

MY PRIVACY AT RISK, IS IT SAFE?

AGENDA

Is Privacy an issue?

Are people aware of their privacy risks?

How to inform people on their privacy risks?

THE PROBLEM...



A large majority of Europeans engage with Online Social Networks (OSNs)

- 74% of users consider that they **do not have sufficient control**
- 70% **are concerned with the way** such data are handled by

- ❖ Personal data sharing is a complex and pervasive process that is still not well understood;
- ❖ Native Mobile Applications acting as Data Silos;
- ❖ Data Processors vs Data Collectors
- ❖ Personal Data Fragmentation
- ❖ Upcoming EU General Data Protection Regulation – harmonisation of EU’s legal framework and improvement of users’ control over their shared data

GENERAL DATA PROTECTION DIRECTIVE



Article 5 of the ePrivacy Directive

An app developer may use third party libraries with software that provides common functionalities, such as for example a library for a social gaming platform. The app developer must **ensure users are aware of any data processing undertaken**

To the extent that the app developer has outsourced some or all of the actual data processing to a third party and that third party assumes the role of a data processor then the app developer **must comply with all obligations related to the use of a data processor.** This would also **include the use of a cloud computing provider** (e.g. for external data storage).

Article 17



It requires from the manufacturers of a device or an application to embed data protection from the **very beginning of its design.**

This includes ensuring **the availability of appropriate mechanisms to inform and educate** the end user about what the apps can do and what data they are able to access, as well as providing appropriate settings for app users to change the parameters of the processing.

HOW REAL IS THIS?

- JUNE 2015, EU Council of Ministers

REGULATION

GENERAL DATA PROTECTION ~~DIRECTIVE~~

- OCTOBER 2015, European Court of Justice



- NOVEMBER 2015, Belgian Court



Facebook 48 hours to stop tracking the online activities of non-Facebook users (**datr cookie**) in Belgium unless they have their explicit consent or face **a daily fine of €250,000**

UNDERSTANDING PRIVACY FROM END-USERS POINT OF VIEW

I will NOT share this with an app:

86% credit card or bank info



64% medical records



56% home address



35+ are more concerned with sharing all pieces of personal info EXCEPT their location

49% children/s' name



35% physical location



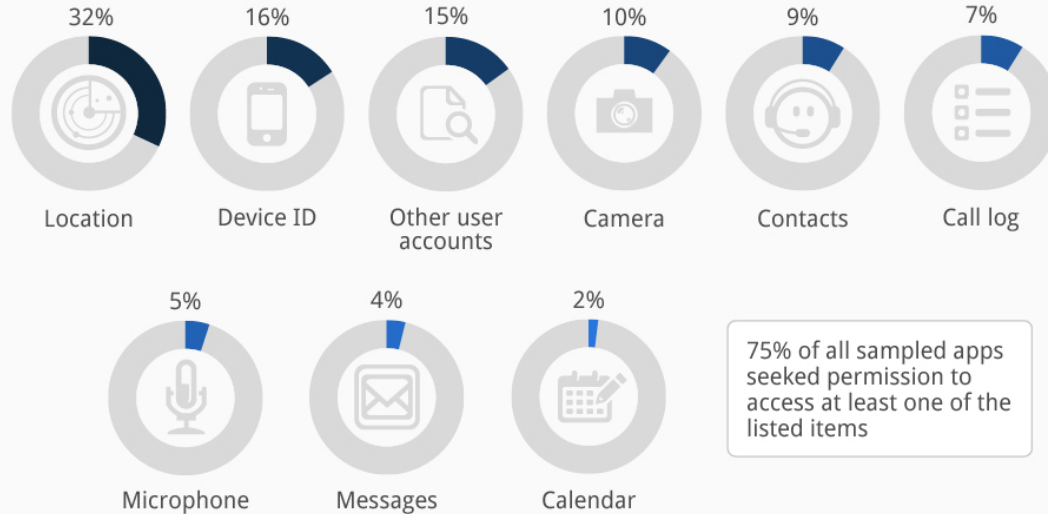
24% birth date



UNDERSTANDING PRIVACY FROM APPLICATION'S POINT OF VIEW

75% Of Mobile Apps Want Access To User Data

Percentage of apps seeking permission to access the following data



Based on an analysis of 1,211 Android and iOS apps in May 2014

Source: Global Privacy Enforcement Network

statista

MATCHING THE GAP



Predict information about you and your personality by analyzing your digital trail

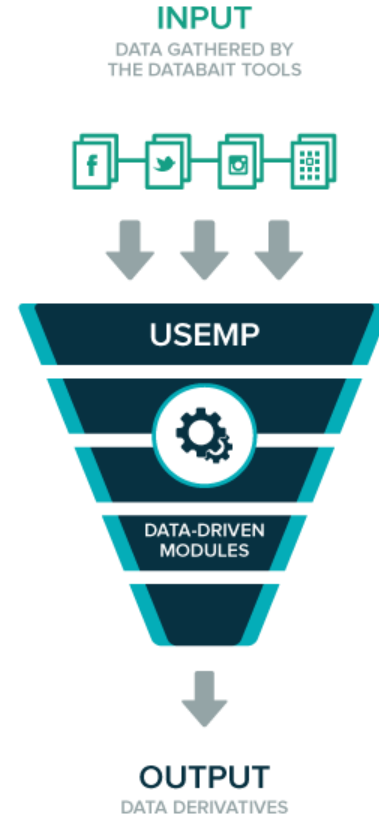


Privacy monitoring and protection solution using automated agents and crowd sourcing information

DATABAIT

DataBait, the USEMP web application that shows you what happens behind the screen, to the digital trail you leave behind when using services such as Facebook, Google or Twitter.

- Step 1: Connect with your Facebook account
- Step 2: DataBait will access your **public information, friends list, photos and posts**
- Step 3: Install DataBait browser-plugin
- Step 4: get an insight who tracks you and where



DATABAIT: LOGIN WITH FACEBOOK ACCOUNT

The screenshot displays the DataBait user interface. On the left, a dark-themed panel shows a welcome message: "Welcome to" followed by the DataBait logo and "Hi, Andreas". Below this is a circular profile picture of a man and the text "Hi, Andreas". Underneath is a section titled "Facebook Latest Activities" with two items: "Latest Photo Shared" showing a white rose and "Latest Place Tagged" showing a camera. On the right, a light-themed panel features a teal header with "Language" and a dropdown menu. Below the header is a navigation bar with "Databait" and a user profile icon labeled "Andreas". The main content area is titled "Discover more..." and "See the personality behind your posts". It contains four icons: "My Disclosures" (person icon), "Audience Influence" (two people icon), "Your Value Creation" (computer monitor with bar chart icon), and "Trackers" (person icon with two eyes). At the bottom, there are two buttons: "Install DataBait Plugin" (orange) and "Historical Data" (light blue). A warning icon and text at the bottom center state: "DataBait plugin allows you to control the trackers on the pages you visit."

DATABAIT: PHOTO INSIGHTS

The screenshot shows the Databait interface. At the top, there is a teal header with the Databait logo and navigation icons. Below the header, the user's profile is shown with a yellow circular avatar and the name "My Disclosures". Navigation tabs include "Overview", "Location Insights", "Photo Insights" (which is highlighted), and "Brands Insights".

On the left side, there are two sections:


- Interest detection based on images:** A text block explaining that the tag cloud is automatically inferred from Facebook images and that Databait predicts tags from over 17,000 visual concepts.
- Tag Cloud meaning:** A text block explaining that the tag cloud shows identified concepts with sizes proportional to their frequency in posted online social network images.


The main content area features a tag cloud with the following text: "skin-diver", "scuba diving", "aqualung", "diver", "scuba diver", "skin diving", "snorkeling", "diving", "suit", "aqualung", "ocean floor", "beach". A red button labeled "more concepts..." is located below the tag cloud.

Below the tag cloud, there is a section titled "Andreas's scuba diving posted images (10)". It includes a small profile picture of Andreas and a scrollable row of three scuba diving photos. A caption below the photos reads "Scroll over to see the related concepts."

DATABAIT: LOCATION INSIGHTS

DataBait Language ▾

Databait ▾ |  Andreas ▾

 **Andreas's Rome posts (7)**

Location detection based on text

The locations you see in this page are the result of an automatic location estimation algorithm that processes the text content of your posts and predicts the location where these posts were made or the location indicated in facebook.


Tag Cloud meaning

The tag cloud shows the identified location at city level with a size proportional to frequency.

Tags are coloured with different colours to indicate how the location was detected:


- Facebook:** information that facebook has available
- Databait:** information that can be inferred by processing the posts


more locations...



more locations...

More



 **Andreas's Weehawken posts (2)**

Source: FACEBOOK Confidence 100.00%

cena con amici, grazie a tutti, alla prossimat

Source: FACEBOOK Confidence 100.00%

feels like coming back home

Source: FACEBOOK Confidence 100.00%


sono tutti qui


Source: FACEBOOK Confidence 100.00%

:D

Source: DATABAIT Confidence 73.85%

@ SPQR




 **Andreas's Weehawken posts (2)**

Source: DATABAIT Confidence 18.84%

Unboxing my new "PuffyTeddyBear" :)

Source: DATABAIT Confidence 15.66%

how many times has this happened



Terms of Use

13

DATABAIT: BRANDS INSIGHTS

The screenshot shows the DataBait web application interface. At the top, there is a teal header with the 'DataBait' logo and a user profile icon. Below the header, the main content area is titled 'My Disclosures' and includes navigation tabs for 'Overview', 'Location Insights', 'Photo Insights', and 'Brands Insights'. A sub-header reads 'Brands detection based on photos' and explains that the tag cloud is generated from photos posted on Facebook. Below this, a 'Tag Cloud meaning' section states that the size of the logos is proportional to their frequency. The central feature is a tag cloud of brand names, with 'animal planet' being the largest. A 'more logos...' button is located at the bottom right of the tag cloud.

Brands detection based on photos

The tag cloud you see on this page illustrates different brands that can be automatically inferred by DataBait from the images that you posted on Facebook. DataBait predicts brands related to specific photos from a set of over XXX brands.

Tag Cloud meaning

The tag cloud shows the identified logos with a size proportional to their frequency in the posted online social network photos.

My Disclosures

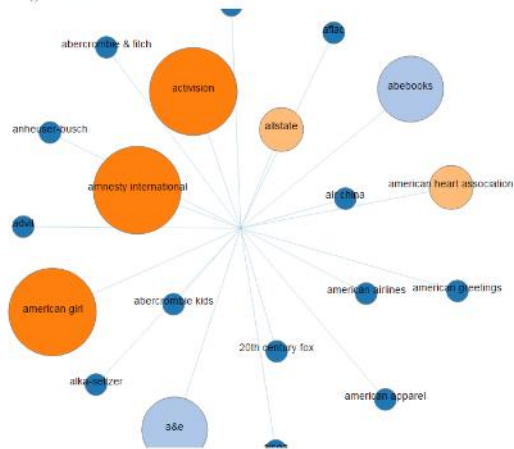
Overview Location Insights Photo Insights Brands Insights

Click on logo to see the related photos.

albas alka seltzer allergan allstate american airlines american apparel american girl american greetings
american heart association amnesty international anheuser-busch
animal planet ann taylor ansel atoe avoda

more logos.

Top 20 Logos Detected



DATABAIT: AUDIENCE INFLUENCE



Audience Influence

Audience Visualization Statistical Data

Beta Version: Please allow sometime to load.

Most Influenced Friends

Detailed Interactions



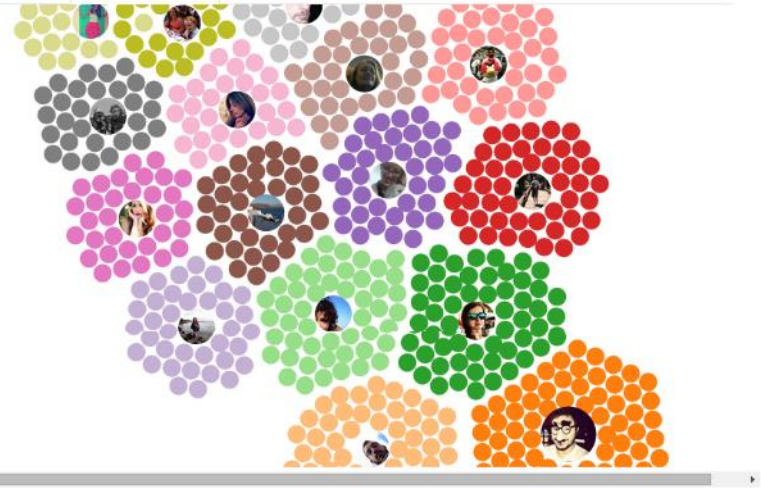
Audience Influence

Audience Visualization Statistical Data

Beta Version: Please allow sometime to load.

Most Influenced Friends

Detailed Interactions



DATABAIT: WHO TRACKS ME?

The screenshot shows the DataBait User Trackers interface. The top navigation bar includes the DataBait logo, a home icon, a user profile icon, and the name 'Andreas'. The main content area is titled 'User Trackers Overview' and features a 'Graph view' tab. The graph displays a network of nodes representing various domains and trackers, connected by lines. A 'Reload data' button is located at the bottom left. Below the graph, there are 'TOGGLE CONTROLS' for 'Visited pages', '3rd party trackers', and 'Blocked trackers'.

Data from
23/11/2015 12:53
You have visited
66 Domains
Connected With
725 Third party sites

Website info
Please Select a Site

Last Access

Reload data

TOGGLE CONTROLS

- Visited pages
- 3rd party trackers
- Blocked trackers

The screenshot shows the DataBait interface for the website 'www.naftemporiki.gr'. It features a 'View Graph' button and a list of trackers. The list includes the following items:

- google-analytics.com
- admian.gr
- amazonaws.com
- nuggad.net
- ali-host.net
- clickatlife.gr

ENABLING THE CROWD



Predict information about you and your personality by analyzing your digital trail



Privacy monitoring and protection solution using automated agents and crowd sourcing information

PRIVACY FLAG



Privacy Flag engages with the crowd



Crowd provides feedback through PF tools



PF site



Android app



Browser add-on



The information is combined with



Automated privacy enablers



Privacy Flag experts input



Users get privacy risks analysis for:

- Sites they visit
- Mobile Apps they use
- IoT registered networks

THANK YOU

 @andr_drakos