



What is the truth about **CHANEL N°5** ?

INSIDE-CHANEL.COM

Web Advertising

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COMP6218

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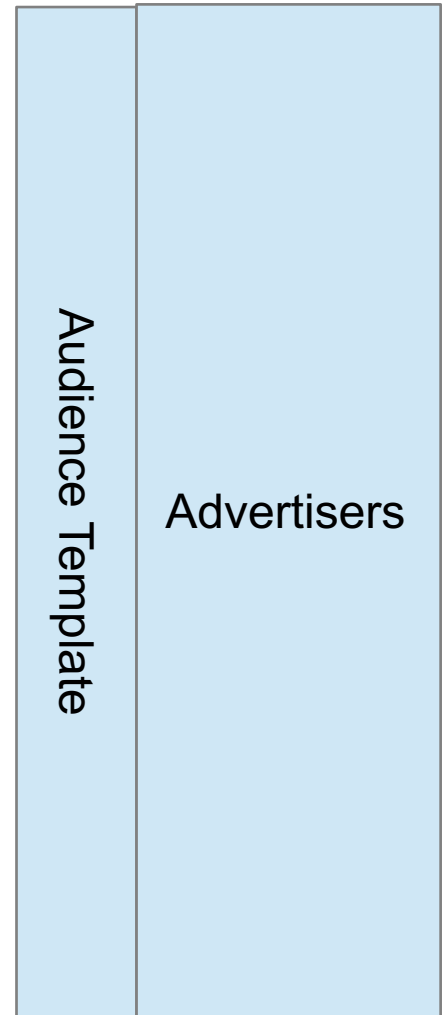
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Introduction

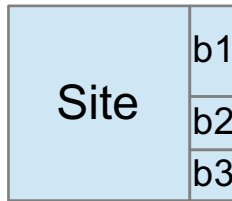
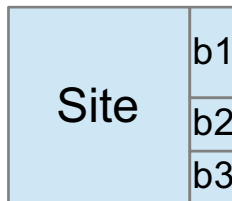
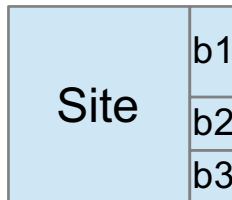
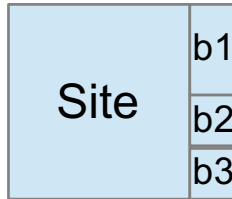
- Advertisers are people with something to sell.
- They want to find an audience who will buy their products.
- The audience template is something they will draw up that encapsulates some information about who they think this is.
- This template will contain things like
 - Socio-economic grouping
 - Income, personal finances
 - Family status
 - Home ownership
 - Past purchasing behaviour



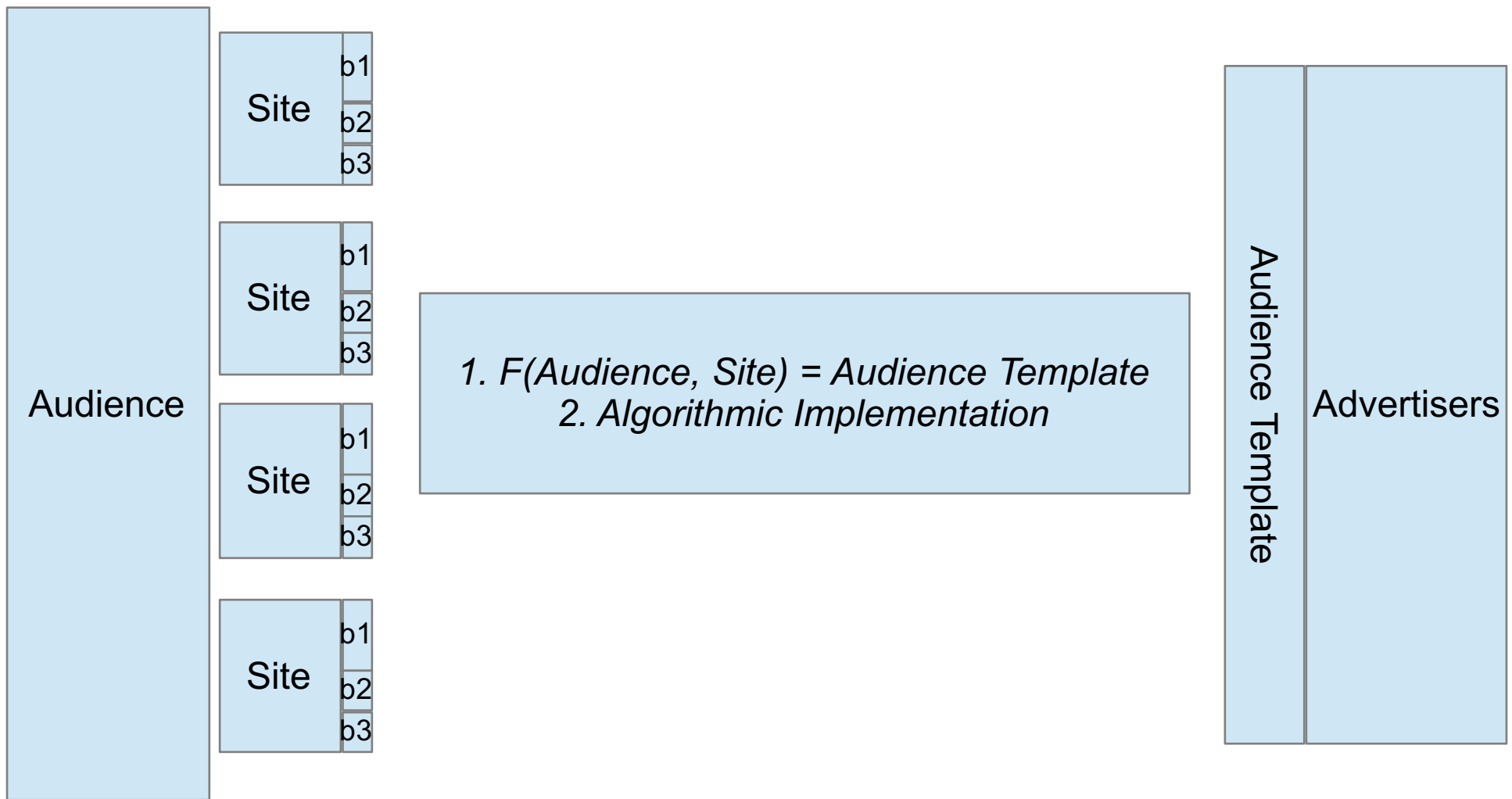


Audience

- 'Audience' is what advertisers refer to people as
- This includes everyone online



- Sites are the websites the audience visits
- When a user clicks on a site this is called a page impression
- Banners are the parts of the page available to serve an add to
- Each page may have multiple banners so the impression is, in effect, sold multiple times
- These are not standardised but larger ones and ones in better positions are typically worth more



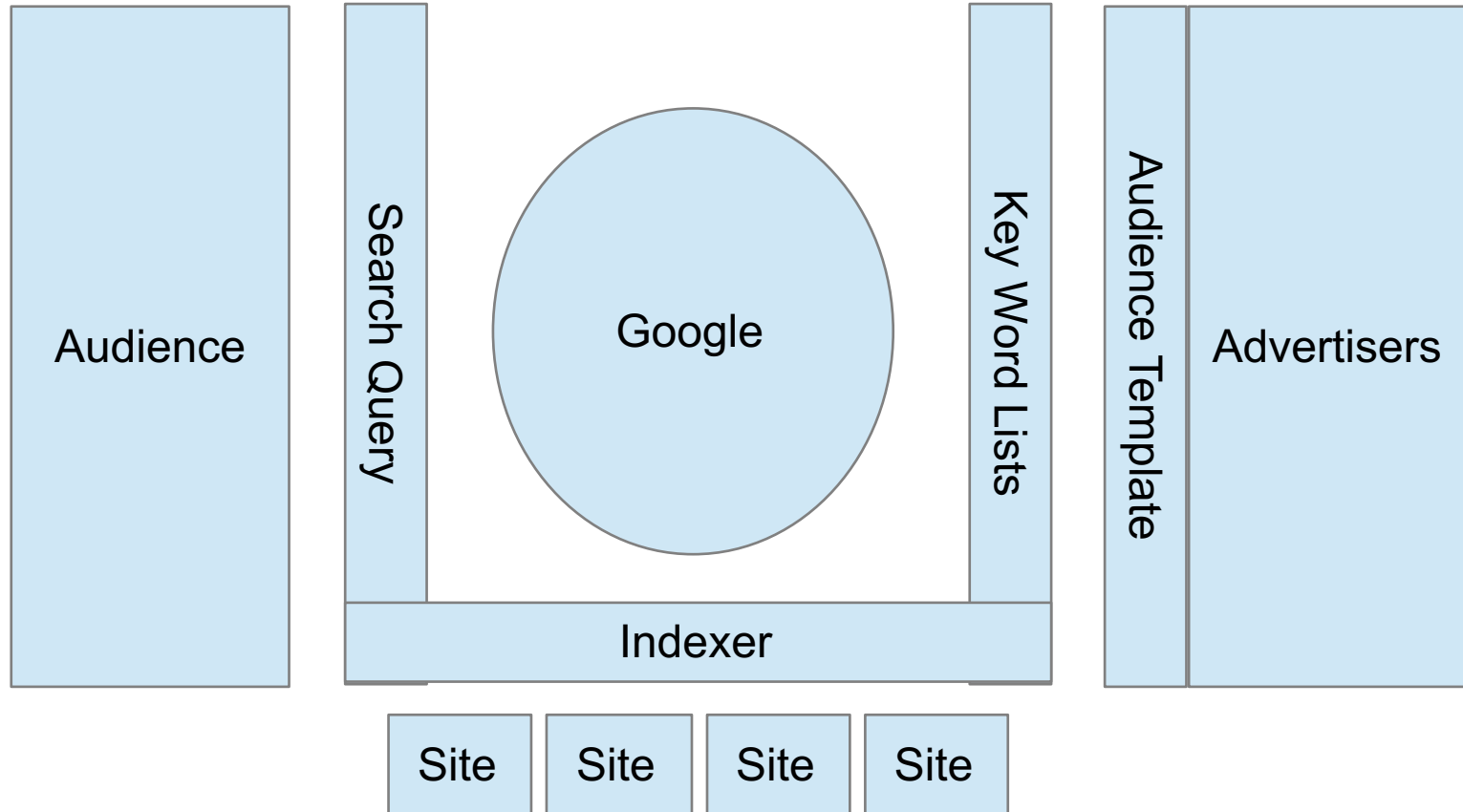
- The adserving industry can then be summarised as a series of systems aimed at providing a functional mapping for an audience template onto an audience-site pair
- There are 2 key problems
 - 1 = being able to provide the mapping that satisfies the template
 - 2 = being able to be action several mappings efficiently over time

- Important Notes
 - Advertising spend for a given audience template is agreed in advance
 - Metrics for return on this investment are unreliable
 - These include
 - Click through rates
 - Cost for acquisition of a new customer
 - As spending is essentially fixed sites compete to satisfy the audience template by acquiring greater amounts of information on their audience

Advertising Industry

- Online advertising spend in 2009-10 was \$27bn
- Search advertising is 65% of all online advertising spend
- Google has 90% of all search advertising

Google Model



- Google works by indexing the sites
- Then providing an integration to the advertiser – via google adwords
- This allows them to purchase against their audience template by considering which keyword searches map best to their template
- They then leverage their massive platform capabilities to action many such mappings at once

Sample Google Adwords

The image shows a screenshot of a Google search for the term "webscience". The search bar at the top contains the text "webscience" and a "Search" button. Below the search bar, it indicates "About 2,810,000 results (0.11 seconds)".

The search results are organized into two columns. The left column contains organic search results:

- Web Science - Web Science Trust**: The Web Science Trust is pleased to announce that WebSci 2011 will be the first in the series to be an ACM Conference. We are grateful to SIGWEB for their ...
[webscience.org/](#) - Cached - Similar
Publications Contact Us
Research About The Trust
Events WSTNet
Why Study the Web? Curriculum
More results from webscience.org »
- ACM Web Science Conference 2011: Home**: ACM WebSci '11 - 3rd International Conference on Web Science.
[www.websci11.org/](#) - Cached - Similar
- Web Science Trust - Wikipedia, the free encyclopedia**: The Web Science Trust is a joint effort originally started between MIT and University of Southampton to bridge and formalize the social and technical ...
[en.wikipedia.org/wiki/Web_Science_Trust](#) - Cached - Similar
- Webscience.com**: Professional web development and design, marketing and SEO, stunning photography based in Orange County, CA.
[www.webscience.com/](#) - Cached - Similar
- Web science: a new frontier | Royal Society**

The right column contains a Google Ad:

4 Yr Web Science Course
Fully Funded Interdisciplinary PhD.
Open To All Disciplines. Apply Now!
[webscience.ecs.soton.ac.uk](#)
See your ad here »

A blue box on the right side of the image, labeled "Google advert", has a blue arrow pointing to the advertisement text.

Sample Report

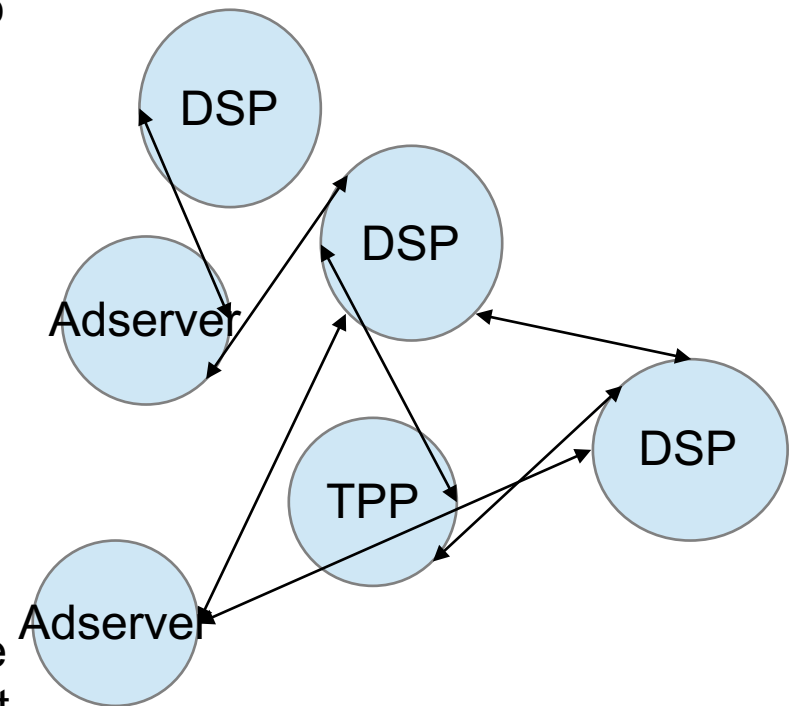


InquiringMinds

- Ad served **2,841,346** times since started in December
- Clicked on **2,185** times – Average click through 0.07%
- Consistent Average 12-17 clicks per day
- Total Cost (to date): £1,421.24 (£10/day capped)
- 22% of all traffic

Campaign Name	Impressions	Clicks	Conversion Rate	Comments
PhD Studentships	2,063,283	1,609	0.08%	Best performing
Web Science	593,230	218	0.04%	Moderate
Cybercrime	116,818	26	0.02%	Niche area – but ok results
Digital Economy	17,474	2	0.01%	Not performing (stopped)

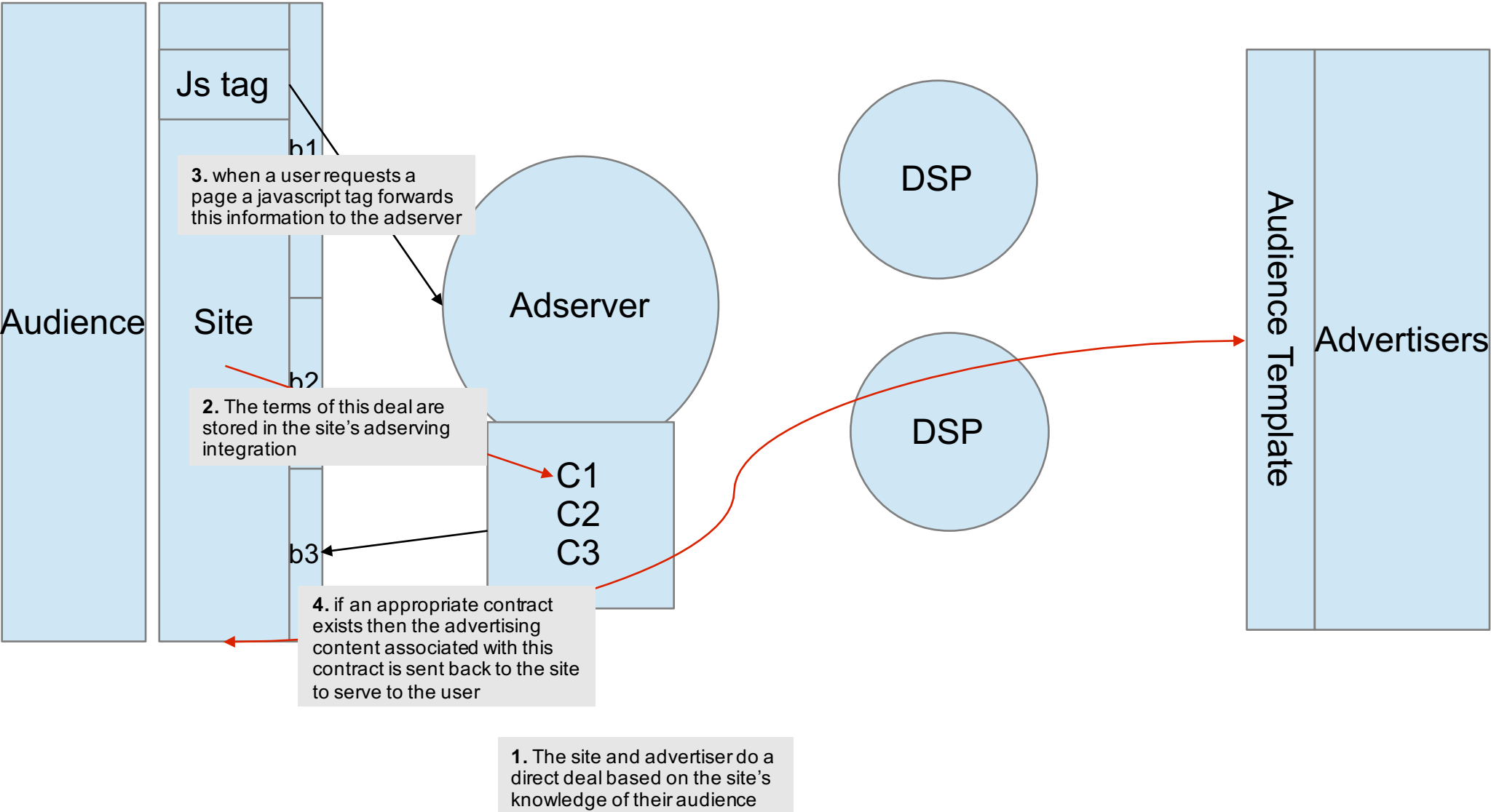
- The Google model is very powerful for advertisers
- They get extra information on the audience and so Google can often provide a better fit for the audience template
- Google also has the infrastructure to serve the ad to its site based on complex contractual agreements with advertisers.
- To compete, a range of companies provide services to sites
 - Adservers – allow sites to have many outstanding contracts that can be served efficiently over time.
 - Demand Side Processors (DSPs) – algorithmically purchase against audience templates on behalf of advertisers
 - Third Party Providers (TPPs) – collect user information by cookie-ing large amounts of people or buying in socio-economic data and overlaying it onto the sites audience
- These companies do not all talk to each other, do not use standardised information, do not all talk to every advertiser or site. The situation is a mess.



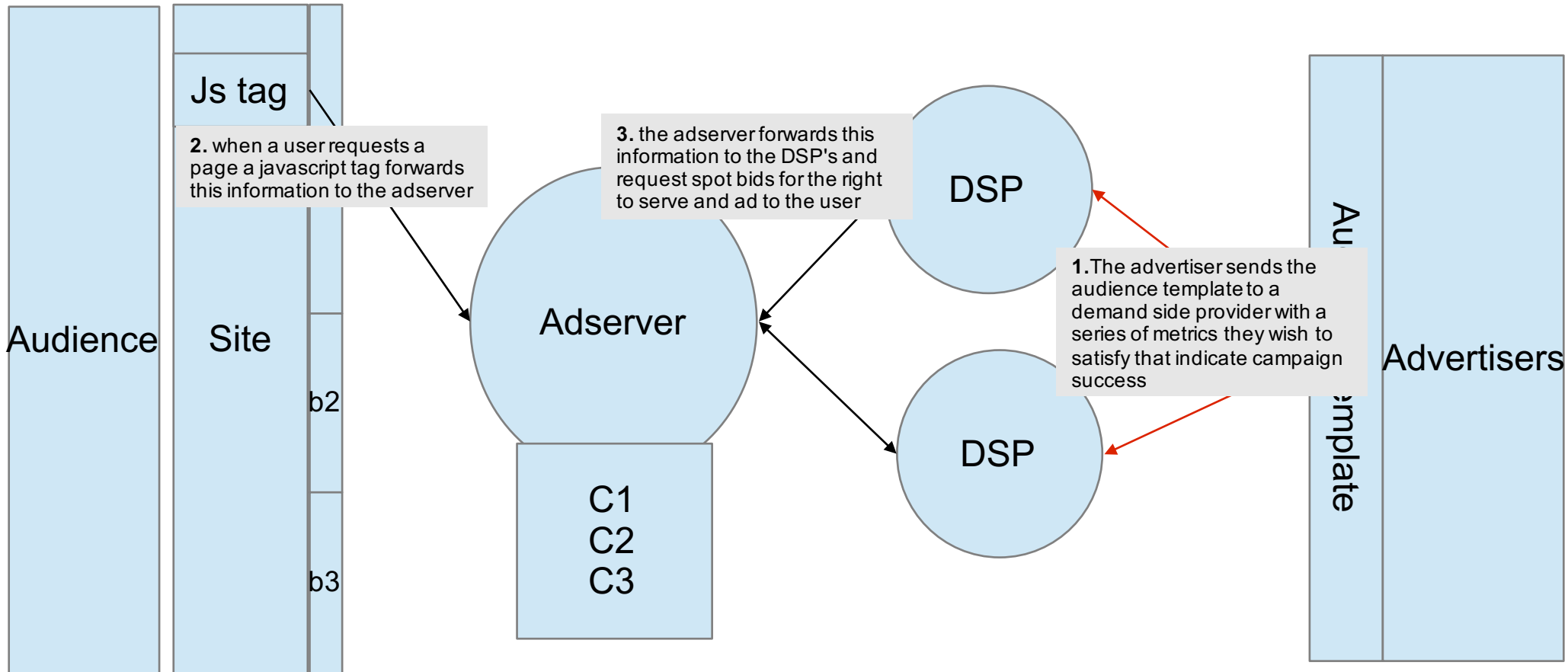
Purchasing and Serving Ads

(if you're not Google)

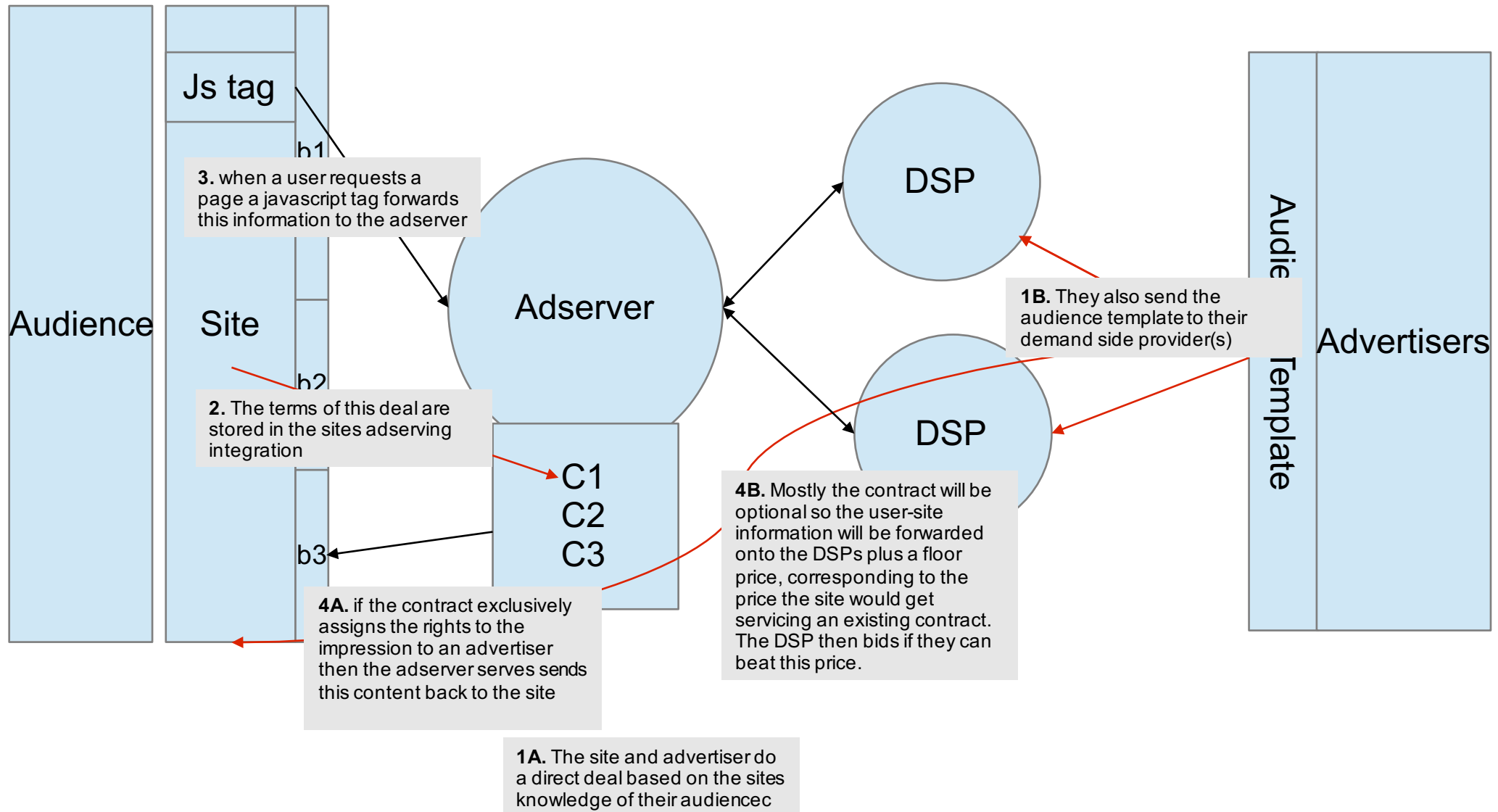
Contract Buying



Real Time Bidding

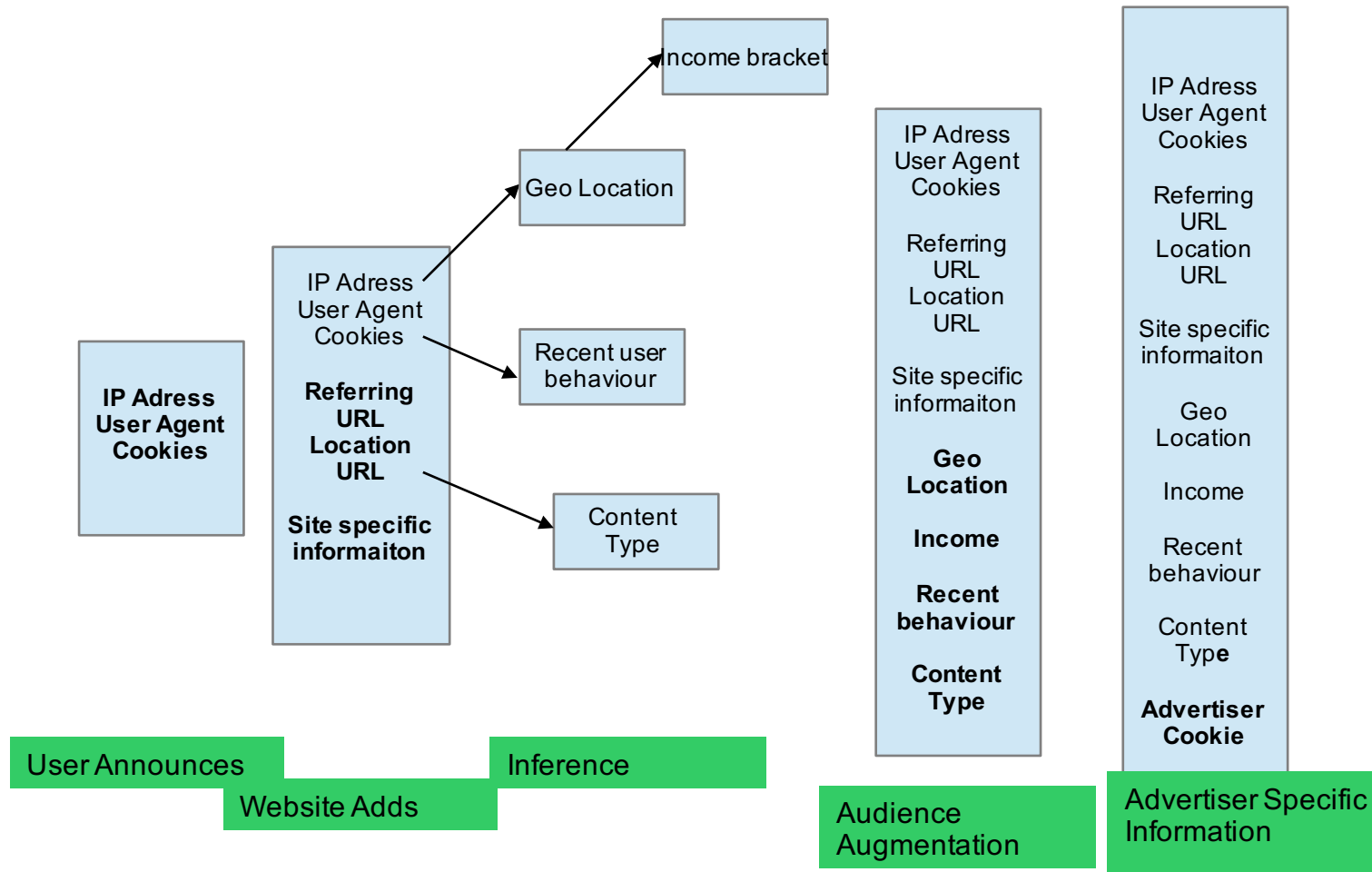


More Realistic View of the Situation

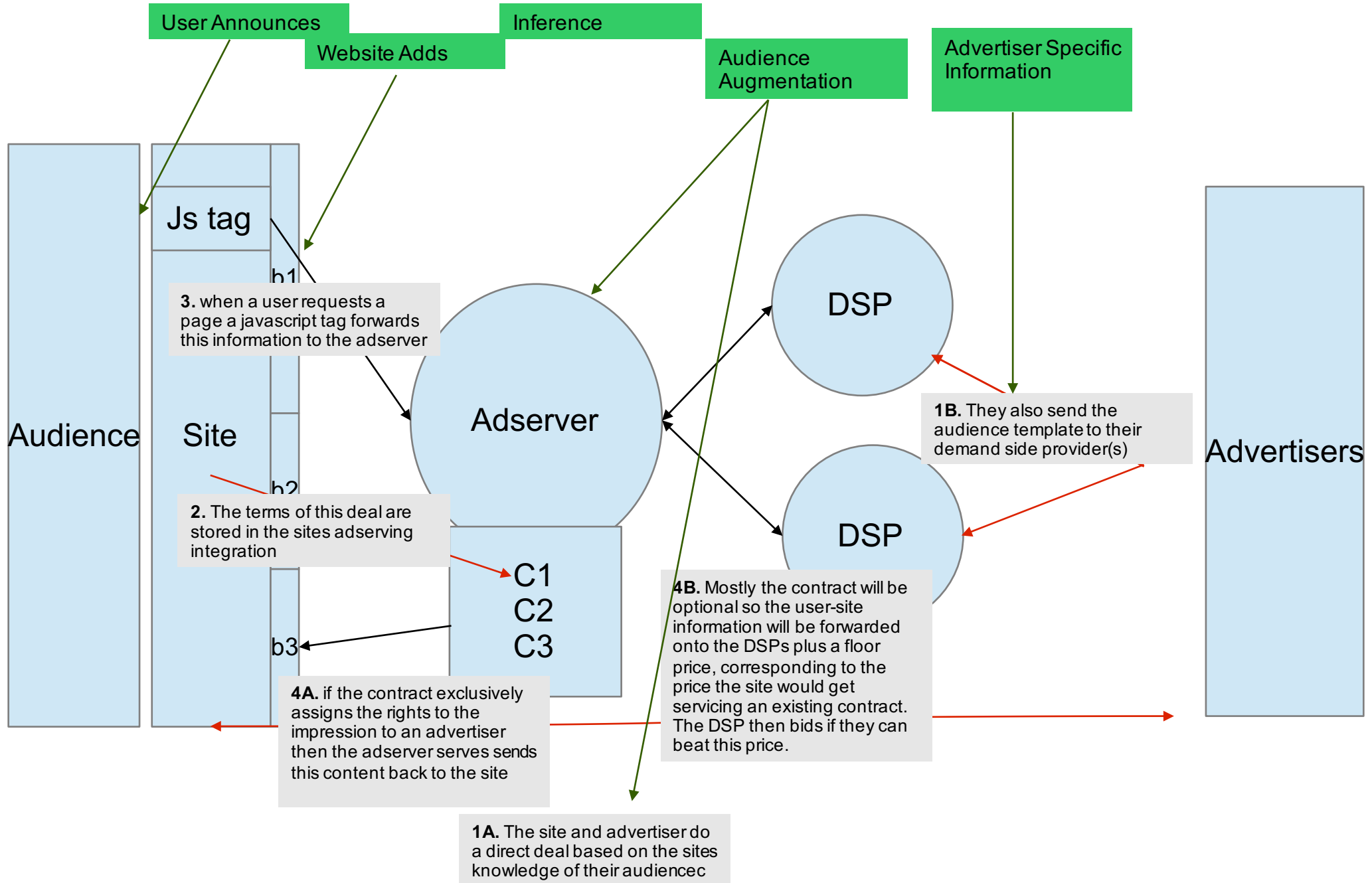


Third Party Information

- As well as the infrastructure sites must compete with Google on the information they can provide to map their audience to the advertisers template
- When the user presents themselves to the site they announce some limited information about themselves
- This information is augmented by mapping it to other datasets companies provide as audience augmentation services.
- Websites may also hold user data that they leverage in contract negotiations



Information Insertion Points



Browser Cookies



What is a cookie?

Information that a site saves to your web browser

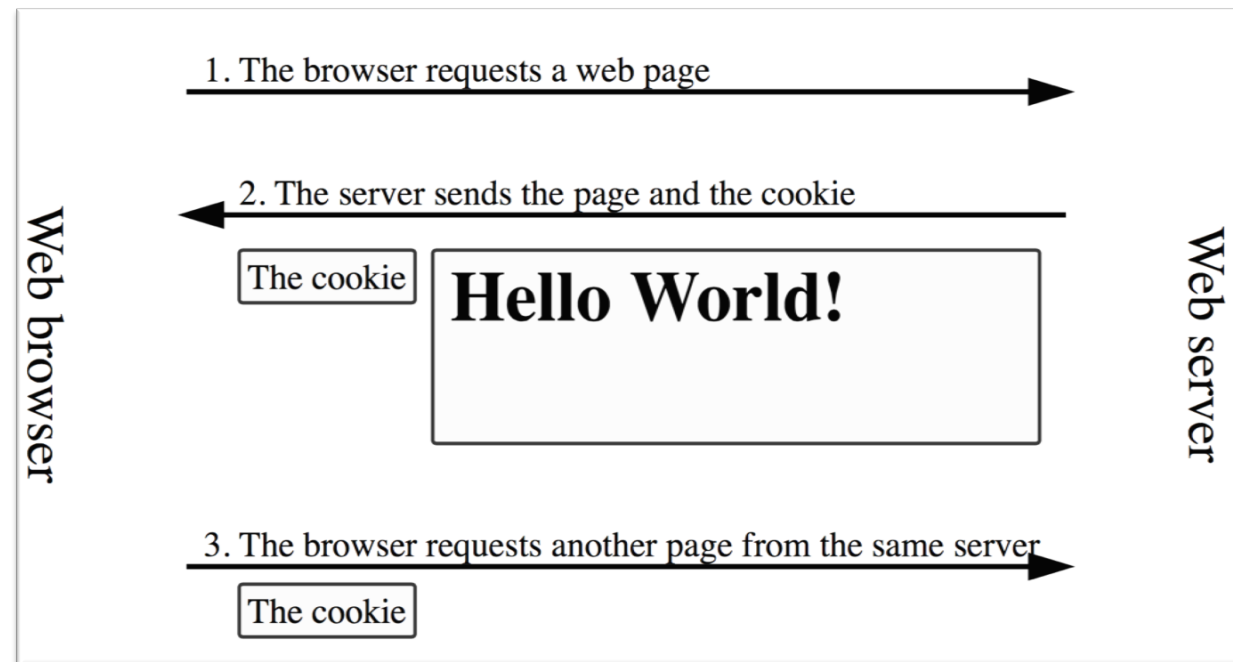
Record your browsing activities

Pages and content you looked at

When you visited

What you searched

You clicked on an ad



Cookies & HTTP

```
GET /index.html HTTP/1.1  
Host: www.example.org
```

browser



server

```
HTTP/1.0 200 OK  
Content-type: text/html  
Set-Cookie: name=value  
Set-Cookie: name2=value2; Expires=Wed, 09 Jun 2021 10:18:14 GMT
```

(content of page)

```
GET /spec.html HTTP/1.1  
Host: www.example.org  
Cookie: name=value; name2=value2  
Accept: */*
```

browser



server

browser



server

The screenshot shows a web browser window with the URL `www.engadget.com`. The page features a navigation bar with the Engadget logo and a main content area with a news article titled "Qualcomm's Raj Talluri wearable displays should be always on" by Richard Lai. A sidebar on the right contains a "Collusion for Chrome" privacy tool. This tool displays a network graph of tracking sites, with a central node for the current site and many other nodes representing various domains. The tool also includes a sidebar with a privacy policy section and a "Reset the graph" button. A red button in the top right corner says "Unblock known tracking sites".

First Party vs Third Party Cookies

First party cookies

Place by a site when you visit it

Make your experience on the web more efficient

For example:

- Items in your shopping cart

- Log-in name

- Preference

- Game scores

- Sessions

Third party cookies

Place by someone other than the site you are on

Include an advertising network or a company that helps deliver the ads you see

Deliver ads tailored to your interests

Transient vs. Persistent Cookies

Transient Cookies

Jobs is to help “sessionize” your experience on a website
“set” when we visit the site, it disappears when we leave

Persistent Cookies

Set the first time we visit the website

It will remain there for the duration that the website determines

Example

Analytics cookies are typically 18 months

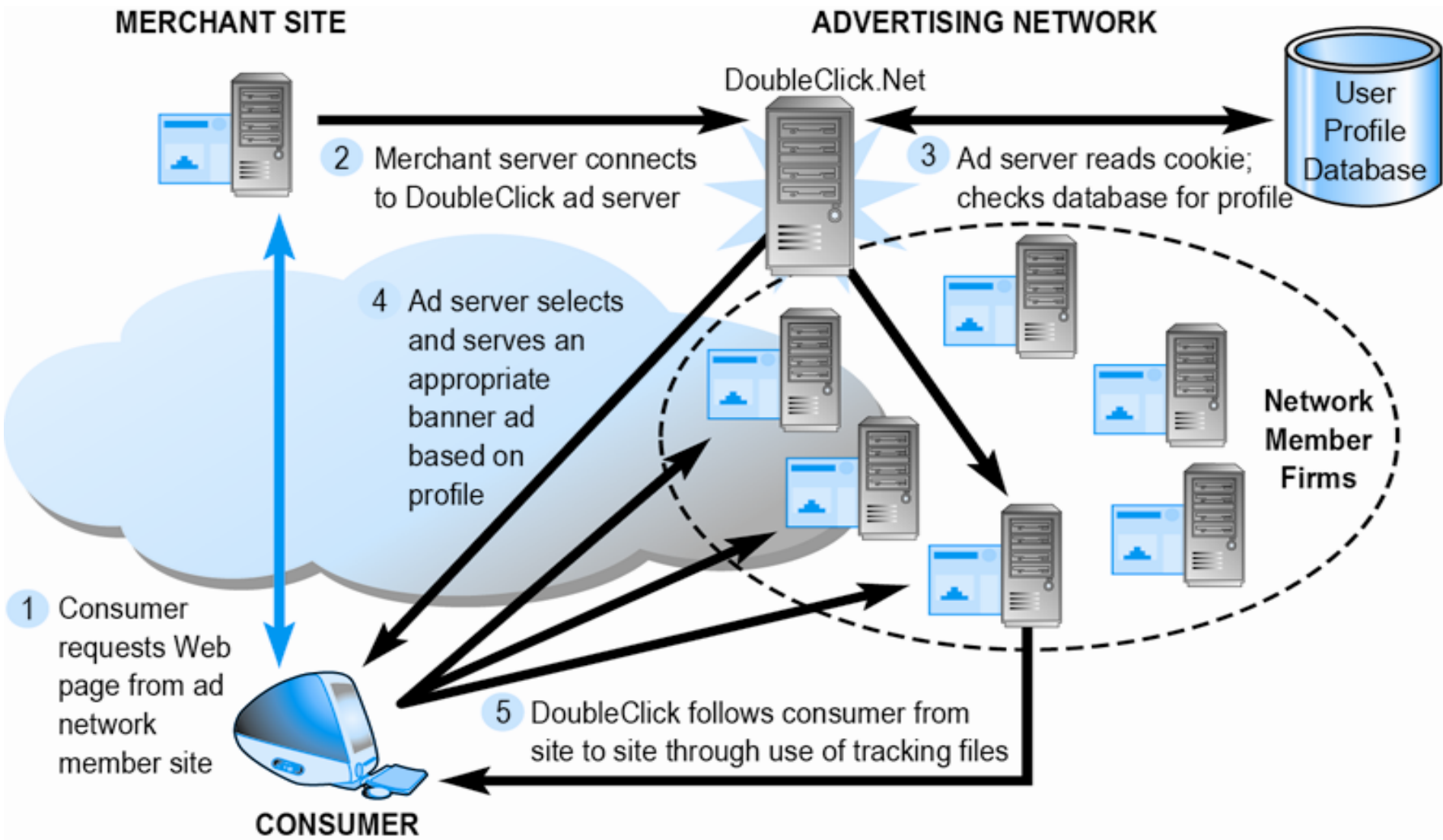
Other can be 18 months to 18 years

Help identify a unique browser to our website, closest thing to
tracking a “person”/”unique visitor”

Contain not always a Personally Identifiable Information (PII) data.

Random string of numbers or alphabets that only the company who set
the cookie can read.

Cookie Tracking



Conclusions

- Client server Web is private two-party communication
 - But adverts are from a third party, on behalf of a fourth party, mediated by a fifth party
- Google try to occupy the whole service space themselves
- Everyone else has to piece it together with different specialist services (market ecology)
 - Buying and selling adverts, making contracts, gaining more intelligence about the viewers
 - NSA-style snooping to gain knowledge for the market to increase the value of transactions. Cookies!