

***2021-03-31 Lipkovitz, Eisar***

**Annotation Digest - All Annotations**

## TextMap Annotation Digest Report

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**Pg: 4 Ln: 12 - 14**

**Annotation:**

4:12 Q. Could you provide your full name  
13 for the record?  
14 A. Sure. It is Eisar Lipkovitz.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 13 Ln: 11 - Pg: 15 Ln: 7**

**Annotation:**

13:11 Q. Okay. I'd like to discuss your  
12 time being employed at Google. When did you  
13 join Google?  
14 A. August 2, 2004.  
15 Q. You remember it pretty clearly.  
16 Is that a -- does that date stick out in your  
17 mind?  
18 A. I have an affliction of having an  
19 extremely good memory. I'm not bragging,  
20 but, you know, it's actually difficult for me  
21 to -- not to remember stuff, you know, so...  
22 Q. Yeah, I appreciate that. So what  
23 were your -- what was your initial job when  
24 you joined Google?  
25 A. I have joined what was later  
14: 1 E. LIPKOVITZ  
2 called the Search infrastructure team. I was  
3 working on the search engine, and I was  
4 managing a team initially that was in charge  
5 of what was called Google Web Server and  
6 pretty quickly thereafter it expanded to sort  
7 of managing the crawling and indexing team,  
8 and, you know, over time it became sort of a  
9 larger scope. All of it. And so the  
10 infrastructure is what makes Search possible.  
11 Q. So, Mr. Lipkovitz, you are an  
12 engineer, correct?  
13 A. I am, by trade.  
14 Q. And what does that -- I mean, so  
15 what does that mean that your day-to-day  
16 responsibilities -- what are the -- I should  
17 ask, what are the general responsibilities of  
18 an engineer at Google? What type of projects  
19 might you work on?  
20 A. You know, it's just all over the  
21 place and all of it changed over time. And  
22 in my case, because I start at a manager,  
23 it's a little bit different, but in general  
24 it's writing code, reviewing code,  
25 maintaining systems, writing design  
15: 1 E. LIPKOVITZ

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**Pg: 13 Ln: 11 - Pg: 15 Ln: 7 continued...**

**Annotation:**

15: 2 documents, participating in meetings and so  
3 forth.  
4 Q. Are engineers at Google involved  
5 in strategic decisions?  
6 A. It changed over time. When I  
7 joined, quite a bit, yes.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 24 Ln: 19 - Pg: 25 Ln: 15**

**Annotation:**

24:19 Q. When you talk about programatic,  
20 what do you mean by programatic?  
21 A. You know, it's a buzz word that I  
22 don't know, you know, who made it up, and it  
23 was a pretty important one, especially when I  
24 joined. The industry was moving away -- or  
25 "away" is not right word. Prior to  
25: 1 E. LIPKOVITZ  
2 programatic, the vast majority of ads, you  
3 know, being sold online, at least by dollars  
4 I, should say, were direct sold. An  
5 advertiser and a publisher would have a  
6 relationship and they would agree, you know,  
7 to a contract and buy units, roughly how TV,  
8 you know, advertising is sold today.  
9 And programatic was an attempt to  
10 sort of get it more efficient and sort of  
11 automated and, you know, use technology to  
12 minimize the number of people needed to talk  
13 and sales people and martinis and, you know,  
14 all that stuff. That's probably the highest  
15 level.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 31 Ln: 22 - Pg: 32 Ln: 5**

**Annotation:**

31:22 Q. Okay. That makes sense. So after  
23 2016, summer 2016, you were the lead engineer  
24 for the display and video team for Google?  
25 A. That is correct.  
32: 1 E. LIPKOVITZ  
2 Q. You had responsibility for all  
3 Google's display business on the engineering  
4 side; is that correct?  
5 A. It is correct.

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**Pg: 31 Ln: 22 - Pg: 32 Ln: 5 continued...**

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 45 Ln: 3 - 14**

**Annotation:**

45: 3                               How many people were in the  
4           display and video organization altogether?  
5           A.     It changed over time but I would  
6           like to say somewhere between 2500 to 3500  
7           ish.  
8           Q.     Okay. And were you sitting on the  
9           top of that org chart?  
10          A.     As I mentioned, we had, you know,  
11          multiple partners depending on the time. I  
12          was -- probably by head count, I had the  
13          majority of them, because engineers is the  
14          bulk of that organization from headcount.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 57 Ln: 16 - Pg: 58 Ln: 11**

**Annotation:**

57:16                           Q.     What is a publisher, as you  
17           understand it?  
18           A.     I mean, you know, it starts with  
19           the generic definition of publisher, which is  
20           a common place in media. But in the context  
21           of ads, it is an entity that is trying to  
22           monetize, make money from media, by placing  
23           ads next to their content. And they use  
24           technology or, you know, some sort of online  
25           ability do that, to do so.  
58: 1                           E. LIPKOVITZ  
2           Q.     Okay. And what types of  
3           technology might a publisher use?  
4           A.     You kind of have to start with an  
5           ad server, which is effectively a piece of  
6           software that lets you manage the inventory  
7           of slots on, you know, your web page. So  
8           that's probably the most important aspect.  
9           Q.     Do publishers use an ad server for  
10           both direct and remnant sales?  
11           A.     Yes, they do.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 69 Ln: 18 - Pg: 70 Ln: 9**

**Annotation:**

69:18                           Q.     Okay. Are you familiar with the

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**Pg: 69 Ln: 18 - Pg: 70 Ln: 9 continued...**

**Annotation:**

69:19 terms "buy side" and "sell side"?  
20 A. Yes. So traditionally speaking,  
21 buy side is referring to the advertiser  
22 facing products and sell side to the  
23 publisher selling product, facing products.  
24 Q. Did Google have ad tech tools  
25 which it offered to the sell side?  
70: 1 E. LIPKOVITZ  
2 A. Yes.  
3 Q. And did you have ad tech tools  
4 which you offered to the buy side?  
5 A. Yes, we did.  
6 Q. Okay. Did you -- I guess after  
7 summer of 2016, did you have responsibility  
8 for Google's products on both the buy and  
9 sell side?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 70 Ln: 11**

**Annotation:**

70:11 A. I did.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 100 Ln: 13 - 15**

**Annotation:**

100:13 Q. If I'm a small advertiser spending  
14 \$1,000 a month, would DBM be an option for  
15 me?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 100 Ln: 17 - Pg: 101 Ln: 5**

**Annotation:**

100:17 A. Option meaning what? Like where  
18 is the decision?  
19 Q. Would it make sense for me to work  
20 on DBM?  
21 A. I would not advise it.  
22 Q. Why not?  
23 A. Because like all the benefits  
24 exist on DBM would be extremely useless for  
25 you.  
101: 1 E. LIPKOVITZ  
2 Q. How so?  
3 A. You know, if we have to charge you

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**Pg: 100 Ln: 17 - Pg: 101 Ln: 5 continued...**

**Annotation:**

101: 4               for support, you'll spend more money on that  
      5               than whatever you spend on media.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 114 Ln: 11 - 12**

**Annotation:**

114:11               Q.       Does the ad server business have  
      12               substantial fixed cost?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 114 Ln: 14 - 25**

**Annotation:**

114:14               A.       Yeah, I think it is -- you know,  
      15               the biggest one is probably the technology  
      16               R&D team, right, and payroll for that. You  
      17               know, you may need some sales and support to  
      18               support the customers and then you have some  
      19               infrastructure costs, you know, to have the  
      20               actual ad server, right. It's usually  
      21               software as a service, you know. The ad tech  
      22               company hosted everything and had the  
      23               production assistants, they have to have ops  
      24               people, sometimes they have data centers,  
      25               whatever.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 116 Ln: 21 - Pg: 117 Ln: 20**

**Annotation:**

116:21               A.       That's a good question. It was a  
      22               debate, right. I think there were sort of  
      23               multiple reasons, right. One is, you know,  
      24               we had a team, right, and you get into this  
      25               dynamic that I see everywhere that Google  
117: 1               E. LIPKOVITZ  
      2               probably works where, you know, it's hard to  
      3               cancel a thing and the team would advocate  
      4               for it, right. And, you know, some type of a  
      5               job security. And to be clear, these people  
      6               would not lose their job, you know, it's hard  
      7               to lose your job at Google. It's just  
      8               literally their vested interest, right, one.  
      9               Two, a lot of the customers of DFP  
     10               were large publishers, many of them are large  
     11               media companies, right, so, you know, Google

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**Pg: 116 Ln: 21 - Pg: 117 Ln: 20 continued...**

**Annotation:**

117:12 did not want to anger, pissing them off. And  
13 I think, three, you know, it is providing  
14 value, and, you know, we tried to sort of  
15 contain the cost. I don't think we are  
16 making any profit of that, right. But it's  
17 some sort of a public service, you know, to  
18 continue kind of boosting the ecosystem.  
19 It's just hard, you know, when you're a large  
20 company to do -- stop doing something.

**Linked Issues:** Trial Designations - Google Counter FINAL

**Pg: 117 Ln: 21 - 22**

**Annotation:**

117:21 Q. Was there value specifically to  
22 Google in running the ad server?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 117 Ln: 24 - Pg: 120 Ln: 4**

**Annotation:**

117:24 A. Yeah, so the team -- there were  
25 people, you know, when I was referring back  
118: 1 E. LIPKOVITZ  
2 to the first argument, right, the team wasn't  
3 just, you know, when we are doing job  
4 security or self-preservation, right, they  
5 would argue that's a strategic value of  
6 having access to inventory.  
7 Q. What do you mean by "access to  
8 inventory"?  
9 A. So, you know, I think our goal was  
10 to give advertisers -- you know, we had  
11 multiple constituents right, at a super high  
12 level, right. Advertisers, users and  
13 publishers. My point of view was always that  
14 advertisers sort of have the highest  
15 allegiance because they're actually paying.  
16 And what advertisers want is they want to  
17 have access to users, right. And we wanted  
18 to give them the best product, which means,  
19 you know, it's easy to use and it gives the  
20 best performance, but, you know, you still  
21 need to have access to as many users as  
22 possible. So in that regard, yes, DFP was  
23 helpful.  
24 Q. How was it helpful in providing  
25 access to users?

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**Pg: 117 Ln: 24 - Pg: 120 Ln: 4 continued...**

**Annotation:**

119: 1 E. LIPKOVITZ  
2 A. Yeah. So I think there is two  
3 ways to think about access to users or  
4 impressions, right. One is having a  
5 relationship, right, with every publisher to  
6 the extent it is possible and having an  
7 opportunity to compete on every impression of  
8 that particular publisher. And, you know,  
9 first one is easy, right. So you want to  
10 have a relationship, whether you are running  
11 a network or you're running an SSP with all  
12 publishers, right. So you don't want to  
13 anger them. You want to offer them a product  
14 that they will be happy with.  
15 And, secondly, is having some  
16 influence over the decisioning, right. So at  
17 the end of the day, the ad server -- because  
18 at the end of the day, somebody has to show  
19 the ad, right, and the ad server is making  
20 the final decision, right. And our goal is  
21 to compete at every potential auction that  
22 exists, which we felt is good in two ways.  
23 One is, you know, give our  
24 advertisers access; and, two, by definition,  
25 increases the publisher revenue, right,  
120: 1 E. LIPKOVITZ  
2 because every impression you won, if you  
3 didn't win, right, the publisher would make  
4 less money.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 124 Ln: 11**

**Annotation:**

124:11 Q. Are you familiar with a last look?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 124 Ln: 13 - 24**

**Annotation:**

124:13 A. I heard this expression being  
14 used, yes.  
15 Q. What do you understand last look  
16 to refer to?  
17 A. I think what people were referring  
18 to is some opportunity, kind of at the end,  
19 after everybody else bid on the impression,  
20 to try to beat the, you know, the best price



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**Pg: 124 Ln: 13 - 24 continued...**

**Annotation:**

124:21           or whatever.  
22                Q.     While you were in -- from 2014  
23                through 2018, did Google offer AdX last look  
24                in DFP?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 125 Ln: 14 - Pg: 126 Ln: 8**

**Annotation:**

125:14               A.     I think that -- I think it's a  
15                publisher friendly feature, right, because if  
16                you give anybody, no matter who it is, an  
17                opportunity to match whatever price, like any  
18                auction, right, at the end of the day, the  
19                seller will make more money, right.  
20                Because I just think it's more  
21                problematic from an advertiser standpoint,  
22                depending how it's being done, and it gets  
23                complicated who is actually benefiting from  
24                this. When user with preferential treatment,  
25                you know, it is a very complex topic, so I  
126: 1                E. LIPKOVITZ  
2                really, A, first don't remember all the  
3                details; B, I think it's very hard to say  
4                exactly whether it's good or bad, right. It  
5                just felt somewhat asymmetric. I wasn't  
6                excited about it.  
7                Q.     And did DFP offer any other SSPs  
8                last look?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 126 Ln: 10**

**Annotation:**

126:10               A.     I do not know.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 132 Ln: 11 - 14**

**Annotation:**

132:11               When you first joined Google's  
12                display team in 2014, am I right that GDN was  
13                not permitted to buy inventory offered by  
14                third-party SSPs?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

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**Pg: 132 Ln: 16**

**Annotation:**

132:16                   A.     That is correct.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 132 Ln: 17 - 18**

**Annotation:**

132:17                   Q.     So GDN was not permitted to buy  
18                   inventory from programatic, correct?

**Linked Issues:** Trial Designations - Google Counter FINAL

**Pg: 132 Ln: 20 - Pg: 135 Ln: 12**

**Annotation:**

132:20                   A.     I'm not a fan of the words  
21                   "permitted," because it did become a debate  
22                   while I was there, but it did not, yes.  
23                   Q.     Okay. Why?  
24                   A.     Well, you know, there is some what  
25                   I consider religion, which, you know, maybe  
133: 1                   E. LIPKOVITZ  
2                   was justified by supposedly business reasons,  
3                   and there was some actual arguments that  
4                   were, you know, fairly objective, right, but  
5                   just harder to quantify.  
6                   Like let me start with the second  
7                   one. GDN was especially, you know, a fairly  
8                   simple product for, you know, advertisers  
9                   that don't need a lot of control. I  
10                   understand that you mentioned earlier  
11                   smaller, but it's difficult, but it's some a  
12                   large advertiser don't need control.  
13                   However, there were concerns that  
14                   if those advertisers place ads on third-party  
15                   SSPs, they may end up being shown into -- you  
16                   know, like in context, those are the types  
17                   that we don't want. And then spam.  
18                   So let me explain these two  
19                   issues, right. So, you know, if you're  
20                   Coca-Cola, you know, you might not want to be  
21                   a place where, you know, your ads are showing  
22                   on some porn site or whatever. Or, you know,  
23                   or some websites that have some political  
24                   point of view you don't agree with, you know,  
25                   all these things became an real issue, you  
134: 1                   E. LIPKOVITZ  
2                   know, a few years back, right.  
3                   And there were people on the GDN  
4                   team who felt that this is an incredible

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**Pg: 132 Ln: 20 - Pg: 135 Ln: 12 continued...**

**Annotation:**

134: 5           important thing, and the only way to ensure,  
6           because we know who the publisher is, is to  
7           make sure through our, you know, the Google  
8           network, including AdX, where we have a  
9           direct relationship with these publishers,  
10          right, so we know who they are, we can  
11          authenticate which pages they are, what they  
12          look like and stuff like that.  
13                Spam is another issue. It's,  
14          again, an advertiser friendly position that,  
15          you know -- by "spam," I mean, it's a case  
16          where the impression actually was not shown  
17          to anybody, like a real person, right, so  
18          there's some types of middleman that would  
19          manufacture impressions, right, to collect  
20          revenue and essentially two advertisers of  
21          money, right. And AdX and, you know, other  
22          Google technologies had a little bit better  
23          SDKs and some special Java Script that will  
24          be better detecting this sort of type of  
25          activity, right.

135: 1                E. LIPKOVITZ  
2                That's what the genesis of that.  
3          The counterargument was, well, you know, some  
4          advertisers are willing to take risks, why  
5          can't we offer that. And that was getting  
6          into some internal debate. But that's sort  
7          of, you know, how things evolve. And to be  
8          honest, you know, it was the way things just  
9          sort of evolved, right, so at some point,  
10         this became a topic of debate. So it's not  
11         that anything was prohibited, but that's sort  
12         of how we got there.

**Linked Issues:** Trial Designations - Google Counter FINAL

**Pg: 135 Ln: 19 - 21**

**Annotation:**

135:19                       Were there financial  
20                       considerations in GDN bidding on third-party  
21                       exchanges?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 135 Ln: 23 - Pg: 136 Ln: 7**

**Annotation:**

135:23                       A.     Yes. I think that when Google  
24                       bids on a third-party exchange, they would

## TextMap Annotation Digest Report

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**Pg: 135 Ln: 23 - Pg: 136 Ln: 7 continued...**

**Annotation:**

135:25           not make sell side margin.  
136: 1                       E. LIPKOVITZ  
2                Q.       What do you mean by "sell side  
3                margin"?  
4                A.       So when the impression was bought  
5                through AdX, AdX took a cut of the payout  
6                from the advertiser to the publisher. It's  
7                considered sell side margin.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 136 Ln: 18 - 21**

**Annotation:**

136:18                       Was there concern that GDN bidding  
19               of third-party exchanges would make  
20               third-party exchanges more attractive  
21               partners for publishers?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 136 Ln: 23 - Pg: 137 Ln: 18**

**Annotation:**

136:23               A.       There are often people that  
24               express that concern, yes.  
25               Q.       Who in particular expressed that  
137: 1                       E. LIPKOVITZ  
2               concern?  
3               A.       Generally speaking, people that  
4               were on the sales -- you know, the -- sort of  
5               the partnership sales team that worked with  
6               those publishers.  
7               Q.       Would Jonathan Bellack express  
8               those concerns?  
9               A.       He did.  
10               Q.       What did -- if you recall, what  
11               specific concerns did Jonathan Bellack raise?  
12               A.       You know, what you just said and,  
13               you know, I think we talked about it earlier,  
14               right, like the exclusivity in core of GDN or  
15               AdWords and in AdX.  
16               Q.       Can you explain that concept, that  
17               last concept about the exclusivity of GDN and  
18               AdX a little bit more?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

## TextMap Annotation Digest Report

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**Pg: 137 Ln: 20 - Pg: 138 Ln: 3**

**Annotation:**

137:20                   He said quote --  
21                    A.     He likes -- and, you know, and I  
22                    think the people in the sort of partnership  
23                    team were even stronger in that respective to  
24                    make the claim that AdX is the, in quote, the  
25                    only place where GDN or AdWords demand is  
138: 1                               E. LIPKOVITZ  
2                    exposed.  
3                    Q.     Why was that important?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 138 Ln: 5 - 7**

**Annotation:**

138: 5                   A.     Because it's some sort of like, in  
6                    quote, a winning argument with a publisher.  
7                    I didn't agree with that.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 141 Ln: 21 - 23**

**Annotation:**

141:21                   Q.     Had GDN bid on third-party  
22                    exchanges, would it have increased their  
23                    auction pressure?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 141 Ln: 25 - Pg: 142 Ln: 5**

**Annotation:**

141:25                   A.     It would, yes. By definition, any  
142: 1                               E. LIPKOVITZ  
2                    additional buyer would have this impact.  
3                    Q.     Would it have increased the  
4                    clearing price of those third-party  
5                    exchanges?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 142 Ln: 7**

**Annotation:**

142: 7                   A.     It could.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

## TextMap Annotation Digest Report

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**Pg: 142 Ln: 13 - Pg: 143 Ln: 6**

**Annotation:**

142:13                   Q.     What is AWBid?  
14                    A.     So I think it stands for AdWords  
15                    bidding. And the idea was to extend AdWords'  
16                    ability to buy on other exchanges, which is a  
17                    topic we discussed, you know, in the last ten  
18                    minutes at length.  
19                    Q.     Were there proponents of AWBid  
20                    within Google?  
21                    A.     Yes.  
22                    Q.     Who were the proponents of AWBid?  
23                    A.     So it's effectively -- I mean, the  
24                    biggest one was Oren Zamir, who reported to  
25                    me at the time. And he was sort of the head  
143: 1                    E. LIPKOVITZ  
2                    of the remarketing, you know, we called it  
3                    remarketing, here it's called retargeting,  
4                    where he felt, and I agree with him, that  
5                    that's an area where the benefit for  
6                    advertisers is actually quite clear.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 143 Ln: 7 - 8**

**Annotation:**

143: 7                   Q.     Why was there significant benefits  
8                    for advertisers?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 143 Ln: 10 - 23**

**Annotation:**

143:10                   A.     Yeah, we -- because, you know,  
11                    fundamentally, advertisers have a budget,  
12                    right. And so there is a limit to how many  
13                    impressions they are actually going to buy,  
14                    right. And most impressions are similar with  
15                    one exception. For retargeting advertisers,  
16                    they had all the data and, you know, our  
17                    technology supported it, that shows that  
18                    anyplace you can catch a user, right, that is  
19                    subject to retargeting, increases your chance  
20                    of a click and a conversion. So it is a type  
21                    of an advertising where more is better, much  
22                    more than, you know, any other type of  
23                    targeting.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

# TextMap Annotation Digest Report

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**Pg: 154 Ln: 18 - 24**

**Annotation:**

154:18           Q.     Is -- so are you saying  
19            remarketing was a small part of GDN demand?  
20            A.     If counted by number of  
21            impressions, yes.  
22            Q.     Was AWBid limited to remarketing  
23            targeting?  
24            A.     Yes.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 201 Ln: 17 - Pg: 202 Ln: 14**

**Annotation:**

201:17           Q.     Who was using header bidding  
18            technology?  
19            A.     That was a mix of -- so publishers  
20            were using the technology, but how they got  
21            introduced to that was sort of all over the  
22            place. So sometimes Criteo would come in  
23            and, you know, say I want to put my tag on  
24            the page and the publishers are, like, well,  
25            why should we give you exclusive access, fine  
202: 1            E. LIPKOVITZ  
2            put the header bidding there. Sometimes  
3            could be one of the SSPs that you mentioned  
4            or a network. I mean Criteo is a network  
5            that would come and say, you know, like, why  
6            you giving all these impressions just for one  
7            SSP, could be Google or anybody else. We  
8            would like to, right, so they would go and  
9            introduce.  
10            At some point there were some  
11            vendors that were like selling header bidding  
12            technology, right, because there's some  
13            configuration you can do with that and  
14            whatnot.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 204 Ln: 5 - 7**

**Annotation:**

204: 5           Q.     So in some way was the publisher  
6            directly calling the SSP via the header  
7            bidding code?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

## TextMap Annotation Digest Report

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**Pg: 204 Ln: 9 - 15**

**Annotation:**

204: 9                   A.     Yes, you can say calling usually  
10                   multiple SSPs, yes.  
11                   Q.     Did header bidding allow that call  
12                   to happen without DFP being involved?  
13                   MS. ELMER: Same objection.  
14                   A.     I believe there was a possibility  
15                   that can happen, yes.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 208 Ln: 9 - 10**

**Annotation:**

208: 9                   Q.     Well, why would publishers adopt  
10                   the technology if it was so crappy?

**Linked Issues:** Trial Designations - Google Counter FINAL

**Pg: 208 Ln: 12 - Pg: 209 Ln: 12**

**Annotation:**

208:12                   A.     So let's talk about what's crappy  
13                   about it first and then I think it will help  
14                   you understand the question -- the answer,  
15                   right. The worse part of it, in my opinion,  
16                   was the fact that it made the page render a  
17                   lot slower because it had to execute the  
18                   sequence, it was very inefficient. It was  
19                   complicated so it slowed down your browser  
20                   even, right. And because it was bargain,  
21                   people they feel like they make mistakes,  
22                   sometimes you didn't get any ads, right. So  
23                   the user experience was pretty bad.  
24                   Some publishers -- and what I mean  
25                   by that is like the page would reload. It  
209: 1                   E. LIPKOVITZ  
2                   would take a very long time for the page to  
3                   render or you get like broken links. Some  
4                   publishers didn't care about, right, or at  
5                   least, let me be more specific. The person  
6                   who put the header bidding tag was somebody  
7                   trying to show their boss they're making more  
8                   money, you know, and the person that was in  
9                   charge of the content or the CEO of the  
10                   publisher didn't even realize what was going  
11                   on.  
12                   Second issue was --

**Linked Issues:** Trial Designations - Google Counter FINAL



## TextMap Annotation Digest Report

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Pg: 209 Ln: 19 - Pg: 211 Ln: 9

**Annotation:**

209:19           A.     That's one dimension. The second  
20           one is around fraud and billing. So this is  
21           something we didn't talk about, but it's an  
22           important one. You know, a publisher needs  
23           to know how much they are owed because they  
24           sold their impression. If you're working  
25           with an exchange or an SSP in general, you  
210: 1           E. LIPKOVITZ  
2           know, your ad server knows who you sold  
3           impression to. And then you can go work with  
4           that party to make sure how much you owe.  
5           With header bidding, there was a  
6           lot done with the client. There was no paper  
7           trail, so you had to have a lot of trust. So  
8           it's one of those things where you think  
9           you're making more money, but then, when you  
10          try to collect it, you realize you're not.  
11          That was another big factor.  
12          So those two in particular  
13          were ones where the people making decision  
14          didn't even have enough visibility and, all  
15          they focus about is the fact that they have  
16          increased the auction pressure by having more  
17          buyers.  
18          Now the last point, which is very  
19          subtle, has to do with what is the actual  
20          value prop of having another SSP. Some of  
21          them had -- were running auctions that were  
22          not clean, either first class auction or  
23          something you don't even understand. It  
24          wouldn't be clear with their margin and the  
25          net effect was that as it was trying to deal  
211: 1          E. LIPKOVITZ  
2          with that, right, whether they're Google  
3          advertisers or other DSP advertisers.  
4          Initially it worked, but then advertisers  
5          became more sophisticated. They start  
6          bidding against themselves. They start  
7          realizing what DSP do what things, and I  
8          think the value of header bidding diminished  
9          over time.

**Linked Issues:** Trial Designations - Google Counter FINAL

Pg: 211 Ln: 10 - 11

**Annotation:**

211:10           Q.     Given that, why did header bidding  
11           adoption grow so rapidly?

# TextMap Annotation Digest Report

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**Pg: 211 Ln: 10 - 11 continued...**

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 211 Ln: 13 - 20**

**Annotation:**

211:13                   A.     I think the concept of having  
14                   multiple parties compete in the impression is  
15                   actually pretty good, and I think publishers  
16                   were sort of desperate forever, they'll try  
17                   it.  
18                   Q.     Did it also allow -- this will be  
19                   a more complicated question.  
20                   A.     Sure.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 211 Ln: 21 - 22**

**Annotation:**

211:21                   Q.     Did it increase the amount of  
22                   inventory third-party SSPs were seeing?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 211 Ln: 24 - Pg: 212 Ln: 17**

**Annotation:**

211:24                   A.     It must have, yes.  
25                   Q.     Why must it have?  
212: 1                   E. LIPKOVITZ  
2                   A.     Because anyplace that you put a  
3                   header bidding tag, prior to that there was  
4                   only one SSP getting it. Now more than one.  
5                   So definitionally add more impression for  
6                   every SSP.  
7                   Q.     Is there a value in seeing more  
8                   inventory for SSPs?  
9                   A.     There is.  
10                   Q.     What is that value?  
11                   A.     I mean, firstly, you know, you  
12                   would have a larger denominator, right, so  
13                   you might increase your numerator so you get  
14                   more revenue.  
15                   Second, you can tell your buyers  
16                   on the exchange that you have more inventory  
17                   or you have access to publisher X, Y, Z.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

# TextMap Annotation Digest Report

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**Pg: 225 Ln: 9 - 13**

**Annotation:**

225: 9                   Q.     So let me just make sure I  
10                   understand. Was the argument that  
11                   publishers, header bidding made it easier for  
12                   publishers to switch to other SSPs, am I  
13                   understanding your testimony right?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 225 Ln: 15 - 24**

**Annotation:**

225:15                A.     I think in the long run, and when  
16                   you say "switch," switch what, right? You  
17                   need to be more specific. I think what  
18                   header bidding did is it exposed them, made  
19                   it easier for them to work with multiple SSPs  
20                   at the same time, which can then lead to  
21                   discovering some things that they like more  
22                   about a particular product or more aggressive  
23                   sales strategy that will eventually lose --  
24                   cause Google to lose the entire account.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 226 Ln: 25 - Pg: 227 Ln: 6**

**Annotation:**

226:25                Q.     It's the SSPs that are competing  
227: 1                               E. LIPKOVITZ  
2                   with AdX, correct?  
3                   A.     Correct.  
4                   Q.     And the header bidding is allowing  
5                   those SSPs to have more access to inventory,  
6                   correct?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 227 Ln: 8 - 11**

**Annotation:**

227: 8                A.     That is correct, yes.  
9                   Q.     It's allowing those SSPs to  
10                   develop direct relationships with publishers,  
11                   correct?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

# TextMap Annotation Digest Report

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**Pg: 227 Ln: 13 - 18**

**Annotation:**

227:13                   A.     Yeah.  
14                    Q.     Sorry, I was answering Julie. Let  
15                    me -- I'll restate the question.  
16                    And header bidding is allowing  
17                    SSPs so develop direct relationships with  
18                    publishers, correct?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 227 Ln: 20 - 24**

**Annotation:**

227:20                   A.     It lowers the barriers of entry,  
21                    yes.  
22                    Q.     Could header bidding have  
23                    ultimately allowed non-Google SSPs to see as  
24                    many impressions as AdX?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 228 Ln: 1 - 2**

**Annotation:**

228: 1   E. LIPKOVITZ  
2                    A.     Theoretically speaking, yes.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 236 Ln: 18 - 20**

**Annotation:**

236:18                   Q.     What is it about access to  
19                    inventory that increases the competitiveness  
20                    of the SSP?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 236 Ln: 22 - Pg: 238 Ln: 7**

**Annotation:**

236:22                   A.     You know, it's pretty simple,  
23                    right. Like you can compete on different  
24                    things if you're on SSP. Having the most  
25                    impressions is, you know, is pretty easy for  
237: 1   E. LIPKOVITZ  
2                    people to measure even, right.  
3                    Q.     But I guess I'm struggling to  
4                    understand how that translates into  
5                    competitiveness. Does it make AdX a better  
6                    place to buy?

## TextMap Annotation Digest Report

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Pg: 236 Ln: 22 - Pg: 238 Ln: 7 continued...

**Annotation:**

237: 7                   A.     Yes.  
8                   Q.     And why does make AdX a better  
9                   place to buy?  
10                  A.     I mean, at some level, because you  
11                  don't need to buy in other places, right,  
12                  because you get everything you need there.  
13                  Let me give you an analogy, right. So Amazon  
14                  has the marketplace, right. They send the  
15                  products from Amazon. Sometimes they allow  
16                  other merchants to put their products on  
17                  Amazon, right. So you as the consumer at  
18                  some point like, you know, I'm just going to  
19                  go to Amazon. Why would I even go to Google  
20                  or go into other websites and do comparison  
21                  shopping. It's not just worth my time,  
22                  because I know Amazon has everything or  
23                  whatever.  
24                  Q.     So, I mean -- so I'm just trying  
25                  to understand SSP competition a little bit  
238: 1                E. LIPKOVITZ  
2                  better, being a lawyer. Not somebody that  
3                  deals with this every day.  
4                  A.     No, I get it.  
5                  Q.     Earlier we talked about how SSPs  
6                  compete on the amount of demand on their  
7                  buying on their SSP, correct?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

Pg: 238 Ln: 9 - 13

**Annotation:**

238: 9               Q.     So the more demand you have on  
10               your exchange --  
11               A.     Yeah.  
12               Q.     - the more competitive your  
13               exchange is; is that correct?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

Pg: 238 Ln: 15 - 21

**Annotation:**

238:15              A.     It's more competitive for  
16              publishers, but yes.  
17              Q.     For -- is your testimony that  
18              there's also competition for access to  
19              inventory -- let me start again.  
20              Is it -- do SSPs compete for  
21              access to inventory?

# TextMap Annotation Digest Report

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**Pg: 238 Ln: 15 - 21 continued...**

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 238 Ln: 23 - Pg: 239 Ln: 20**

**Annotation:**

238:23                   A.     They do. Okay. Let me make maybe  
24                   a slight suggestion, right. If we go back to  
25                   the marketplace, could be eBay, Amazon, it  
239: 1                   E. LIPKOVITZ  
2                   doesn't actually matter, right. It's always  
3                   a two-sided marketplace, there are buyers and  
4                   sellers. And you get into this sort of  
5                   virtual cycle thing where, if you find a way  
6                   to make it more attractive to buyers, now  
7                   you're competitive towards buyers, you will  
8                   then use that to go to tell sellers, you  
9                   should sell here, because I have more buyers.  
10                   And then you're going to go back to buyers  
11                   and say, I just got more sellers, you should  
12                   buy here and shouldn't buy anywhere else.  
13                   So you get the dynamic that, you  
14                   know, more parties, doesn't matter if it's  
15                   buyers and sellers, have this virtual cycle  
16                   that, you know, makes the whole thing sort of  
17                   more competitive.  
18                   Q.     And header bidding here is  
19                   undermining the network effects of offering  
20                   more inventory to advertisers, correct?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 239 Ln: 22 - Pg: 240 Ln: 4**

**Annotation:**

239:22                   A.     Let me think about it. Yeah, you  
23                   can say that. It is essentially back to the  
24                   commoditization. Yeah, it is reduced to the  
25                   network effect, you can say.  
240: 1                   E. LIPKOVITZ  
2                   Q.     Is it lowering AdX's  
3                   differentiated value proposition for  
4                   advertisers?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 240 Ln: 6 - 8**

**Annotation:**

240: 6                   A.     Yes, it could.  
7                   Q.     Is it increasing other SSP's value  
8                   proposition to advertisers?

# TextMap Annotation Digest Report

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**Pg: 240 Ln: 6 - 8 continued...**

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 240 Ln: 10 - 12**

**Annotation:**

240:10                   A.     Yes, it could.  
11                    Q.     Is it increasing other networks'  
12                    value to advertisers?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 240 Ln: 14 - 16**

**Annotation:**

240:14                   A.     It could.  
15                    Q.     And together it's commoditizing  
16                    the SSP level of the stack, correct?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 240 Ln: 18 - 23**

**Annotation:**

240:18                   A.     It does. But it does create a lot  
19                    of new products.  
20                    Q.     Okay. I mean, is it fair to say  
21                    that the network effects -- AdX no longer has  
22                    differentiated network effects compared to  
23                    its competitors --

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 240 Ln: 25**

**Annotation:**

240:25                   Q.     -- Due to header bidding?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 241 Ln: 3 - 5**

**Annotation:**

241: 3                   A.     I wouldn't say any longer. I  
4                    think it will have --  
5                    Q.     I didn't get your answer.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

# TextMap Annotation Digest Report

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**Pg: 241 Ln: 8 - 12**

**Annotation:**

241: 8                   A.     Yeah, let me repeat myself. I  
9                   wouldn't say it no longer has a network  
10                   effect. I think it weakens it.  
11                   Q.     Okay. But it strengthens other  
12                   SSP's network effect?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 241 Ln: 14 - 18**

**Annotation:**

241:14               A.     Yes. But you also have the  
15                   opposite scenario, right, where somebody was  
16                   exclusively, you know, sort of speak with one  
17                   SSP and because of header bidding now AdX has  
18                   access.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 243 Ln: 6 - 7**

**Annotation:**

243: 6                   Q.     Does it also put pricing pressure  
7                   on AdX?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 243 Ln: 9 - 12**

**Annotation:**

243: 9                   A.     What do you mean by "pricing  
10                   pressure"? Pricing of what?  
11                   Q.     Did it put pressure on AdX to  
12                   reduce its revenue share?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 243 Ln: 14 - 16**

**Annotation:**

243:14               A.     We have not lowered the rev shares  
15                   to my knowledge. So I don't know. I mean, I  
16                   can speculate.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 253 Ln: 4 - 6**

**Annotation:**

253: 4                   Q.     Was a concern that the



# TextMap Annotation Digest Report

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**Pg: 253 Ln: 4 - 6 continued...**

**Annotation:**

253: 5               commoditization of the SSP would lead to a  
6               pricing war?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 253 Ln: 8 - 12**

**Annotation:**

253: 8               A.     I think we were in some sort of  
9               pricing war that we refused to participate  
10              in, right. That probably made it worse.  
11              Q.     How did you refuse to participate  
12              in a pricing war?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 253 Ln: 14 - 17**

**Annotation:**

253:14             A.     You know, you just lose customers  
15             instead of lowering prices.  
16             Q.     Did Google lose shares as a  
17             result?

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 253 Ln: 19**

**Annotation:**

253:19             A.     I don't know.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 315 Ln: 3 - 19**

**Annotation:**

315: 3             Q.     Why -- first of all, did you  
4             understand GDN to have differentiated demand?  
5             A.     Yes.  
6             Q.     And why was its demand  
7             differentiated?  
8             A.     Because primarily of all the  
9             technology that essentially Bahman and Ali's  
10            team build, right, to produce the ROI, you  
11            know, the advertisers want, right. And, you  
12            know, we don't -- we don't buy USA Today. We  
13            don't care, you know, where, from a GDN lens,  
14            where you buy the things. We just look at,  
15            based on availability of signals and based on  
16            some of technologies, right, and based on

# TextMap Annotation Digest Report

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**Pg: 315 Ln: 3 - 19** continued...

**Annotation:**

315:17           some restrictions we have and where we want  
18           to buy and whatnot, right. So, yes, in that  
19           regard, it is a differentiated demand.

**Linked Issues:** Trial Designations - DOJ Affirmative FINAL

**Pg: 317 Ln: 10 - 12**

**Annotation:**

317:10                       And I know that we keep on going  
11           over this point, but is there a group of  
12           advertisers that only buys on GDN?

**Linked Issues:** Trial Designations - Google Counter FINAL

**Pg: 317 Ln: 15 - 17**

**Annotation:**

317:15                       A.     And don't buy where else? I mean,  
16           that's a very broad question.  
17           Q.     On the DSPs.

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**Pg: 317 Ln: 19 - Pg: 318 Ln: 11**

**Annotation:**

317:19                       A.     I believe there is a large  
20           category of usually small advertisers don't  
21           buy on DSPs. I do believe those, especially  
22           now, would buy on FAN and Amazon. Why  
23           wouldn't they.  
24           Q.     Okay. That's helpful.  
25           Is there anywhere else those small  
318: 1                       E. LIPKOVITZ  
2           advertisers could buy other than FAN and  
3           Amazon?  
4           A.     I think some of the networks  
5           probably offer self-service products, you  
6           know, like an Amobee or Criteo is still in  
7           business, right. And I don't know what --  
8           you know, the reason Criteo doesn't have  
9           small advertisers is because of the  
10          complexity of what I told you earlier, but  
11          probably have a long-tail product.

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