

# ***The Technology Behind Behavioral Advertising***

**Federal Trade Commission  
November 1, 2007**

**Richard M. Smith  
Boston Software Forensics**

**[rms@bsf-llc.com](mailto:rms@bsf-llc.com)**

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## Lean Plate Club

Sally Squires, Health and Nutrition Columnist

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### Hiding Veggies In Food: Benefit Or Betrayal?

By [Sally Squires](#)

Tuesday, October 16, 2007; Page HE01

Parents rarely need to coax their kids to have ice cream. But they frequently cajole, plead, bargain, bribe and even threaten to get them to eat more vegetables, fruit and other nutritious fare.

Then there's the other approach: Sneak it in.

And although that's certainly an appealing tactic for anxious parents, many experts don't think it's such a great idea.

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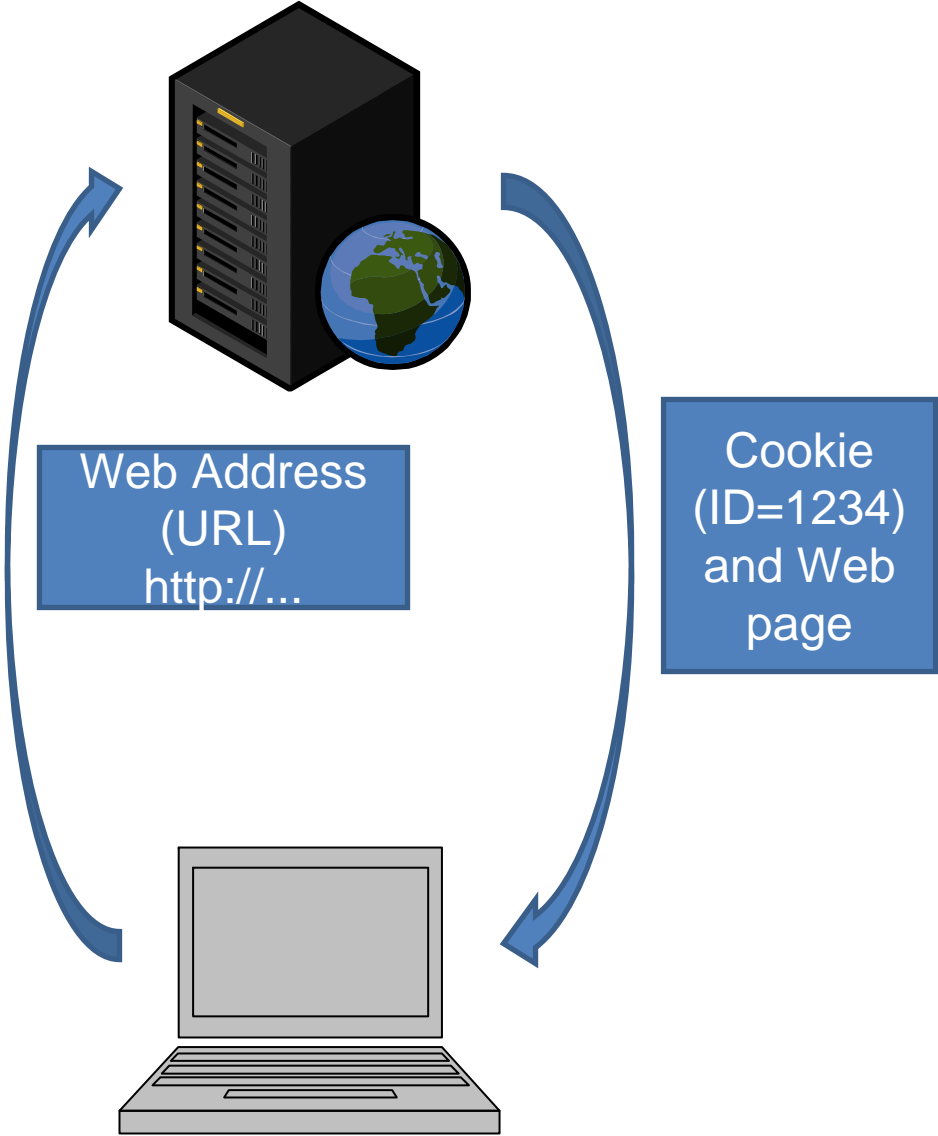
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# 131 requests to 17 server computers to show the Post article

#	Result	Host	URL	Body	Caching	Content-Type	User
99	304	www.washingtonpost.com	/wp-adv/advertisers/careerbuilder/WP_bg336x200.gif	0			
100	304	www.washingtonpost.com	/wp-adv/advertisers/careerbuilder/A_Better_Job336x200.gif	0			
101	304	www.washingtonpost.com	/wp-adv/advertisers/careerbuilder/spacer336x200.gif	0			
102	304	www.washingtonpost.com	/wp-adv/advertisers/careerbuilder/btn_Find_Jobs336x200.gif	0			
103	304	www.washingtonpost.com	/wp-adv/advertisers/careerbuilder/cb_logo336x200.gif	0			
104	304	www.washingtonpost.com	/wp-adv/topjobs/TopJobs.css	0			
105	302	ad.doubleclick.net	/ad/N1727.wp/B2099541.10;sz=1x1	0	no-cac...		
106	404	www.washingtonpost.com	/wp-dyn/content/article/2007/10/12/AR2007101201942_Sto...	2,866		text/html	
107	304	m1.2mdn.net	/viewad/617966/84-1x1.gif	0		image/gif	
108	304	media.washingtonpost.com	/wp-srv/javascript/omniture/s_code.js	0		application/...	
109	200	metrics.washingtonpost.c...	/b/ss/wpniglobalprod/1/H.10-Pdvu-2/s65500894067538?[AQ...	55	no-cac...	image/gif	
110	200	feeds.inform.com	/resources/images/inform.gif	924		image/gif	
111	304	media.washingtonpost.com	/wp-srv/javascript/resize.js	0		application/...	
112	304	media.washingtonpost.com	/wp-adv/dm/dm_client.js	0		application/...	
113	200	rsi.washingtonpost.com	/F04462/a3/0/3/480/1/0/115D3A1A2C3/0/0/00000000/1991...	35	no-cac...	image/gif	
114	302	pix01.revsci.net	/J05531/a3/0/3/480/1/0/115D3A1A2D2/0/0/00000000/2998...	0	no-cac...	text/plain; ...	
115	304	media.washingtonpost.com	/wp-srv/javascript/omniture/omniture-utils.js	0		application/...	
116	304	media.washingtonpost.com	/wp-srv/javascript/placeSiteMetrix.js	0		application/...	
117	200	js.revsci.net	/ins/J05531/a3/0/3/480/1/0/115D3A1A2D2/0/0/00000000/2...	43		image/gif	
118	200	community.washingtonpo...	/ver1.0/Direct/Process	1,724	private	text/html; c...	
119	302	www.techsmith.com	/redirect.asp?target=updatemanifest&targetparam=snagit&l...	181	private	text/html	
120	200	download.techsmith.com	/update/snagit/enu/manifest.xml	33,419		text/xml	

# Publisher's Web Server



# User's Computer

# Publisher's Web Server

# Ad Server

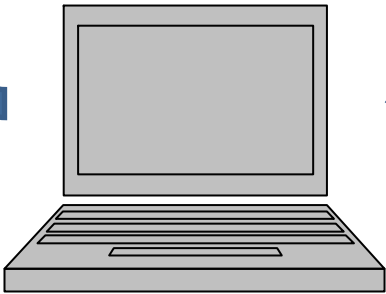


Web Address (URL)  
http://...

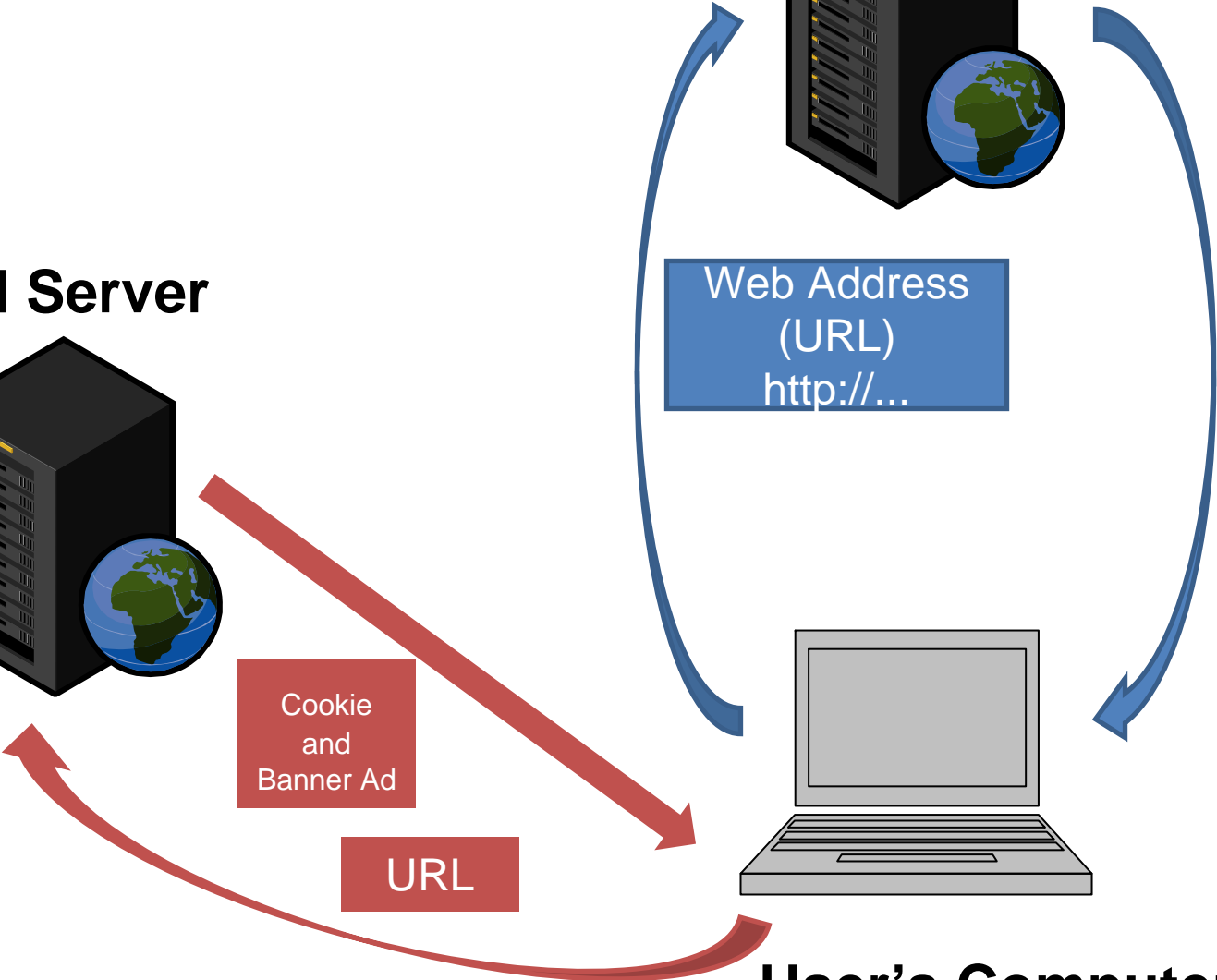
Cookie (ID=1234) and Web page

Cookie and Banner Ad

URL



# User's Computer

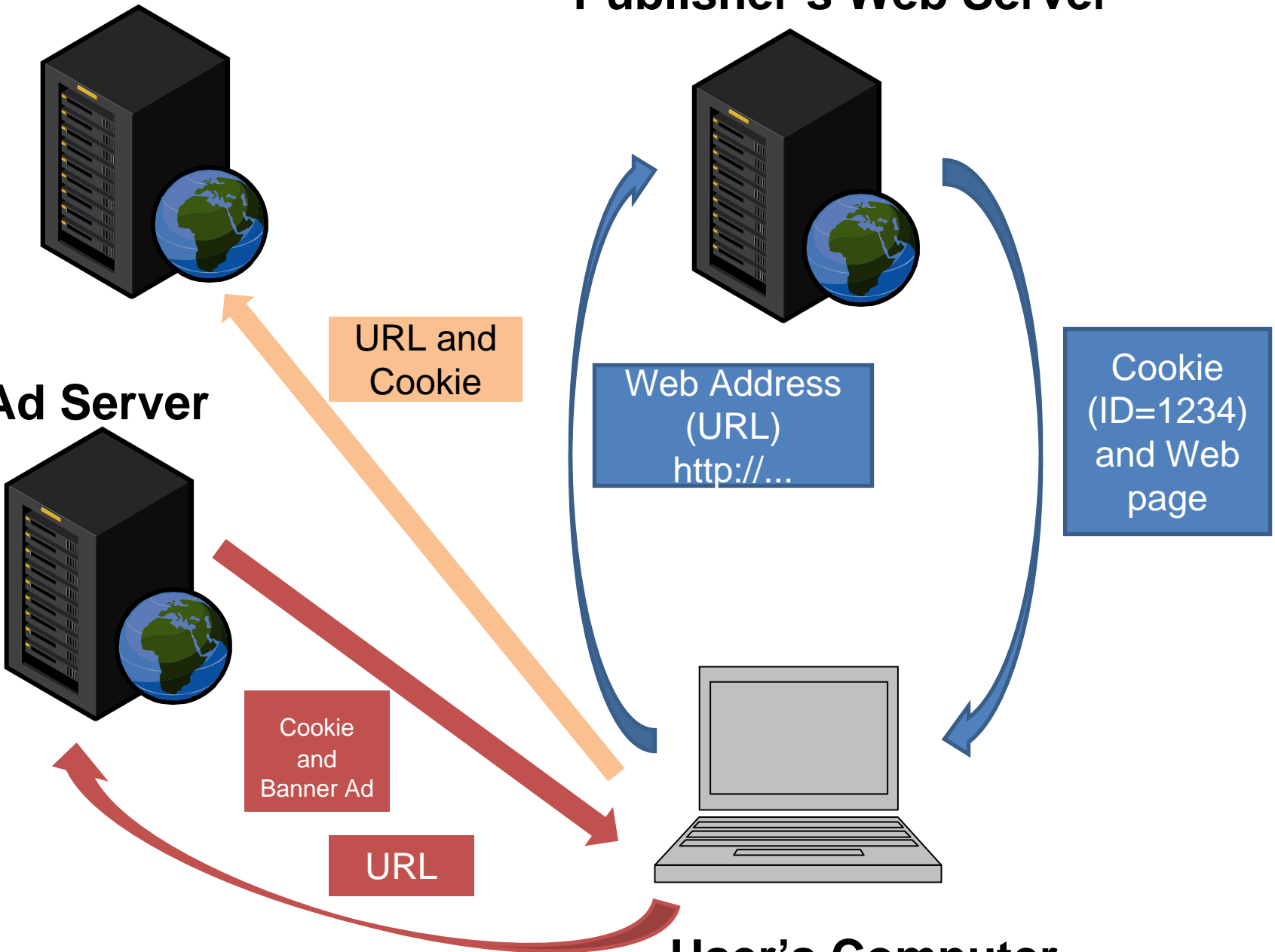


# Web Analytics Server

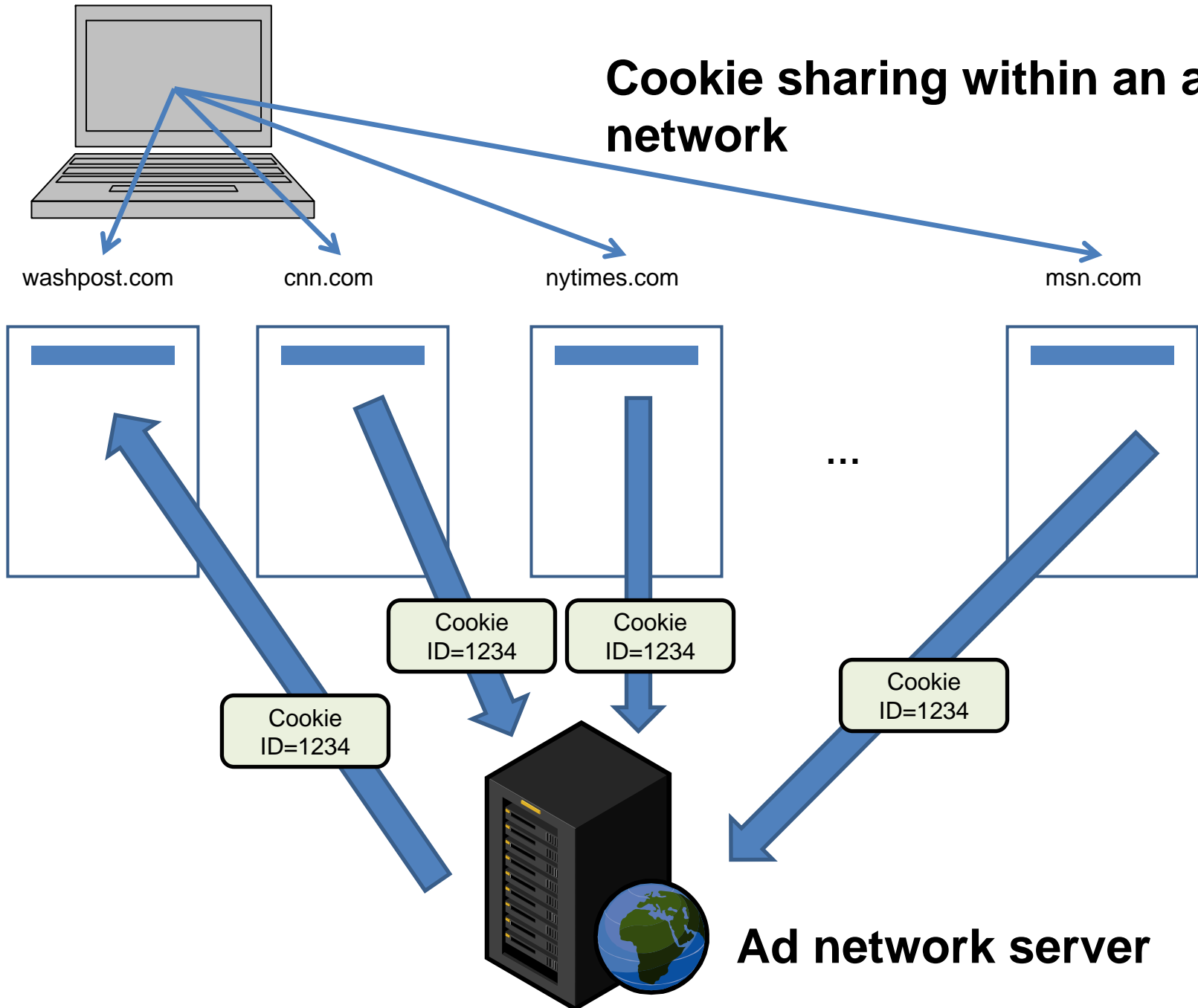
# Publisher's Web Server

# Ad Server

# User's Computer



# Cookie sharing within an ad network



# Web beacons: How a publisher communicates with an ad network

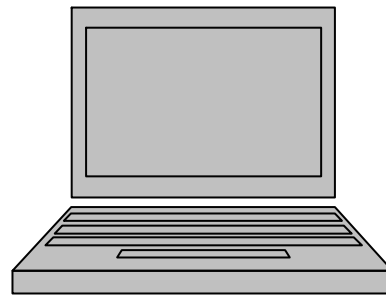
**Ad or Analytic Server**

**Publisher's Web Server**

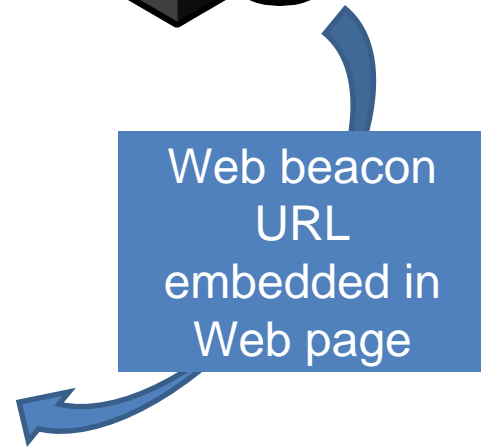
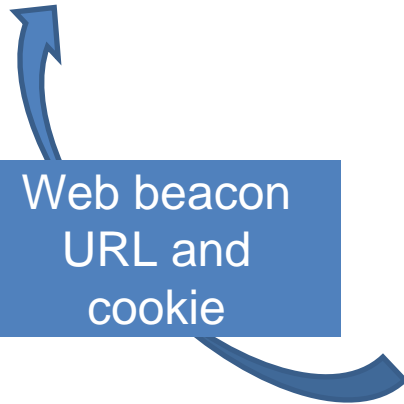


Web beacon  
URL and  
cookie

Web beacon  
URL  
embedded in  
Web page



**User's Computer**





# Washington Post Servers

## Content servers

Company	Server
Washington Post	community.washingtonpost.com
Washington Post	media.washingtonpost.com
Washington Post	media3.washingtonpost.com
Washington Post	www.washingtonpost.com
Inform	feeds.inform.com
MuseStorm	www6.musestorm.com
QuestionMarket	amch.questionmarket.com
Sphere	edge.sphere.com

## Advertising-related servers

Company	Server
DoubleClick	a.dlqm.net
DoubleClick	ad.doubleclick.net
Google	pagead2.google syndication.com
Revenue Science	js.revsci.net
Revenue Science	pix01.revsci.net
Revenue Science	rsi.washingtonpost.com (AKA gb125.lb-revsci.net)

## Analytics Servers

Company	Server
Aggregate Knowledge	api.aggregateknowledge.com
Dynamic Logic	a.dlqm.net
Omniure	metrics.washingtonpost.com (AKA washingtonpost.com.112.2o7.net)
Sphere	stats.sphere.com

## Cookies

washingtonpost.com

anonID=a3324234b53653c

aggregateknowledge.com

uuid=4BE597845743523

doubleclick.net

id=800000107bd499c3

revsci.net

NETID01=vfahx38AAAEAA  
Esj

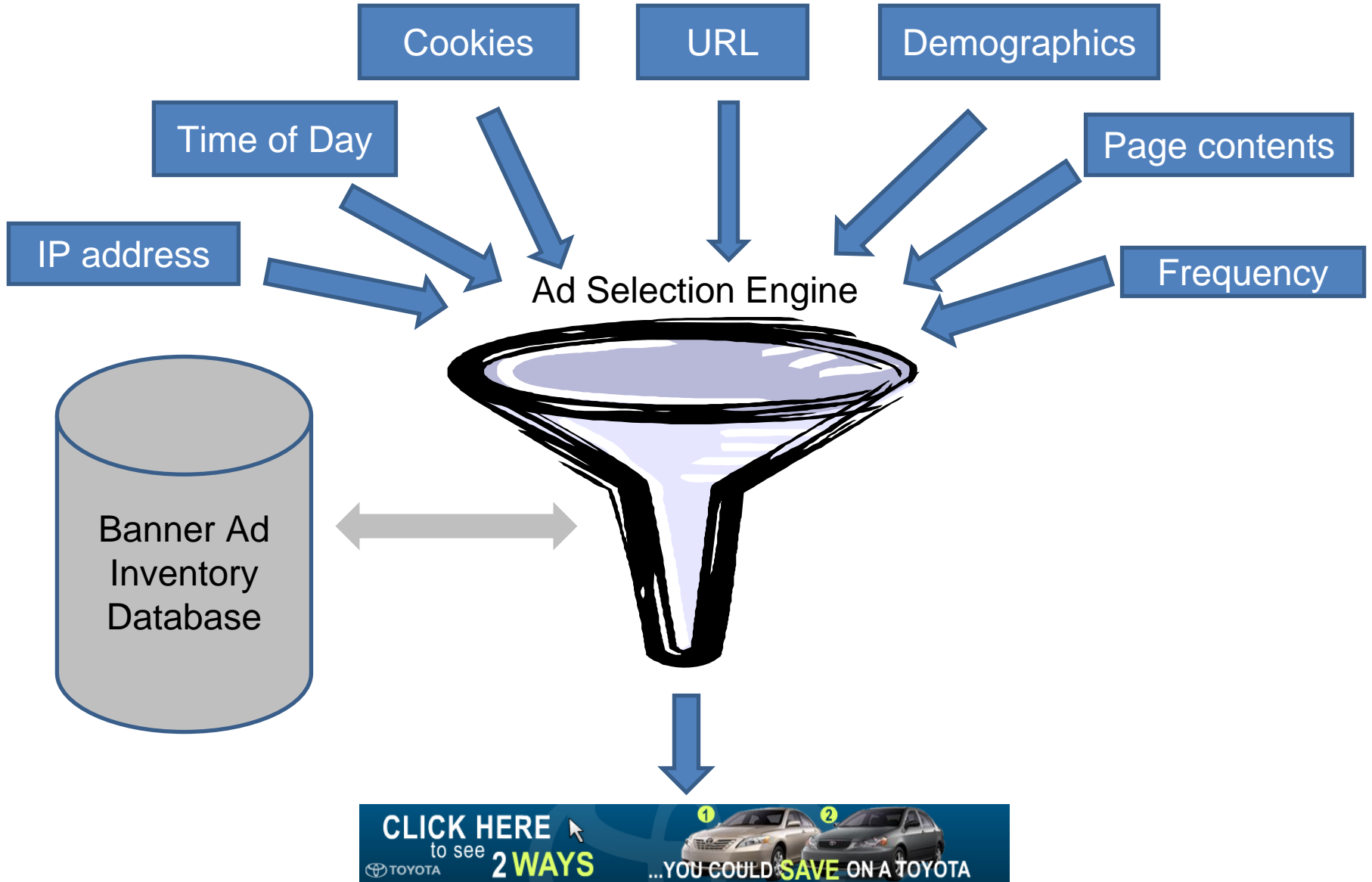
questionmarket.com

CS1=363801-19-1-1\_3637

musestorm.com

MS\_B\_MIF=sDMXE3vsbxo  
7

# The Ad Targeting Funnel



id theft - Yahoo! Search Results - Windows Internet Explorer

http://search.yahoo.com/search?p=id+theft&fr=yfp-t-501&toggle=1&cop=mss&ei=UTF Google

File Edit View Favorites Tools Help

id theft - Yahoo! Search Results

Yahoo! Mail Welcome, rms\_pharlap [Sign Out] Help

Web | Images | Video | Local | Shopping | more

id theft Search Options

YAHOO!

1-10 of 19,900,000 for id theft (About) - 0.12 sec

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[www.4lifelock.com](http://www.4lifelock.com) - We stop identity **theft** with one million dollar guarantee. As seen on...
- [ID Theft](#)  
[www.visa.com](http://www.visa.com) - Find out how to prevent identity **theft** with tips from Visa.

1. [Identity Theft](#)  
Find out how to minimize the risk of identity **theft**, about state and federal laws that pertain to it, and more.  
[www.consumer.gov/idtheft](http://www.consumer.gov/idtheft) - 22k - [Cached](#)

2. [Instructions for completing the ID theft Affidavit](#) (PDF)  
The **ID Theft** Affidavit was developed by a group of credit grantors, ... When you file an **ID theft** ... a copy of the printed **ID theft** complaint with you ...

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[ID Theft Prevention](#)  
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[www.lifelock.com](http://www.lifelock.com)

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Get info on how to protect against identity **theft** at Learn at Equifax.  
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## Baker Wearing Red, Thinking Title in Cincinnati

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Oct 15, 4:36 PM (ET)

By JOE KAY

CINCINNATI (AP) -Dusty Baker had a whole new look.

The 58-year-old manager put on a bright red Cincinnati cap and a red-and-white jersey Monday during his introduction as the next Reds manager. The color just didn't fit.

"This is my first red uniform in my whole life," Baker said.

As an outfielder, he won a World Series ring while wearing Dodger blue in 1981. As a manager, he has won 1,162 games in San Francisco's orange and black and Cubs blue.

He led the Giants to the 2002 World Series and got the Cubs within five outs of the 2003 Series, two near-misses that still gnaw at him. After one year of working in television, he's back in baseball and back on his quest.

"I'm inspired," said Baker, the first black manager in the history of baseball's first professional team. "I feel that I was brought here for a number of reasons, not just to manage a baseball team.



(AP) Dusty Baker, former San Francisco Giants and Chicago Cubs manager and ESPN analyst, speaks during a...  
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### I wish I am at home for Diwali, says Sanjay Dutt

22 Oct 2007, 2035 hrs IST, PTI

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MUMBAI: After spending about two months outside the jail, actor Sanjay Dutt on Monday surrendered before the special TADA court where he was provided a copy of the judgement that pronounced him guilty under the Arms Act.

But the actor did not look depressed. After talking to his New York-based daughter on the phone, he obliged the waiting media with: "I wish I am at home for Diwali."

TADA court had convicted him for possession of an AK-56 rifle and a

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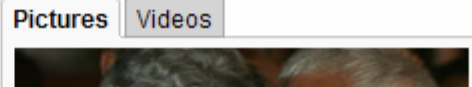
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Olevia 37" LCD HDTV - 537H ★★★★★

\$699.99



26% buy

[Olevia 532H 32-Inch Lcd Tv](#) ★★★★★

~~\$699.99~~ \$499.99



11% buy

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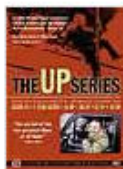
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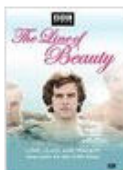
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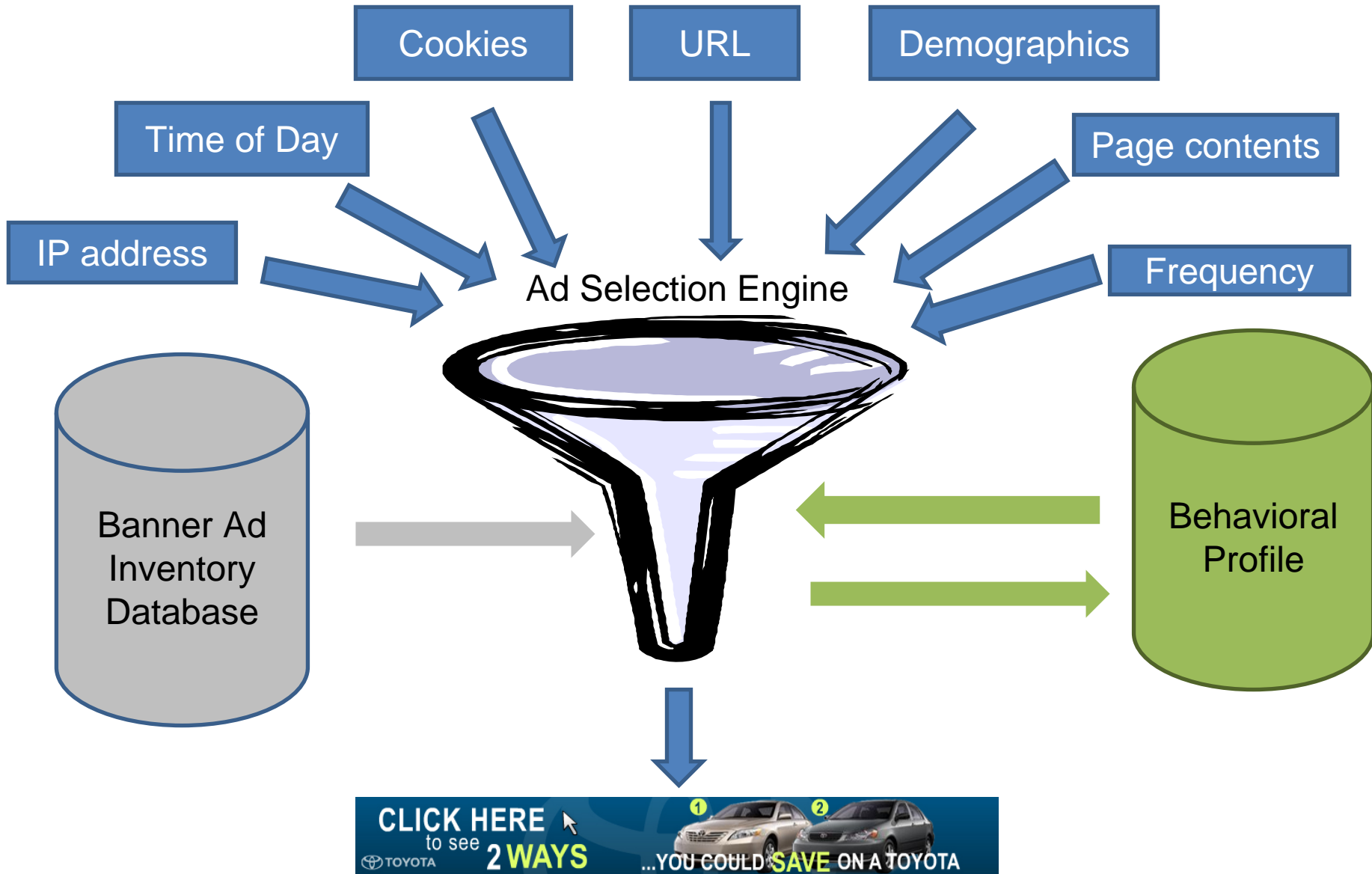
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# The Behavioral Ad Targeting Funnel



# Behavioral profiles associated with cookies

## Product interest profile

#	Category	Interest level
1	Car buyer	3%
2	House seller	0%
3	House buyer	0%
4	Apartment renter	1%
5	DIYer	13%
6	Foodie	5%
7	Dieter	3%
8	Business traveler	3%
9	Vacation hunter	6%
10	HDTV upgrader	10%
11	iPod owner	7%
12	Investor	1%
13	Parent	3%
	...	
499	Gardener	0%

## Demographic segment profile

#	Segment	Probability
1	Soccer mom	60%
2	Retired male	0%
3	Newlyweds	0%
4	Female suburban teenager	30%
5	Male suburban teenager	3%
6	Female college student	0%
7	Male city teenager	5%
	...	
80	Stay-at-home dad	0%

# How web travels feed a profile

Clicked on Home Depot ad

Read 4 HDTV reviews in 3 weeks

**Product interest profile**

#	Category	Interest level
1	Car buyer	3%
2	House seller	0%
3	House buyer	0%
4	Apartment renter	1%
5	DIYer	13%
6	Foodie	5%
7	Dieter	3%
8	Business traveler	3%
9	Vacation hunter	6%
10	HDTV upgrader	10%
11	iPod owner	7%
12	Investor	1%
13	Parent	3%
...		
499	Gardener	0%

Searched for pricing information on 2 car makes

Visited iTunes Store (10 times)