



Your privacy using Google tools. Can you preserve it ?

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Disclaimer: this analysis is made using Google tools.

Very similar conclusions can be produced for other “free” cloud services providers

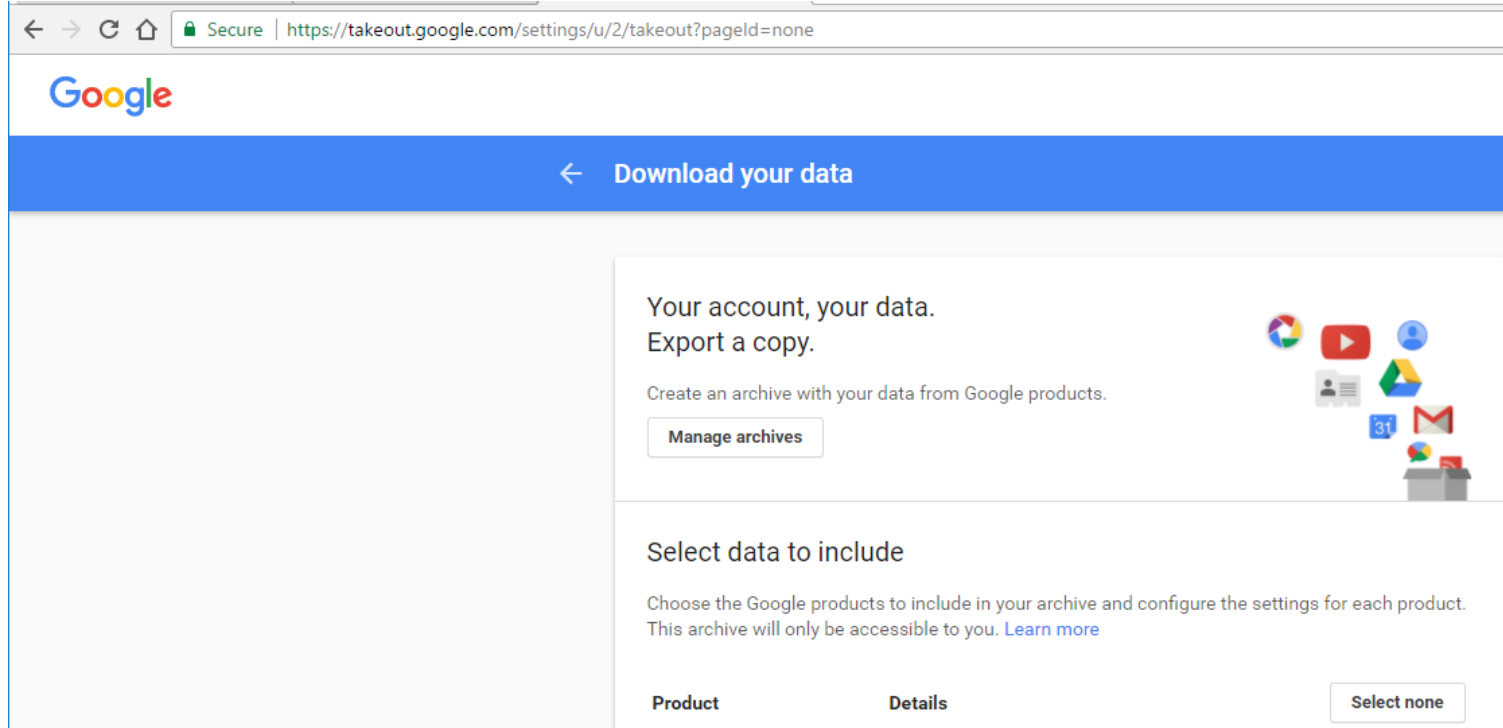
Can you preserve your privacy ?

- I have two news
 - One good
 - One bad

Can you preserve your privacy ?

- The **good** news:
 - Google is fully transparent on the information they have about you.
 - And you can manage this information...
 - You can view it
 - You can export it
 - You can delete it

http://google.com/takeout



The screenshot shows the Google Takeout website in a browser. The address bar displays the URL `https://takeout.google.com/settings/u/2/takeout?pagelid=none`. The Google logo is visible in the top left. A blue navigation bar contains a back arrow and the text "Download your data". The main content area is divided into two sections. The top section, titled "Your account, your data. Export a copy.", includes a sub-header "Create an archive with your data from Google products." and a "Manage archives" button. To the right of this text is a cluster of icons representing various Google services: Photos, YouTube, Drive, Contacts, Calendar, and Gmail. The bottom section, titled "Select data to include", contains the instruction "Choose the Google products to include in your archive and configure the settings for each product. This archive will only be accessible to you. [Learn more](#)". Below this instruction is a table with two columns: "Product" and "Details", and a "Select none" button on the right.

← Download your data

Product	Details	Select none
Gmail	+1s	<input type="checkbox"/> <input checked="" type="checkbox"/>
3D Warehouse		<input type="checkbox"/> <input checked="" type="checkbox"/>
Blogger	All blogs	<input type="checkbox"/> <input checked="" type="checkbox"/>
Bookmarks		<input type="checkbox"/> <input checked="" type="checkbox"/>
Calendar	All calendars	<input type="checkbox"/> <input checked="" type="checkbox"/>
Chrome	All Chrome data types	<input type="checkbox"/> <input checked="" type="checkbox"/>
Contacts	vCard format	<input type="checkbox"/> <input checked="" type="checkbox"/>
Drive	All files Microsoft Powerpoint and 3 other formats	<input type="checkbox"/> <input checked="" type="checkbox"/>
Fit	All data types	<input type="checkbox"/> <input checked="" type="checkbox"/>
Google Photos	All photo albums	<input type="checkbox"/> <input checked="" type="checkbox"/>
Google Play Books	All books HTML format	<input type="checkbox"/> <input checked="" type="checkbox"/>
Google+ Circles	vCard format	<input type="checkbox"/> <input checked="" type="checkbox"/>
Google+ Pages	All pages HTML format	<input type="checkbox"/> <input checked="" type="checkbox"/>
Google+ Stream	HTML format	<input type="checkbox"/> <input checked="" type="checkbox"/>
Groups		<input type="checkbox"/> <input checked="" type="checkbox"/>
Handsfree		<input type="checkbox"/> <input checked="" type="checkbox"/>
Hangouts		<input type="checkbox"/> <input checked="" type="checkbox"/>
Hangouts on Air		<input type="checkbox"/> <input checked="" type="checkbox"/>
Keep		<input type="checkbox"/> <input checked="" type="checkbox"/>
Location History	JSON format	<input type="checkbox"/> <input checked="" type="checkbox"/>
Mail	All mail	<input type="checkbox"/> <input checked="" type="checkbox"/>
Maps (your places)		<input type="checkbox"/> <input checked="" type="checkbox"/>
My Maps		<input type="checkbox"/> <input checked="" type="checkbox"/>
Profile		<input type="checkbox"/> <input checked="" type="checkbox"/>
Searches		<input type="checkbox"/> <input checked="" type="checkbox"/>
Tasks		<input type="checkbox"/> <input checked="" type="checkbox"/>
YouTube	All data types OPML, (RSS) format	<input type="checkbox"/> <input checked="" type="checkbox"/>

✓ 27 products selected

Customize archive format

Choose your archive's file type and whether you want to download it or save it in the cloud.

File type

.zip ▾

Zip files can be opened on almost any computer.

Archive size (max)

50GB ▾

Archives larger than this size will be split into multiple files.

Zip files larger than 2GB will be compressed in zip64. Older operating systems may not be able to open this file format. There are external applications that can be used to uncompress zip64 files.

Delivery method

Send download link via email ▾

After we finish creating your archive, we'll email a link so you can download it to your personal device. You will have one week to retrieve your archive.

Create archive

After only few hours ...

All Unread

By Date ▾ Newest ↓

Google Download Your Data

Your Google data archive is ready

Mon 19:21

Your account, your data. The Google data

Reply Reply All Forward IM



Mon 15-May-2017 19:21

Google Download Your Data <noreply@google.com>

Your Google data archive is ready

Only to me

i If there are problems with how this message is displayed, click here to view it in a web browser.
Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Your account, your data.

The Google data archive you started on May 15, 2017 is ready. It contains your +1s, 3D Warehouse, Bookmarks, Contacts, Google+ Circles, Google+ Stream, Groups, Handsfree, Hangouts, Hangouts on Air, Keep, Location History, Maps (your places), My Maps, Profile, Searches, Tasks, Blogger, Calendar, Chrome, Drive, Fit, Google Photos, Google Play Books, Google+ Pages Mail, and YouTube data. It will be available for you to download until May 22, 2017.

[Learn more about Google Download Your Data.](#)

Manage archives

[Download archive 1 of 4](#)

[Download archive 2 of 4](#)

[Download archive 3 of 4](#)

[Download archive 4 of 4](#)




IT-ST

← Download your data: archives

If you have decided to take your data elsewhere, please research the data export policies of your destination. Otherwise, if you ever want to leave the service, you may have to leave important stuff like your photos behind.

Do not download your archives on public computers or upload them where others can see them.

Once you download your data, if you'd like to explore other options to manage your account, including account deletion, please visit myaccount.google.com.

Archive	Created on	Available until	Details
27 products 194.06 GB	May 15, 2017	May 22, 2017	 SHOW EXPORTS

Download / View archives

Since this archive is too big for a single file, we've split it into 4 handy packages.

- Part 1 of 4 (49.87 GB) [Download](#)
- Part 2 of 4 (49.78 GB) [Download](#)
- Part 3 of 4 (49.72 GB) [Download](#)
- Part 4 of 4 (44.68 GB) [Download](#)

[Cancel](#)

So ... what have I got back ?

- Of course ...
 - Every document I have uploaded to Google Drive
 - Every video I have uploaded to Youtube
 - Every Email I have received and sent
 - including spam and deleted messages in the trash
 - All my contacts
 - All my bookmarks

- **But also ...**

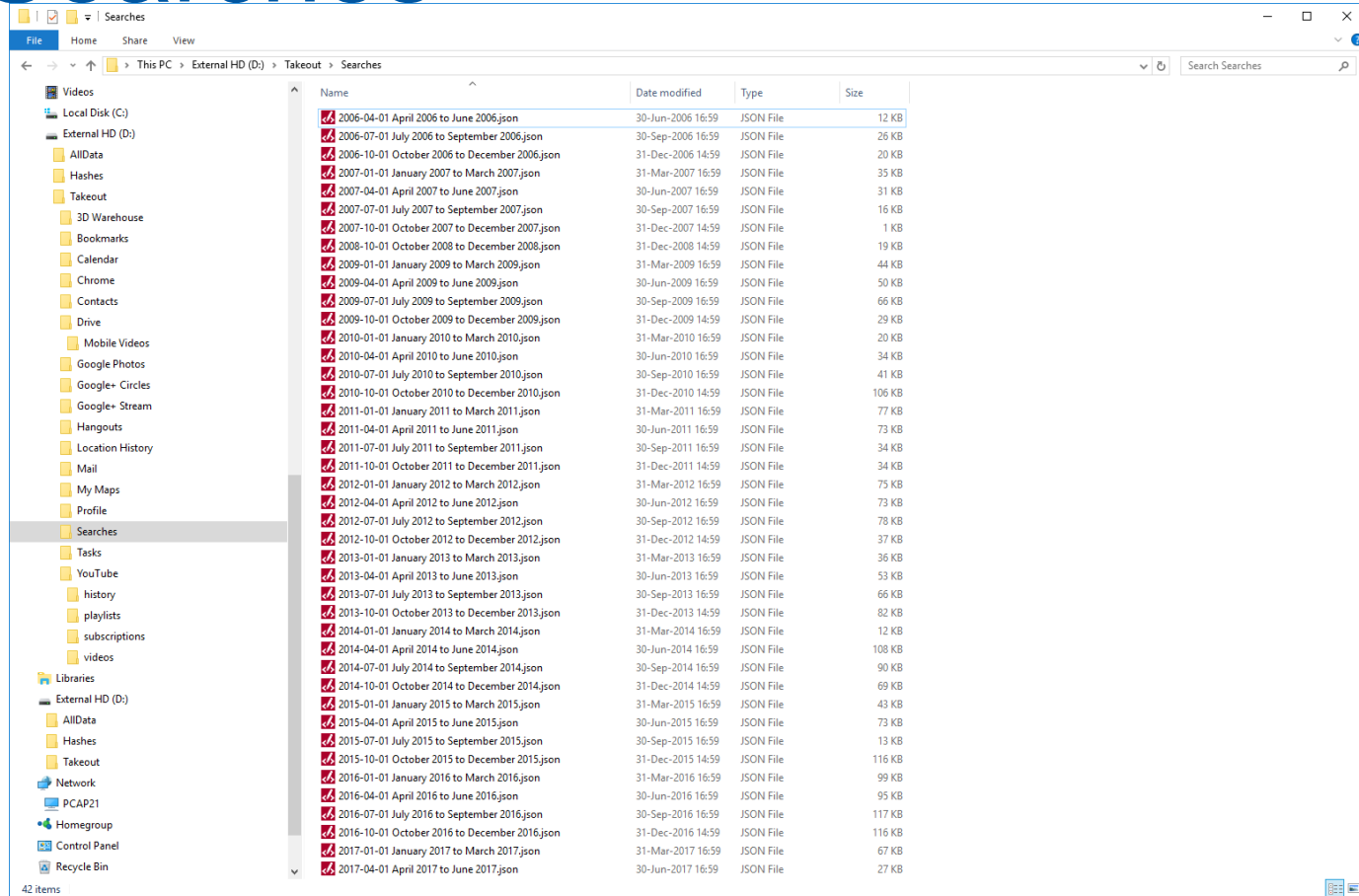
- All web pages I have visited
- Every location I have been with my mobile phone
 - Including guesses on names of shops, restaurants, hotels, sightseeing ...
 - Including guesses on how I have been traveling (Car, Train, Bus, Airplane, ...)
- Everything I have searched on the web since 2006
- Everything time-stamped to the microsecond precision

takeout-20170515T150219Z-004.zip	16-May-2017 15:52	Compressed (zipped) Folder	46'854'013 ...
takeout-20170515T150219Z-002.zip	16-May-2017 13:39	Compressed (zipped) Folder	52'200'721 ...
takeout-20170515T150219Z-003.zip	16-May-2017 13:39	Compressed (zipped) Folder	52'131'142 ...
takeout-20170515T150219Z-001.zip	16-May-2017 10:49	Compressed (zipped) Folder	52'296'323 ...

Browser History

```
{
  "page_transition": "TYPED",
  "title": "New Tab",
  "url": "chrome://newtab/",
  "client_id": " GFL25x\u003d\u003d ",
  "time_usec": 1494858277225897
},
{
  "favicon_url": "https://indico.cern.ch/images/indico.ico",
  "page_transition": "AUTO_TOPLEVEL",
  "title": "IT Lightning Talks: session #13 (19 May 2017)",
  "url": "https://indico.cern.ch/event/630931/",
  "client_id": " GFL25x\u003d\u003d ",
  "time_usec": 1494858272155242
},
{
  "favicon_url": "https://webcast.web.cern.ch/webcast/favicon.ico",
  "page_transition": "LINK",
  "title": "CERN Webcast | IT Lightning Talks: session #13",
  "url": "https://webcast.web.cern.ch/webcast/play.php?event\u003d630931",
  "client_id": "GFL25x\u003d\u003d",
  "time_usec": 1494858267338395
},
```

Google Searches



The screenshot shows a Windows File Explorer window titled "Searches" located on an external hard drive. The left sidebar shows a tree view of folders, with "Searches" selected. The main pane displays a list of files, each representing a month's worth of search history for a specific year. The files are sorted by name, which includes the date range (e.g., "2006-04-01 April 2006 to June 2006.json").

Name	Date modified	Type	Size
2006-04-01 April 2006 to June 2006.json	30-Jun-2006 16:59	JSON File	12 KB
2006-07-01 July 2006 to September 2006.json	30-Sep-2006 16:59	JSON File	26 KB
2006-10-01 October 2006 to December 2006.json	31-Dec-2006 14:59	JSON File	20 KB
2007-01-01 January 2007 to March 2007.json	31-Mar-2007 16:59	JSON File	35 KB
2007-04-01 April 2007 to June 2007.json	30-Jun-2007 16:59	JSON File	31 KB
2007-07-01 July 2007 to September 2007.json	30-Sep-2007 16:59	JSON File	16 KB
2007-10-01 October 2007 to December 2007.json	31-Dec-2007 14:59	JSON File	1 KB
2008-10-01 October 2008 to December 2008.json	31-Dec-2008 14:59	JSON File	19 KB
2009-01-01 January 2009 to March 2009.json	31-Mar-2009 16:59	JSON File	44 KB
2009-04-01 April 2009 to June 2009.json	30-Jun-2009 16:59	JSON File	50 KB
2009-07-01 July 2009 to September 2009.json	30-Sep-2009 16:59	JSON File	66 KB
2009-10-01 October 2009 to December 2009.json	31-Dec-2009 14:59	JSON File	29 KB
2010-01-01 January 2010 to March 2010.json	31-Mar-2010 16:59	JSON File	20 KB
2010-04-01 April 2010 to June 2010.json	30-Jun-2010 16:59	JSON File	34 KB
2010-07-01 July 2010 to September 2010.json	30-Sep-2010 16:59	JSON File	41 KB
2010-10-01 October 2010 to December 2010.json	31-Dec-2010 14:59	JSON File	106 KB
2011-01-01 January 2011 to March 2011.json	31-Mar-2011 16:59	JSON File	77 KB
2011-04-01 April 2011 to June 2011.json	30-Jun-2011 16:59	JSON File	73 KB
2011-07-01 July 2011 to September 2011.json	30-Sep-2011 16:59	JSON File	34 KB
2011-10-01 October 2011 to December 2011.json	31-Dec-2011 14:59	JSON File	34 KB
2012-01-01 January 2012 to March 2012.json	31-Mar-2012 16:59	JSON File	75 KB
2012-04-01 April 2012 to June 2012.json	30-Jun-2012 16:59	JSON File	73 KB
2012-07-01 July 2012 to September 2012.json	30-Sep-2012 16:59	JSON File	78 KB
2012-10-01 October 2012 to December 2012.json	31-Dec-2012 14:59	JSON File	37 KB
2013-01-01 January 2013 to March 2013.json	31-Mar-2013 16:59	JSON File	36 KB
2013-04-01 April 2013 to June 2013.json	30-Jun-2013 16:59	JSON File	53 KB
2013-07-01 July 2013 to September 2013.json	30-Sep-2013 16:59	JSON File	66 KB
2013-10-01 October 2013 to December 2013.json	31-Dec-2013 14:59	JSON File	82 KB
2014-01-01 January 2014 to March 2014.json	31-Mar-2014 16:59	JSON File	12 KB
2014-04-01 April 2014 to June 2014.json	30-Jun-2014 16:59	JSON File	108 KB
2014-07-01 July 2014 to September 2014.json	30-Sep-2014 16:59	JSON File	90 KB
2014-10-01 October 2014 to December 2014.json	31-Dec-2014 14:59	JSON File	69 KB
2015-01-01 January 2015 to March 2015.json	31-Mar-2015 16:59	JSON File	43 KB
2015-04-01 April 2015 to June 2015.json	30-Jun-2015 16:59	JSON File	73 KB
2015-07-01 July 2015 to September 2015.json	30-Sep-2015 16:59	JSON File	13 KB
2015-10-01 October 2015 to December 2015.json	31-Dec-2015 14:59	JSON File	116 KB
2016-01-01 January 2016 to March 2016.json	31-Mar-2016 16:59	JSON File	99 KB
2016-04-01 April 2016 to June 2016.json	30-Jun-2016 16:59	JSON File	95 KB
2016-07-01 July 2016 to September 2016.json	30-Sep-2016 16:59	JSON File	117 KB
2016-10-01 October 2016 to December 2016.json	31-Dec-2016 14:59	JSON File	116 KB
2017-01-01 January 2017 to March 2017.json	31-Mar-2017 16:59	JSON File	67 KB
2017-04-01 April 2017 to June 2017.json	30-Jun-2017 16:59	JSON File	27 KB

Location History

```
{
  "timestampMs" : "1494849199573",
  "latitudeE7" : 412234242,
  "longitudeE7" : 50870613,
  "accuracy" : 1342,
  "activity" : [ {
    "timestampMs" : "1494849217420",
    "activity" : [ {
      "type" : "IN_VEHICLE",
      "confidence" : 85
    }, {
      "type" : "UNKNOWN",
      "confidence" : 13
    }, {
      "type" : "STILL",
      "confidence" : 3
    } ]
  } ]
}
```

```
{
  "timestampMs" : "1494853808994",
  "latitudeE7" : 245521890,
  "longitudeE7" : 75487946,
  "accuracy" : 23,
  "activity" : [ {
    "timestampMs" : "1494853806162",
    "activity" : [ {
      "type" : "ON_FOOT",
      "confidence" : 54
    }, {
      "type" : "WALKING",
      "confidence" : 54
    }, {
      "type" : "UNKNOWN",
      "confidence" : 44
    }, {
      "type" : "IN_VEHICLE",
      "confidence" : 2
    } ]
  } ]
}
```

Do we have a problem ?

349 km 5 hr 22 min 2.3 km 33 min

Hotel Dieci 07:19 >
Largo Rio De Janeiro 12, 20133 Mila...

Walking 2.3 km 33 min

Milano Centrale R... 07:52-08:04 >
Piazza Duca d'Aosta, 1, 20124 Milan...

On a train 349 km 5 hr 22 min

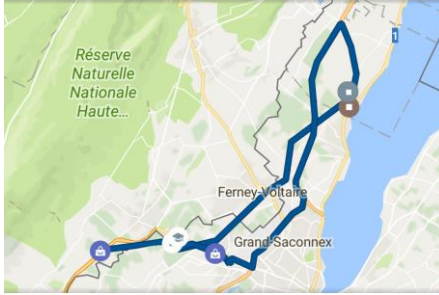
WERE YOU HERE?
Home 13:26-20:23 >

YES EDIT

Moving 12 km 19 min

Restaurant La Me... 20:42 - Now >
Chemin Antoine-Verchère 1, 1217 Me...

9 May 2017



52 km 2 hr 8 min 850 m 4 min

9 May 2017

Home 08:23 >

Driving 14 km 27 min

WERE YOU HERE?
CERN Building 31 08:44-12:19 >
01280 Prévessin-Moëns, France

YES EDIT

Driving 5.5 km 13 min

Centre Commerci... 12:32-13:03 >
1401 Rue de la Gare, 01710 Thoiry, Fr...

Driving 5.2 km 12 min

WERE YOU HERE?
European Council 12:15-18:26 >

So what Google can do ...

- Correlate my data from multiple applications
- Correlate my data with the data of other people
 - Persons in the same location
 - Contacts I have been exchanging mail/messages
 - Persons sharing an activity (ex: browsing same web site)
- Google knows: who you are, where you have been, who you have met, what you have discussed about, what you have purchased, ... who you are spending the night with
 - And this for every day of your life

Conclusion

- Can you preserve your privacy ?
- **The good news:**
 - Google is now fully transparent concerning the information they have about you.
 - And you can manage this information...
 - You can view it
 - You can export it
 - You can delete it
- **The bad news:**
 - If you do not trust Google, you should seriously think twice before using their tools
 - Your entire private life is at stake. Also towards third parties
 - What if you lose your password or your account get's hacked ?

Or any other cloud provider





www.cern.ch