

Blue Kai

The largest data miner

A “Game”

Think of the person that you know best in the world.

[Family member, friend, significant other]

See how much of the information you know about them.

Keep tally on a sheet.

How much do you know about your friend?

1. What is their full name?
2. What is the full name of their parents?
3. What is the full name of their siblings?
4. What is their address?
5. What is their postal code?
6. What is their home phone number?
7. What is their cell phone number?
8. What forms of social media do they use?
9. For each form of social media, what is their id?
10. What was their last google search?
11. What kind of phone do they have?
12. What kind of car does their family have?
13. What technology do they have at home? (tablets, e-readers, computers, tvs...)
14. What was the last game/app they played on their computer?
15. How old are they?
16. What is the highest form of education they have received?
17. How much money do they make a year?
18. What are the names of all the educational institutions they have attended?

How much do you know about your friend?

19. What kind of soap do they use?
20. What kind of shampoo do they use?
21. What bank do they use?
22. What is their bank balance?
23. What credit cards does their family have?
24. What is the last charge on the credit card?
25. What was the last store they shopped at?
26. Which store do they spend the most in?
27. What hobbies do they have?
28. Where did they last go on vacation?
29. How much did they spend on their last vacation?
30. Do they have a pet?
31. What kind of food does their pet eat?
32. What is their favourite food?
33. Where do they work?
34. What is the most common IP address they use?



- Owned by Oracle.
- They own information about 700 million people.
- They store about 40,000 pieces of information about each person.
- Exabyte of information (1 billion GB, or 10^{18} Bytes).
 - All words ever spoken by humans is about 5 EB of info, roughly that size
- They buy this information from website and social media.
- They sell this information to stores and advertisers.

Where does the data come from?

How can they possibly know 40,000 things about me?

2. Server (website, social media)

3. Sells to Blue Kai

1. User



4. Blue Kai processes data

5. real-time bidding,
Marketing info

Source: The Internet

Social Media: Tracks your meta data and sells it on.

Websites: Track your cookies and sell it on.

Bloomberg Businessweek


November 25–December 2, 2013 | businessweek.com



*The SURPRISING
SOPHISTICATION of
TWITTER* Page 38



David Paterson 2013



True or False:
A tweet is 140
characters.



Really false.

The text is, but
that isn't all that
makes up a
tweet.



Latitude

Longitude



Latitude



Longitude



Place Name



A diagram showing four data fields for a place: Latitude, Longitude, Place Name, and Creation Time. The fields are represented by ovals. Three ovals are blue (Latitude, Longitude, Place Name) and one is orange (Creation Time). They are arranged in a diamond-like pattern against a background of a blue sky with white clouds.

Longitude

Latitude

Creation Time

Place Name



A diagram showing five data fields for a place, each in a colored oval. Four blue ovals are arranged in a diamond shape around a central blue oval, with an orange oval at the bottom right. The background is a blue sky with white clouds.

Latitude

Longitude

Creation Time

Place Name

#starred



A diagram showing six overlapping ovals representing tweet metadata fields. The ovals are arranged in a circular pattern. Five ovals are blue, and one at the bottom is orange. The background is a blue sky with white clouds.

Longitude

Latitude

Creation Time

Place Name

#starred

#retweet



Latitude

Longitude

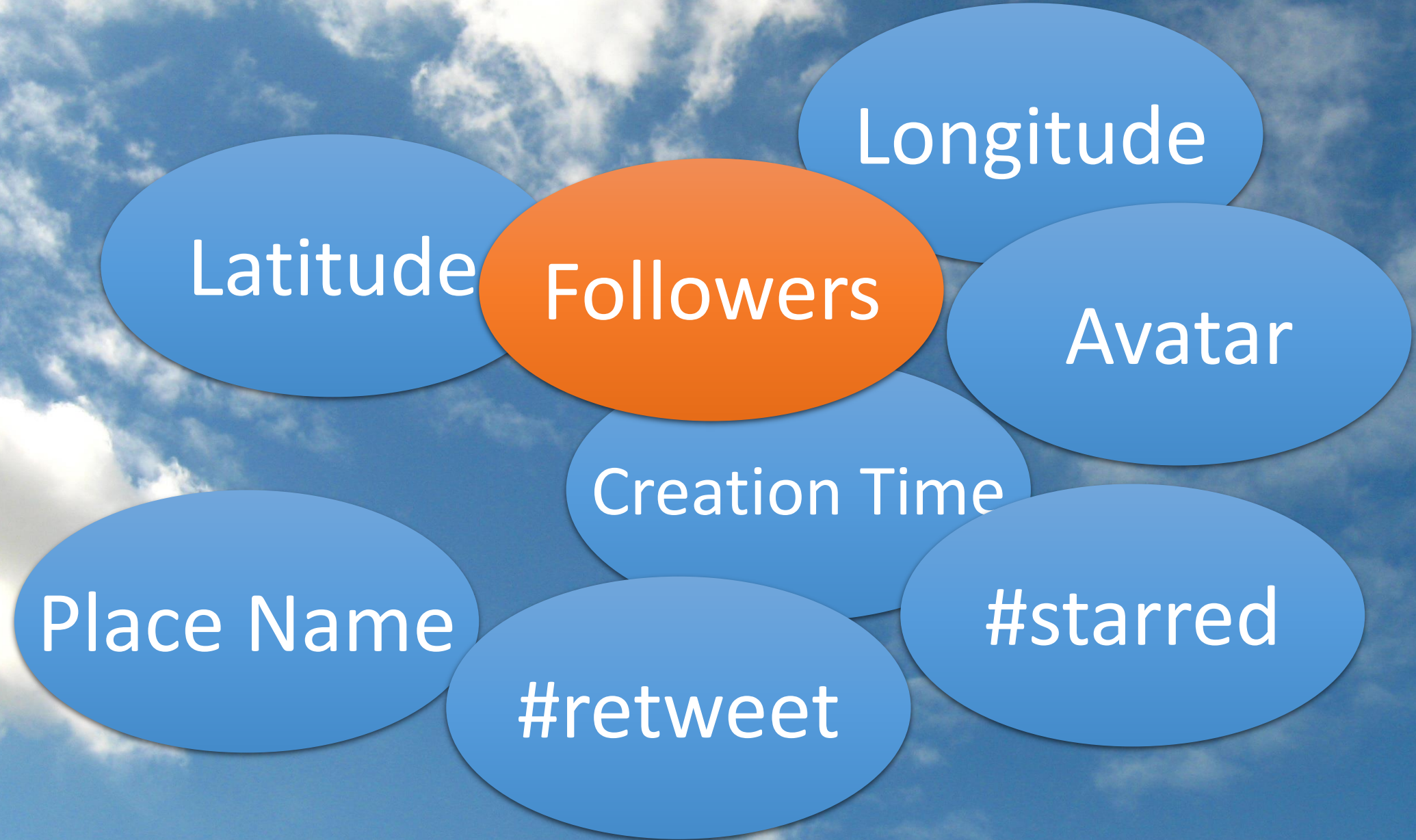
Avatar

Creation Time

Place Name

#starred

#retweet



Name

Longitude

Latitude

Followers

Avatar

Creation Time

Place Name

#starred

#retweet

Name

Longitude

Latitude

Followers

Avatar

Followed

Creation Time

Place Name

#starred

#retweet

Device ID

Name

Longitude

Latitude

Followers

Avatar

Followed

Creation Time

31 other
pieces of
data.

Place Name

#starred

#retweet

What's this?



ChromeCookiesView: F:\Documents

File Edit View Options Help

Host Name	Path	Name	Value	Secure	HTTP Only	Last Accessed
.facebook.com	/	W	129819...	No	No	1/6/2011 12:3
.google.com	/accounts/	__utmz	173272...	No	No	1/6/2011 12:3
.google.com	/accounts/	__utma	173272...	No	No	1/6/2011 12:3
.google.com	/accounts/	__utmb	173272...	No	No	1/6/2011 12:3
.google.com	/mail/help/	__utma	173272...	No	No	1/6/2011 12:3
.google.com	/mail/help/	__utmb	173272...	No	No	1/6/2011 12:3
.google.com	/mail/help/	__utmz	173272...	No	No	1/6/2011 12:3
.www.yahoo.com	/	fpc	d=iqqfj...	No	No	1/6/2011 12:3
.www.yahoo.com	/	FPCK3	AgBNY...	No	No	1/6/2011 12:3
.www.yahoo.com	/	FPS	dl	No	No	1/6/2011 12:3
.www.yahoo.com	/	FPCK2	AgBNY...	No	No	1/6/2011 12:3
.yahoo.com	/	B	8r2bcp...	No	No	1/6/2011 12:3
.yahoo.com	/	CH	AgBNY...	No	No	1/6/2011 12:3
.yahoo.net	/	BX	2fvs0ih...	No	No	1/6/2011 12:3

22 Cookies, 1 Selected

NirSoft Freeware. <http://www.nirsoft.net>

cookies.txt - Notepad

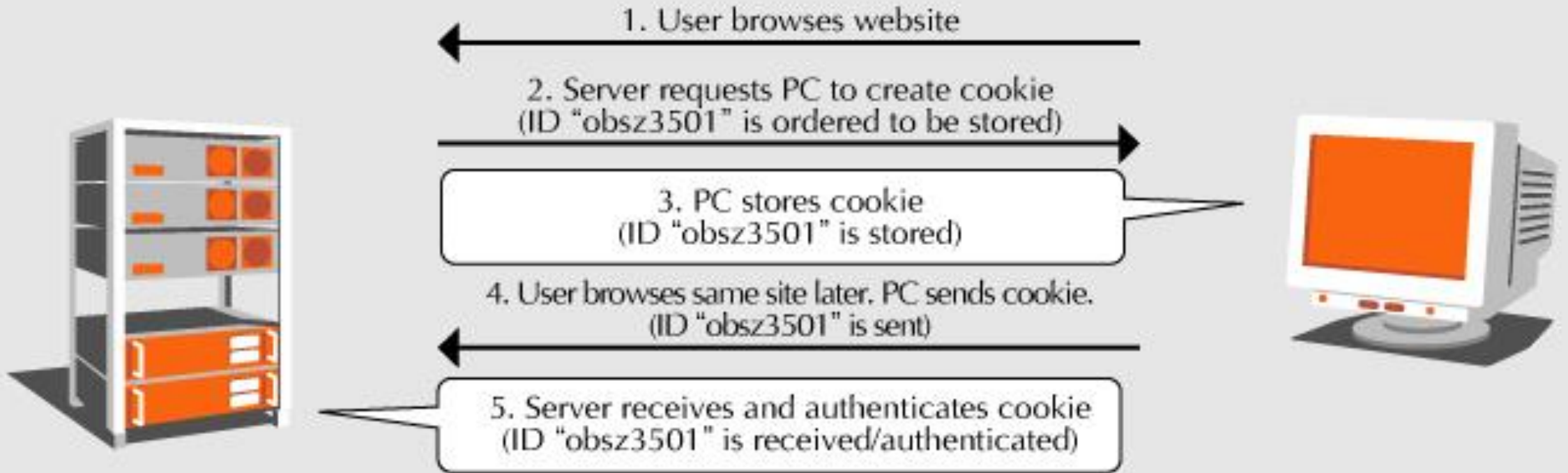
File Edit Format View Help

Internet Explorer cookie file, exported for Netscape browsers.

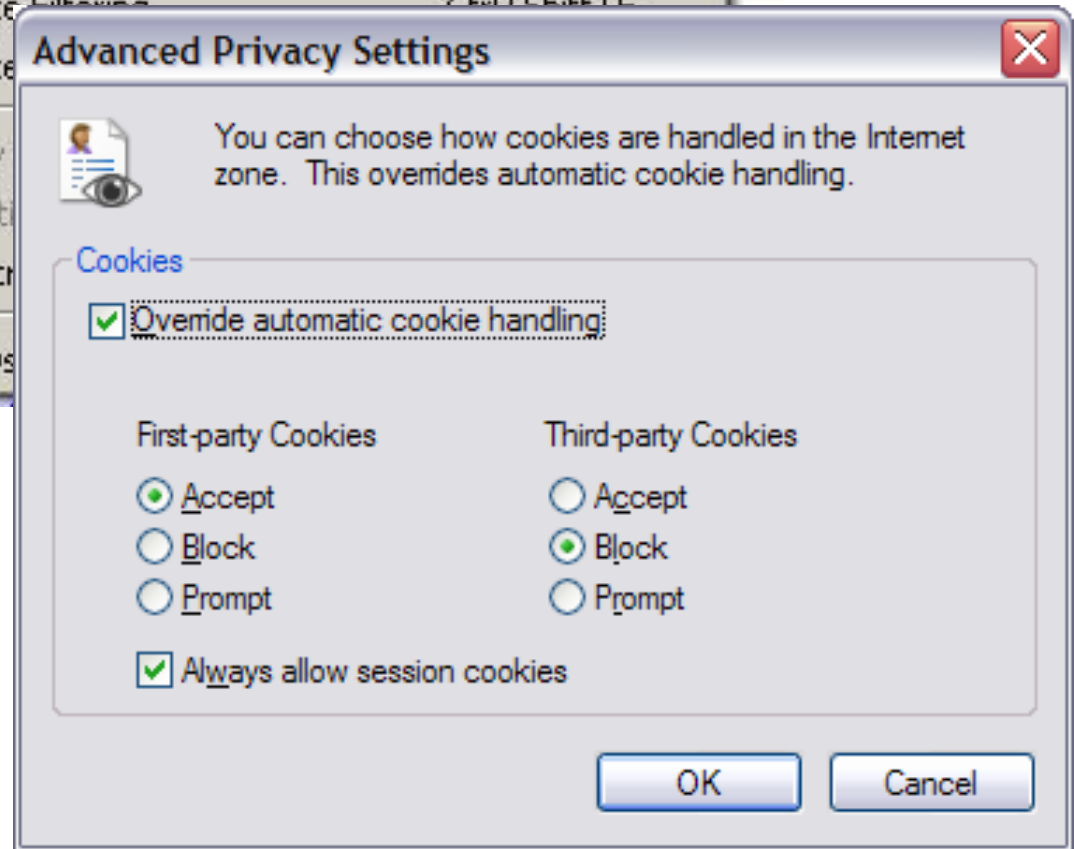
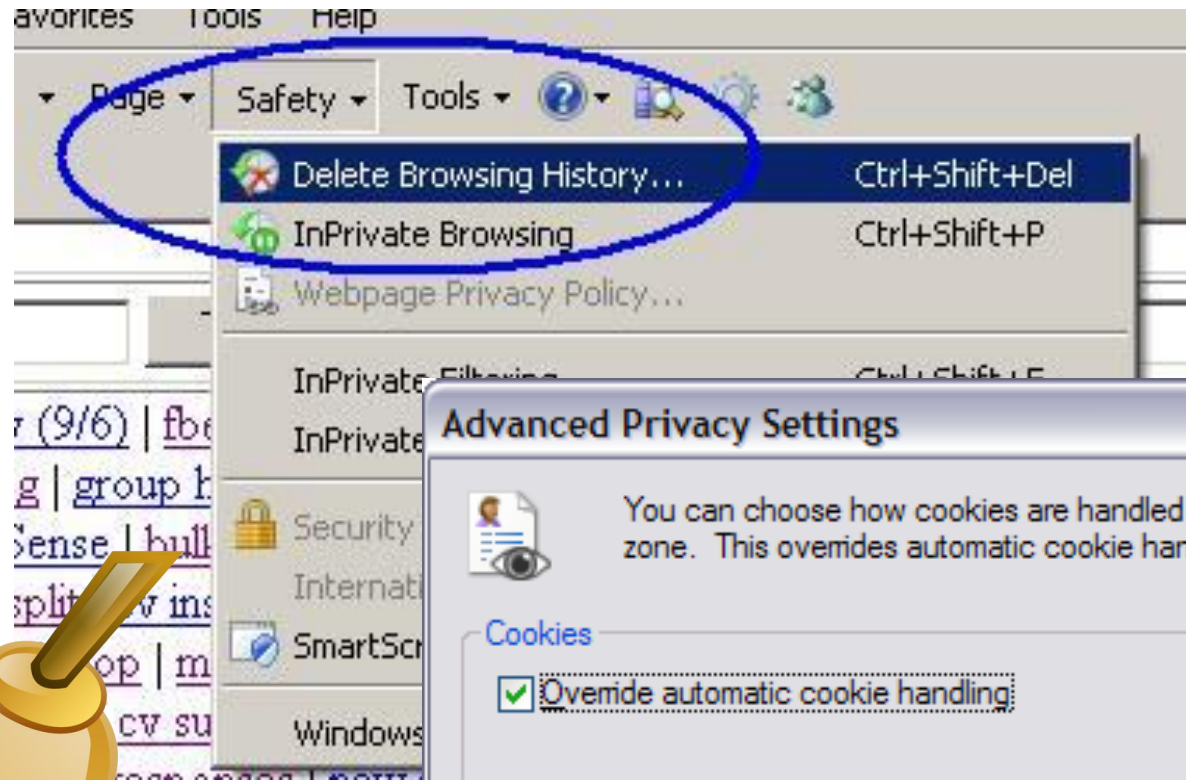
m.webtrends.com	TRUE	/	FALSE	1631115089	ACOOKIE
C8ctAdC4Ljg2LjEYLi10NC0xODUc5MDA4MDQ4LjMwMmI0NTM3AAAAAABAAAAACqA					
AAAA6SGd00khnTgAAAA					
microsoft.com	TRUE	/	FALSE	1631082687	WT_FPC
id=257d8e4a41d2d5ae7a31315359144883;lv=1315359144883;ss=13153591448					
microsoft.com	TRUE	/	FALSE	1315756890	MICROSOFTSE
Microsoft.CookieId=c71f8a5a-f8d8-41ca-aaed-					
8e416c7c8010&Microsoft.CreationDate=09/07/2011					
10:32:27&Microsoft.LastVisitDate=09/07/2011					
10:32:27&Microsoft.NumberOfVisits=2&SessionCookie.Id=72A42D0242f592					
microsoft.com	TRUE	/	FALSE	1347291090	MSID
Microsoft.CreationDate=09/07/2011 10:32:27&Microsoft.LastVisitDate=					
10:32:27&Microsoft.VisitStartDate=09/07/2011 10:32:27&Microsoft.Coo					
-456c-8217-9a6635b8308e&Microsoft.TokenId=ffffff-ffff-ffff-ffff-					
ffffff&Microsoft.NumberOfVisits=2&Microsoft.CookieFirstVisit-					
Token=AA==&Microsoft.MicrosoftId=0226-0997-6778-3061					
microsoft.com	TRUE	/	FALSE	1631115090	MC1
GUTD=ea00102d95307d4e8ab56a636cc10951&HASH=2d10M V=20119&V=3					
microsoft.com	TRUE	/	FALSE	1315756892	MS0
14133c9e63874903aaa9bc7a3ea13354					
microsoft.com	TRUE	/	FALSE	2262526290	A
I&I=AxUFAAAAAACxBqAA1NwwtcdBrjnMDHGPKq+u+w1					
google.com	TRUE	/	FALSE	1378827092	PREF
TD=00f45a6215463282:U=c33/84278dc9/03b:FF=0:TM=1315391548:IM=131539					
sk5					
google.com	TRUE	/	FALSE	1331566291	NID
50=uajtU3FJEGUm99i9naFnB3_x5U7sbqyru1BTJRBkVPyxEewq329dtyS/1Q3b1rhd					
uuykDUYLgDR30mM5UJCFY1YprL9CKMAGotIu91Ig38qj					
www.microsoft.com	TRUE	/	FALSE	1631073089	WT_
gb:2-en-gb/security:3-en-gb/security/pc-security					
www.microsoft.com	TRUE	/	FALSE	1315841488	sec
support.microsoft.com	TRUE	/	FALSE	1321755092	.AS
uHczSNujzAFkAAAANT7jYmM3NzQTNwNmNS00Mzg5LWJ1NmUtMmVhMDM1NzIOMzBixwy					
6TX8-w1					
twitter.com	TRUE	/	FALSE	1378868906	guest_id

How does use ?

Example of How Cookies Work



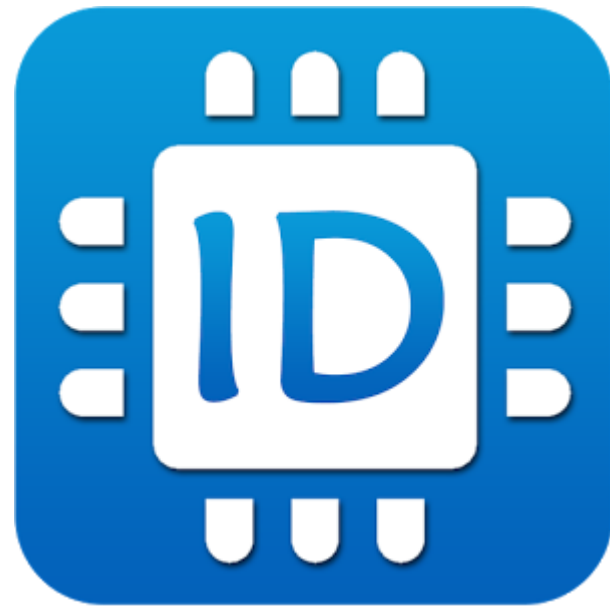
Remember
housekeeping?



How does



use



?

Yahoo

Date	Month	SearchTerm	Device	IP
11/22/2010	Nov	Black Friday	23490	123.23.45.67
11/23/2010	Nov	Turkey	23490	123.23.45.67
11/22/2010	Nov	Black Friday	45395	234.32.154.32
10/31/2010	Oct	Holiday Gift Ideas	23934	123.34.42.34

Sales

Date	Month	Total	DeviceID	CreditCard
11/25/2010	Nov	345	23490	892134
11/25/2010	Nov	987	23490	892134
11/23/2010	Nov	231	98723	934721

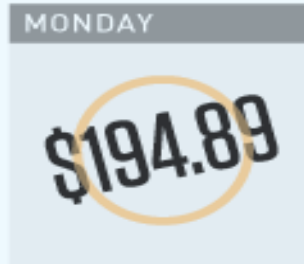
Instagram

Email	Full Name	Username	Password	DevID	Gender	City
meg@gmail.com	Meg Abux	mAbux	aEf3fe	23490	F	Brampton
polE@hotmail.com	Polly Ester	pEster	873DFG	45395	F	Mississauga
ty@hotmail.com	Ty Coon	tycoon	Da#4g4	98723	M	Brampton
mgraw@pdsb.com	Marty Graw	mGraw	Kadfs#\$	23934	M	Brampton

What is the name of the person who searched for "Turkey"?



Yahoo! searches for "holiday gift ideas" rose 470 percent in November versus October, while Black Friday searches started as early as September last year.



Online Cyber Monday sales rose 19.4 percent from 2009 to 2010 and average order size on Cyber Monday rose 8.3 percent, from \$180.03 to \$194.89.



64 percent of Black Friday searches during the week of November 22, 2010, were made by women.

Oracle + Datalogix will Provide the Richest Understanding of Consumers Across the Entire Customer Experience



ORACLE

* Pending

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9

What does Blue Kai do with your information?

They sell it.

In 2011, data-mining was a \$21 B industry.

Facebook isn't free. You pay with your data.

How does  bluekai

use real-time bidding for



?

```
private function findOpportunity():void {  
    var interests:Array = ["35% Digital Media Incentive",  
        "innovation",  
        "entrepreneurship"];
```

What's this?

Too Many Ideas, Not Enough Action?

Make Ideas Happen ▶

TRENDING STORY

Our Social Media Obsession by the Numbers [STATS]



SOCIAL MEDIA From the time we wake up in the morning to the moment we call it a day, and every moment in between (think bedroom, bathroom and dinner table), we're checking in on our favorite social media sites.

This conclusion comes from data gathered by an independent [study](#) (commissioned by Retrevo), which surveyed 1,000 online individuals.

Per the report, our Facebook and Twitter activities continue even after we've hit the hay, with 48% of respondents checking in on activity when they wake...



About 2 hours ago [Jennifer Van Grove](#) 16

24

buzz this

1042
tweets

retweet

226

Share

Mashable is an online guide to social media. [+]

Join the 2.4 Million people following Mashable



Buzz



Twitter



Facebook



RSS



Email

More Subscription Options »

MY LIFE SCOOP
TIPS FOR A CONNECTED LIFESTYLE



Top 10 Blogs for Discovering Something New

Top 10 iPhone Apps for Foodies

Good Wine Under \$20

Tell People Where You Are, Win Free Stuff

Party Planning Made Simple



Cambridge
Analytica

facebook

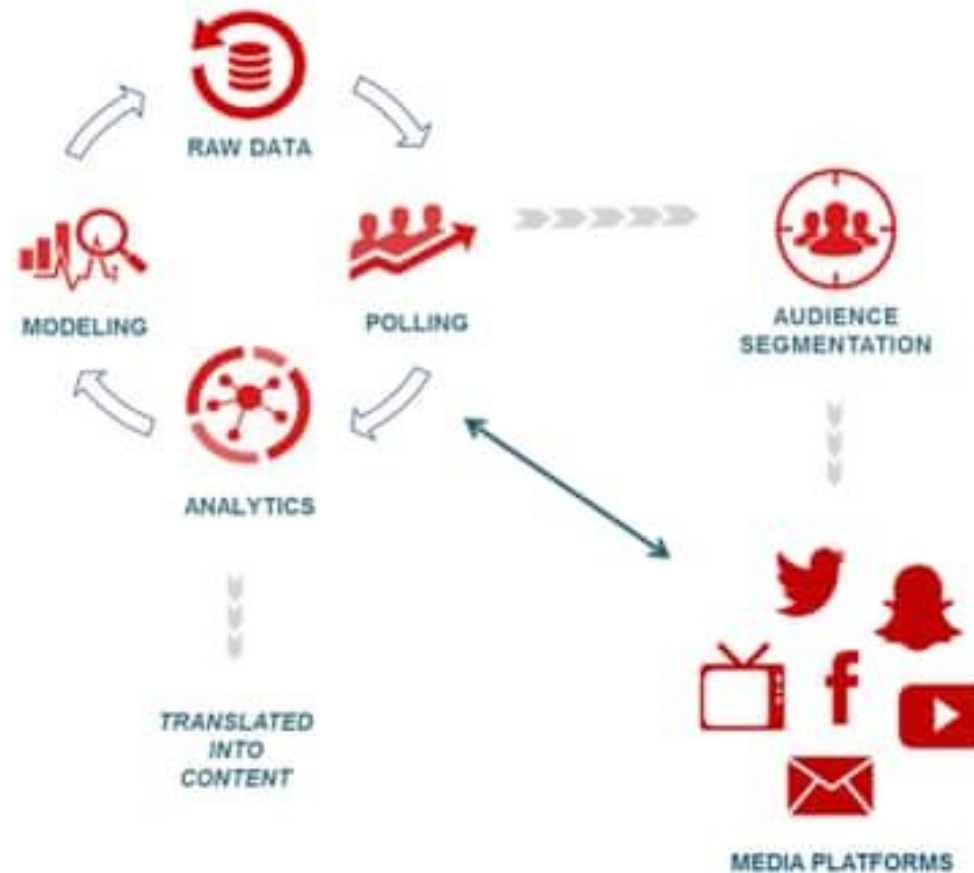


Mr. Mark Zuckerberg

Persuasion Digital Marketing: Process

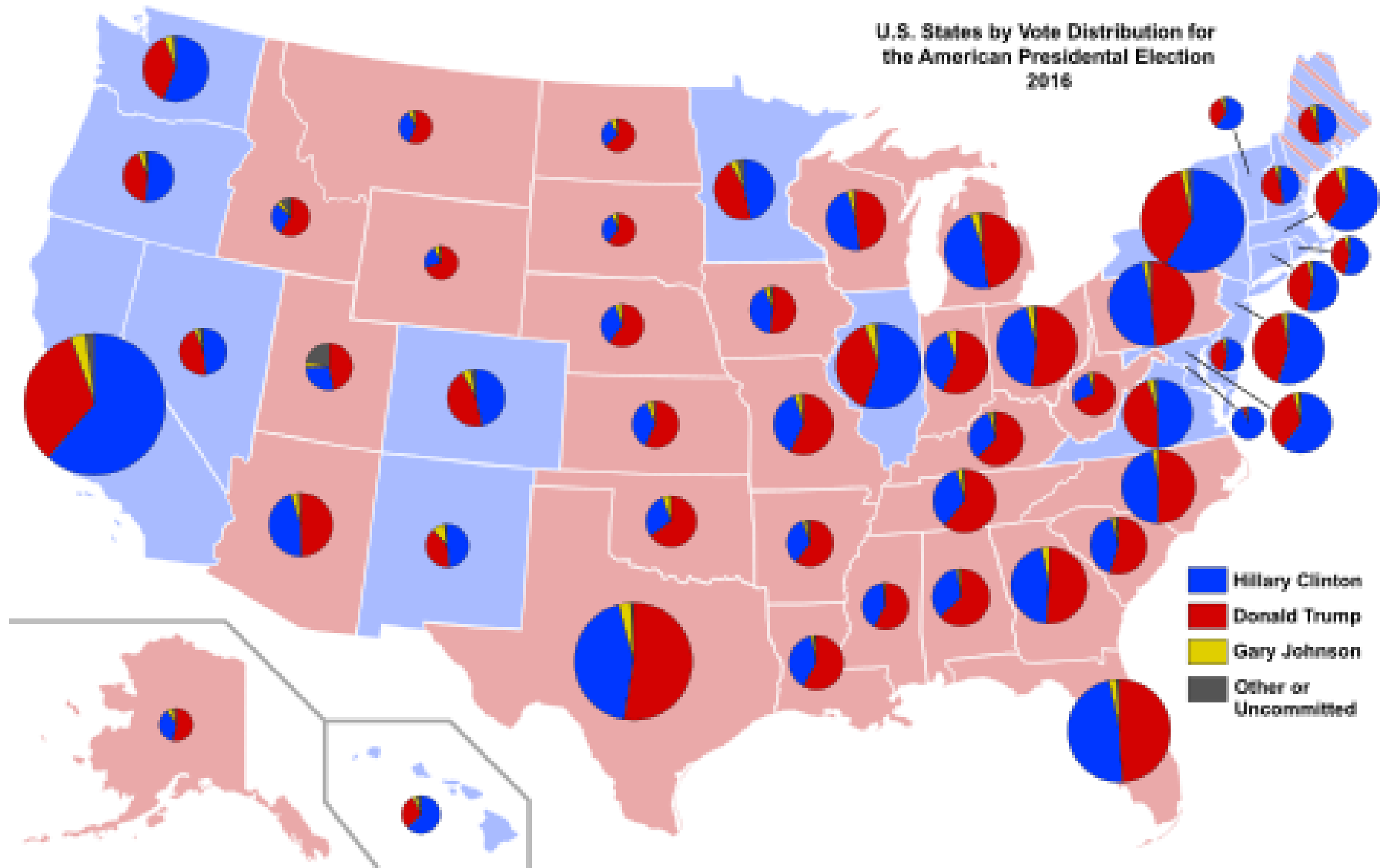


1. Ingested data and audience profiles from the data team
1. Devised communications to best promote a story to these individuals
1. Executed digital ad buys across 30+ inventory sources delivering 1.5 billion impressions



Cambridge
Analytica
Leaked
Slide

U.S. States by Vote Distribution for
the American Presidential Election
2016



**CROOKED
HILLARY**

Help Stop

**LYING
CROOKED
HILLARY**

**Crooked Hillary
10 Legendary
Lies**

LIE #1. BENGHAZI

She's at it again

Spinning lies and weaving a tapestry of deceit that she hopes will cover the truth. Her despicable scandals and defenses place our country – and Americans like you – in jeopardy.

Your email

NOWTHEENDBEGINS.COM

Your name

Zip code

☒ Yes, please subscribe me to the Donald J. Trump for President email list

Join to Stop Her Now

Donate Now

**WE'VE HAD ENOUGH
OF CROOKED HILLARY'S LIES**



Is this legal?

You did click “I agree”.

A banner image for Facebook Terms and Policies. It features a green rolling hill with a winding path. In the background, there are silhouettes of people walking, a red signpost on the left, and a city skyline under a blue sky with clouds.

Facebook Terms and Policies

Everything you need to know, all in one place.



Statement of Rights and Responsibilities

Terms you agree to when you use Facebook.



Data Use Policy

Information we receive and how it's used.



Community Standards

What's not allowed and how to report abuse.

For other activity:

 [Ads](#)

 [Pages](#)

 [Promotions](#)

 [Platform](#)


 [Developer Payments Terms](#)

 [Community Payments Terms](#)

 [Cookies and Pixels](#)

 [Brand Resources](#)

 [Political Engagement](#)

 [Like](#) [Share](#) 309k

- We receive data from or about the computer, mobile phone, or other devices you use to install Facebook apps or to access Facebook, including when multiple users log in from the same device. This may include network and communication information, such as your IP address or mobile phone number, and other information about things like your internet service, operating system, location, the type (including identifiers) of the device or browser you use, or the pages you visit. For example, we may get your GPS or other location information so we can tell you if any of your friends are nearby, or we could request device information to improve how our apps work on your device.
- We receive data whenever you visit a game, application, or website that uses Facebook Platform or visit a site with a Facebook feature (such as a social plugin), sometimes through cookies. This may include the date and time you visit the site; the web address, or URL, you're on; technical information about the IP address, browser and the operating system you use; and, if you are logged in to Facebook, your User ID.
- Sometimes we get data from our affiliates or our advertising partners, customers and other third parties that helps us (or them) deliver ads, understand online activity, and generally make Facebook better. For example, an advertiser may tell us information about you (like how you responded to an ad on Facebook or on another site) in order to measure the effectiveness of - and improve the quality of - ads.

As described in "How we use the information we receive" we also put together data from the information we already have about you, your friends, and others, so we can offer and suggest a variety of services and features. For example, we may make friend suggestions, pick stories for your News Feed, or suggest people to tag in photos. We may put together your current city with GPS and other location information we have about you to, for example, tell you and your friends about people or events nearby, or offer deals to you in which you might be interested. We may also put together data about you to serve you ads or other content that might be more relevant to you.

Oh oh.
The Device ID.
IP address.
Phone number.
GPS.
Network
information.

Information that is always publicly available

The types of information listed below are always publicly available, and they are treated just like information you decided to make public:

- **Name:**

This helps your friends and family find you. If you are uncomfortable sharing your real name, you can always [delete](#) your account.

- **Profile Pictures and Cover Photos:**

These help your friends and family recognize you. If you are uncomfortable making any of these photos public, you can always [delete](#) them. Unless you delete them, when you add a new profile picture or cover photo, the previous photo will remain public in your profile picture or cover photo album.

- **Networks:**

This helps you see who you will be sharing information with before you choose "Friends and Networks" as a custom audience. If you are uncomfortable making your network public, you can [leave the network](#).

- **Gender:**

This allows us to refer to you properly.

- **Username and User ID:**

These allow you to give out a custom link to your timeline or Page, receive email at your Facebook email address, and help make Facebook Platform possible.

Huh.
They own your
pictures too.

While you are allowing us to use the information we receive about you, you always own all of your information. Your trust is important to us, which is why we don't share information we receive about you with others unless we have:



- received your permission;
- given you notice, such as by telling you about it in this policy; or
- removed your name and any other personally identifying information from it.

Of course, for information others share about you, they control how it is shared.

We store data for as long as it is necessary to provide products and services to you and others, including those described above. Typically, information associated with your account will be kept until your account is deleted. For certain categories of data, we may also tell you about specific data retention practices.

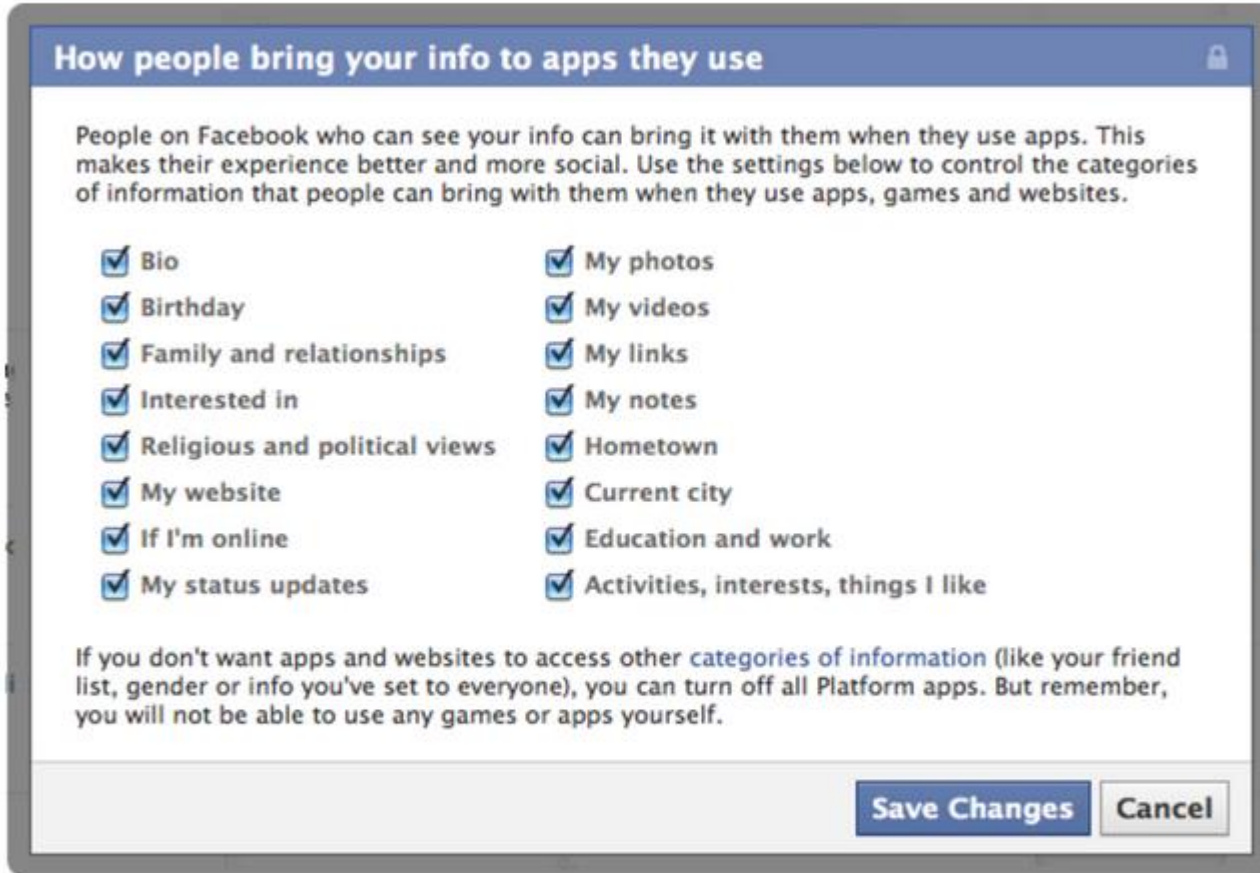
We may enable access to [public information](#) that has been shared through our services.

We may allow [service providers](#) to access information so they can help us provide services.

We are able to suggest that your friend tag you in a picture by scanning and comparing your friend's pictures to information we've put together from your profile pictures and the other photos in which you've been tagged. If this feature is enabled for you, you can control whether we suggest that another user tag you in a photo using the "Timeline and Tagging" [settings](#). Learn more at: <https://www.facebook.com/help/tag-suggestions>

**"Your trust is
important to us"**

You can control most of the information other people can share with applications they use from the " Apps" settings page. But these controls do not let you limit access to your public information and friend list.



How people bring your info to apps they use

People on Facebook who can see your info can bring it with them when they use apps. This makes their experience better and more social. Use the settings below to control the categories of information that people can bring with them when they use apps, games and websites.

<input checked="" type="checkbox"/> Bio	<input checked="" type="checkbox"/> My photos
<input checked="" type="checkbox"/> Birthday	<input checked="" type="checkbox"/> My videos
<input checked="" type="checkbox"/> Family and relationships	<input checked="" type="checkbox"/> My links
<input checked="" type="checkbox"/> Interested in	<input checked="" type="checkbox"/> My notes
<input checked="" type="checkbox"/> Religious and political views	<input checked="" type="checkbox"/> Hometown
<input checked="" type="checkbox"/> My website	<input checked="" type="checkbox"/> Current city
<input checked="" type="checkbox"/> If I'm online	<input checked="" type="checkbox"/> Education and work
<input checked="" type="checkbox"/> My status updates	<input checked="" type="checkbox"/> Activities, interests, things I like

If you don't want apps and websites to access other [categories of information](#) (like your friend list, gender or info you've set to everyone), you can turn off all Platform apps. But remember, you will not be able to use any games or apps yourself.

[Save Changes](#) [Cancel](#)

If you want to completely block applications from getting your information when your friends and others use them, you will need to turn off all Platform applications . This means that you will no longer be able to use any third-party Facebook-integrated games, applications or websites.

**Apps and Pages
Linked to
Facebook**

So we can show you content that you may find interesting, we may use all of the information we receive about you to serve ads that are more relevant to you. For example, this includes:

- information you provide at registration or add to your account or timeline,
- things you share and do on Facebook, such as what you like, and your interactions with advertisements, partners, or apps,
- keywords from your stories, and
- things we infer from your use of Facebook.

For many ads we serve, advertisers may choose their audience by location, demographics, likes, keywords, and any other information we receive or infer about users. Here are some of the ways advertisers may target relevant ads:

- demographics and interests: for example, 18 to 35 year-old women who live in the United States and like basketball;
- topics or keywords: for example, "music" or people who like a particular song or artist;
- Page likes (including topics such as products, brands, religion, health status, or political views): for example, if you like a Page about Gluten-free food, you may receive ads about relevant food products; or
- categories (including things like "moviegoer" or a "sci-fi fan"): for example, if a person "likes" the "Star Trek" Page and mentions "Star Wars" when they check into a movie theater, we may infer that this person is likely to be a sci-fi fan and advertisers of sci-fi movies could ask us to target that category.

**We use
everything to
profile you.**

So what can you do about this?

Opt out.

Turn on all of your privacy settings.

Practice good digital citizenship.

BlueKai respects your right to privacy.

As a consumer, you have the choice to exclude your anonymous preferences from being collected in the BlueKai Registry. This includes any preferences you have manually selected and also implied preferences collected through our publisher and data partners. Remember, BlueKai opt outs are only acknowledged on BlueKai partner sites only. To opt-out of the BlueKai Registry, click the button below:

OPT OUT

To opt-out of targeting by other companies, visit the Network Advertising Initiative at <http://www.networkadvertising.org/choices/>, or the Digital Advertising Alliance (DAA) at <http://www.aboutads.info/choices/>.

If you change your mind and want to preview or update your online preferences through the BlueKai registry, please [click here](#).

- ✓ BlueKai is a full compliance member of the Network Advertising Initiative (NAI). If you have opted out of all NAI member sites, you do not need to opt out again.
- ✓ BlueKai has recently rolled out an open-source solution as a mechanism for protecting opt-out preferences. [Click here](#) to learn more.
- ✓ By opting in/out of the BlueKai cookie you are also opting in/out of targeting options from BlueKai through some of our third party partners including Yahoo Ad Network.

BlueKai respects your right to privacy.

As a consumer, you have the choice to exclude your anonymous preferences from being collected in the BlueKai cookie. This includes preferences you have manually selected and also implied preferences collected through our publisher and advertiser partners. BlueKai opt outs are only acknowledged on BlueKai partner sites only. To opt-out of the BlueKai Registry, click the button below.

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Not breaking
the law. So
what's the
problem?

BlueKai respects your right to privacy.

As a consumer, you have the choice to exclude your anonymous preferences from being used for advertising. You can opt-out of the BlueKai cookie and also opt-out of the BlueKai preferences you have manually selected and also implied preferences collected through the BlueKai cookie. BlueKai opt outs are only acknowledged on BlueKai partner sites only. To opt-out of the BlueKai

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Simple.
How can you opt
out of something
you don't even
know you are in?