in Wearable Device Data Breach

An independent cybersecurity researcher discovered a wearable device data breach that exposed the records of 61 million Apple and Fitbit users.

By Jill McKeon, Associate Editor

Published: **16 Sep 2021**

Over 61 million fitness tracker records from both Apple and Fitbit were exposed online in a recent wearable device data breach, according to a report from *WebsitePlanet* and independent cybersecurity researcher Jeremiah Fowler.



Revolutionizing Retail Management with IoT-Powered Predictive Insights

By leveraging IoT-powered predictive analytics, retailers can gain valuable insights into consumer behavior, inventory management, and sales forecasting.

The Power of IoT in Retail Management

IoT devices, such as sensors and beacons, are being utilized by retailers to collect large volumes of data in real-time. This data is then analyzed using advanced algorithms to provide predictive insights that can help retailers make informed decisions. By combining historical data with current trends, retailers can anticipate consumer demand, optimize inventory levels, and personalize the shopping experience for customers.

- **Improved Inventory Management:** Predictive analytics can help retailers optimize their inventory levels by forecasting demand, reducing stockouts, and minimizing excess inventory.
- **Personalized Shopping Experience:** By analyzing customer data, retailers can personalize marketing campaigns, offer targeted promotions, and recommend products based on individual preferences.
- **Enhanced Customer Engagement:** IoT devices can track customer behavior in-store, allowing retailers to better understand their preferences and tailor their offerings accordingly.

The Benefits of IoT-Powered Predictive Insights

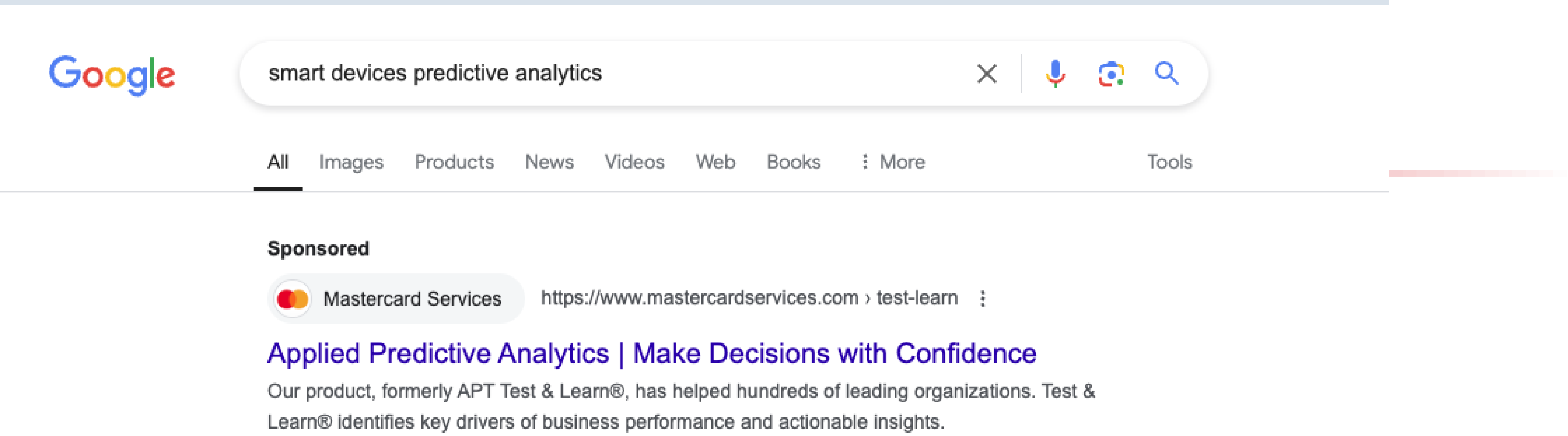
There are several key benefits that retailers can gain from implementing IoT-powered predictive analytics in their operations:

- **Increased Sales:** By accurately forecasting demand and offering personalized recommendations, retailers can increase sales and drive revenue growth.
- **Optimized Operations:** Predictive insights can help retailers streamline their operations, improve efficiency, and reduce costs.
- **Competitive Advantage:** By harnessing the power of IoT and predictive analytics, retailers can differentiate themselves from competitors and stay ahead in the market.

As retailers continue to adopt IoT technologies to drive their business forward, it is essential to recognize the significance of predictive insights in retail management. By leveraging IoT-powered analytics, retailers can gain a competitive edge, enhance the customer experience, and optimize their operations for long-term success.

With the ability to anticipate consumer trends, optimize inventory levels, and personalize the shopping experience, IoT-powered predictive insights are transforming the retail industry and shaping the future of retail management.

https://moldstud.com/articles/p-leveraging-iot-for-predictive-analytics-in-retail-operations



smart devices predictive analytics

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Mastercard Services https://www.mastercardservices.com › test-learn

Applied Predictive Analytics | Make Decisions with Confidence

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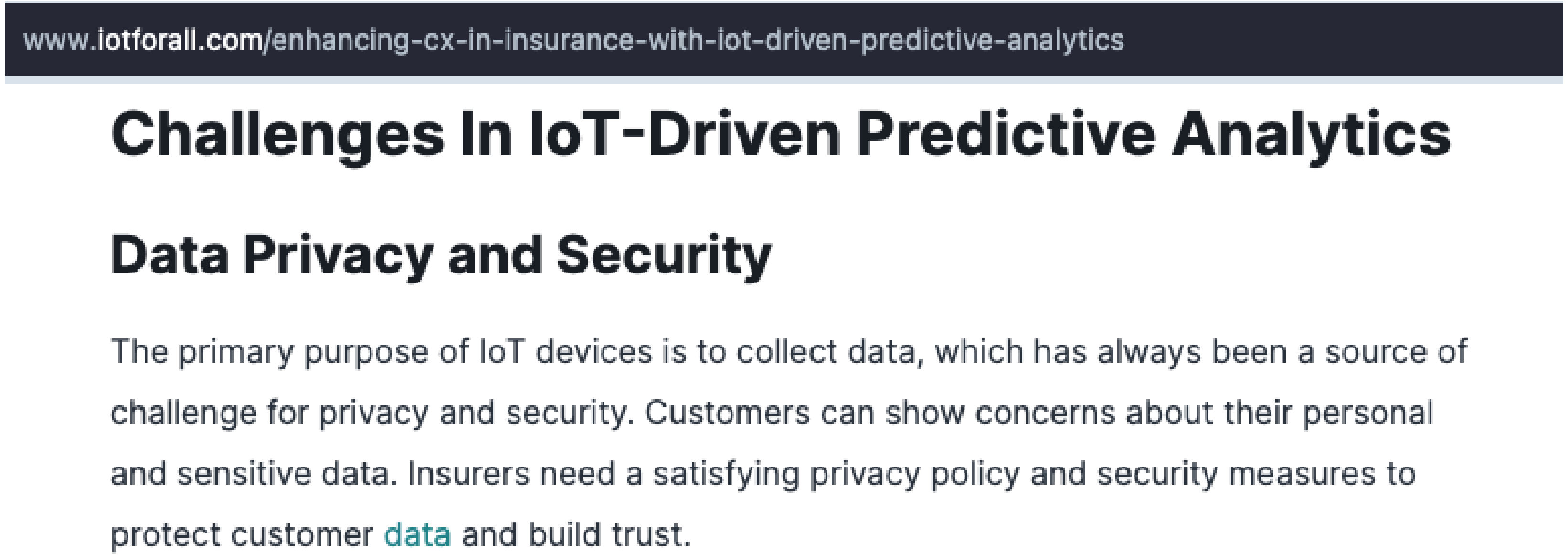


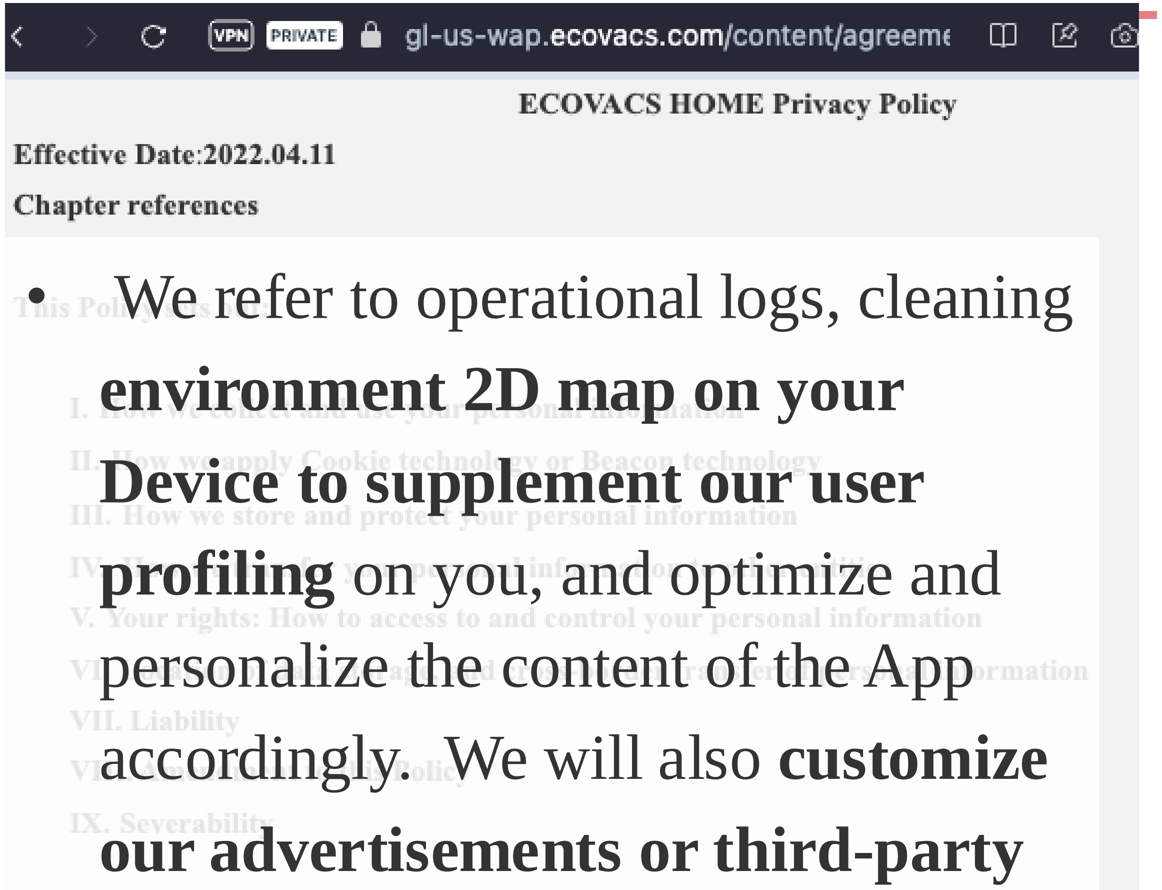
www.iotforall.com/enhancing-cx-in-insurance-with-iot-driven-predictive-analytics

Challenges In IoT-Driven Predictive Analytics

Data Privacy and Security

The primary purpose of IoT devices is to collect data, which has always been a source of challenge for privacy and security. Customers can show concerns about their personal and sensitive data. Insurers need a satisfying privacy policy and security measures to protect customer data and build trust.

Your data is already there



ECOVACS HOME Privacy Policy

Effective Date:2022.04.11

Chapter references

This Policy ...

I. How we collect and use your personal information

II. How we apply Cookie technology or Beacon technology

III. How we store and protect your personal information

IV. ...

V. Your rights: How to access to and control your personal information

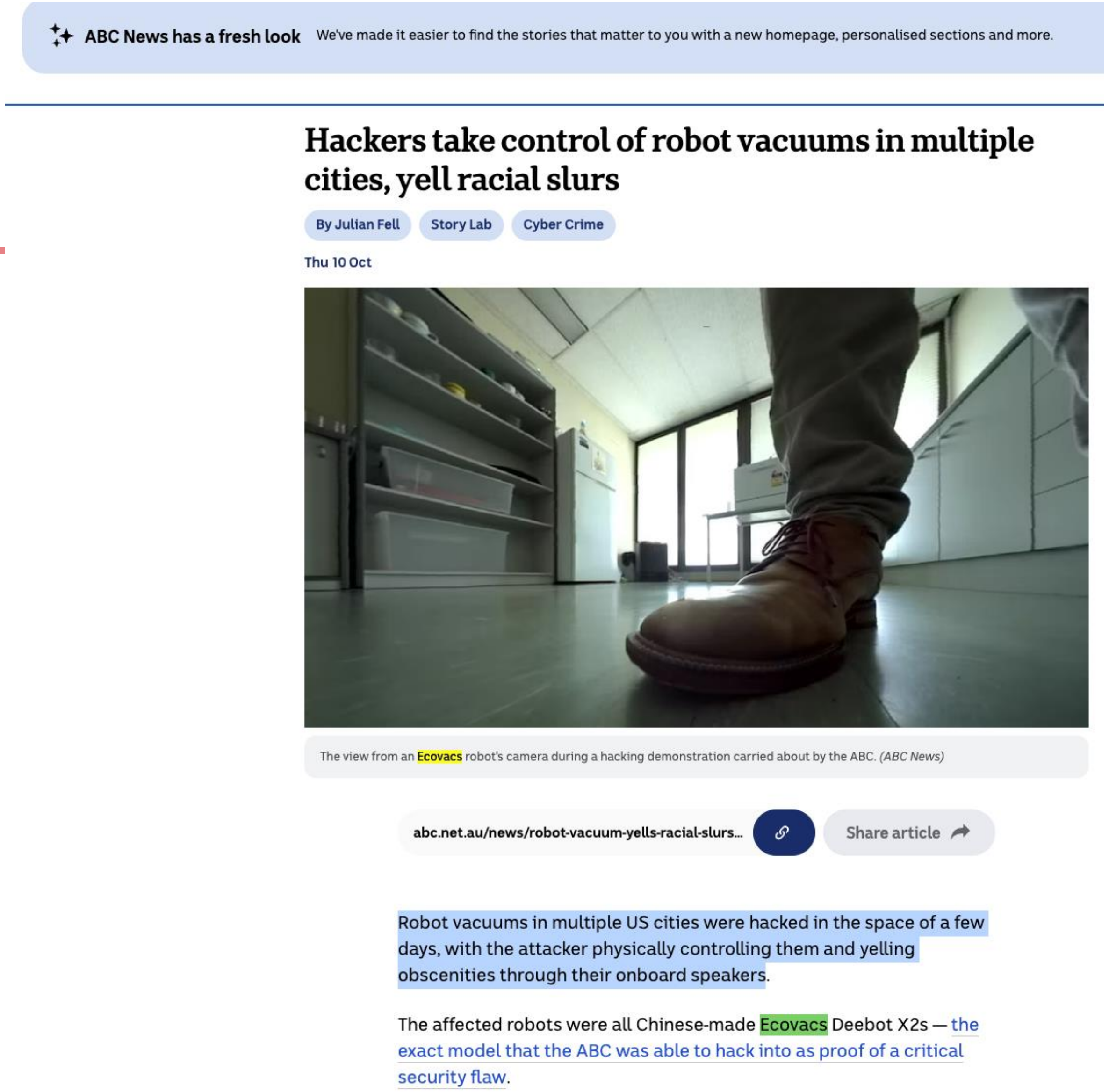
VI. ... information

VII. Liability

VIII. ... Policy

IX. Severability

- We refer to operational logs, cleaning **environment 2D map on your Device to supplement our user profiling** on you, and optimize and personalize the content of the App accordingly. We will also **customize our advertisements or third-party advertisements**



We've made it easier to find the stories that matter to you with a new homepage, personalised sections and more.

Hackers take control of robot vacuums in multiple cities, yell racial slurs

By Julian Fell | Story Lab | Cyber Crime

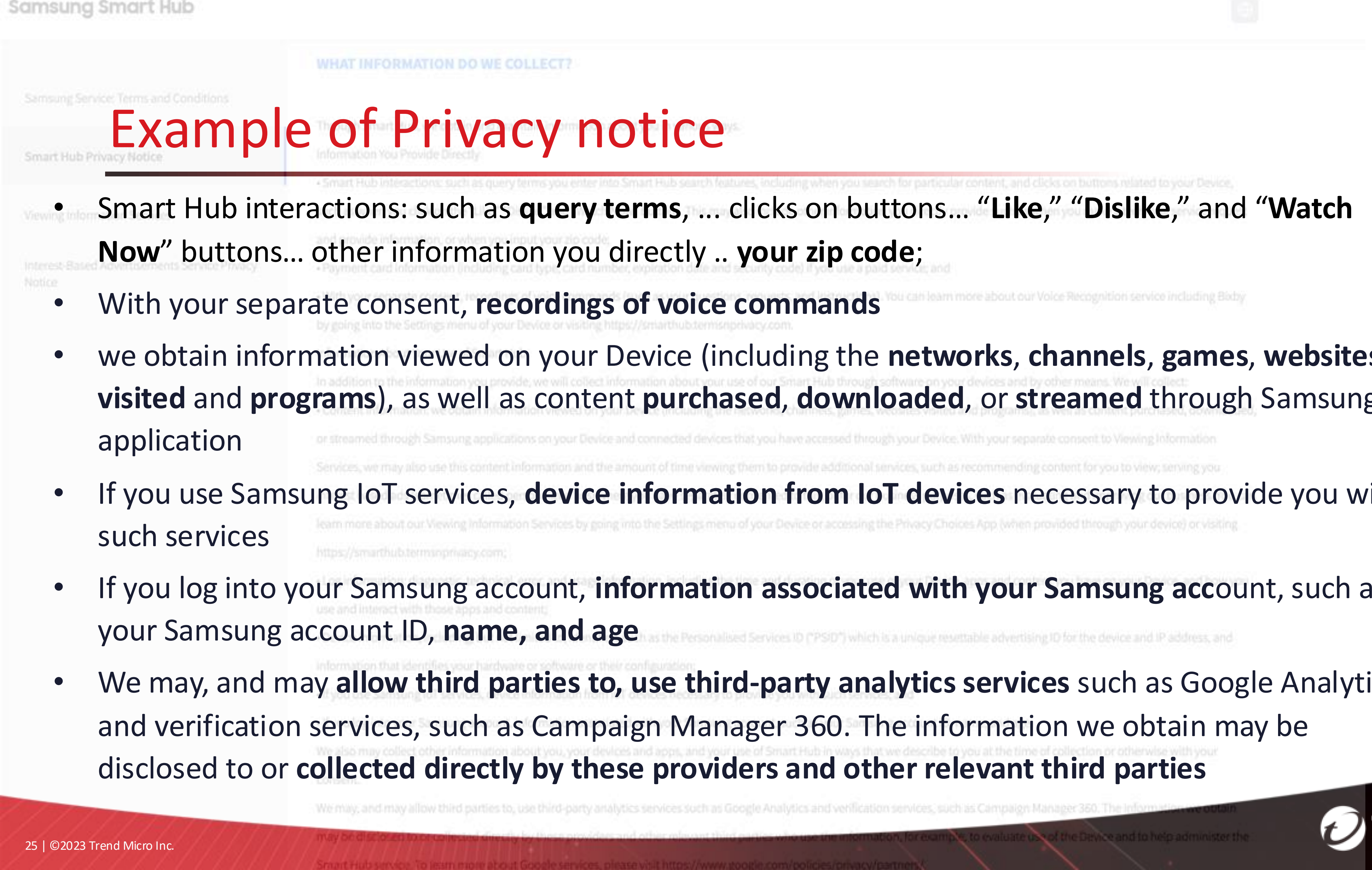
Thu 10 Oct

The view from an Ecovacs robot's camera during a hacking demonstration carried about by the ABC. *(ABC News)*

abc.net.au/news/robot-vacuum-yells-racial-slurs...

Robot vacuums in multiple US cities were hacked in the space of a few days, with the attacker physically controlling them and yelling obscenities through their onboard speakers.

The affected robots were all Chinese-made Ecovacs Deebot X2s — the exact model that the ABC was able to hack into as proof of a critical security flaw.



Samsung Smart Hub

WHAT INFORMATION DO WE COLLECT?

Samsung Service: Terms and Conditions

Smart Hub Privacy Notice

Viewing Information Services

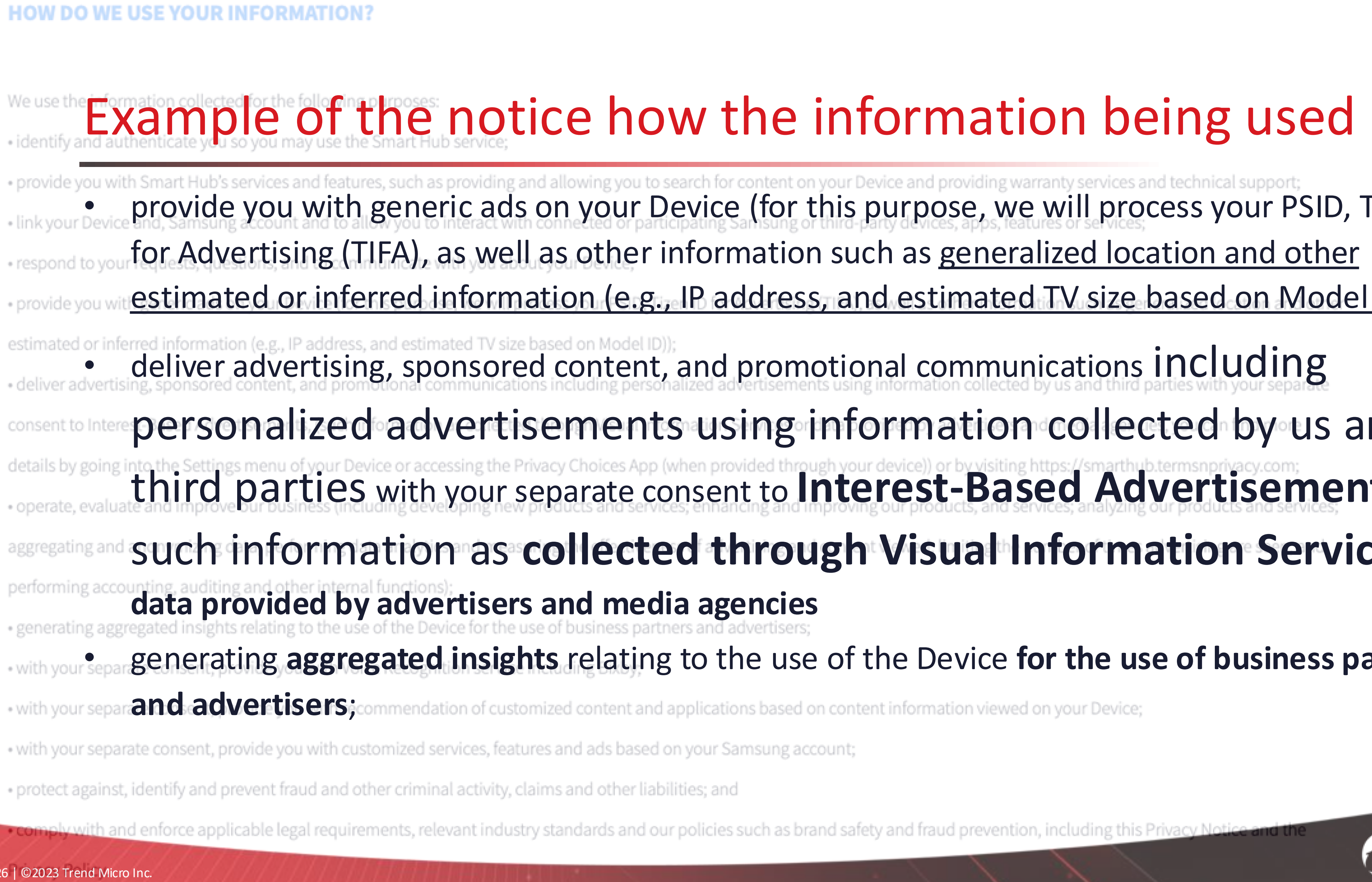
Interest-Based Advertisements Service Privacy Notice

Example of Privacy notice

- Smart Hub interactions: such as **query terms**, … clicks on buttons… “**Like**,” “**Dislike**,” and “**Watch Now**” buttons… other information you directly .. **your zip code**;
- With your separate consent, **recordings of voice commands**
- we obtain information viewed on your Device (including the **networks**, **channels**, **games**, **websites visited** and **programs**), as well as content **purchased**, **downloaded**, or **streamed** through Samsung application
- If you use Samsung IoT services, **device information from IoT devices** necessary to provide you with such services
- If you log into your Samsung account, **information associated with your Samsung acc**ount, such as your Samsung account ID, **name, and age**
- We may, and may **allow third parties to, use third-party analytics services** such as Google Analytics and verification services, such as Campaign Manager 360. The information we obtain may be disclosed to or **collected directly by these providers and other relevant third parties**

Example of the notice how the information being used

- provide you with generic ads on your Device (for this purpose, we will process your PSID, Tizen ID for Advertising (TIFA), as well as other information such as generalized location and other estimated or inferred information (e.g., IP address, and estimated TV size based on Model ID));
- deliver advertising, sponsored content, and promotional communications including personalized advertisements using information collected by us and third parties with your separate consent to **Interest-Based Advertisements,** such information as **collected through Visual Information Services or data provided by advertisers and media agencies**
- generating **aggregated insights** relating to the use of the Device **for the use of business partners and advertisers;**



HOW DO WE USE YOUR INFORMATION?

We use the information collected for the following purposes:

• identify and authenticate you so you may use the Smart Hub service;

• provide you with Smart Hub's services and features, such as providing and allowing you to search for content on your Device and providing warranty services and technical support;

• link your Device and, Samsung account and to allow you to interact with connected or participating Samsung or third-party devices, apps, features or services;

• respond to your requests, questions, and to communicate with you about your Device;

• provide you wit [illegible] estimated or inferred information (e.g., IP address, and estimated TV size based on Model ID));

• deliver advertising, sponsored content, and promotional communications including personalized advertisements using information collected by us and third parties with your separate consent to Interes [illegible] details by going into the Settings menu of your Device or accessing the Privacy Choices App (when provided through your device)) or by visiting https://smarthub.termsnprivacy.com;

• operate, evaluate and improve our business (including developing new products and services; enhancing and improving our products, and services; analyzing our products and services; aggregating and [illegible] performing accounting, auditing and other internal functions);

• generating aggregated insights relating to the use of the Device for the use of business partners and advertisers;

• with your separ [illegible] Recognition service including Bixby;

• with your separ [illegible] commendation of customized content and applications based on content information viewed on your Device;

• with your separate consent, provide you with customized services, features and ads based on your Samsung account;

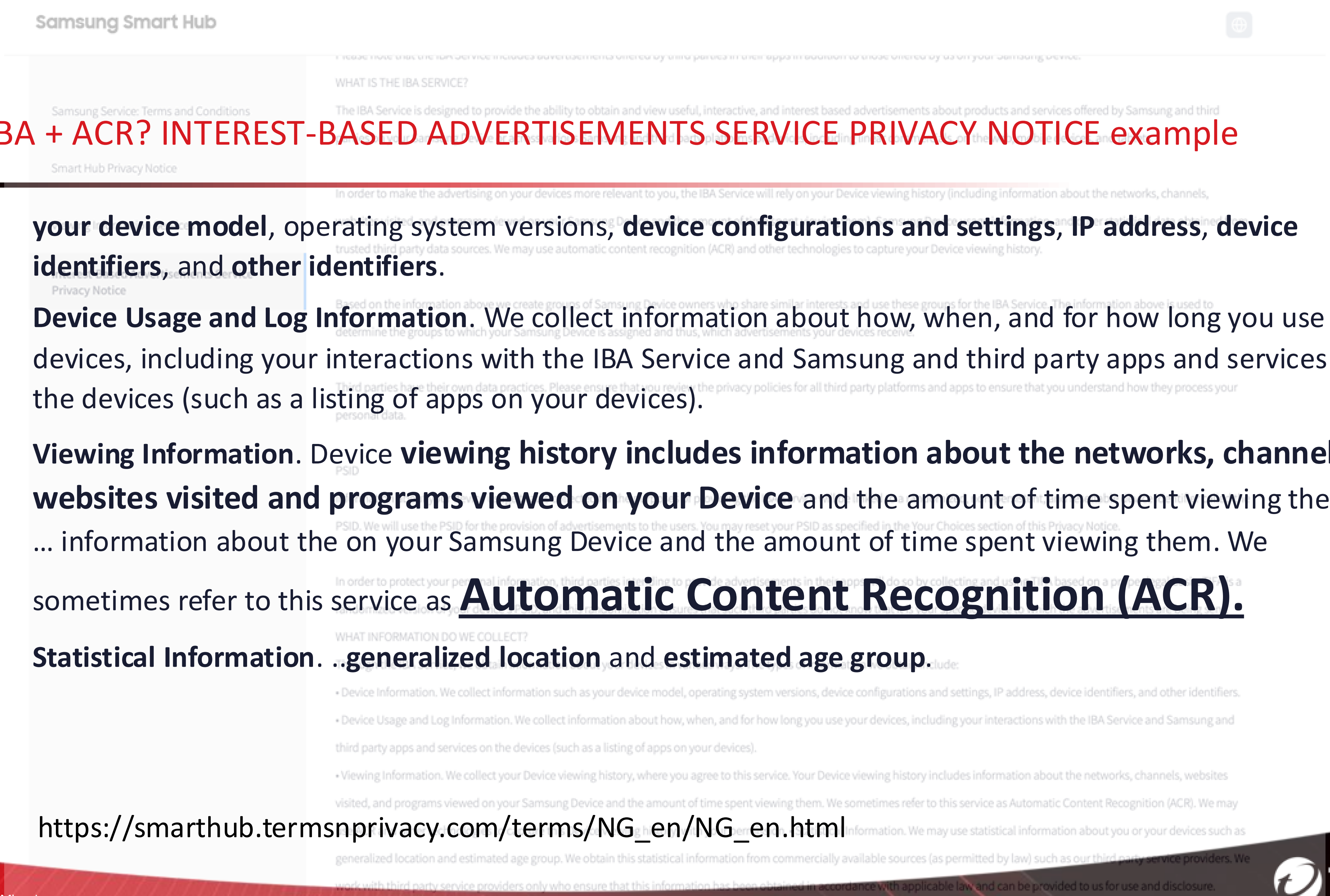
• protect against, identify and prevent fraud and other criminal activity, claims and other liabilities; and

• comply with and enforce applicable legal requirements, relevant industry standards and our policies such as brand safety and fraud prevention, including this Privacy Notice and the Privacy Polic [illegible]

IBA + ACR? INTEREST-BASED ADVERTISEMENTS SERVICE PRIVACY NOTICE example

- **your device model**, operating system versions, **device configurations and settings**, **IP address**, **device identifiers**, and **other identifiers**.
- **Device Usage and Log Information**. We collect information about how, when, and for how long you use your devices, including your interactions with the IBA Service and Samsung and third party apps and services on the devices (such as a listing of apps on your devices).
- **Viewing Information**. Device **viewing history includes information about the networks, channels, websites visited and programs viewed on your Device** and the amount of time spent viewing them. … information about the on your Samsung Device and the amount of time spent viewing them. We sometimes refer to this service as **Automatic Content Recognition (ACR).**
- **Statistical Information**. ..**generalized location** and **estimated age group**.

https://smarthub.termsnprivacy.com/terms/NG_en/NG_en.html



Samsung Smart Hub
Samsung Service: Terms and Conditions
Smart Hub Privacy Notice
Interest-Based Advertisements Service Privacy Notice

Please note that the IBA Service includes advertisements offered by third parties in their apps in addition to those offered by us on your Samsung Device.

WHAT IS THE IBA SERVICE?

The IBA Service is designed to provide the ability to obtain and view useful, interactive, and interest based advertisements about products and services offered by Samsung and third parties on your Samsung Device [illegible] Samsung and third party platforms or devices including [illegible] mobile devices and [illegible]

In order to make the advertising on your devices more relevant to you, the IBA Service will rely on your Device viewing history (including information about the networks, channels, websites visited, and programs viewed on your Samsung Device and the amount of time spent viewing them), Samsung Device usage information, and other statistical data obtained from trusted third party data sources. We may use automatic content recognition (ACR) and other technologies to capture your Device viewing history.

Based on the information above we create groups of Samsung Device owners who share similar interests and use these groups for the IBA Service. The information above is used to determine the groups to which your Samsung Device is assigned and thus, which advertisements your devices receive.

Third parties have their own data practices. Please ensure that you review the privacy policies for all third party platforms and apps to ensure that you understand how they process your personal data.

PSID

[illegible]

PSID. We will use the PSID for the provision of advertisements to the users. You may reset your PSID as specified in the Your Choices section of this Privacy Notice.

In order to protect your personal information, third parties intending to provide advertisements in their apps will do so by collecting and using TIFA based on a proper legal basis. TIFA is a randomized version of your device's PSID, and this randomization ensures that such third parties do not know that it is your specific device to which the advertisements are being sent.

WHAT INFORMATION DO WE COLLECT?

Through the IBA Service, we obtain information about your devices in various ways. The types of information we obtain include:

- Device Information. We collect information such as your device model, operating system versions, device configurations and settings, IP address, device identifiers, and other identifiers.
- Device Usage and Log Information. We collect information about how, when, and for how long you use your devices, including your interactions with the IBA Service and Samsung and third party apps and services on the devices (such as a listing of apps on your devices).
- Viewing Information. We collect your Device viewing history, where you agree to this service. Your Device viewing history includes information about the networks, channels, websites visited, and programs viewed on your Samsung Device and the amount of time spent viewing them. We sometimes refer to this service as Automatic Content Recognition (ACR). We may [illegible] Statistical Information. We may use statistical information about you or your devices such as generalized location and estimated age group. We obtain this statistical information from commercially available sources (as permitted by law) such as our third party service providers. We work with third party service providers only who ensure that this information has been obtained in accordance with applicable law and can be provided to us for use and disclosure.

How It Works

Samsung Smart TVs have built-in Automated Content Recognition (ACR) technology that can understand viewing behavior and usage including programs, movies, ads, gaming content and OTT apps in real-time.
It's a simple 3-step process:

- Let us know the brand and title of the commercial spot you would like to target for your TV Ad Retargeting campaign
- The selected commercial is recognized and instantly matched with our ACR data
- Retargeting campaign is activated for the selected TV commercial based on pre-aligned campaign parameters

SAMSUNG
Ads

TV Ad Retargeting

Samsung Ads offers TV Ad Retargeting that allows brands to identify audiences who saw or missed their TV spots and reach them across any screen – mobile, tablet, desktop or OTT.

TV Ad Retargeting enables your business to:

- **Drive Media Effectiveness**
  Reach those who missed your TV spot across any screen, including digital and OTT devices
- **Extend Reach**
  Deliver your message to viewers of your TV ads on digital and OTT devices
- **Engage Audiences**
  Reach viewers who saw your competitor's ads as quickly as 60 seconds after linear ad airing

- **Engage Audiences**
  Reach viewers who saw your competitor's ads as quickly as 60 seconds after linear ad airing

Partner with Samsung Ads

Partner with Samsung Ads
As the largest source of TV data with nearly 60% of the US ACR footprint, Samsung Ads offers unique advertising solutions for Addressable TV buyers.

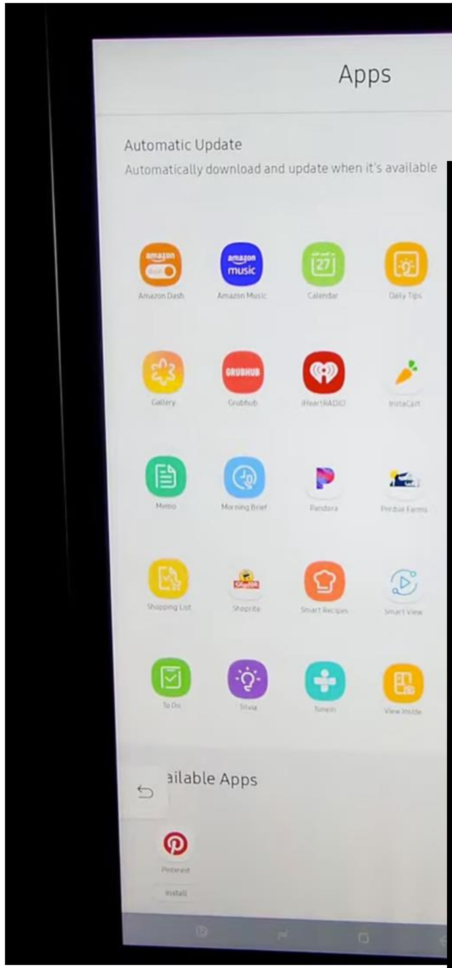
Samsung Ads' proprietary Device Graph is able to identify more than 200 million connected devices within Samsung households to help advertisers reach audiences on desktop, mobile, tablets, media and gaming consoles offering holistic reach for our clients.

samsungads.com

gnition (ACR)
e including
l-time.

- Let us know the brand and title of the commercial spot you would like to target for your TV Ad Retargeting campaign
- The selected commercial is recognized and instantly matched with our ACR data
- Retargeting campaign is activated for the selected TV commercial based on pre-aligned campaign parameters

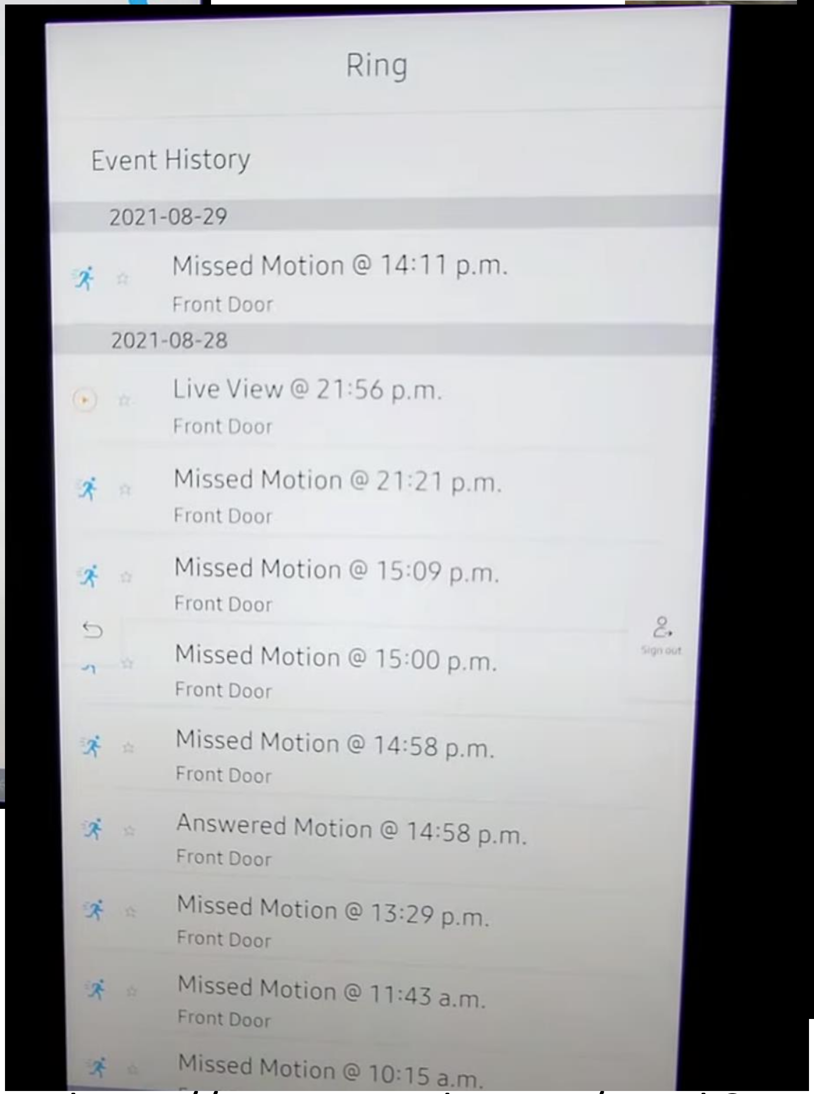
https://image-us.samsung.com/SamsungUS/samsungbusiness/samsung-ads/pdfs/SamsungAds_OneSheet_TVAdRetargeting_v7_feb2020.pdf



Apps

Automatic Update

Automatically download and update when it's available



Ring

Event History

2021-08-29

Missed Motion @ 14:11 p.m.
Front Door

2021-08-28

Live View @ 21:56 p.m.
Front Door

Missed Motion @ 21:21 p.m.
Front Door

Missed Motion @ 15:09 p.m.
Front Door

Missed Motion @ 15:00 p.m.
Front Door

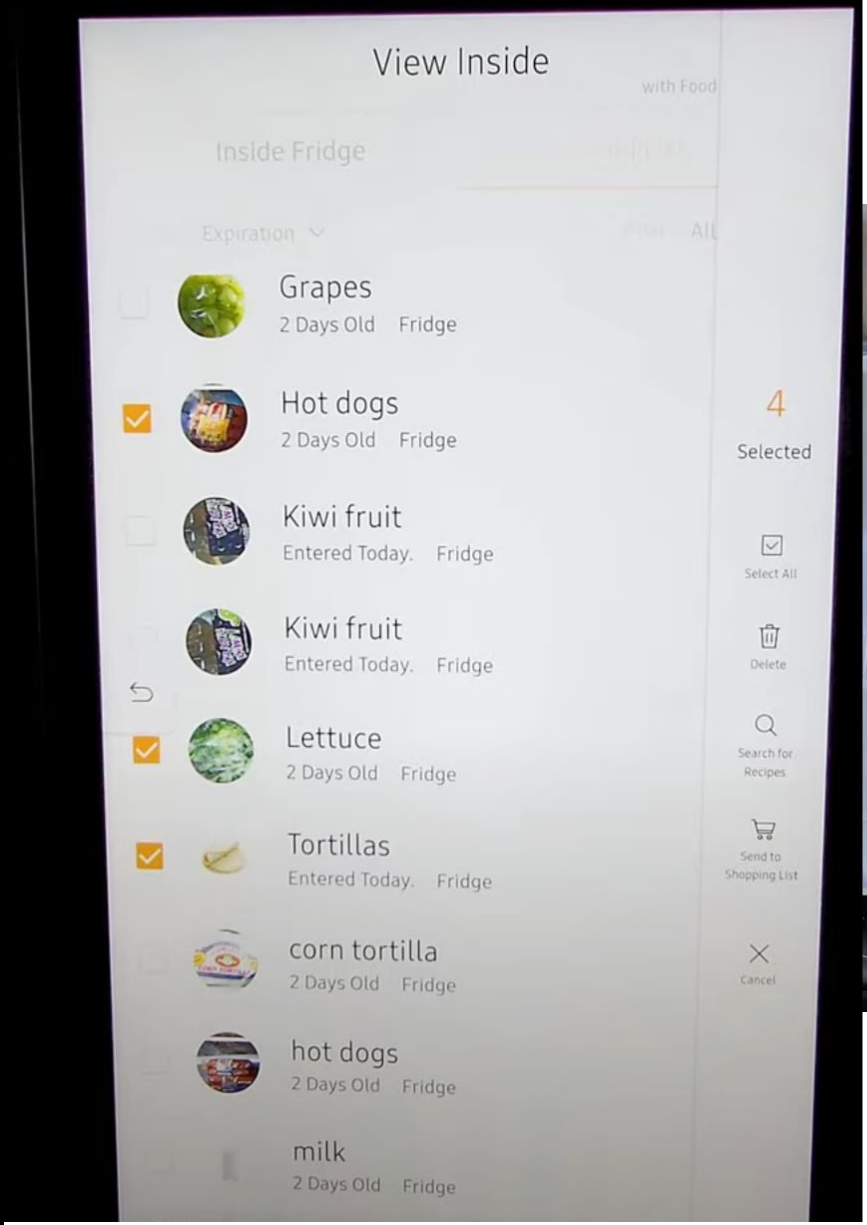
Missed Motion @ 14:58 p.m.
Front Door

Answered Motion @ 14:58 p.m.
Front Door

Missed Motion @ 13:29 p.m.
Front Door

Missed Motion @ 11:43 a.m.
Front Door

Missed Motion @ 10:15 a.m.



View Inside

Inside Fridge

with Food

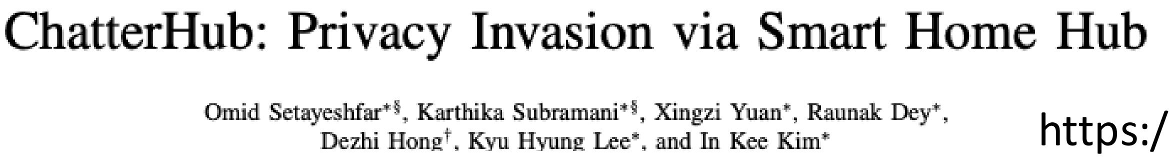
Expiration

All

- □ Grapes — 2 Days Old — Fridge
- ☑ Hot dogs — 2 Days Old — Fridge
- □ Kiwi fruit — Entered Today. — Fridge
- □ Kiwi fruit — Entered Today. — Fridge
- ☑ Lettuce — 2 Days Old — Fridge
- ☑ Tortillas — Entered Today. — Fridge
- □ corn tortilla — 2 Days Old — Fridge
- □ hot dogs — 2 Days Old — Fridge
- □ milk — 2 Days Old — Fridge

4 Selected

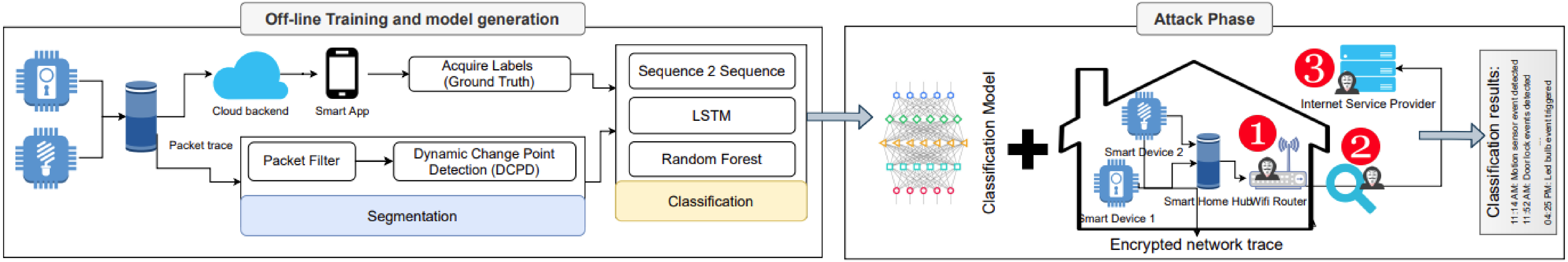
https://www.youtube.com/watch?v=tBJvvidg1gU



ChatterHub: Privacy Invasion via Smart Home Hub

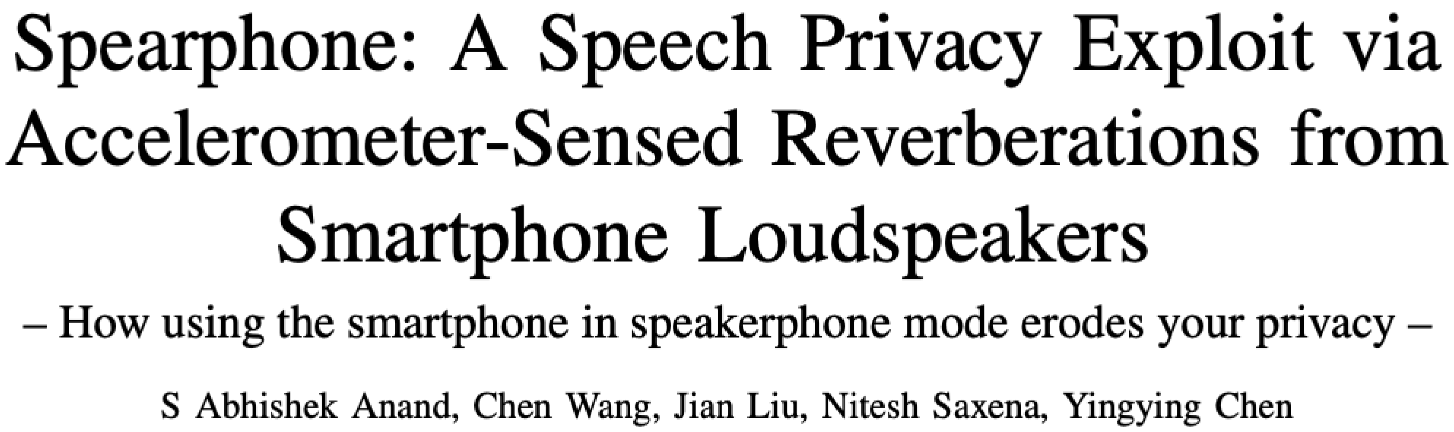
Omid Setayeshfar[*§], Karthika Subramani[*§], Xingzi Yuan[*], Raunak Dey[*], Dezhi Hong[†], Kyu Hyung Lee[*], and In Kee Kim[*]

https://par.nsf.gov/servlets/purl/10298285



- Targeted Attack.
  - Attacker sniffs the outgoing traffic and can understand the smart-home devices' behaviors, identify household activities patterns, and use the patterns for physical assault.
- ISP-level Tracking.
  - Internet providers can learn the patterns of the households' daily life.
  - Such information can be used for **targeted advertising based on user behaviors or other activities**, potentially violating users' privacy
- Adds some value to manipulation capabilities?

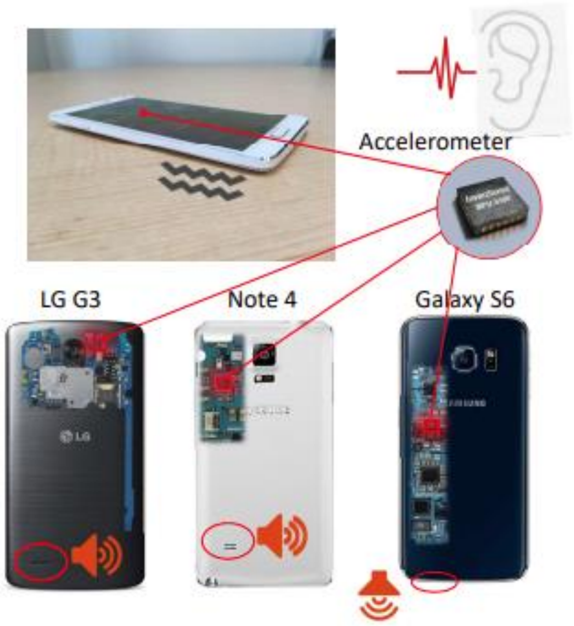
IoT Sensors

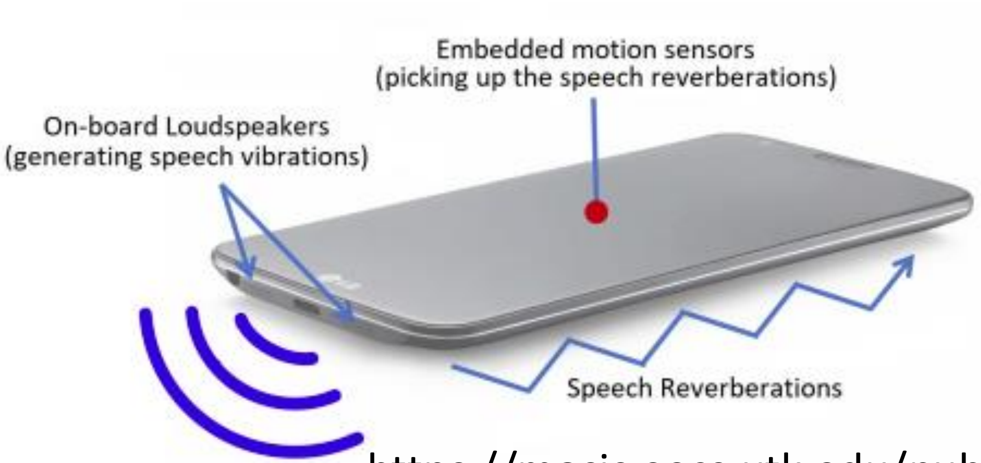


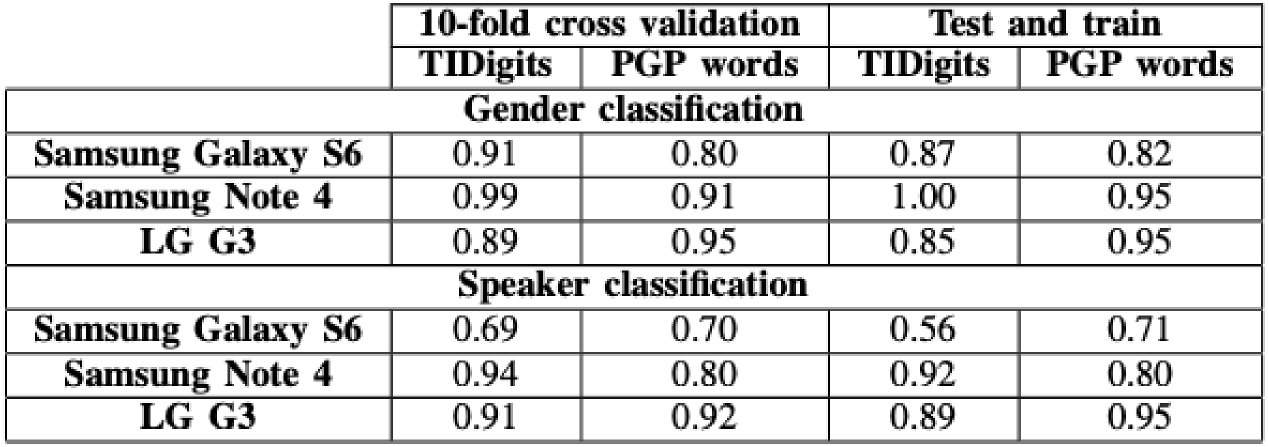
Spearphone: A Speech Privacy Exploit via Accelerometer-Sensed Reverberations from Smartphone Loudspeakers

– How using the smartphone in speakerphone mode erodes your privacy –

S Abhishek Anand, Chen Wang, Jian Liu, Nitesh Saxena, Yingying Chen




Embedded motion sensors
(picking up the speech reverberations)
On-board Loudspeakers
(generating speech vibrations)
Speech Reverberations

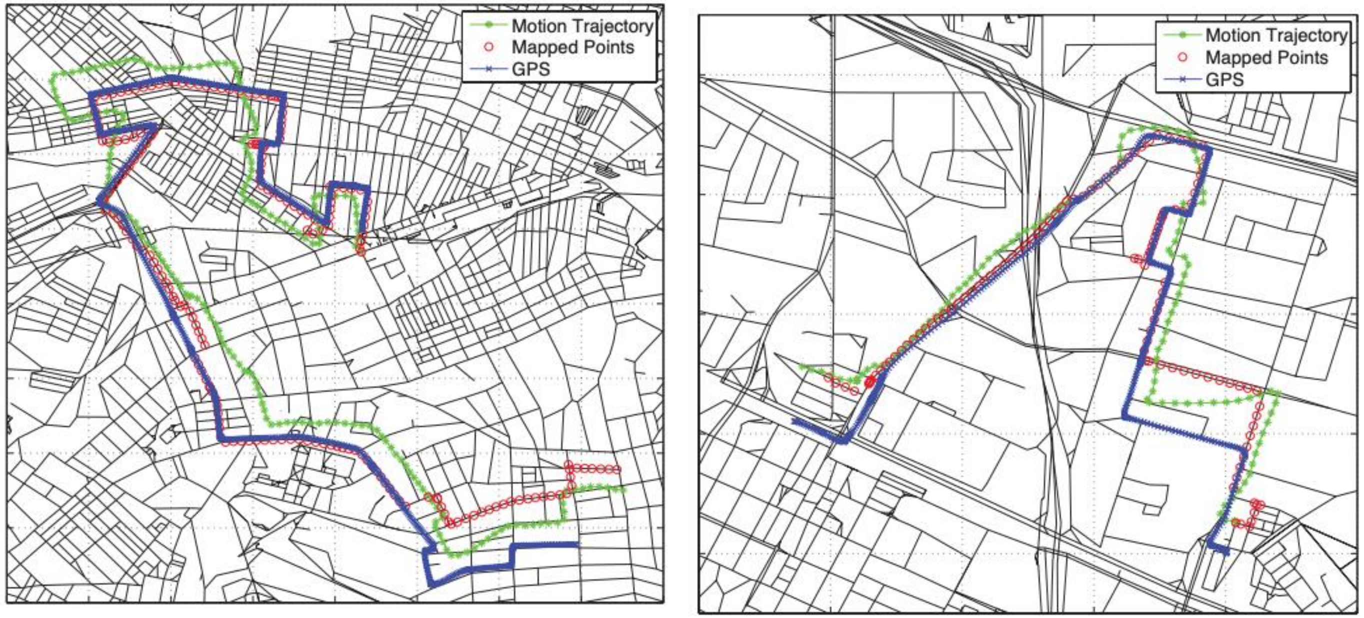


	10-fold cross validation		Test and train	
	TIDigits	PGP words	TIDigits	PGP words
Gender classification				
Samsung Galaxy S6	0.91	0.80	0.87	0.82
Samsung Note 4	0.99	0.91	1.00	0.95
LG G3	0.89	0.95	0.85	0.95
Speaker classification				
Samsung Galaxy S6	0.69	0.70	0.56	0.71
Samsung Note 4	0.94	0.80	0.92	0.80
LG G3	0.91	0.92	0.89	0.95

https://mosis.eecs.utk.edu/publications/anand2019spearphone.pdf

ACComplice: Location Inference using Accelerometers on Smartphones

Jun Han, Emmanuel Owusu, Le T. Nguyen, Adrian Perrig, Joy Zhang
{junhan, eowusu, lenguyen, perrig, sky}@cmu.edu
Carnegie Mellon University



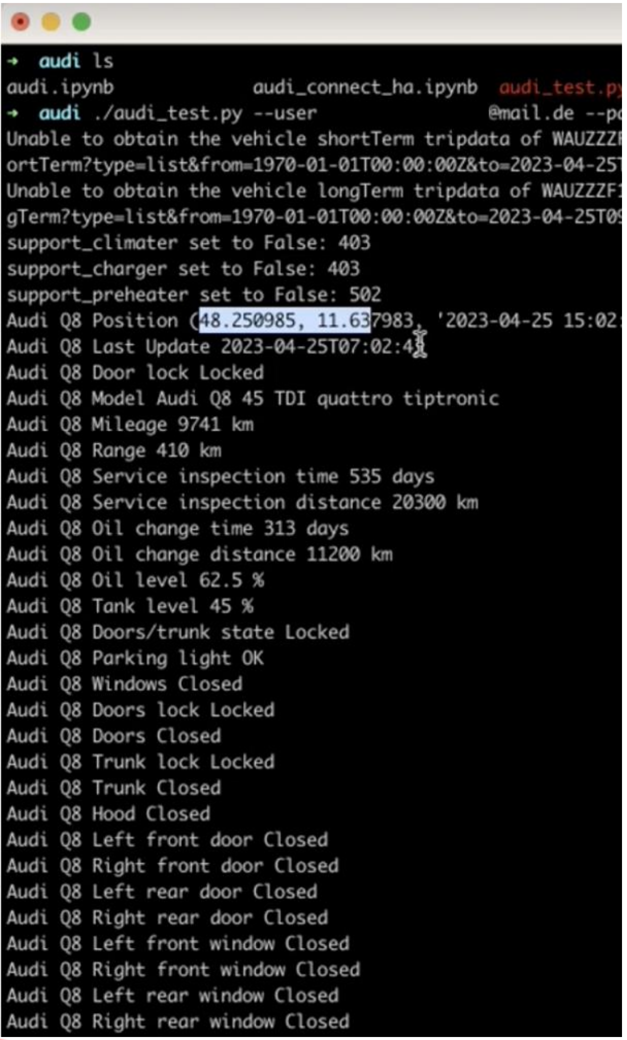
(a) Pittsburgh, PA

(b) Mountain View, CA

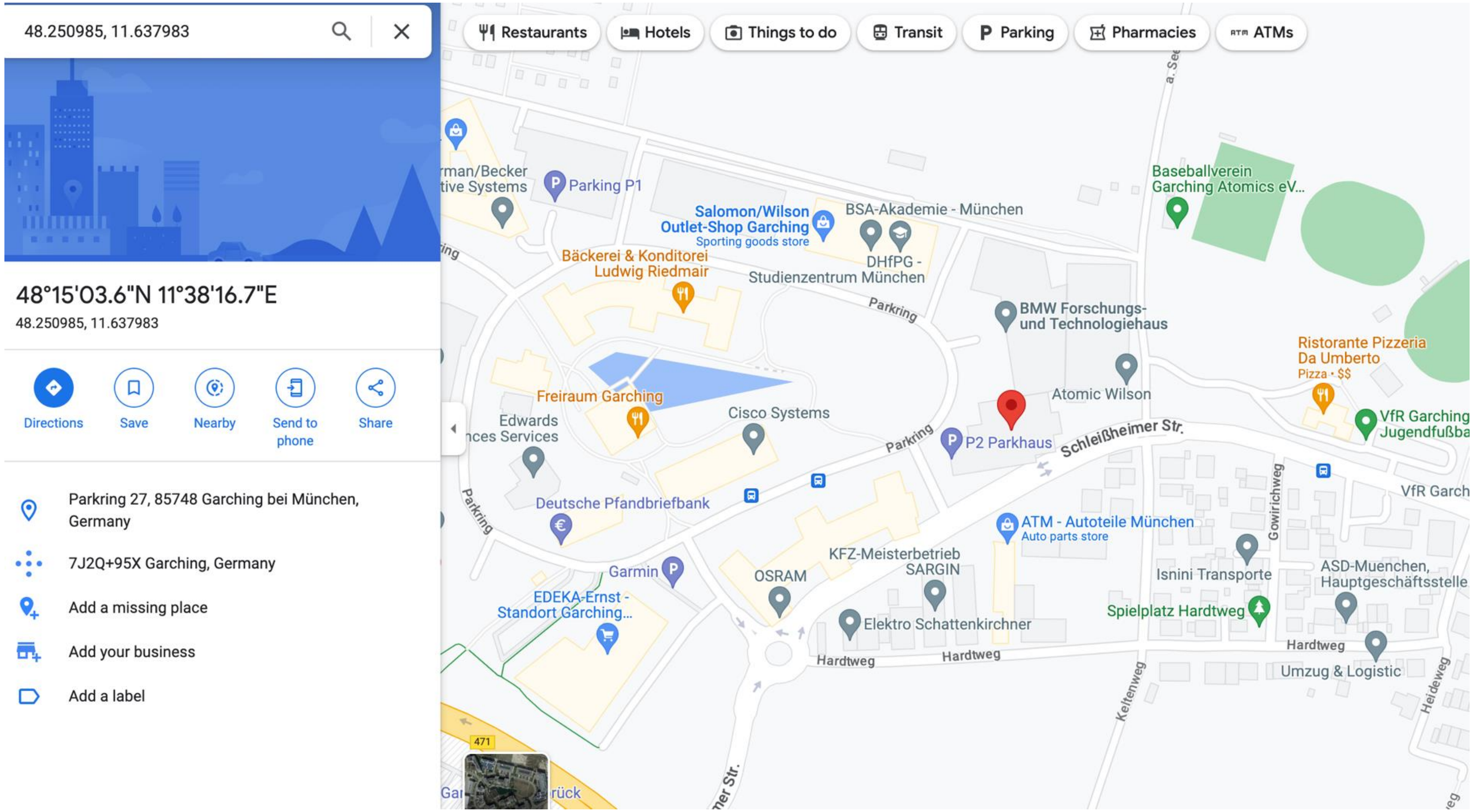
Fig. 7. Verification of map matching algorithm with the known starting point. (a) and (b) show Experiment 2a (Pittsburgh, PA) and Experiment 2b (Mountain View, CA), respectively. The green (star) curve indicates the motion trajectory obtained from ProbIN. The red (circle) curve indicates the mapped points. The blue (x-mark) curve indicates the ground truth (i.e., actual route traveled) obtained from GPS data.

https://netsec.ethz.ch/publications/papers/han_ACComplice_comsnets12.pdf

Adding Car as another IoT



```
→  audi ls
audi.ipynb              audi_connect_ha.ipynb  audi_test.py
→  audi ./audi_test.py --user                  @mail.de --po
Unable to obtain the vehicle shortTerm tripdata of WAUZZZF
ortTerm?type=list&from=1970-01-01T00:00:00Z&to=2023-04-25T
Unable to obtain the vehicle longTerm tripdata of WAUZZZF1
gTerm?type=list&from=1970-01-01T00:00:00Z&to=2023-04-25T0
support_climater set to False: 403
support_charger set to False: 403
support_preheater set to False: 502
Audi Q8 Position (48.250985, 11.637983, '2023-04-25 15:02:
Audi Q8 Last Update 2023-04-25T07:02:4
Audi Q8 Door lock Locked
Audi Q8 Model Audi Q8 45 TDI quattro tiptronic
Audi Q8 Mileage 9741 km
Audi Q8 Range 410 km
Audi Q8 Service inspection time 535 days
Audi Q8 Service inspection distance 20300 km
Audi Q8 Oil change time 313 days
Audi Q8 Oil change distance 11200 km
Audi Q8 Oil level 62.5 %
Audi Q8 Tank level 45 %
Audi Q8 Doors/trunk state Locked
Audi Q8 Parking light OK
Audi Q8 Windows Closed
Audi Q8 Doors lock Locked
Audi Q8 Doors Closed
Audi Q8 Trunk lock Locked
Audi Q8 Trunk Closed
Audi Q8 Hood Closed
Audi Q8 Left front door Closed
Audi Q8 Right front door Closed
Audi Q8 Left rear door Closed
Audi Q8 Right rear door Closed
Audi Q8 Left front window Closed
Audi Q8 Right front window Closed
Audi Q8 Left rear window Closed
Audi Q8 Right rear window Closed
```



48.250985, 11.637983

48°15'03.6"N 11°38'16.7"E

48.250985, 11.637983

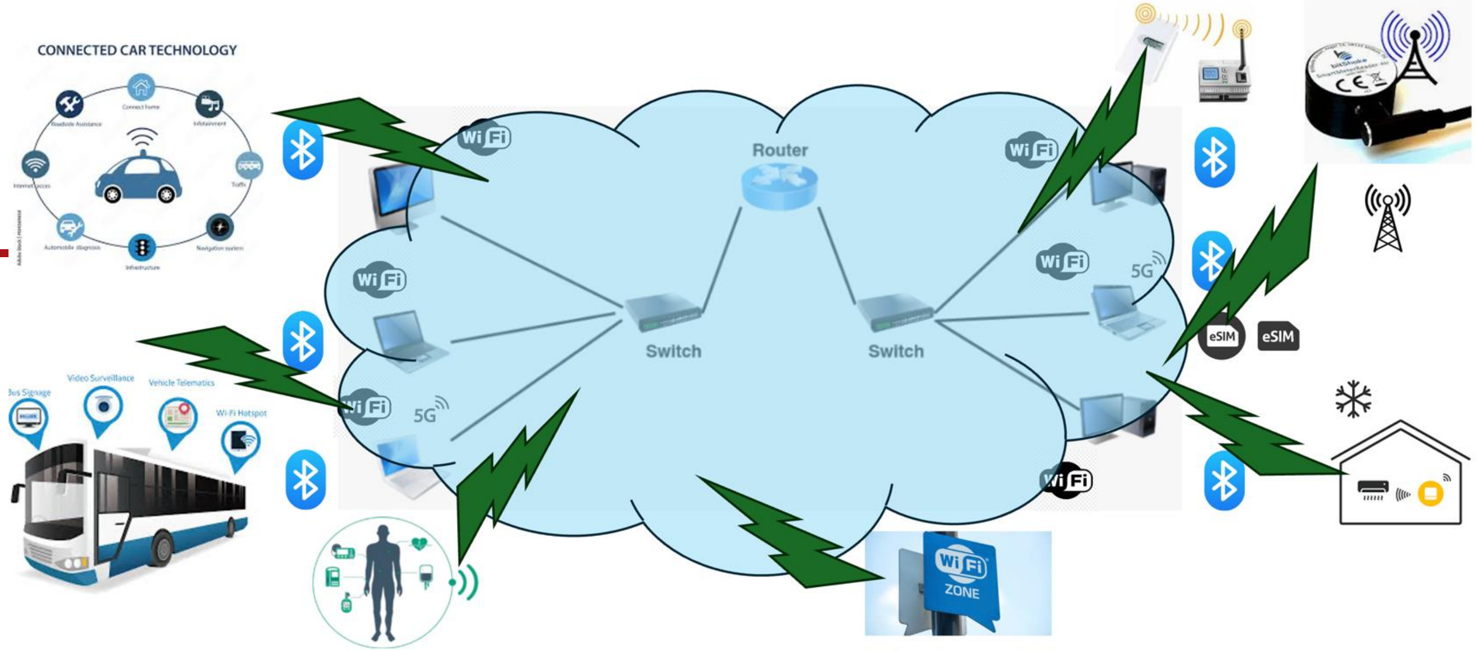
Parkring 27, 85748 Garching bei München, Germany

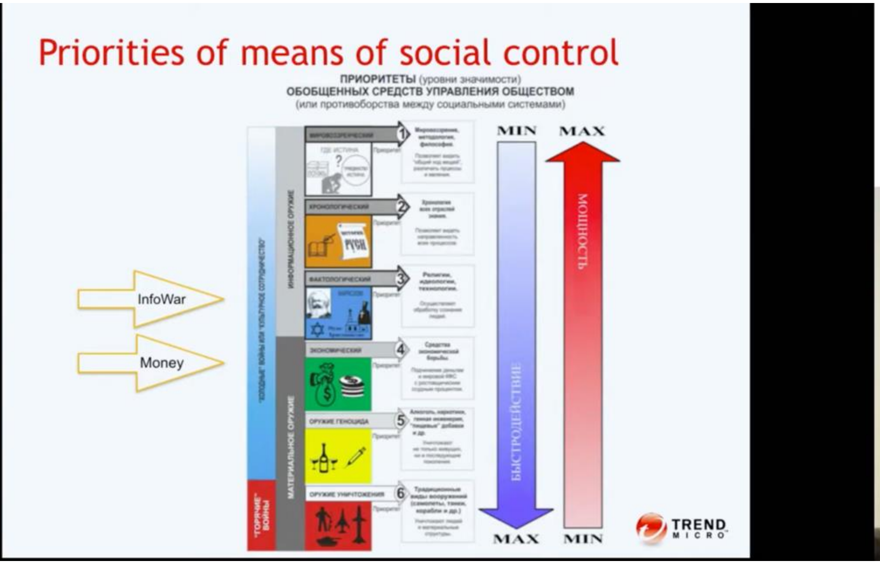
7J2Q+95X Garching, Germany

Add a missing place

Add your business

Add a label

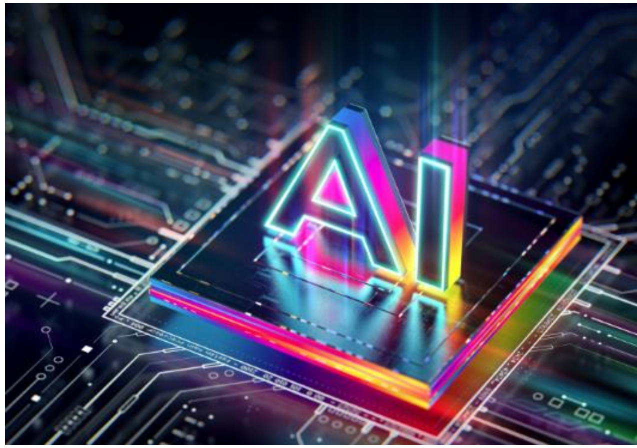




Priorities of means of social control

ПРИОРИТЕТЫ (уровни значимости)
ОБОБЩЕННЫХ СРЕДСТВ УПРАВЛЕНИЯ ОБЩЕСТВОМ
(или противоборства между социальными системами)

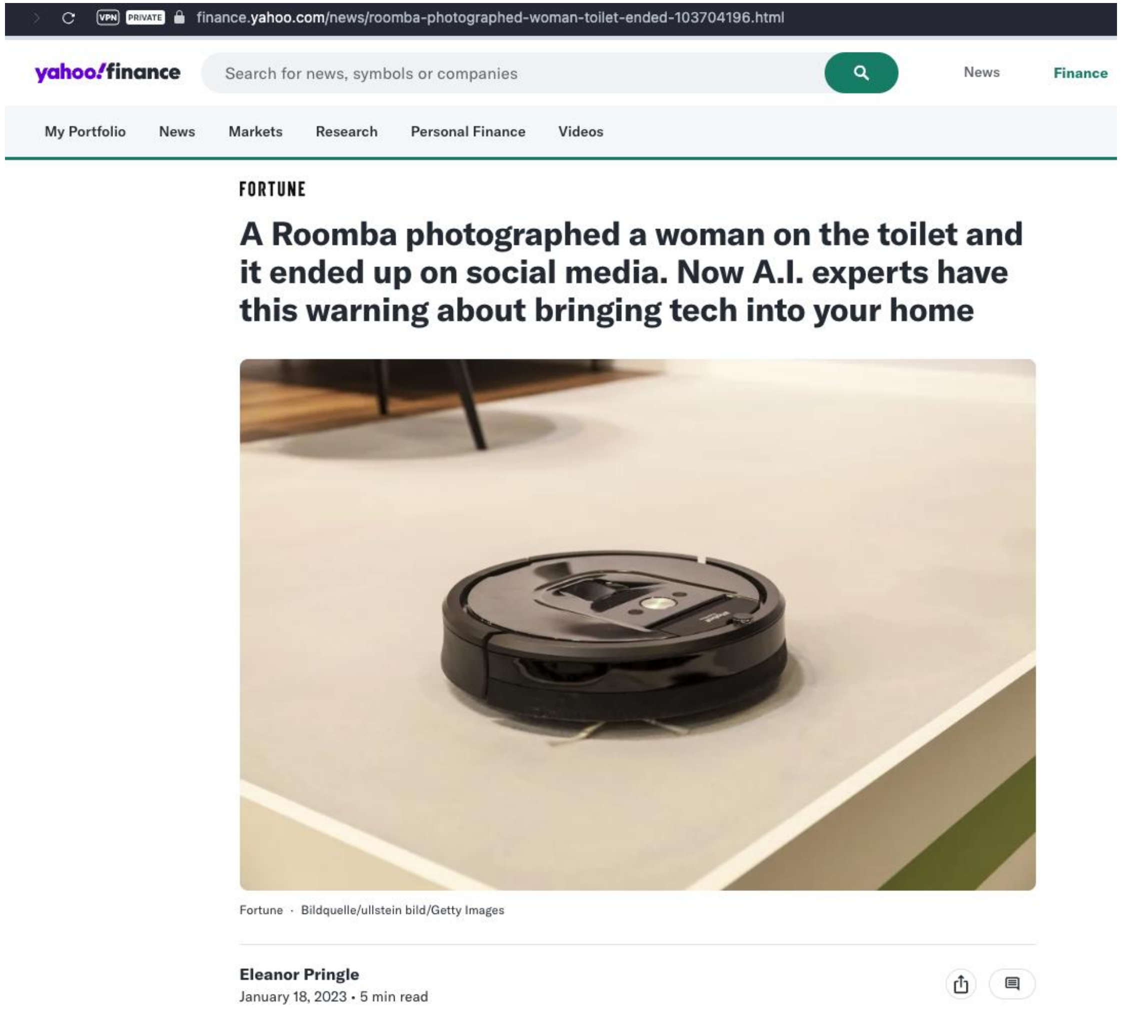
InfoWar
Money
"ХОЛОДНЫЕ" ВОЙНЫ ИЛИ "КУЛЬТУРНОЕ СОТРУДНИЧЕСТВО"
"ГОРЯЧИЕ" ВОЙНЫ
ИНФОРМАЦИОННОЕ ОРУЖИЕ
МАТЕРИАЛЬНОЕ ОРУЖИЕ
МИРОВОЗЗРЕНЧЕСКИЙ 1
Мировоззрение, методология, философия.
ХРОНОЛОГИЧЕСКИЙ 2
Хронология всех отраслей знания.
ФАКТОЛОГИЧЕСКИЙ 3
Религии, идеологии, технологии.
ЭКОНОМИЧЕСКИЙ 4
Средства экономической борьбы.
ОРУЖИЕ ГЕНОЦИДА 5
Алкоголь, наркотики, генная инженерия, "пищевые" добавки и др.
ОРУЖИЕ УНИЧТОЖЕНИЯ 6
Традиционные виды вооружений (самолеты, танки, корабли и др.)
MIN
MAX
БЫСТРОДЕЙСТВИЕ
MAX
МОЩНОСТЬ
MIN
TREND MICRO



IoT vs older approaches

What	Old school	Social media networks time	IoT end global connectivity
Identity	C00lDude12	Nice_Helene	Ivan Danko
Location	Pretend where you want	Can pretend but exposed and verifyible time to time, mostly outdoors	High precision in **location and timing indoors and outdoors**
Habbits	What is **exposed intentionally**, can be faked and biased	**Exposed** intentionally or not intentionaly, **trough the human as a proxy who can control the scale**	**Real habbits in the physical world** are **sourced directly from the physical sensors, with limited human control on the scale, timing and precission**
Virtula/Physical appearance	Virtual	Virtual/partly physical	Physical
Timing	Ocasionally	Regularly	**Near real time data**

Weaponization



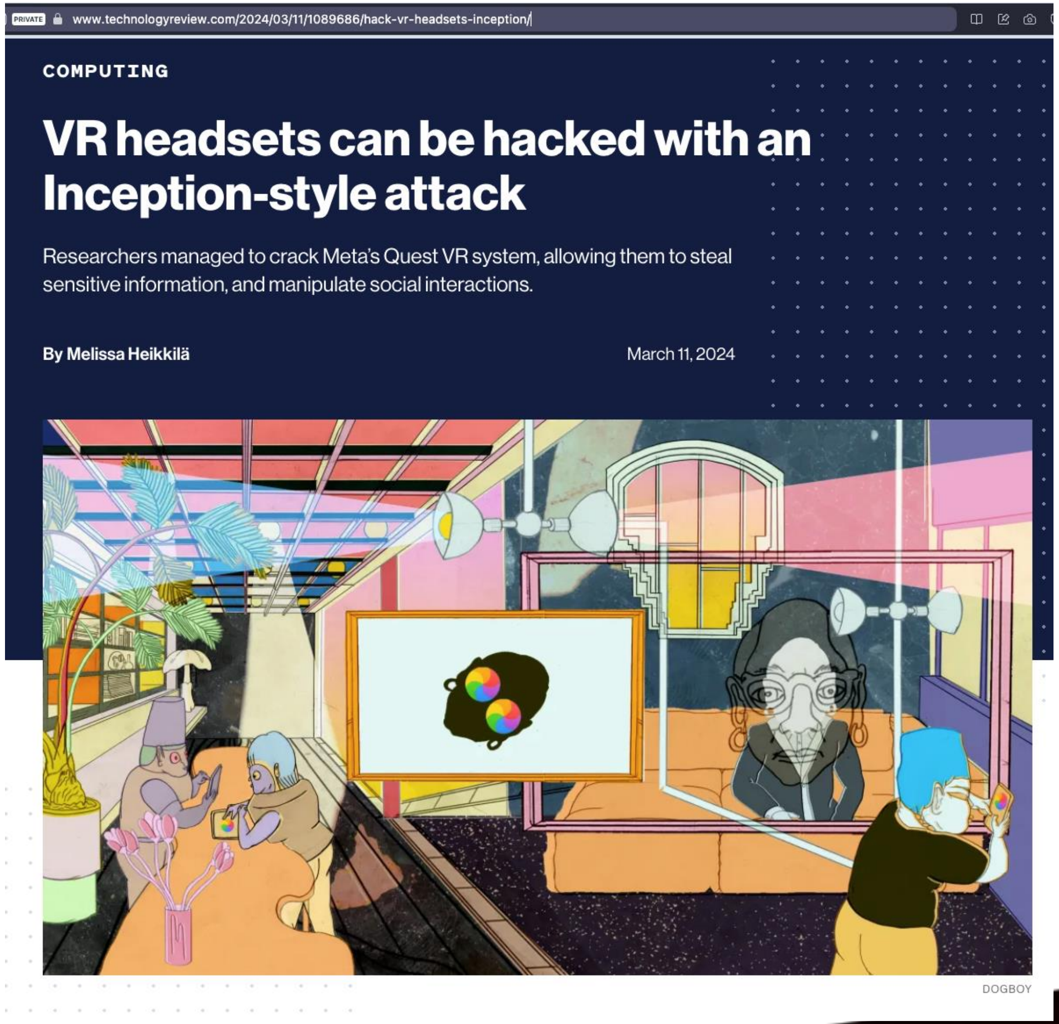
finance.yahoo.com/news/roomba-photographed-woman-toilet-ended-103704196.html

FORTUNE

A Roomba photographed a woman on the toilet and it ended up on social media. Now A.I. experts have this warning about bringing tech into your home

Fortune · Bildquelle/ullstein bild/Getty Images

Eleanor Pringle
January 18, 2023 • 5 min read



www.technologyreview.com/2024/03/11/1089686/hack-vr-headsets-inception/

COMPUTING

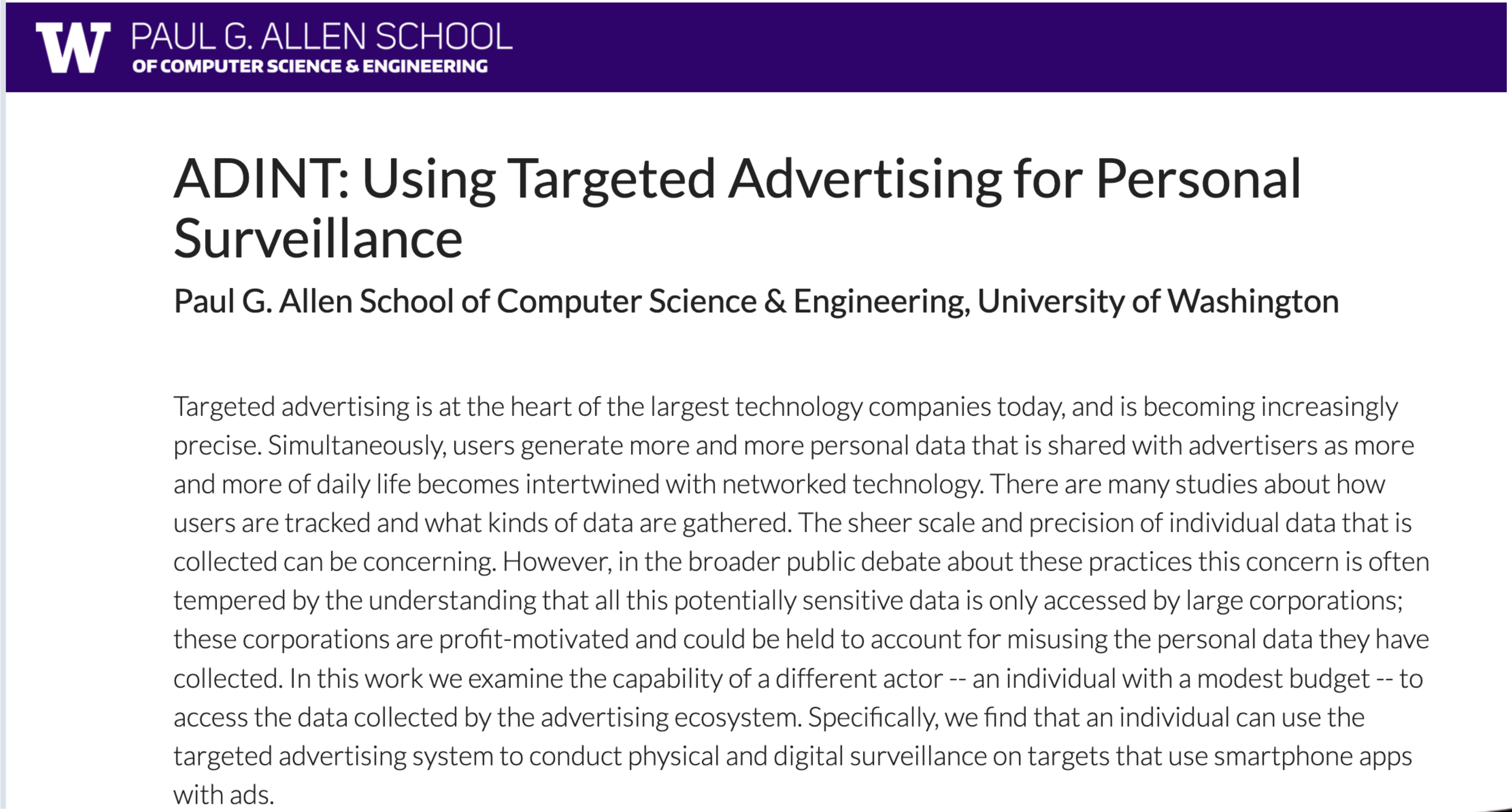
VR headsets can be hacked with an Inception-style attack

Researchers managed to crack Meta's Quest VR system, allowing them to steal sensitive information, and manipulate social interactions.

By Melissa Heikkilä March 11, 2024

DOGBOY

Hyper-personalized targeting, tracking and social engineering attacks



ADINT: Using Targeted Advertising for Personal Surveillance

Paul G. Allen School of Computer Science & Engineering, University of Washington

Targeted advertising is at the heart of the largest technology companies today, and is becoming increasingly precise. Simultaneously, users generate more and more personal data that is shared with advertisers as more and more of daily life becomes intertwined with networked technology. There are many studies about how users are tracked and what kinds of data are gathered. The sheer scale and precision of individual data that is collected can be concerning. However, in the broader public debate about these practices this concern is often tempered by the understanding that all this potentially sensitive data is only accessed by large corporations; these corporations are profit-motivated and could be held to account for misusing the personal data they have collected. In this work we examine the capability of a different actor -- an individual with a modest budget -- to access the data collected by the advertising ecosystem. Specifically, we find that an individual can use the targeted advertising system to conduct physical and digital surveillance on targets that use smartphone apps with ads.

https://adint.cs.washington.edu/#

Man in the browser attacks

- **it’s quite easy to push cognitive agenda directly to the readers**, by faking impression and insights of particular humans about particular events **instead of redirecting financial transactions to the attacker owned accounts**.

IoT Sensing and feeding us with information, both are exploitable

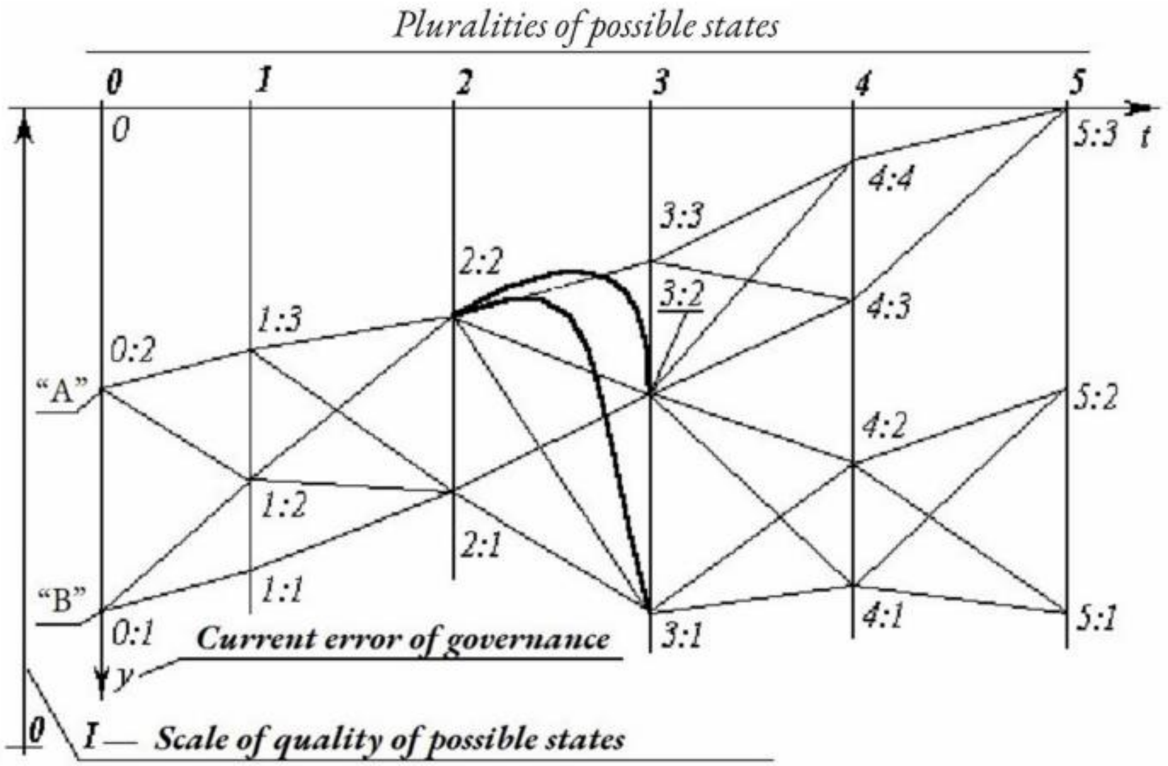
- Targeting physical events
- Sensing ongoing situation
- Affecting the trajectories if needed

Todd Wilbur
@ToddWilbur

When the road sign gets hacked...

ago

ss my love to you via "hacked" road signs.



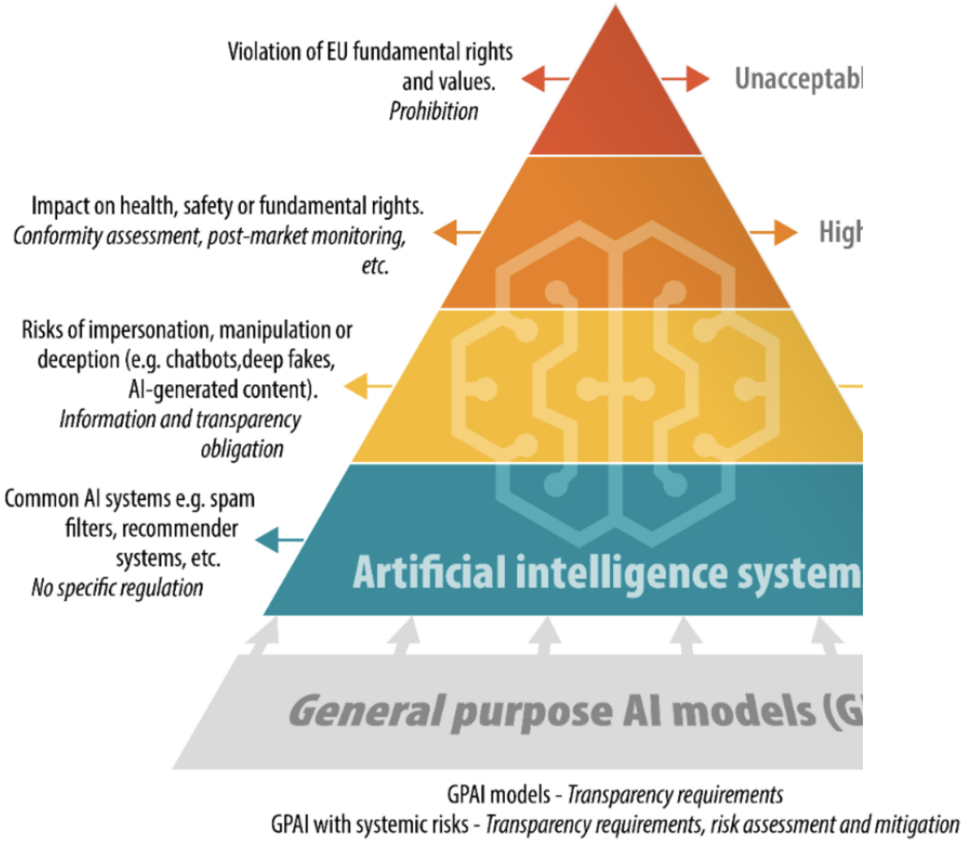
Pluralities of possible states
0
1
2
3
4
5
t
0
5:3
4:4
3:3
2:2
3:2
4:3
1:3
0:2
"A"
5:2
4:2
1:2
2:1
1:1
"B"
0:1
Current error of governance
3:1
4:1
5:1
y
0
I — Scale of quality of possible states

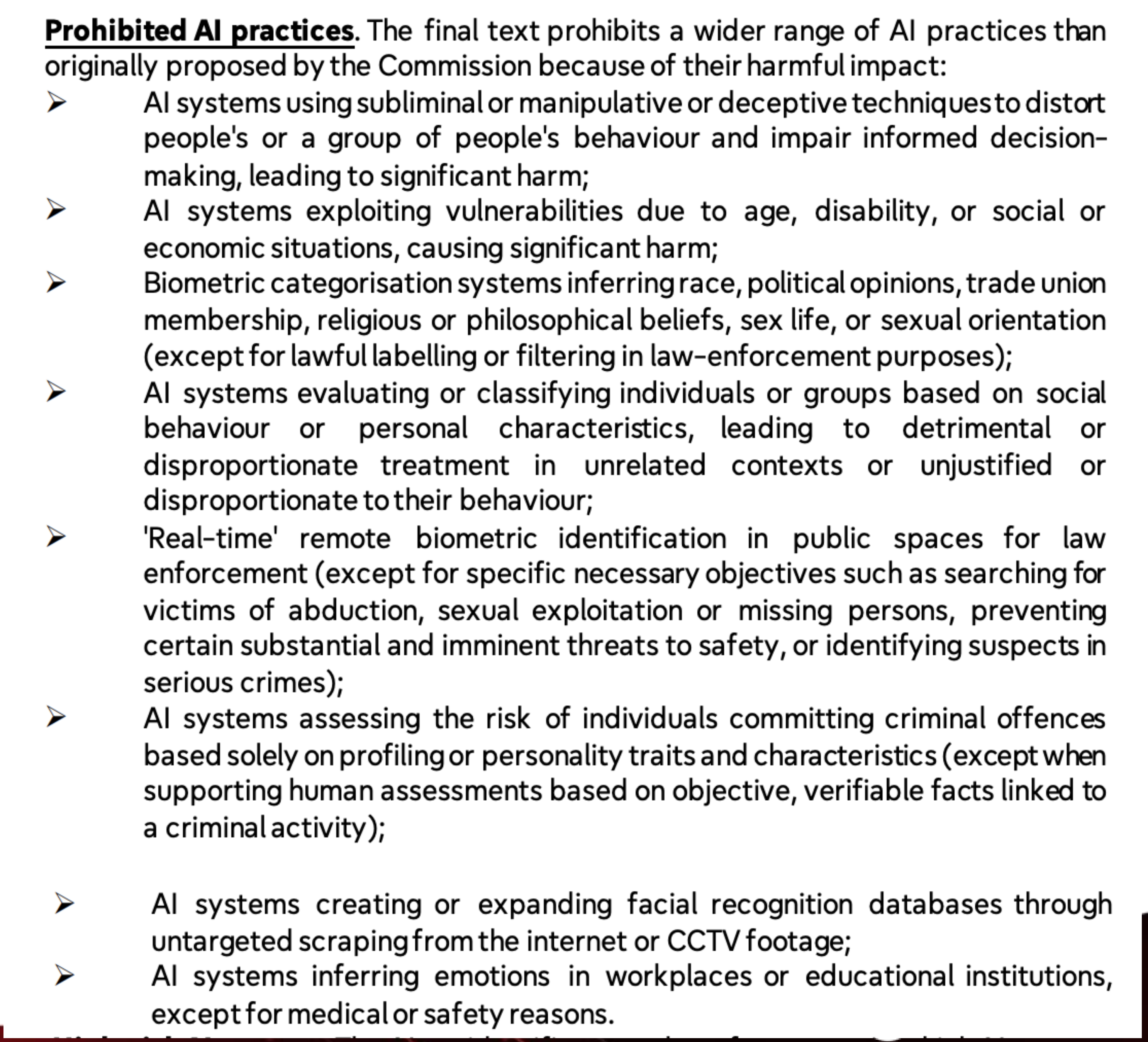
Information Bubbles at families, business entities, social groups level

How to deal with it

AI in EU

EU AI act risk-based approach


Violation of EU fundamental rights and values.
Prohibition
Unacceptabl
Impact on health, safety or fundamental rights.
Conformity assessment, post-market monitoring, etc.
High
Risks of impersonation, manipulation or deception (e.g. chatbots,deep fakes, AI-generated content).
Information and transparency obligation
Common AI systems e.g. spam filters, recommender systems, etc.
No specific regulation
Artificial intelligence system
General purpose AI models (G
GPAI models - Transparency requirements
GPAI with systemic risks - Transparency requirements, risk assessment and mitigation



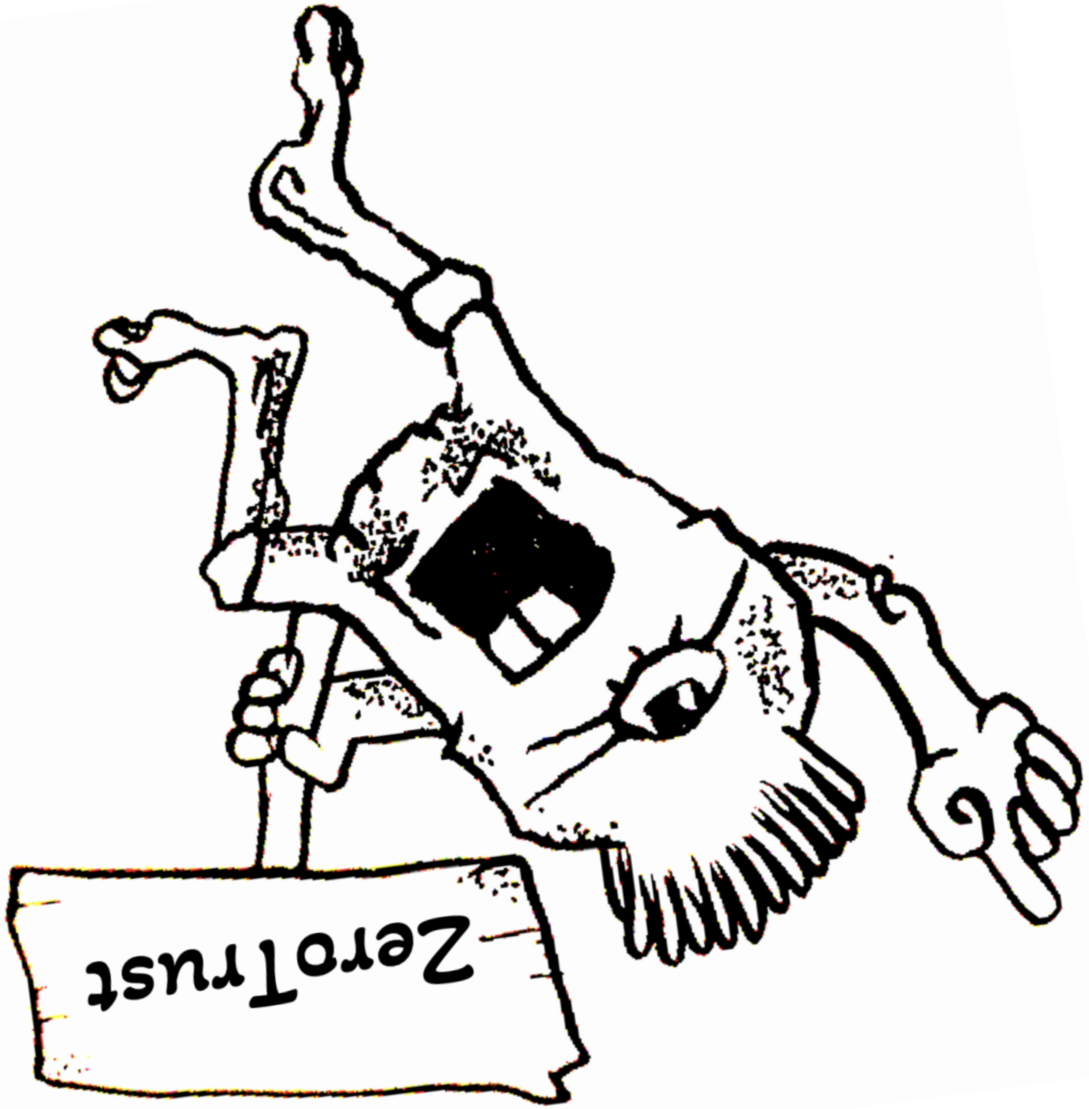
Prohibited AI practices. The final text prohibits a wider range of AI practices than originally proposed by the Commission because of their harmful impact:

- AI systems using subliminal or manipulative or deceptive techniques to distort people's or a group of people's behaviour and impair informed decision-making, leading to significant harm;
- AI systems exploiting vulnerabilities due to age, disability, or social or economic situations, causing significant harm;
- Biometric categorisation systems inferring race, political opinions, trade union membership, religious or philosophical beliefs, sex life, or sexual orientation (except for lawful labelling or filtering in law-enforcement purposes);
- AI systems evaluating or classifying individuals or groups based on social behaviour or personal characteristics, leading to detrimental or disproportionate treatment in unrelated contexts or unjustified or disproportionate to their behaviour;
- 'Real-time' remote biometric identification in public spaces for law enforcement (except for specific necessary objectives such as searching for victims of abduction, sexual exploitation or missing persons, preventing certain substantial and imminent threats to safety, or identifying suspects in serious crimes);
- AI systems assessing the risk of individuals committing criminal offences based solely on profiling or personality traits and characteristics (except when supporting human assessments based on objective, verifiable facts linked to a criminal activity);

- AI systems creating or expanding facial recognition databases through untargeted scraping from the internet or CCTV footage;
- AI systems inferring emotions in workplaces or educational institutions, except for medical or safety reasons.

ZeroTrust upsidedown

- Apply ZeroTrust like principles as an early warning of public opinion manipulation campaigns. Together with that maybe we can find other use cases for this.



Conclusion

Life in the bubbles is often more comfortable, choose you bubbles wise and jump outside at least time to time!