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IN THE COMPETITION
APPEAL TRIBUNAL

Case No: 1589/5/7/23(T),
1424/5/7/21(T), 1596/5/7/23

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

22nd June-31st July 2026

Before:

The Honourable Mr Justice Roth
Dinah Rose KC
Alasdair Smith

(Sitting as a Tribunal in England and Wales)

BETWEEN:

**INFEDERATION LIMITED (“Foundem”)
KELKOO.COM (UK) LTD & OTHERS (“Kelkoo”)
WHITEWATER CAPITAL LIMITED (“Ciao”)**

Claimants

- and -

GOOGLE LLC & OTHERS

Defendants

A P P E A R A N C E S

Colin West KC (instructed by Hausfeld & Co LLP) on behalf of Foundem

Daniel Jowell KC, Sarah Love KC, Hugh Whelan & Gianna Seglias (Instructed by Linklaters LLP)
on behalf of Kelkoo and Ciao

Meredith Pickford KC, Brendan McGurk KC, Julianne Kerr-Morrison, David Gregory & Alistair Holder Ross (Instructed by Herbert Smith Freehills Kramer LLP and Bristows LLP) on behalf of
Google LLC & Others

Wednesday, 8 July 2026

1 (10.30 am)
 2 (Proceedings delayed)
 3 (10.37 am)
 4 MR GREG FRIEDMAN (continued)
 5 THE CHAIRMAN: Yes, Mr West.
 6 Cross-examination by MR WEST (continued)
 7 MR WEST: Good morning, Mr Friedman.
 8 A. Good morning.
 9 Q. You were discussing with Mr Jowell, yesterday, certain
 10 proposals considered by Google when it was thinking
 11 about the compliance mechanism to introduce; do you
 12 remember that?
 13 A. Yes.
 14 Q. You were discussing various technical and quality issues
 15 that they gave rise to?
 16 A. Yes.
 17 Q. I would just like to explore with you another possible
 18 solution which might have been considered at the time
 19 and whether — in particular, your views on whether it
 20 would have been achievable technically?
 21 A. Okay. I'm having just the slightest trouble hearing you
 22 clearly.
 23 Q. Okay, I will try and speak closer to the mic.
 24 A. That is a little better. Thank you.

1

1 Q. I think you said yesterday that you were not
 2 particularly familiar with algorithm A and Panda,
 3 the algorithms we have been discussing in this case; is
 4 that right?
 5 A. That's correct.
 6 Q. But by the time of the Commission Decision, many
 7 comparison shopping services were demoted by those
 8 algorithms in Google's organic results.
 9 Were you aware of that or not?
 10 A. Yes, I am aware of that.
 11 Q. One of the findings in the Decision — we do not need to
 12 turn it up — is that those algorithms tended to demote
 13 comparison shopping services.
 14 Again, is that something you are familiar with?
 15 A. That Google intended to do that?
 16 Q. No, that — sorry, that those —
 17 A. Because that, I am not familiar with. In fact,
 18 I remember the Commission mentioning —
 19 Q. No, I am sorry, I did not say "intended".
 20 A. Sorry, okay, I misheard.
 21 Q. That they tended to ...
 22 A. Oh, tended.
 23 THE CHAIRMAN: Had the effect of.
 24 A. Yes, yes. Okay, yes, that sounds right.
 25 MR WEST: So one of the steps Google could have taken

2

1 following the Decision would have been to amend those
 2 algorithms so that they no longer demoted comparison
 3 shopping sites.
 4 A. Mm.
 5 Q. They could have done that, technically?
 6 A. Yes, I mean, it's not my area of expertise, but I can
 7 certainly imagine that it would be possible.
 8 Q. Were you aware that Google's own comparison shopping
 9 service, known at this time as Google Shopping, also did
 10 not appear in the organic results?
 11 A. Yes.
 12 Q. The reason was that Google instructed its bots not to
 13 crawl and index pages from Google Shopping?
 14 A. I believe that is my understanding, yes.
 15 Q. But, again, Google could have changed that so that its
 16 bots were permitted to crawl and index and rank pages
 17 from Google Shopping?
 18 A. As far as I know, that — that would be possible.
 19 Q. If Google had done both of those things, then results
 20 from both Google Shopping and rival comparison shopping
 21 services could have appeared in the organic results?
 22 A. I mean, presumably. Again, it's not my area of
 23 expertise, like, how much of an effect that would have
 24 had, you know, is — is not something that I can really
 25 speak to, but, yeah, I don't take issue with the general

3

1 statement.
 2 MR PICKFORD: I apologise for rising.
 3 I am a little unclear as to why this
 4 cross-examination is being put to this witness. Mr West
 5 did not develop any of these points in his opening. His
 6 written opening, he disclaimed everything to do with
 7 the counterfactuals, then in his oral opening, he
 8 introduced a few points — limited points, which
 9 I responded to.
 10 We now seem to be developing a yet further strand,
 11 and this is not the witness who can actually speak to
 12 things like algorithm A, etc, so I am a little confused
 13 as to why we are going down this route with this
 14 particular witness.
 15 MR WEST: Well, Mr Friedman gives evidence about the Remedy,
 16 so I am exploring the Remedy that could have been
 17 introduced.
 18 THE CHAIRMAN: But, as I understand, I think the slight
 19 concern is that you are asking Mr Friedman matters of
 20 a technical area which he says is really not his field.
 21 So when he says "as far as I know", or "I imagine that
 22 is possible", it is really not the area that he worked
 23 on, so I think it is of limited assistance because, as
 24 Mr Friedman is frankly acknowledging, it is not really
 25 particularly his field. So it is — leave aside

4

1 the question of whether this is something you raised in
 2 opening or not, I am more concerned really how helpful
 3 his answers can be when Mr Friedman is putting in quite
 4 a firm caveat at the beginning of each answer.
 5 MR WEST: So your position, Mr Friedman, is that you were
 6 simply not involved in the organic results and so you
 7 cannot speak to anything concerned with the organic
 8 results?
 9 A. I mean, certainly not in any level of detail, right?
 10 I may have passing familiarity with certain aspects, but
 11 it's — it's pretty limited. I really was in the ads
 12 organisation working on ads.
 13 MR WEST: In relation to the point about Foundem's case,
 14 Mr Hunt clearly sets out various — and this is not
 15 a question to you, Mr Friedman — various
 16 counterfactuals, including the ones I was proposing to
 17 explore with Mr Friedman, but if the position is that he
 18 is not in a position to address those because they
 19 concern the organic results, then there we are.
 20 THE CHAIRMAN: Unless these are possible remedies or
 21 commitments that were discussed with you and considered
 22 by Google when you were looking at all the various —
 23 A. Okay.
 24 THE CHAIRMAN: — options, and we have seen you were very
 25 involved in that —

5

1 A. Yes.
 2 THE CHAIRMAN: — looking: what should we do.
 3 A. Yes.
 4 THE CHAIRMAN: If these were matters that were raised and
 5 discussed, then indeed you can tell us what the view
 6 was —
 7 A. Right.
 8 THE CHAIRMAN: — in the team that was looking at potential
 9 solutions.
 10 A. I'll do my best to recollect that, yes.
 11 THE CHAIRMAN: If — so let me ask, was one of the things
 12 considered whether the algorithms should apply to
 13 the Google Shopping property? Is that something —
 14 A. I don't remember that being considered an option and
 15 I guess, you know, we were looking through the document
 16 that spoke to all the different options we were
 17 considering and I don't think it was in there.
 18 THE CHAIRMAN: Yes.
 19 MR WEST: Perhaps I can just take very briefly and related
 20 to what you did say yesterday.
 21 Could we look at {12/1/205}. Could we zoom in on
 22 the top half, please.
 23 THE CHAIRMAN: This is something in — it is an image that
 24 appears in the expert's report?
 25 MR WEST: Yes, so this is a mock-up of what it might have

6

1 looked like if results from Google Shopping and from
 2 rival comparison shopping services appeared in
 3 the organic results, and the — just for clarity,
 4 the green arrow would not appear, that is just to assist
 5 the viewer in understanding —
 6 A. Right.
 7 Q. — what this image shows.
 8 If these are organic results, they are produced, are
 9 they not, from Google's existing organic index?
 10 A. Presumably.
 11 Q. I think, is this right, that that would be contained on
 12 the Google Web Server?
 13 A. Well, okay, so, again, you know, I don't have detailed
 14 technical knowledge of the organic system. I — I think
 15 it was a sub-server that was called by the Google Web
 16 Server, but I can't say that for certain.
 17 I mean, certainly on the ad side, you know, our
 18 index that had to do — oh, actually, so this would be
 19 generic results, right? This would not be product
 20 results. Yeah, so to the — to the best of my
 21 knowledge, there was an organic index of, you know,
 22 generic web documents, not specialised, and I think
 23 there was a separate server, but maybe — maybe that
 24 doesn't — I don't know if that's what you're getting at
 25 or not, whether it was directly in the GWS or in

7

1 a sub-server of GWS, but ...
 2 Q. Producing results like these would not raise the kind of
 3 quality and latency — sorry, the kind of privacy and
 4 latency issues you were discussing yesterday with
 5 Mr Jowell?
 6 A. Presumably not. Again, subject to the caveat of my
 7 limited expertise of this area, but I — I think you're
 8 right.
 9 THE CHAIRMAN: Just so I understand it, what is being put,
 10 this is — there is no Shopping Unit; is that right? On
 11 this mock-up page?
 12 MR WEST: On this mock-up page, yes.
 13 THE CHAIRMAN: Yes, so this the scenario, a search for
 14 "digital cameras"; you do not get a Shopping Unit, you
 15 get the ranked organic results, but Google's shopping
 16 property is included in the ranking; is that right?
 17 MR WEST: Yes.
 18 THE CHAIRMAN: So it is a sort of — as I understand it,
 19 a varied version of what you call option 1, shutting
 20 down the Shopping Unit, but it includes — with
 21 the further point that the Google Shopping property is
 22 now included in the ranked results?
 23 A. That — yeah, that's consistent with my understanding of
 24 what this is meant to represent, yes.
 25 THE CHAIRMAN: Was that something that you did consider

8

1 shutting down the Shopping Unit?
 2 A. We did consider shopping down the Shopping Unit,
 3 absolutely.
 4 THE CHAIRMAN: Did you also then consider, well, then
 5 the Shopping property should be organically ranked with
 6 all the other CSSs?
 7 A. It probably was discussed at some point.
 8 THE CHAIRMAN: It sounds a sort of logical step.
 9 A. That's just exactly what I'm thinking is that — is that
 10 if we were talking about, you know, shutting down the
 11 Unit but keeping the Shopping property, it would make
 12 sense that we would then crawl the Shopping property and
 13 have it appear in the generic results. I don't have
 14 detailed recollection of that, but it's a reasonable
 15 assumption.
 16 THE CHAIRMAN: Otherwise the Shopping property would become
 17 pretty invisible?
 18 A. With the exception of the Shopping tab, right?
 19 THE CHAIRMAN: Except for the tab at the top.
 20 A. Right.
 21 MR WEST: We see here it is not just the Google Shopping
 22 property, it is also rival CSSs, so that would also
 23 require amending the algorithms I mentioned a second
 24 ago?
 25 A. To the best of my understanding, that would be correct,

9

1 right? Under the assumption, like, that the Panda
 2 algorithm or algorithm A was demoting those results
 3 sufficiently so they wouldn't appear on the first page
 4 and removing that would have the opposite result of
 5 having it appear in the first page, yes.
 6 Q. If the user clicked on, for example, a CSS result, that
 7 would go to the CSS's webpage?
 8 A. Presumably.
 9 Q. The user would then have access to the full range of
 10 comparison shopping functionality provided by that
 11 webpage?
 12 A. Yes, presumably.
 13 Q. Could we look briefly at a slight variation of this at
 14 page — sorry, that is the wrong reference. I think it
 15 was about three pages further on {12/1/209}. There we
 16 are. Sorry, thank you very much. 209, at the bottom.
 17 Could we look at the bottom?
 18 A. Yeah.
 19 Q. This is another mock-up of the same thing, but you see
 20 the difference here is there are now some images on
 21 the page; do you see that?
 22 A. Yes.
 23 Q. Again, this is something that — again, perhaps I will
 24 ask you the question. This is something that Google
 25 could have done if it had wished, to provide images like

10

1 this?
 2 A. I mean, I can't think of a reason why it couldn't, but
 3 again, subject to the caveat we're talking about organic
 4 results.
 5 Q. Likewise, if it had wished to do so, instead of
 6 displaying these images beside the individual results,
 7 it could have grouped them together, as we see at
 8 the top of this page?
 9 A. Sorry, we see at the top of the page?
 10 Q. Sorry, we need to scroll up.
 11 Again, just ignore the green arrow and try and
 12 imagine what it would look like without that. But this
 13 is a mock-up where, instead of those images —
 14 A. Yeah.
 15 Q. — displaying beside each result, they are just pulled
 16 together in a box. Again, that is something Google
 17 could have done if it had wished?
 18 A. This one I have to think about a little bit more. So,
 19 again, the presumption here is these are organic?
 20 Q. Yes.
 21 (Pause)
 22 A. Well, this is really out of my area of expertise, and
 23 the reason that I'm — that this is different than what
 24 we were looking at before, at least the quick glance
 25 that I looked at when we were looking at it before,

11

1 right, is it looks like this is now very much
 2 a product-focused box, right, which is talking — it
 3 really is locking in on specific products. At least
 4 that's what it looks like, right? It's talking about
 5 what the lowest price is, it's got an image of the very
 6 specific product, it's got reviews for the product,
 7 right? So, you know, that is different than just what
 8 a generic webpage might show from a CSS, right? I think
 9 there would have to be an assumption, for example —
 10 I mean, okay, if — if one were to assume that all that
 11 information were indeed available on a crawl on each of
 12 the sites that we're talking about, then perhaps this
 13 could happen. You know, again, these questions might be
 14 better put to an expert in the organic realm, but ...
 15 Q. Were you familiar with something called the "meta-tag
 16 scheme"?
 17 A. Say again, the meta-tag?
 18 Q. The meta-tag scheme?
 19 A. Meta-tag scheme. You might have to refresh —
 20 Q. Could I show you a document, it might help?
 21 A. Please.
 22 Q. It is actually Mr Raff's statement —
 23 A. Okay.
 24 Q. — paragraph 192, which is {H2A/2/83}.
 25 A. You want me to read paragraph 192; is that correct?

12

1 Q. Yes. So he is talking there about a submission to
 2 the Commission?
 3 A. Okay.
 4 Q. He says, if you go past the quote:
 5 "We also pointed out that if Google sees a benefit
 6 in providing enhanced, context-specific result-formats
 7 that include 'rich snippets' like thumbnail images,
 8 star-ratings, price-ranges and so on, then these
 9 enticing display formats would need to be made available
 10 to all relevant services, not just Google's. Much of
 11 this would be relatively straightforward to implement
 12 through the use of mark-up based meta-tags, similar to
 13 those that Google and others have already adopted.
 14 I note that, in the intervening years since our 2012
 15 submission, Google has introduced and started to make
 16 use of this kind of meta-tag schema to achieve this kind
 17 of effect. For example, the following screen shots are
 18 instances of generic Google search results from websites
 19 that marked-up certain elements of their webpages with
 20 meta-tags, which are invisible to users, but tell
 21 Google's crawlers what those elements are; for example
 22 a price, a product image, a rating ..."
 23 We can see the images if we go over the page
 24 {H2A/2/83}.
 25 A. Yes, I've heard of this. I've heard of this ability to

13

1 mark up pages with metadata information, I guess
 2 meta tags, and that crawlers could make use of that
 3 information and it's not visible to users. I've heard
 4 of that, yes.
 5 Q. Had you heard that, for example, if something is marked
 6 up as an image, it could then appear next to the result
 7 from that site on Google's organic page — organic
 8 results page?
 9 A. I don't know if I remember hearing that specifically.
 10 It's not unreasonable.
 11 Q. Could we just look at the screenshot on the following —
 12 actually, it should have come up before you, the one on
 13 the right-hand side?
 14 A. Uh—huh. Okay, so on the right-hand side, you said?
 15 Q. Yes.
 16 A. Okay, so let me just look at it a little more carefully.
 17 So these are actual results that are being shown, or
 18 were shown at some point on — on Google's pages; is
 19 that correct?
 20 Q. Yes.
 21 A. Okay, so let me look.
 22 Uh—huh. Yes. Okay. Yes. Okay, yes.
 23 Q. If users had been able to access CSSs from the organic
 24 links in that way, that would, I suggest to you, have
 25 provided a richer and more useful experience than what

14

1 is available to them in the current version of the box.
 2 A. Mm—hm.
 3 Q. Do you agree with that?
 4 A. I think it depends, but I think it would — okay, so
 5 I guess maybe you can go into a little more detail of
 6 what we would see. Here, I think what I'm seeing here
 7 is, in particular, pages that point to reviews, right?
 8 It says "Nikon D ..." —
 9 Q. Sorry, I have moved on from this particular screenshot.
 10 A. Oh.
 11 Q. Perhaps we can look at an example of the box. That is
 12 at {A1/3/8}.
 13 A. Mm—hm. Okay.
 14 Q. So we see here relatively limited comparison shopping
 15 functionality, I would suggest.
 16 A. Okay ... (reads to self).
 17 Q. Sorry, the heading may be slightly confusing.
 18 The image, as I understand it, is simply a screenshot of
 19 results from the current version of the Shopping Unit.
 20 A. Okay, yes, and, sorry, what was the question, then,
 21 or ...?
 22 Q. That that is a less useful and rich experience than
 23 would be available if the user were able to navigate to
 24 a comparison shopping webpage?
 25 A. Well, they can navigate to a comparison with the "By"

15

1 links, for example.
 2 Q. With what, sorry?
 3 A. Right now, you know — right, so, "By Kelkoo" takes you
 4 to the Kelkoo website, "By ..." — you know, I can't
 5 read what these other ones are, because my eyes are so
 6 bad, but, yes.
 7 Q. But very few people click on those links?
 8 A. Yeah, I think the click-through rates on those are low.
 9 Q. Another way in which the comparison shopping webpage
 10 might be more useful to the user is that it might
 11 include merchants who are not available on Amazon?
 12 A. Merchants that aren't available on Amazon?
 13 Q. Amazon, yes. Amazon does not include all merchants,
 14 does it?
 15 A. Amazon does not — sorry, I don't understand
 16 the question.
 17 Q. If the user had navigated to a comparison shopping
 18 webpage —
 19 A. Yes.
 20 Q. — from Google's organic search results —
 21 A. Yes.
 22 Q. — it would be able to compare results potentially from
 23 a broader range of merchants than is available on
 24 Amazon, potentially?
 25 A. "A broader range of merchants than is available on

16

1 Amazon". Potentially. I mean, Amazon's got a lot of
 2 merchants, but, sure, potentially. It depends on how
 3 many merchants are on the CSS versus Amazon.
 4 Q. These changes, if Google had decided to implement them,
 5 I suggest to you, would not have been technically
 6 difficult to achieve.
 7 A. Sorry, which changes?
 8 Q. The ones we have been discussing.
 9 A. Well —
 10 Q. Okay, perhaps I will —
 11 THE CHAIRMAN: Well, you are grouping (inaudible) together
 12 there.
 13 MR WEST: Yes, I think I have addressed them individually.
 14 Could I then move on briefly to one or two very
 15 short topics.
 16 If we go back to the period from 2013 to 2017,
 17 the Shopping Unit that existed at that time —
 18 A. Yes.
 19 Q. — CSS — there were two ways that CSSs could access
 20 that box. Let me suggest what they were.
 21 The first was, if the CSS had a "buy" option on its
 22 site, it could place ads which linked to those buy
 23 pages. That is one thing it could do; is that right?
 24 A. That is my understanding.
 25 Q. Yes.

17

1 But leaving aside buy functionality, the other
 2 things CSSs could do to access those boxes would be to
 3 place ads on behalf of their merchant clients —
 4 A. Mm—hm.
 5 Q. — is that right?
 6 A. I think so. I think that that was an option.
 7 Q. That is confirmed if we could look at {J2B/56/51}.
 8 Paragraph 198. Now, this refers to "aggregators",
 9 that is a broader term, including comparison shopping
 10 services.
 11 198, it says — so this is, I should say, Google's
 12 appeal to the General Court, and it says:
 13 "Google already includes product ads from
 14 aggregators in the Shopping Unit. Like other
 15 advertisers, aggregators can provide Google with feeds
 16 of their product ad inventory. The ads can link to
 17 aggregator pages where the user can buy the advertised
 18 product; or they can link to the aggregator's merchant
 19 partner sites (using an identifier to ensure that
 20 the aggregator is remunerated by its partner for clicks
 21 on these ads)."
 22 So those are the two means of accessing the site
 23 that we were discussing.
 24 A. Okay.
 25 Q. We could perhaps just look at one other document where

18

1 the same point is made in a slightly different way.
 2 That is {M3/499}.
 3 This is a hand-out which was distributed by Google
 4 on the first day of its appeal to the General Court:
 5 "Aggregators had two options to access the Shopping
 6 Unit.
 7 "Option 1: Aggregators could place product ads that
 8 linked to pages on their website with buy functionality.
 9 "Option 2: Aggregators could place product ads that
 10 linked to their merchant partners' websites with buy
 11 functionality."
 12 So, again, that is the same point, is it not, that
 13 they had those two options?
 14 A. Okay, this is referring to pre—Remedy, pre—Decision; is
 15 that correct?
 16 Q. Yes.
 17 A. Okay. All right, yes.
 18 Q. My suggestion is that under the Remedy that was
 19 introduced after the Decision —
 20 A. Yes.
 21 Q. — CSSs have those same two options.
 22 A. Mm—hm.
 23 Q. Do you agree with that?
 24 A. Well, there are some changes made, quite a few changes
 25 made, to try to make that more open and available and

19

1 easier. So I know, for example ... One policy change,
 2 I believe, is that before the Remedy, CSSs needed to
 3 have explicit permission from each merchant in order to
 4 place such an ad, and I believe that part of the Remedy
 5 was to remove that, that basically, you know, CSSs could
 6 — any merchant that they chose to advertise from,
 7 unless the merchant explicitly opted out, right,
 8 you know, would then be able to be placed — a CSS could
 9 place an ad and that would appear in the Shopping Unit.
 10 So that would be one difference. There were a variety
 11 of other differences, but, yes.
 12 Q. So that would be then, again, placing ads that linked to
 13 the websites of their merchant clients?
 14 A. That's correct, with — you know, with the "By CSS" link
 15 underneath, but, you know, the main click target which
 16 received most the clicks was to the merchant site, yes.
 17 Q. Could I just ask you briefly about Google Shopping
 18 Europe and its independence.
 19 If Google Shopping Europe had been independent, then
 20 it would have pursued a commercial policy which was in
 21 its own best interests, would it not?
 22 A. Presumably.
 23 Q. Under the Remedy or compliance mechanism, in relation to
 24 the shopping box, Google Shopping Europe earns its
 25 revenue by applying a margin to the bids it places on

20

1 behalf of merchants; that is right, is it not?
2 A. Correct.
3 Q. So just by way of example, if a merchant perhaps is
4 willing to pay a maximum of 50p per click ---
5 A. Yeah.
6 Q. --- GSE applies a margin of say 20%, the bid would then
7 be 40p per click, something like that?
8 A. Correct.
9 Q. When the Remedy was first introduced, GSE's margin was
10 5%; is that right?
11 A. Yes.
12 Q. But it was subsequently increased and I think it now
13 stands at 20%?
14 A. That's my understanding.
15 Q. If Google Shopping Europe was acting independently, it
16 would have set the margin at the level which would
17 maximise its earnings from its activities bidding in
18 the auction?
19 A. Well, yes. I mean, I think, obviously, it would
20 probably look at its long-term business prospects and
21 not want to overcharge because of --- they want to keep
22 customers happy, etc, etc, but ...
23 Q. But that is not the reason why GSE's margin was
24 increased to 20%, is it?
25 A. No. It was increased because --- I mean, at least my

21

1 understanding of the increase was because the Commission
2 did not see the uptake of participation in the Unit that
3 they wanted to see. In other words, the percentage of
4 impressions and clicks that were going in the Shopping
5 Unit, to CSSs rather than --- to third-party CSS rather
6 than GSE, the margin gave more incentive for merchants
7 to go with a third-party CSS and also gave them an
8 advantage in the auction relative to GSE, and so
9 the intention was to increase CSS click and impression
10 share in the Unit.
11 Q. So the change was in fact made to improve the position
12 of GSE's rivals?
13 A. Yes, it was, you know, because that was what the --- our
14 understanding of what the Commission wanted and that
15 would be sort of in the best interest of --- of Google
16 and GSE.
17 Q. To be fair, I think you explain this at paragraph 171 of
18 your statement, which is {H3A/7/45}, I believe. If we
19 start about halfway down:
20 "While we did see CSS impression and click shares
21 rising steadily in the initial post-launch period,
22 I recall that they were not rising at the rate that
23 the Commission wanted to see. To help give third-party
24 CSSs a bigger advantage over GSE in the auction, we then
25 increased the GSE margin to 10% (I think) and then later

22

1 to 15% and then to 20%."
2 So, again, that underlines that the purpose of that
3 was actually to improve the position of GSE's
4 competitors?
5 A. Yes, it was, because that was the request of
6 the Commission and --- and we wanted to maximise
7 the likelihood of being, you know, held compliant.
8 Q. But at the end of paragraph 170, the previous paragraph,
9 you say:
10 "The margin percentage was set by GSE."
11 A. Mm.
12 Q. I suggest to you that it cannot have been set by GSE
13 acting independently.
14 A. Mm.
15 Q. It must have been set by Google Search.
16 A. Yeah, I --- so I remember that there was some kind of
17 agreement from, like, the head of GSE, you know, about
18 what the margin percentage was. I can't remember
19 the details of that, but, you know --- but, yes, I mean,
20 it was --- you know, it was not something --- okay, let's
21 put it this way. Were compliance not an issue at all,
22 right, if we weren't responding to the Commission's
23 concerns and trying to comply, then it's likely that GSE
24 would not have set the margin so high.
25 THE CHAIRMAN: I think the point being made, Mr Friedman, is

23

1 a fairly simple one. If putting it up to 20% would
2 improve the position of GSE's rivals, if GSE was
3 a wholly independent business, that would be an odd
4 thing for GSE, thinking only about its own interests and
5 not any compliance question ---
6 A. Yes.
7 THE CHAIRMAN: --- it would be a rather odd thing to do.
8 A. I would agree with that.
9 THE CHAIRMAN: Yes.
10 MR WEST: So what GSE does in relation to the bidding is
11 that it places bids on behalf of merchants after
12 subtracting the level of its margin?
13 A. Yes.
14 Q. But as we have seen, it does not independently decide
15 the level of its own margin?
16 A. I mean, you know, like I said, there was an approval
17 process for the head of GSE to --- to, you know, make
18 that Decision, but it's true that that wasn't made
19 completely independent of --- you know, of any
20 considerations other than, you know, pure GSE selfish
21 interest or, you know, something to that effect, yes.
22 Q. You said yesterday that GSE is not a legal entity; that
23 is right, is it not?
24 A. That's my understanding.
25 Q. So it cannot be the contracting party in Google's

24

1 relationships with its merchants?
 2 A. That is my understanding.
 3 Q. In fact, the contracting entity is Google Ireland
 4 Limited in relation to the European activities. Are you
 5 aware of that?
 6 A. As far as I know, you know, this — it's not my area of
 7 expertise, but I've heard this before and I have no
 8 reason to disbelieve it.
 9 Q. At paragraph 17 of your statement, you identify
 10 the "three pillars", which you, I believe, mentioned
 11 yesterday, which Google was seeking to protect in
 12 designing any Remedy. We may not need to turn it up,
 13 you probably remember it, it is {H3A/7/5}. That they
 14 are of value to users, value to advertisers and revenue
 15 to Google; that is right, is it not?
 16 A. Yes.
 17 Q. You say the same at paragraph 117, in designing
 18 the Remedy, Google was looking to limit damage to these
 19 three pillars: users, advertisers and Google.
 20 A. Sorry, what was that paragraph?
 21 Q. 117, {H3A/7/32}.
 22 A. 117, okay.
 23 Q. Could we just look briefly at what Mr Braendle says at
 24 {H3A/3/19}, paragraph 71.
 25 MR PICKFORD: Could the witness just be given an

25

1 opportunity, please, to go to paragraph 117 {H3A/7/32}.
 2 MR WEST: Certainly, if he wishes.
 3 So those are the three pillars?
 4 A. Mm—hm, yes.
 5 Q. Can we just see what Mr Braendle says {H3A/3/19},
 6 paragraph 71.
 7 A. Shall I read that?
 8 Q. Well, the keywords that I would just like to focus on —
 9 well, perhaps we do not need to read it all, but he
 10 refers there to "the stakeholders Google cared about"?
 11 A. Okay.
 12 Q. He says they were "consumers, merchants and the CSSs"?
 13 A. Mm—hm.
 14 Q. But the CSSs were not part of your three pillars,
 15 were they?
 16 A. Well, the CSSs became advertisers, so — so they are —
 17 you know, once they became advertisers, they were part
 18 of the three pillars.
 19 Q. But the advertisers were the merchants, were they not?
 20 A. Say it again.
 21 Q. But the advertisers were the merchants?
 22 A. Yes, they were advertising on behalf of the merchants,
 23 that is correct.
 24 Q. Were you aware of press reports around 2018 suggesting
 25 that a number of entities were participating in

26

1 the Remedy were not genuine comparison shopping
 2 services?
 3 A. Was I aware in 2018?
 4 Q. '18.
 5 A. So you're saying in 2018 was I aware?
 6 Q. Yes.
 7 A. You know, probably. I probably heard some stuff about
 8 that, yes.
 9 Q. Can we just look briefly at an example at {J2A/76}.
 10 Sky News:
 11 "Google 'trying to circumvent EU ruling' with price
 12 comparison sites run by ad agencies."
 13 A. Mm—hm.
 14 Q. If we go over the page {J2A/76/2}:
 15 "For the past four months, Google has been
 16 encouraging advertising agencies to create price
 17 comparison sites, which it presents in
 18 the Google Shopping box.
 19 "Google launched its Comparison Shopping Service ...
 20 scheme in June 2018 in response to the European
 21 Commission's 2017 judgment ...
 22 "Google approached advertising agencies and invited
 23 them to build comparison shopping sites."
 24 If we go over the page {J2A/76/3}:
 25 "It also offered substantial incentives to

27

1 retailers ... "
 2 Then the wording is obscured.
 3 But then under the third paragraph:
 4 "... Google—certified operators told Sky News that
 5 their sites were not designed to be using for shopping,
 6 with one calling it 'an advertising system ..."
 7 A. Sorry, I'm not seeing the part you're reading right now.
 8 Q. The third paragraph.
 9 A. The third paragraph:
 10 "However, Google—certified operators ..."
 11 Q. Yes.
 12 A. Okay. Okay, sorry. Go ahead.
 13 Q. We do not need to go through all of this, but again,
 14 I think you said you were aware of press coverage of
 15 this kind?
 16 A. To some degree, yes.
 17 Q. You mentioned, a few minutes ago, that if users clicked
 18 on the "By CSS" link they would be taken to the CSS
 19 website?
 20 A. Yes.
 21 Q. So if a participant in the Remedy did not have a genuine
 22 comparison shopping site, that would likely be a poor
 23 experience for the user?
 24 A. Well, so my understanding was that — and — and this
 25 is, again, not my area of deep knowledge or expertise,

28

1 but my understanding was that there were standards put
 2 in place in order to ensure that participants in the CSS
 3 program were genuine comparison shopping services and
 4 there were different, like, criteria that had to be met.
 5 I wouldn't claim to know the details of those criteria,
 6 but I know of their existence.
 7 Q. Can we just look at one more document on this
 8 {J2A/83/3}.

9 Towards the bottom, we see an example of
 10 a comparison — of a shopping box, and one sees that
 11 the CSS in this case is called "Croud", if that is how
 12 that is pronounced.

13 A. Mm. Okay, yeah, I see the Unit.

14 Q. Above that is some wording taken from Croud's marketing,
 15 material which says:

16 "For shoppers searching for your products,
 17 Google Shopping ads will look exactly the same as usual,
 18 with just a blue link showing 'By Croud', as in
 19 the example below. If a user clicks on the ad, they
 20 will be directed as normal to the product page on your
 21 website. If they click on the 'By Croud' link they will
 22 be sent through to the product page on Croud's CSS
 23 website, from where they then navigate to your website
 24 to purchase. Very few people currently click on this
 25 link ... however we'll be monitoring performance ..."

29

1 0.0004%, they say:
 2 "... however we'll be monitoring performance ..."
 3 What we see, over the page — so these are all
 4 clearly adverts for men's suits?

5 A. Yes.

6 Q. Then over the page {J2A/83/4}, we have what you see if
 7 you click through the "By CSS" link?

8 A. Yeah.

9 Q. You see these are in fact all listings for
 10 the TV programme "Suits"?

11 A. Mm. Yes.

12 Q. So again that would be, I suggest, a pretty poor
 13 experience for the user?

14 A. It shows in the search box at the top, although very
 15 small, what the user's query was. Is it possible to
 16 see? Does that say "men's dress suits"? Can anyone
 17 read that?

18 Q. "Moss Bros", that's a brand of —

19 A. Oh, Moss dress suits.

20 Q. Moss Brothers is a —

21 A. Moss — yeah —

22 (Simultaneous speakers — inaudible)

23 THE CHAIRMAN: Well, it is very, very small. You cannot see
 24 that.

25 A. But it says something — Moss Brothers.

30

1 THE CHAIRMAN: Moss Bros.

2 Yeah, this is not like a good search results page
 3 for Moss Bros suits.

4 MR WEST: The reason that this problem arose, I suggest to
 5 you, Mr Friedman, is because the role that CSSs play in
 6 the compliance mechanism has nothing to do with
 7 providing genuine CSS services.

8 A. Mm—hm.

9 Q. You agree?

10 A. No.

11 Q. The requirement that bids be submitted by CSS only
 12 exists because Google has imposed it?

13 A. Sorry, say it one more time?

14 Q. The requirement that bids in the auction to appear in
 15 the box be submitted via comparison shopping services
 16 only exists because Google has brought in that
 17 requirement?

18 A. Yeah, that was the design of the Remedy.

19 Q. So it is not surprising that people have tried to find
 20 a way round that?

21 A. Yes, I think that's reasonable, that people will want to
 22 get in on that, if they can. I think that was the idea
 23 behind the criteria, to — to try to limit participation
 24 to genuine CSSs.

25 MR WEST: Thank you very much, Mr Friedman. That's all from

31

1 me.

2 THE CHAIRMAN: Can I just ask, can we — have we got these
 3 criteria?

4 MR WEST: I think Mr Braendle possibly deals with them.

5 THE CHAIRMAN: Sorry?

6 MR WEST: I believe Mr Braendle might deal with them.

7 THE CHAIRMAN: Yes. Thank you.

8 Yes, Mr Pickford.

9 Re—examination by MR PICKFORD

10 MR PICKFORD: Thank you, sir.

11 Mr Friedman, yesterday, you were asked about
 12 de—linking experiments and it was put to you at one
 13 point that such experiments showed that users preferred
 14 to be taken to interstitial sites rather than go direct
 15 to merchants, such as via PLAs. Do you recall that
 16 questioning?

17 A. I apologise, maybe I didn't get enough sleep, but I'm
 18 not sure what "de—linking experiments" refers to?

19 Q. Well, let me show you.

20 So I would first like to start just by putting some
 21 initial context to you for the question.

22 So if we could start by going, please, to PLAs,
 23 which is one of the things that you were asked about
 24 yesterday. So just to remind ourselves what a PLA looks
 25 like, can we go to {A2/2/2}, and if we could look at

32

1 the bottom half, please, where it says "Shopping Unit".
 2 I am sure you are very familiar with what they look
 3 like, but if you could just refamiliarise yourself
 4 with —
 5 A. Yes.
 6 Q. — that, please.
 7 A. Okay, this looks like a pre—Remedy unit, but, yes.
 8 Q. If we could now then please go to one of the documents
 9 that is associated with the experiments that were
 10 referred to. Could we please go to {N/218/1}.
 11 So this is not a document that you — well, sorry,
 12 I should say, is this a document that have seen before?
 13 A. Not to my knowledge. You know, I won't say definitively
 14 I've never seen it in my life, but I certainly haven't
 15 seen it recently and I don't recall ever seeing it.
 16 Q. Could I ask you please just to read the description of
 17 the experiments, please.
 18 A. Okay.
 19 Q. Starting at the beginning, at the top of the page.
 20 A. Okay.
 21 MS ROSE: Can we have a date for this document?
 22 MR PICKFORD: We can certainly get you metadata. It does
 23 not say — so it does not say where it is on
 24 the document itself.
 25 THE CHAIRMAN: Is it — what is it? Is it a Google

33

1 internal —
 2 MR PICKFORD: It is a Google internal document. So
 3 Mr Jowell did put questions, yesterday, about
 4 experiments that had been done and they were
 5 called "de—linking experiments". But he —
 6 MS ROSE: This looks like a much earlier experiment.
 7 (Off microphone discussion)
 8 MR PICKFORD: Thank you.
 9 The date of the experiment is on the next page,
 10 I understand. Mr Jowell has helpfully ...
 11 MS ROSE: 2008?
 12 MR PICKFORD: Yes.
 13 MS ROSE: I do not think Mr Jowell was putting anything
 14 about experiments from that date.
 15 THE CHAIRMAN: That early.
 16 MR PICKFORD: My understanding was that he was relying on
 17 the idea that users prefer to go to interstitial sites
 18 based on what he said was experiments that Google had
 19 done.
 20 MS ROSE: But was he not talking about much, much later
 21 experiments?
 22 MR PICKFORD: That is not my understanding, because I do not
 23 know what those much, much later experiments are.
 24 THE CHAIRMAN: Well, we were shown some, were we not?
 25 MS ROSE: Yes.

34

1 THE CHAIRMAN: Mr Jowell, can you help us?
 2 MR JOWELL: Yes. The experiments that I was discussing with
 3 Mr Goodrow were in 2008 and 2009 as well, which is when
 4 I think Mr Goodrow did his de—linking experiments.
 5 MS ROSE: But with this witness?
 6 MR JOWELL: But I think I only mentioned them in passing
 7 with this witness. With this witness we were discussing
 8 the much later experiments —
 9 MS ROSE: Yes.
 10 MR JOWELL: — for CLA and PLA —
 11 MS ROSE: Yes, that was what I understood —
 12 MR JOWELL: — and those, of course, were much later.
 13 MS ROSE: That was what I understood you to have put.
 14 MR JOWELL: Yes, yes.
 15 MR PICKFORD: So I am not addressing those at the moment.
 16 I am —
 17 MS ROSE: That is why I was confused, because I had
 18 understood this witness to have been dealing with a much
 19 later period.
 20 MR PICKFORD: Yes, so I am going to come on to deal with
 21 those.
 22 MS ROSE: Okay.
 23 MR PICKFORD: But the reason for this question is because
 24 there were questions put to the witness —
 25 MS ROSE: Okay.

35

1 MR PICKFORD: — based on a different idea that is nothing
 2 to do with PLAs and CLAs.
 3 MS ROSE: Okay.
 4 MR PICKFORD: They were questions put based on the idea that
 5 there was a preference shown by users for interstitial
 6 sites over going directly to merchants. The experiments
 7 themselves were not put, and it is for that reason that
 8 I am going to those in the re—examination.
 9 MR JOWELL: Well, I think my learned friend should refer to
 10 the transcript, because my recollection is I simply
 11 mentioned this to this witness by reference to
 12 Mr Goodrow's evidence. I do not recall taking this
 13 witness directly to the de—linking experiments.
 14 MR PICKFORD: No, he was not, that is my point. So it was
 15 put — he said {Day10MT1/55/14}:
 16 "Question: [So you were] aware of these de—linking
 17 experiments?
 18 "Answer: I don't believe so. I mean ... not that
 19 I recall.
 20 "Question: So you are not aware that there were
 21 actual experiments conducted that confirmed that — or
 22 seem to confirmed that people preferred links to full
 23 price comparison website?
 24 "Answer: To the best of my recollection, I was not
 25 aware of this.

36

1 "Question: Okay.
 2 "Answer: But it was a long time ago.
 3 "Question: Sure. I understand.
 4 "So you were not particularly aware that there was
 5 an assessment of the Product Search team that
 6 interstitial pages improved the user experience?
 7 "Answer: Well ... as I mentioned, the only thing
 8 that I recall in [this] regard is ... one engineer
 9 saying something to me about that."
 10 He then went on and there were further questions
 11 later that built on the idea that there was a preference
 12 shown by users for interstitial sites over merchant
 13 pages.
 14 THE CHAIRMAN: Yes, so Mr Friedman, it was put to him about
 15 earlier experiments and he said he does not know about
 16 them. So, I mean, that does not open the examination on
 17 matters that he knew nothing about —
 18 MR PICKFORD: Well —
 19 THE CHAIRMAN: — it seems to me, and re-examination is on
 20 Mr Friedman's evidence, not on a question to which he
 21 said, "I can't assist on that".
 22 MR PICKFORD: I am happy to move on to the next point.
 23 You mentioned in evidence, yesterday, in the context
 24 of discussion about the shopping box, that there had
 25 been a discussion in Google about how much of a quality

37

1 hit it would mean to relax the requirements that links
 2 go to merchants; do you recall that?
 3 A. Yes.
 4 Q. What was your view in that regard?
 5 A. So my understanding was that there were a variety of
 6 both studies, like using human eval, where people would
 7 be — raters would assess the quality of a landing page
 8 and how useful they found it and how well it matched
 9 the creative, as well as a variety of live experiment
 10 metrics, so these are, you know, regular Google users,
 11 you know, coming and analysing their behaviour, that
 12 indicated a significantly better experience when users
 13 could purchase the product and when there was a good
 14 match, a very precise match between the information that
 15 was displayed on the Google ad, on the product ad and
 16 the landing page.
 17 Q. Now on the issue of the Remedy, at one point yesterday,
 18 the Chair asked you about whether there were documents
 19 showing that you had technical concerns about certain
 20 options and then you were taken to certain documents
 21 that dealt with evaluation of different options under
 22 the Remedy.
 23 A. Yes.
 24 Q. Can we please go to the document that is at {M1/452}.
 25 A. Okay.

38

1 Q. So this is a version —
 2 A. Yes.
 3 Q. — of a document that you were taken to yesterday.
 4 To explain to you, in the bundle, as part of
 5 disclosure, a number of different snapshots were taken
 6 of documents over time.
 7 A. Yes.
 8 Q. You were taken to an earlier version of this —
 9 A. Okay.
 10 Q. — yesterday. This is a later version —
 11 A. Okay.
 12 Q. — of a document you have been taken to before.
 13 A. Understood.
 14 Q. Could you just explain how Google used this type of
 15 evolving document?
 16 A. How we used it? Well, so to the best of my
 17 recollection, this was a document that was undertaken by
 18 primarily engineers, a little bit of product management
 19 input, I believe, that — to try to identify as many
 20 possible approaches to coming up with a Remedy and
 21 coming into compliance with the Decision and then to
 22 basically assess different aspects of each of those
 23 options, you know. I can go on, if it's useful, about,
 24 like, what criteria we used to assess them, or — or —
 25 you know, I don't know what the Tribunal would find

39

1 useful or not.
 2 Q. I am not going to ask you anything further on that.
 3 I am just going to pause to let — see what the Tribunal
 4 wants to do, but I do not think they do.
 5 A. Okay.
 6 Q. Could we please go to {M1/452/17} of the document.
 7 So do you see, about two-thirds of the way down, it
 8 deals with, "CSS Ranking of CSS Inventory"?
 9 A. Yes.
 10 Q. You recall that this was something that was addressed in
 11 your evidence yesterday?
 12 A. Yes.
 13 Q. Then one sees under, "Shopping API (aka Query—Time
 14 Callout Approach)" —
 15 A. Yes.
 16 Q. — it says:
 17 "Please see this document for the latest thinking on
 18 the callout/sandbox approach."
 19 A. Yes.
 20 Q. Do you have any view on whether the document that you
 21 were — that was canvassed with you yesterday about
 22 sandbox is likely to be or unlikely to be what is being
 23 referred to in this document here?
 24 A. I mean, it seems likely that what I was looking at was
 25 probably some version of that document there.

40

1 Q. Could we go, please, to {M1/452/19}. There is
 2 a section, you see at the top, that deals with "Time
 3 Constraints". Is that large enough for you or you do
 4 you need —
 5 A. Just do one more magnification, I'm sorry.
 6 Okay, yes. So you want me to read the paragraph on
 7 time constraints?
 8 Q. Yes, if you could read that paragraph.
 9 A. Read it to myself, right?
 10 Q. Yes.
 11 A. Okay.
 12 (Pause)
 13 Okay, yes.
 14 Q. Then there are comments on the right-hand side. Could
 15 you please read to yourself paragraph — comments 119
 16 through to 123.
 17 A. Okay.
 18 (Pause)
 19 Okay.
 20 Q. Do you have any idea who might be making these comments?
 21 A. Well, let's see ... Well, okay, I know who "fbeal" is,
 22 so the person who was "+" at 123. That is
 23 Frederick Beal, who was an engineer, who worked on
 24 different things at different times. He worked some on
 25 serving, some on UI.

41

1 Let's see, do I have any idea who the other comment
 2 is? Well, of course, there's Khanh got plused in there.
 3 Khanh was my manager, as I mentioned yesterday.
 4 Q. Do you recall what your view was in relation to
 5 the discussion here?
 6 A. Toward "Adding a backend dependency to GWS ...", for
 7 example?
 8 Q. There is a discussion in 119 which begins, yes:
 9 "Adding a backend dependency ... is going to be ...
 10 challenging."
 11 Then there is various comments thereafter.
 12 A. Okay.
 13 Q. Reflecting, apparently, the views of different people.
 14 A. Yes.
 15 Q. I am asking you whether you recall what your view was in
 16 relation to that discussion that is taking place in
 17 the side comments.
 18 A. Well, certainly it's the case that — okay, so I will
 19 say I don't recall exactly what my thinking was at the
 20 time. It's also possible that I was the commenter on
 21 some of these and I just don't recall. But the other
 22 thing that I will say is I know that, for example, this
 23 idea of adding a third-party server for GWS to call out
 24 to, so I do recall that it was very — there was an
 25 extremely high bar to get any servers — I'm talking

42

1 about internal Google servers that are, you know,
 2 developed by Google, run on Google's networks, etc, etc,
 3 to get that added as a back end to GWS, there was an
 4 extremely high bar, and the engineers that were
 5 responsible for GWS were very sceptical of trying to add
 6 any more dependencies, and so — so the idea of adding
 7 a third-party server or a set of third-party servers as
 8 — as back end dependencies to GWS, you know, they're —
 9 and so that would dramatically increase the likelihood
 10 of failure of the GWS server, you know, of — of, you
 11 know, network disconnects and latencies and all these
 12 kinds of things. So, you know, again, the GWS server is
 13 not something that I have a tonne of expertise in, but
 14 I do recall a very high bar for adding back end
 15 dependencies to GWS and I don't know if a third-party
 16 callout from — okay, now I'm speculating. I was going
 17 to say I don't know if it had ever been done. I don't
 18 — it's — I don't know one way or the other.
 19 Q. Do you recall whether there was or there was not any
 20 settled view ultimately within Google as to where this
 21 discussion came out?
 22 A. Well, I — I don't remember a very specific Decision one
 23 way or the other, or — or viewpoint about, you know,
 24 okay, this issue is, you know, absolute deal killer, we
 25 can't do it, or not. That may have been the case,

43

1 I don't recall.
 2 Q. Could we please go on — there are some further comments
 3 on this page at 124 to 125. Could I ask you to read
 4 those, please.
 5 A. Okay, 124 and 125.
 6 Q. Yes.
 7 MS ROSE: Before you get to that, can we just look at 122?
 8 A. You want me to read that to myself?
 9 MS ROSE: Yes, please.
 10 A. Okay. (Reads to self).
 11 Yes.
 12 MS ROSE: Can you explain what that is and how that
 13 interacts with what you have just been saying?
 14 A. Okay, so I think the suggestion here is that — so my
 15 best reading of 119 is related to what we were talking
 16 about with essentially callouts to CSSs at query time,
 17 right, which is that we would actually call outside of
 18 Google's network to a server that was not under Google's
 19 management or control, etc, etc, and so the suggestion
 20 here is, well, maybe Google could have some kind of
 21 services that are at least on Google Cloud. Now, it's
 22 not clear to me who would be responsible for
 23 the services, like who would maintain and run
 24 the services, because on Google Cloud, third parties
 25 typically would run it, it wouldn't be Google that runs

44

1 it. But I guess the idea here, as best I can
 2 reconstruct, is that at least if it's on the Google
 3 Cloud server, we could cut down on latency some, because
 4 we're staying within Google's network, we don't have to
 5 call out to an arbitrary point, right, to a server that
 6 could be located sort of anywhere in the networks, and
 7 then that would — oh, and, okay, and then it says:
 8 " ... and get them co-located with shopping
 9 binaries ..."
 10 Okay, so that would be basically putting these
 11 services that are hosted by Cloud in the same data
 12 centres where, like, the Shopping server was running,
 13 and so that would further reduce latency.
 14 MS ROSE: Is this talking about the API options, or
 15 the sandbox option, or is this different, because this
 16 is talking about callout to third-party servers, that
 17 seems to be different from the idea that people are
 18 supplying a feed?
 19 A. I think you're right.
 20 MS ROSE: Yes.
 21 A. I think my reading of this is that this is not
 22 the sandbox option —
 23 MS ROSE: This is not the sandbox —
 24 A. — it is the full kind of —
 25 MS ROSE: Yes, bells and whistles.

45

1 A. Yes.
 2 MR PICKFORD: Thank you, madam.
 3 Could we go, please, to 124 to 125.
 4 A. Yes.
 5 Q. Do you recall what factors were going to enter into
 6 the auction that is mentioned there?
 7 A. I don't recall in great detail, but what I do recall is
 8 that if we were to have a — an entire unit that this —
 9 that would be — that the CSSs would essentially bid on
 10 and that the entire unit would compete in this auction,
 11 which it was kind of the essential idea behind the third
 12 party callout and also, as I understand the sandboxing
 13 option, it's also the idea, is that — right, is that
 14 CSSs would have control to one degree or another on
 15 constructing the entire unit, right? So the idea there
 16 is that rather than having each — for example, each
 17 individual product ad be participants in the auction, so
 18 you would have, like, thousands or more merchants,
 19 you know, or CSSs post—Remedy participate in the option,
 20 rather you would have a handful of CSSs, however many
 21 CSSs were active in the market and participating and
 22 etc, that would place bids and then compete in
 23 the auction, and the concern with that was that it would
 24 be highly unlikely that that would result in a value
 25 that would win the Whole Page Auction and allow the Unit

46

1 to show, because rather than having thousands of
 2 merchants that — you know, in a sort of highly
 3 competitive auction and you're showing a whole number of
 4 essentially independently clickable, monetisable ads in
 5 the carousel, you have a single unit which is
 6 effectively a single ad, right, with a single bid, and
 7 you have a few participants in the auction, however many
 8 CSSs in the market, right? So the analysis that we did
 9 suggest — suggested that it would be very unlikely to
 10 win the Whole Page Auction in the large majority of
 11 cases.
 12 MS ROSE: Were you conscious of there being some kind of
 13 tension or conflict between the interests of merchants
 14 and the interests of CSSs?
 15 A. Absolutely.
 16 MS ROSE: Can you explain that?
 17 A. Well, so I think the basic idea, as I understand it, is
 18 that, you know, CSSs wanted to have — not all CSSs, but
 19 a number of CSSs wanted to have a lot of traffic sent to
 20 their site. Merchants want traffic sent to their site,
 21 right? So there's kind of a bit of an inherent conflict
 22 there. Now, there's subtleties, because, of course,
 23 a good CSS will provide some value and allow potentially
 24 a more qualified click to go to the merchant if the user
 25 does end up clicking on to the merchant, right? So it's

47

1 not completely one-sided in that regard, but there is
 2 that tension, yes.
 3 MR PICKFORD: Can we go on to {M1/452/21}, please, which is
 4 towards the end of this — which is at the end of this
 5 section.
 6 Do you see it says at the top of the page, "What is
 7 feasible in 90 days"?
 8 A. Yes.
 9 Q. Could you read, please, the comments 135 and 136.
 10 A. Yes.
 11 Q. What is your view on those comments?
 12 A. I believe it's the case that this is referring to
 13 essentially the query callout approach that we were just
 14 — just discussing; is that ...?
 15 Q. It is not for me, because I have to ask you open
 16 questions, so it is not for me to —
 17 A. Oh, okay —
 18 Q. Make that suggestion.
 19 If you like, you are welcome to go back to the
 20 previous page —
 21 A. So is this the immediate following page to the page we
 22 just looked at?
 23 Q. No, let me show you {M1/452/20} first.
 24 A. Yeah.
 25 Q. So this is the immediate following page to the one that

48

1 we were on.
 2 A. Yes. Yes.
 3 Q. Please ask the operator if you would like to —
 4 A. Okay.
 5 Q. — if and when you would like to scroll down.
 6 A. Okay, let me just — just look and make sure. Yeah,
 7 yeah, yeah.
 8 Okay, yes, so this section is continuing to refer
 9 to, you know, the shopping API or the query callout.
 10 Q. If you would like to go then to the page that we were,
 11 on, the next page {M1/452/21}.
 12 A. Yes, okay, and so —
 13 Q. My question is: what is your view on the comments, in
 14 the right-hand column, 135 and 136.
 15 A. Okay so:
 16 "This looks ... like a highly risky 1 year project
 17 ... where the chances that this will ever work are close
 18 to zero ...
 19 "Agreed. Lot[s] of hard problems to solve to get
 20 this to work."
 21 I agree that there's a lot of work and a lot of
 22 challenges and a lot of opportunity for failure .
 23 There's almost no way one could have come up with
 24 a solution in 90 days — I mean, yeah, there's —
 25 I cannot imagine getting that done in 90 days. So

49

1 I pretty much agree with the — you know, when I say it
 2 has zero chance of ever working at all , it depends what
 3 you mean by "work". I mean, you know, like, could we
 4 get a solution that, for example, you know, adds quite
 5 a bit of latency, you know, reduces quality and rarely
 6 shows the Unit? Perhaps we could do that in a year,
 7 yeah? So, in other words, there would be something, but
 8 it would be highly lacking on — on all of the important
 9 criteria .
 10 Q. Just two more topics, one related to this and one
 11 separate one.
 12 Could we please go to the document at {M1/447/1}.
 13 This is a document that you were taken to previously
 14 about sandbox, I think, specifically . Sorry, this is
 15 the version that you were taken to on — yesterday,
 16 during your cross-examination.
 17 Could we go, please, to {M1/447/7}.
 18 There is a section entitled :
 19 "Implications [for] higher latency [of] Google
 20 systems."
 21 You were taken to just before that section , but you
 22 were not taken to this section yesterday.
 23 A. Okay.
 24 Q. Could I ask you, please, to read that section:
 25 "Implications of the higher latency for Google

50

1 systems."
 2 A. Yeah.
 3 (Pause)
 4 Okay.
 5 Q. Could you explain what is being discussed here to
 6 the Tribunal and what you draw from this discussion?
 7 A. Yes, so I think my understanding here is, if we were to
 8 implement the callout to third-party CSSs, where would
 9 that callout happen in the processing flow when Google
 10 was processing the query? Like, what server would
 11 actually make the callout and in what stage of the query
 12 processing?
 13 So three options are presented, right? One is
 14 basically to have — okay, so number 1 would be have
 15 the Admixer do the call, right? So the main ad server,
 16 the Admixer, would call out to the third-party CSS and
 17 this would require, you know, a very large increase in
 18 the Admixer deadline, right? So taking it from
 19 the 200 milliseconds that we discussed before, to,
 20 you know, it depends on what your estimate is, but, you
 21 know, perhaps 1,200 milliseconds or something like that,
 22 right?
 23 Then number 2 would be, okay:
 24 "Move the call to GWS, in parallel with the call to
 25 the Admixer."

51

1 Okay, so the idea — so I mentioned yesterday
 2 I think perhaps in response to a question from Ms Rose,
 3 I think, that, you know, GWS is the main web server for
 4 Google and it starts its processing of organic results
 5 and then in parallel makes a call to the Admixer so that
 6 the ads can, in parallel , do its processing and return
 7 ads to GWS. So I guess the idea here is that GWS would,
 8 upon determining this was a reasonable shopping query,
 9 it would make the callout to the CSSs and in parallel
 10 make the callout to the Admixer, right? So that's
 11 allowing the processing of the CSSs to go in parallel
 12 with the processing of general ads from the Admixer. So
 13 this would make it impossible for commercial units to
 14 participate properly in the Whole Page Auction. I mean,
 15 the basic idea there, I think, is that you're
 16 essentially bypassing the ads system in this callout to
 17 the CSSs, and so you can't really construct the CSS
 18 results as ads, you know, so, like , signing URLs is part
 19 of what is done as part of that processing, generating
 20 proper logging events for ads, and large, you know,
 21 redesign of both systems, yes, yes. So that's number 2.
 22 Any questions so far from the Tribunal on this,
 23 or ...?
 24 MS ROSE: So it is clear from this that option 1 is
 25 preferred , and one can see why, given what you have just

52

1 said?
 2 A. Option 1 is the easiest one, but it increases Admixer
 3 latency a lot. It looks like that, yeah. I think
 4 that's right, that option 2 and 3 present very
 5 substantial —
 6 MS ROSE: Yes.
 7 A. — design problems.
 8 MS ROSE: Yes, so option 1 is the only one that is feasible?
 9 A. You know, assuming that we want to process —
 10 MS ROSE: (Overspeaking — inaudible).
 11 A. — the results as ads and that we want to —
 12 MS ROSE: You are prepared to live with some extra latency?
 13 A. Correct.
 14 MS ROSE: Yes.
 15 MR PICKFORD: Then can we go over the page, please, to
 16 {M1/447/8}.
 17 You will see, towards the bottom of that page, there
 18 is a big bit that says, "Redacted — Privileged". Then
 19 underneath that, just one short paragraph which begins:
 20 "The key technical constraint ..."
 21 A. Mm—hm.
 22 Q. Could I ask you please just to read that single
 23 paragraph, four lines.
 24 (Pause)
 25 A. Okay, yes.

53

1 Q. It refers to not being able to "implement anything
 2 [like] the complexity of Muppet" under this solution.
 3 What was "Muppet"?
 4 MS ROSE: Muppet is confidential.
 5 MR PICKFORD: Oh ...
 6 MS ROSE: At least it is marked confidential in the witness
 7 statement for reasons we were not able to really —
 8 MR PICKFORD: Right, thank you. This is a non—confidential
 9 document.
 10 MS ROSE: A non—confidential Muppet!
 11 A. Like Kermit?
 12 MR PICKFORD: Thank you for drawing that to my attention.
 13 The technical details are confidential, but not
 14 the word. So there is a potential issue with you going
 15 into technical details about what Muppet was.
 16 A. Okay.
 17 MR PICKFORD: I think —
 18 THE CHAIRMAN: The word is not?
 19 MR PICKFORD: Sorry?
 20 THE CHAIRMAN: The word is not confidential?
 21 MR PICKFORD: The word is not confidential.
 22 THE CHAIRMAN: We were puzzled about the highlighting of —
 23 MR PICKFORD: I am afraid I cannot speak to the highlighting
 24 that you are referring to. Sometimes there is
 25 a situation where lots of different words, like an

54

1 entire diagram or explanation, gets treatment, because
 2 if everything is put together then that is too much
 3 information. I am afraid I cannot speak to
 4 the particular Muppet in question.
 5 THE CHAIRMAN: We mean to explore it.
 6 MS ROSE: This is the point, is it not, that was made
 7 yesterday? I think we had this point yesterday, that
 8 you would be looking at much simpler, more basic feeds?
 9 A. That's exactly right.
 10 MS ROSE: Which we discussed, I think, yesterday.
 11 A. That's right. This is the discussion we had about —
 12 MS ROSE: There would be a difference in sophistication.
 13 A. Right, billions of potential offers and products that
 14 you could search through with very sophisticated search
 15 technology —
 16 MS ROSE: On a live dynamic basis.
 17 A. Exactly, on a dynamic basis. You know, you would have
 18 to have a much more static mapping, and limited, yes,
 19 that's correct.
 20 MR PICKFORD: Final topic.
 21 Ms Rose put it to you, yesterday, that she was
 22 sceptical about Google's claims to be producing higher
 23 quality results, and you responded, you said you put
 24 tremendous effort into making it as high quality as
 25 possible.

55

1 A. Yes.
 2 Q. Do you recall that exchange?
 3 A. Yes.
 4 Q. What were the things that you did?
 5 A. I mean —
 6 Q. In broad terms, obviously, in relatively short terms.
 7 A. Yeah.
 8 So we had, you know, a very large proportion of
 9 the engineers in — in ads quality worked on all of
 10 these quality signals at various points in the stack,
 11 you know, so of course we have the pCTR model for
 12 click—through rate, we have relevance models, we have
 13 all the technology that went into the shopping—specific
 14 index for retrieval of these candidate offers, we had
 15 conversion rate models, right, we had things that were
 16 trained on human eval, and all of these signals were
 17 used at various stages of filtering out different
 18 candidate offers and then also, in the auction itself,
 19 you know, as components of the auction score, so ...
 20 Then what we would do is when we would, like, run
 21 experiments, like — like perhaps we were considering
 22 some change to ranking or some other aspect of product
 23 ads, you know, we would use the experiment analysis
 24 tools, like Rasta, which perhaps has come up in
 25 the Trial, maybe not, as well as human evaluation, etc,

56

1 to do detailed analysis of what is the effects that
 2 we're having on quality in these different metrics that
 3 we had. So, you know, there were something on the order
 4 of I'm going to say — and I have this in my statement
 5 — something like 15 to 20 kind of core metrics we
 6 looked at, and then there were at least 100 or 200
 7 metrics that we looked at, depending on circumstances,
 8 to analyse, okay, how well are these results serving
 9 users under these conditions, you know, how likely are
 10 they to click, what is their post-click experience like,
 11 etc, etc?

12 So, you know, it was super—critical to everything we
 13 did in ads quality, and it's even, frankly, reflected in
 14 the name, "ads quality", right?

15 Now, this also reminds me — and the Tribunal can
 16 tell me if I'm getting into too much detail, so please
 17 tell me enough is enough if you wish — but — so
 18 yesterday, I think I was asked by the Tribunal if
 19 I could provide an example where Google was not doing
 20 revenue maximisation but was instead doing quality, and
 21 so I thought of an example last night, if — if ...

22 MS ROSE: Mm—hm.

23 A. Okay. So, you know — so we were kind of always trying
 24 to remove irrelevant and Bad Ads results, and I remember
 25 there was a point where we did some new analysis that

57

1 indicated that there were more Bad Ads than we wanted in
 2 the Shopping Unit, and we actually called them "Bad
 3 Ads", there was a team called the "Bad Ads Team" that we
 4 formed to address it. So what we did was we basically
 5 did, you know, a lot of work on developing new models to
 6 identify, for example, NFS results, right,
 7 the non—family safe results for porn, or other things
 8 that could be considered offensive, you know, whether it
 9 be racist or politically offensive, things like that,
 10 and then we made a bunch of changes to integrate those
 11 models into our filtering systems. I recall that there
 12 were pretty substantial revenue losses that were
 13 associated with it, and that the management, the ads
 14 management, didn't hesitate to implement this.

15 I actually recall at one point asking — so this was
 16 at a point where Khanh was not my manager, it was
 17 someone else, but I remember asking him, "Should we run
 18 some long—term studies to try to understand
 19 the long—term value implications", and he said,
 20 "You know what, these ads are just Bad Ads and we
 21 shouldn't show them regardless; it doesn't matter,
 22 you know, how much it improves long—term revenue or not,
 23 these ads just shouldn't show".

24 MR PICKFORD: Final question.

25 You referred in that exchange with Ms Rose to user

58

1 functionality having been restrained by the EC. Do you
 2 recall that?

3 A. Sorry, could you repeat that?

4 Q. The user functionality of the Remedy box?

5 A. For example, the rich functionality that we would
 6 potentially develop in the future, is ...?

7 Q. Yes, that was the exchange.

8 My question is: very briefly, what did you have in
 9 mind when referring to that richer functionality that
 10 you would have wanted to have had?

11 A. Yeah, so, you know, I'll say, so I was not

12 a UI engineer, right, and there was a separate team that
 13 was working on these kinds of things, but I do recall
 14 some of the things that were under discussion, and so —
 15 and it was some of the things I think that I brought up
 16 as examples of rich functionality when the Tribunal
 17 asked me about that, right?

18 MS ROSE: Like filters on price and colours of clothes —

19 A. Yeah, sorting and filtering, and ... yes.

20 MR PICKFORD: Without wishing to lead you, if they are
 21 the same things that you addressed earlier, you do not
 22 need to address them again.

23 A. Yeah.

24 Q. But that was in an earlier discussion, so I just wanted
 25 to be clear about what your answer would be in

59

1 the context of the exchange you had with Ms Rose.

2 A. I mean, it was things of that nature, and I won't say
 3 that I recall all the details.

4 MS ROSE: Was that because you were concerned that if you
 5 had those features on the Remedy box the Commission
 6 would regard the Remedy box itself as a CSS?

7 A. Correct. That's exactly correct. So we felt quite
 8 constrained in what we could do there, yeah.

9 MS ROSE: So you were trying not to present the Remedy box
 10 itself as an engine for product comparison?

11 A. That's exactly correct.

12 MR PICKFORD: I have no further questions.

13 THE CHAIRMAN: I think we will take a break now and return
 14 at 12.10.

15 (11.58 am)

(A short break)

16 (12.13 pm)

17 THE CHAIRMAN: Mr Friedman, we have found your evidence
 18 extremely helpful.

19 A. Oh, good.

20 THE CHAIRMAN: But it has prompted us to raise a few
 21 questions as a result.

22 A. Of course.

23 Questions from THE TRIBUNAL

24 THE CHAIRMAN: If we look at your first statement, which is

60

1 at — we have got at {H3A/7}, and go to page {H3A/7/10}
2 in the statement, paragraph 38:

3 "As PLA adoption grew, Google was concerned with
4 making sure that there was a healthy ecosystem where
5 the different players in online shopping could have
6 viable business models and accomplish their business
7 goals."

8 So that was the view and concern of Google at the
9 time you are talking about?

10 A. Yes.

11 THE CHAIRMAN: Then you say:

12 "Those players included merchants selling products;
13 search engines to find those products; CSSs and other
14 businesses that work together to provide online
15 shopping; as well as users wanting to search for and buy
16 products."

17 A. Yes.

18 THE CHAIRMAN: Thinking about CSSs, what do you understand
19 that their business goal is for a CSS?

20 A. A CSS's business goal?

21 THE CHAIRMAN: Yes.

22 A. Well, I think it's to provide, you know, high quality
23 comparison shopping capabilities to users and then to,
24 you know, make — make money and repeat customers
25 through that, right? There's difference business models

61

1 for — for making money; they could advertise either on
2 their site or elsewhere, right? They could potentially
3 charge, you know, merchants. There's ... yeah.

4 THE CHAIRMAN: The "high quality comparison shopping
5 capabilities", would that be the various functions,
6 the various comparisons that they give on price and
7 rating and different ways they might enrich
8 the experience? Is that —

9 A. Right, and, you know, some of the rich functionality we
10 were talking about, you know, that allow users to kind
11 of explore the product space and filter down to
12 the kinds of, you know, subsections they're interested
13 in, see what the different options are for ... that sort
14 of thing, yeah.

15 THE CHAIRMAN: You explored many options, as we saw. Do you
16 see those goals being met under the Remedy?

17 A. I think the Remedy, you know, in my view, meets some of
18 the goals, right? I think that what Google was trying
19 to do, in my, you know, understanding and estimation, is
20 to comply with the law, right, and to basically, you
21 know, minimise the damage to our pillars, right, that
22 I've mentioned, consistent with complying with the law,
23 you know? So I wouldn't say that our goal was to —
24 let's maximise traffic to CSSs, right? That was not an
25 explicit goal, right?

62

1 THE CHAIRMAN: The goal — but the goal of the CSSs, of
2 enriched comparative shopping experience, as has been
3 described and identified, is that something that you see
4 can thrive under the Remedy?

5 A. So I think that, in my view, the Remedy gives CSSs an
6 opportunity to have, you know, reasonable business
7 models ranked so that they can make money through this
8 advertising channel, which can then, you know, fund
9 development of their website. It gives some capability
10 for users to click through to their website. I mean,
11 it's been explored that in practice those click-through
12 rates are low, right? So I certainly see that and
13 acknowledge that, right? But there is some visibility
14 there. You know, it gives users a sense of like, okay,
15 these are the kind of products that are available on
16 this comparison site, so if I'm interested in
17 understanding what the site has to offer, I have some
18 window into it, it's not a full window into this is
19 exactly what this — I will see when I show up at that
20 site, but it's some window.

21 THE CHAIRMAN: Then something quite different. If we go on
22 in your statement to {H3A/7/25}, under the heading "Part
23 3C ...", you talk about unification, which was really
24 quite a big change in the shopping model.

25 Then over the page {H3A/7/26}, at paragraph 95, you

63

1 talk about changes to the Shopping property.

2 A. Yes.

3 THE CHAIRMAN: Which is how we describe — or how you
4 describe the Google CSS, effectively.

5 A. Yes.

6 THE CHAIRMAN: I just wanted to make sure we have understood
7 that — and then it was rebranded as well at the same
8 time. You say, previously, as we have heard, that was
9 comprised of organic results, but now, is this right,
10 and reading what you say in about the sixth line down:
11 "... all the results on that page now needed to come
12 through the ad auction system ..."

13 A. Yes.

14 THE CHAIRMAN: "... and ranking and pricing had to be
15 determined."

16 So have I understood this correctly, if a merchant
17 was not bidding for a PLA, for an ad —

18 A. Yes.

19 THE CHAIRMAN: — they would not get onto the Shopping
20 property at all?

21 A. That's — that's correct. As part of the unification,
22 that's correct.

23 THE CHAIRMAN: Yes.

24 If they did bid for an ad and therefore would get —
25 how was the ranking then on the Shopping property done?

64

1 A. Yeah, so that was something that I had some familiarity
 2 with, but I really was focused primarily on the Shopping
 3 Unit, on Google.com, that's where my real expertise is.
 4 THE CHAIRMAN: Yes.
 5 A. You know, with that caveat, there was essentially,
 6 I guess I could describe it as a bit of a hybrid
 7 ranking, where there would be some level of somewhat
 8 organic ranking of products, right, not offers, and
 9 the distinction is clear, right, and then within
 10 products, there would be an auction of the offers. Now,
 11 these mechanisms evolved over time, so this is kind of
 12 a simplified version of one particular snapshot of it,
 13 but that was — I think it's a reasonable summary.
 14 THE CHAIRMAN: Yes.
 15 MS ROSE: But did the website also permit offers for
 16 a particular product to be shown in price order,
 17 cheapest first?
 18 A. I think so.
 19 MS ROSE: So in that case, that — would that actually be
 20 cheapest first, or would those — those results,
 21 presumably, would they be distorted by auction outcomes?
 22 A. I — to the best of my recollection, you know, if a user
 23 selected some kind of filtering or sorting, that — that
 24 would trump any —
 25 MS ROSE: That would trump ranking based on —

65

1 A. Right. Now, if there was an ability depending — like,
 2 for example, if they were just filtering down, so you're
 3 not ranking by price, let's say, then you could say,
 4 okay, we could still have an auction subject to these
 5 users' filters.
 6 MS ROSE: Yes.
 7 A. In the price example, you know, I don't — I mean, this
 8 is actually speculating, because I don't know if this
 9 was actually done, but one could imagine you could say,
 10 "Let's find the lowest price, let's find all the offers
 11 that have that exact price ..." —
 12 MS ROSE: Okay. I see.
 13 PROFESSOR SMITH: But the implication of this is that when
 14 a user clicks on the Shopping tab and gets your Shopping
 15 property —
 16 A. Yeah.
 17 PROFESSOR SMITH: — the user experience, at least in
 18 the initial user experience, is quite different from
 19 other CSSs, because the user gets a list of sponsored
 20 links in the Shopping property —
 21 A. Yeah. Yeah, so —
 22 PROFESSOR SMITH: — which is not what they get in another
 23 CSS?
 24 A. Yeah, so, you know, the — it did evolve over time, but
 25 I — so I believe that in — and it also — it also

66

1 depends on the nature of the query: different kinds of
 2 queries had different UI treatments. But I think in
 3 the majority of cases, what you would get is essentially
 4 a set of matching products, which essentially is an
 5 organic ranking to a first order, and so — and so you
 6 would see, you know, these are the products independent
 7 of the exact offer, right? Within a product, that's
 8 where the auction would typically occur, right? So
 9 here's the offers for that product — and please stop me
 10 if anything I'm saying is not clear what I — what
 11 I mean by, like "product" and "offer" and all that,
 12 right?
 13 So — so in fact I'm not sure it was all that
 14 different, because you still would — you know, and of
 15 course it depends on which CSS we're talking about; they
 16 had different ways of displaying results, etc. But to
 17 first order, you would — you would see offers that were
 18 grouped together by product, and then within
 19 the product, you could then do sort of essentially price
 20 comparison or merchant comparison, you know, different
 21 shipping times and rates, etc, these kinds of things,
 22 that once you've decided on the exact product you want,
 23 then you might want to compare the offers within that,
 24 and that's the context of the auction for the most part.
 25 Does that make sense, or ...?

67

1 MS ROSE: As I understand it, I mean, CSSs are also
 2 sponsored results. I mean, they have deals with
 3 merchants or affiliate hubs where there is payment for
 4 clicks going through to websites.
 5 A. I believe that's true, yes.
 6 MS ROSE: Yes.
 7 So the only comparison site that we know of,
 8 I think, that was truly organic was the older Google —
 9 A. Mm.
 10 MS ROSE: — site, which did not require payment —
 11 A. Uh—huh. Uh—huh.
 12 MS ROSE: — as far as I am aware.
 13 A. Yes, the older site, prior to unification, did not
 14 require payment, is my understanding. I can't speak
 15 to —
 16 MS ROSE: Google Product Search.
 17 A. Yes, that's right. Yes, that's correct.
 18 THE CHAIRMAN: I am still not quite clear, what did
 19 the auction then determine, the results of the auction?
 20 A. Right.
 21 THE CHAIRMAN: An auction implies that some come out on top
 22 and some —
 23 A. Yeah.
 24 THE CHAIRMAN: — lower down.
 25 A. That's correct, and, you know, again, I'll state my

68

1 caveat is that, you know, first of all, it wasn't my
 2 primary responsibility, though I had some involvement,
 3 and secondly, it depended on the exact UI treatment
 4 based on the query. But my understanding is, for most
 5 queries, you can think about it this way. First, you do
 6 an organic ranking of the product. No auction is
 7 involved whatsoever, okay? So now you've got
 8 essentially a ranking of the products.
 9 MS ROSE: Based essentially on relevance?
 10 A. Based on relevance, you know, and other quality signals,
 11 but, yes.
 12 THE CHAIRMAN: So you search for "digital cameras" —
 13 A. Yes.
 14 THE CHAIRMAN: — and you will get —
 15 A. A list of digital cameras, Canon SR110 or whatever —
 16 I'm just making them up, right?
 17 Now, within a different product, you have many
 18 different merchants that would be selling that product,
 19 and so you would see, you know, within that — and
 20 perhaps you might need to click on the product in order
 21 to see a full list of those, maybe you see a small
 22 number by default, like the top ones, right? This is
 23 where the auction comes in. Within a single product,
 24 you would have a set of merchants selling that exact
 25 product: you would see their price, you would see,

69

1 you know, their merchant name, you might see, like,
 2 a rating for the merchant, you might see shipping,
 3 you know, "ships within 24 hours", these kinds of
 4 things.
 5 MS ROSE: Yeah yeah, yeah yeah.
 6 A. Right? So that — that is the auction is within a given
 7 product.
 8 THE CHAIRMAN: Where you come in the order —
 9 A. Exactly.
 10 MS ROSE: Subject to filters.
 11 THE CHAIRMAN: Then you can filter —
 12 A. Yes.
 13 THE CHAIRMAN: — to change it?
 14 A. Correct.
 15 THE CHAIRMAN: If you can filter by price, as many people
 16 might wish to if they have chosen a product —
 17 A. Yes.
 18 THE CHAIRMAN: — it is perhaps the most logical one —
 19 A. Yes.
 20 THE CHAIRMAN: — many people would look for once they have
 21 identified the Canon —
 22 A. Yes.
 23 THE CHAIRMAN: — XP5 or whatever.
 24 A. Yes, once you've filtered by price, you're likely to
 25 have, at best, what I would call a "thin auction",

70

1 right, with very few participants, because — because
 2 you need to — right, you need to meet that criteria of
 3 lowest price.
 4 THE CHAIRMAN: It means the auction is not of huge value for
 5 the merchants, is it, then?
 6 A. In that case, that's — well, it's not of huge value to
 7 the merchants in terms of them being able to bid for
 8 placement, essentially.
 9 THE CHAIRMAN: Yes.
 10 A. Yeah, in that — that's true, so, yes.
 11 MS ROSE: (Off microphone — inaudible).
 12 THE CHAIRMAN: Then you say that — I think that the auction
 13 system changed, is the way you describe it.
 14 A. Uh—huh.
 15 THE CHAIRMAN: If we look at what you say at paragraph 96
 16 {H3A/7/27}, and the last four lines of paragraph 96:
 17 "My recollection is that the auction system for
 18 the SU and the Shopping property were separate at
 19 first ..."
 20 A. Yes.
 21 THE CHAIRMAN: "... at first ..."
 22 A. Yes.
 23 THE CHAIRMAN: Similarly, scrolling down the page to
 24 paragraph 98 —
 25 A. Yes.

71

1 THE CHAIRMAN: — at the last four lines:
 2 "I recall that the Shopping property initially
 3 retained a 'product-centric' approach where individual
 4 merchant offers showed as smaller and less
 5 prominent ..."
 6 A. Yes. So I —
 7 THE CHAIRMAN: So it looks as though it then changed in some
 8 way?
 9 A. Well, I don't actually remember precisely if it moved
 10 away from a product-centric approach or not, and it —
 11 it very well may have done, again, in certain subsets of
 12 queries, right? So I don't exactly remember.
 13 MS ROSE: This was a replacement for the Google Product
 14 Search, which was not a paid site?
 15 A. That's correct.
 16 MS ROSE: What we heard earlier was that Google thought
 17 there were big advantages from the free model, namely
 18 that you would have more merchants participating —
 19 A. Yes.
 20 MS ROSE: — including smaller merchants who might be
 21 selling at a very low price who could not afford to
 22 participate in an auction.
 23 A. Mm—hm.
 24 MS ROSE: Also you would have more public trust, because
 25 people would recognise that these were results entirely

72

1 based on relevance and not on payment.
 2 A. Okay, you're saying this was —
 3 MS ROSE: That was the earlier philosophy.
 4 A. Uh—huh. Uh—huh.
 5 MS ROSE: That was the sort of justification —
 6 A. Yes.
 7 MS ROSE: — for it being free in the box —
 8 A. Yes.
 9 MS ROSE: — and also free on the shopping site.
 10 A. Yes, yes.
 11 MS ROSE: So why did Google so fundamentally change its
 12 approach from the high trust, wide choice model —
 13 A. Yeah.
 14 MS ROSE: — to a commercialised model?
 15 A. Yeah. So I will say I was not involved directly in that
 16 Decision. Now, what I can say is, I know that
 17 the quality of the product ads had improved, you know,
 18 quite a bit. I mean — well, I guess perhaps when these
 19 statements were made — I'm not sure exactly when they
 20 were made — there may not have been product ads at all.
 21 Right? I'm not — you know, the Google statements about
 22 this is why we want free product search, right? So
 23 there may not have been —
 24 THE CHAIRMAN: There were —
 25 (Simultaneous speakers — inaudible)

73

1 A. Oh, there were?
 2 MS ROSE: There were. There was the OneBox.
 3 A. Yes.
 4 THE CHAIRMAN: Where there were ads on the side.
 5 MS ROSE: There were ads on ... yes.
 6 A. Oh, there were ads on the OneBox?
 7 MS ROSE: Yes. Well, so originally text ads and then later
 8 there were ads with pictures before it was monetised.
 9 A. Uh—huh. Okay, I'm not familiar with that, because it's
 10 not consistent with my understanding —
 11 THE CHAIRMAN: I'm not sure — I'm not sure —
 12 MS ROSE: Is that not right?
 13 A. — but —
 14 THE CHAIRMAN: No, I do not think so. There were ads on the
 15 site. There were the —
 16 A. Yeah, perhaps I'm —
 17 MS ROSE: Sorry, not ads. I do not mean that. Sorry,
 18 I mean there were results. There were results on the —
 19 on the landing page.
 20 A. Right, right.
 21 THE CHAIRMAN: Yes. But there were ads on the side.
 22 MS ROSE: There were ads on the side.
 23 A. Okay, so I believe, we're talking about if you look at
 24 the entire search result page —
 25 MS ROSE: Yes.

74

1 THE CHAIRMAN: Yes.
 2 MS ROSE: It would have —
 3 A. — part of the search result page was the Product
 4 OneBox, which was entirely organic.
 5 MS ROSE: Yes.
 6 THE CHAIRMAN: Yes.
 7 A. Another part of the search result page would have ads.
 8 Right? Text ads.
 9 THE CHAIRMAN: That is right.
 10 MS ROSE: That is right. So that is the cannibalisation
 11 concern.
 12 A. Okay, yeah. Yeah. So, I guess, so going back to
 13 the question of why did Google switch to —
 14 MS ROSE: Why the change, yes —
 15 A. Right, so I think — you know, again, I wasn't involved
 16 in the discussions to make this Decision, but I think,
 17 as far as I understand, the confidence that Google had
 18 that we could provide sufficient quality through ads, in
 19 other words there was enough kind of quality control,
 20 right, in the ads system, and I think this idea of this,
 21 well, let's rank the products organically and then
 22 within the products we can rank the offers within
 23 auction, right? So I think that that was also —
 24 I mean, I'm speculating again, I wasn't in the meetings
 25 for deciding this, but it's a reasonable presumption,

75

1 right?
 2 THE CHAIRMAN: Is this what you are addressing in
 3 paragraph 86 on {H3A/7/24}?
 4 A. Which —
 5 THE CHAIRMAN: "Reasons for unification".
 6 A. Yes, this was, you know, as expressed in — by — by,
 7 I believe, Sameer in emails and/or meetings. I was —
 8 I was just recalling what I remembered about what —
 9 what he said.
 10 THE CHAIRMAN: Yes. This was part of the unification
 11 project?
 12 A. Sorry, what was part of —
 13 THE CHAIRMAN: The change to the Shopping property was part
 14 of this unification —
 15 A. Correct.
 16 THE CHAIRMAN: — project?
 17 A. That's right. That's right.
 18 THE CHAIRMAN: Yes.
 19 You talked about product and offers in the new
 20 model, but just refreshing your memory, you also touched
 21 on this on page 23 in paragraph 82, subparagraph (c)
 22 {H3A/7/23}, so in the middle of that page.
 23 A. Oh, yeah, this is just what we were discussing, yes.
 24 THE CHAIRMAN: Yes.
 25 You say, halfway down that paragraph:

76

1 "Whereas on the Shopping property, the product
2 itself , or the 'catalog entry', was the primary document
3 that was being evaluated and ranked throughout the
4 entire process, though this changed when the Shopping
5 property adopted an auction model ..."
6 A. Right. Right.
7 THE CHAIRMAN: So I am just trying to square that with what
8 you were just telling us.
9 A. Yeah, so ---
10 THE CHAIRMAN: That suggests that not just the offers, but
11 the ranking of the products changed with the auction
12 model?
13 A. Yeah, I --- so I believe --- and I apologise for not
14 having a precise recall on this --- I believe that there
15 were certain queries, certain query categories, right,
16 where there was --- like, okay, I think --- okay, actually
17 now I recall as I'm speaking. Okay, good.
18 So there was a concept of a loose offer. I don't
19 know if that term has come up in the Trial before.
20 Okay, so there's offers where we are able to match it to
21 a product, right? Where we're able to say, "Okay, we
22 recognise this offer", perhaps through an identifier,
23 like a G10 or whatever, like a universal identifier of
24 a product or whatever, and we know that there's
25 a product and we can match these offers and say, "These

77

1 offers are Instances of this product", right?
2 THE CHAIRMAN: You recognise this query, I think, do you
3 not?
4 A. No, no, the --- so --- so, for example, let's say --- let
5 me --- let me clarify. I don't --- I don't mean that. So
6 let's say when the feed is being submitted by --- by
7 advertisers or by merchants, depending on pre or
8 post-unification, right, you know, they submit offers,
9 and if we are able to recognise, okay, this offer is
10 actually for this product, right, and then, so we would
11 create a document, which was a product document, in our
12 --- in our corpus, in our --- in our index. Then we would
13 --- we would have that product point to the offer and
14 say, "This is one of the offers", and as more offers
15 came in, those offers would then be associated with this
16 product document, and now you have a list of all
17 the offers for this product. Those we would
18 term "matched offers"; offers where we were able to
19 identify the canonical product, match it to the ---
20 you know, match the offers to the product.
21 There were also offers, which we called "loose"
22 or "unmatched offers", where we were not able to
23 identify a canonical product. Often these were like
24 sort of one-off things like --- are you familiar with
25 the website Etsy, where there's ---

78

1 MS ROSE: Sure.
2 A. --- okay, right --- a bunch of hand-made items, right? So
3 there is no canonical product for this, you know, yarn
4 muppet, Kermit thing --- I used muppet purposely. Right,
5 so ... So, okay, and actually a lot of clothing fell
6 into this --- this --- I recall there was a fair number of
7 unmatched --- of loose offers in the clothing category.
8 So when there were primarily loose offers that were
9 matched to a query, in other words when the query came
10 in, we did our retrieval and we were like: oh, we're
11 getting a bunch of unmatched offers, I believe --- and
12 I'm not 100% sure, this is just the best of my
13 recollection --- then we would auction among the products
14 --- or, sorry --- sorry ---
15 MS ROSE: Among the offers?
16 A. We would auction among the loose offers, so there would
17 not be this two-stage ---
18 MS ROSE: So Kermit toy.
19 A. Yes. Yes, yes, Kermit toy. So perhaps there would be
20 several Kermit toys, but they're all ---
21 MS ROSE: All in breach of copyright.
22 A. Probably, yes, although I think we had checks for that,
23 but that's not my area of expertise. Yes.
24 THE CHAIRMAN: I do not think we need explore that.
25 A. Yes.

79

1 THE CHAIRMAN: We have enough to deal with.
2 MS ROSE: We do.
3 THE CHAIRMAN: Yes.
4 A. Right.
5 So, in other words, there were some set of queries
6 where the primary document in that ranking was --- were
7 offers, were loose offers, and, if there was an auction,
8 online, and then there were other queries where you
9 would have this two-stage ranking, one would be
10 the organic product ranking and then, within the product
11 you have the auction.
12 THE CHAIRMAN: That is very clear. Thank you.
13 The next thing is, if you go on to {H3A/7/34}, where
14 you are talking about one of the options that were
15 considered and explored, those are the Remedy options ---
16 A. Yeah.
17 THE CHAIRMAN: --- and this is option 2 ---
18 A. Yeah.
19 THE CHAIRMAN: --- which is "Shutting down the Shopping
20 property" that we have just been talking about ---
21 A. Yes.
22 THE CHAIRMAN: --- so that then there would be no
23 freestanding Shopping property at all, there would just
24 be the Shopping Unit.
25 A. Yes.

80

1 THE CHAIRMAN: That is this option.
 2 A. Yes.
 3 THE CHAIRMAN: Then you say in paragraph 130, you recall
 4 this was discussed with the Commission —
 5 A. Yes.
 6 THE CHAIRMAN: — and, just to be sure I have understood it,
 7 the last five lines on the page:
 8 "In the Commission's view ... removing the property
 9 but keeping the SU, Google would essentially keep
 10 Google's Shopping results (which the Commission
 11 considered to be part of Google's CSS) ... on the ...
 12 SERP ..."
 13 A. Mm—hm.
 14 THE CHAIRMAN: So is this right, the Commission, as you
 15 understood it, was still regarding this Shopping Unit in
 16 that form as a manifestation of Google's comparative
 17 shopping service —
 18 A. Mm—hm.
 19 THE CHAIRMAN: — even though there was no separate
 20 Google Shopping property —
 21 A. That was my understanding of their position, you know,
 22 pre—Remedy, of course, but, yes.
 23 THE CHAIRMAN: Yes.
 24 A. So my understanding is, you know, they said: if you shut
 25 down the Shopping property but keep the Unit, you're

81

1 just manifesting your shopping service in the Unit.
 2 THE CHAIRMAN: Then —
 3 A. I mean — and, sorry, let me just clarify what I just
 4 said. I think it's obvious, but ... if you keep the
 5 Unit unchanged.
 6 THE CHAIRMAN: Yes.
 7 MS ROSE: So it is exclusively Google.
 8 A. Exactly. Exactly. Exactly.
 9 THE CHAIRMAN: Yes, so exclusively Google, so exclusively
 10 Google Shopping comparison.
 11 A. Correct. Correct.
 12 THE CHAIRMAN: You set out a couple of pages earlier, page
 13 {H3A/7/32}, helpfully, in paragraph 119, the main
 14 options that you considered, and we have just looked at
 15 one of them. Options (d) to (f) —
 16 A. Mm—hm.
 17 THE CHAIRMAN: — all involve changes to the Shopping Unit.
 18 A. Correct.
 19 THE CHAIRMAN: But they all keep it, I think, as an ad—based
 20 format.
 21 A. Yes. I — yes.
 22 THE CHAIRMAN: Was there any consideration of going back to
 23 the pre—unification format where it was not —
 24 the Shopping Unit was not ad—based?
 25 A. Well, so when I wrote this statement, I didn't recall

82

1 that there was. Like, I did — if I had not seen some
 2 of these documents recently, I would have said, "To
 3 the best of my recollection, we did not consider that".
 4 But looking at, like, some of these documents that were,
 5 like, "Here's all the different options", right, we
 6 looked at 13 options or something like that, right,
 7 there were a couple of in there that had — that had to
 8 do with organic solutions. So — so based on that
 9 document, I would have to say there was some
 10 consideration given, yeah.
 11 THE CHAIRMAN: But what was the consideration? Can you now
 12 recall why that was excluded?
 13 A. I don't recall. I wish I — I wish I would.
 14 THE CHAIRMAN: You do not know. But you cannot — if you
 15 cannot recall, then do not speculate.
 16 I think you say that the Remedy that you did end up
 17 with — and this is from paragraph 175 on {H3A/7/46} —
 18 was technically of quite substantial technical changes?
 19 A. Yes.
 20 THE CHAIRMAN: I assume that is right?
 21 A. Yes. I mean, especially to be done in 90 days, yes.
 22 THE CHAIRMAN: Yes, even more challenging when you had to do
 23 them quickly.
 24 A. Correct.
 25 THE CHAIRMAN: Yes.

83

1 Then, finally, just a question on the sandbox
 2 approach —
 3 A. Okay.
 4 THE CHAIRMAN: — that you explained to us yesterday.
 5 A. Yeah.
 6 THE CHAIRMAN: The effectiveness of that approach, as we
 7 understood it, would be contingent on the breadth and
 8 the quality of the query patterns that were provided by
 9 the CSSs; is that right?
 10 A. Well, that would affect — certainly. I — I believe
 11 that, under any envisionable scenario where you are
 12 assuming that those are as extensive and high quality as
 13 possible, I still believe there would be a dramatic
 14 reduction in quality, and then, as I had mentioned
 15 before, there was the whole auction problem where it was
 16 our — you know, our analysis suggested these units
 17 would be unlikely to be able to show because they
 18 wouldn't win the Whole Page Auction. We would not be
 19 able to outcompete text ads for the space on the page.
 20 THE CHAIRMAN: Just thinking about the mappings that the CSS
 21 would provide —
 22 A. Yes.
 23 THE CHAIRMAN: — if, say, a user searched for "lightweight
 24 waterproof summer jacket", say —
 25 A. Yes.

84

1 THE CHAIRMAN: --- and the only query patterns provided by
 2 CSS were "jacket/coat outerwear" ---
 3 A. Yes.
 4 THE CHAIRMAN: --- then some CSS offers might not be selected
 5 as candidates, because the ---
 6 A. Right.
 7 THE CHAIRMAN: --- is that right, that the query patterns
 8 would be too broad?
 9 A. Well, I think it depend --- depends on how sophisticated
 10 and extensive this query matching would be, right?
 11 You know, I think, in the simplest mechanism that you
 12 could imagine, it would be an exact match, right, where
 13 they would list: this is the exact query that the user
 14 entered and here's the set of offers.
 15 THE CHAIRMAN: Yes.
 16 A. In something --- a scheme like that, then what you say is
 17 exactly correct, right?
 18 You could --- you could imagine that there would be
 19 more general patterns that could be provided, but,
 20 you know, there's limitations as to how much you can do
 21 in that kind of static format as opposed to, you know,
 22 this dynamic, at query-time, you know, doing sort of
 23 extensive query analysis, and the user context and all
 24 those kinds of things to dynamically query the full set
 25 of offers.

85

1 THE CHAIRMAN: Thank you.
 2 PROFESSOR SMITH: Can I go back to yesterday's discussion
 3 about CLAs, Comparison Listing Ads, where you, in your
 4 statement, describe what could have been done on
 5 Comparison Listing Ads, and we discussed that yesterday.
 6 As I recall ---
 7 A. Could you repeat just the very last part of your
 8 statement? I'm sorry.
 9 PROFESSOR SMITH: We had a discussion yesterday about CLAs,
 10 Comparison Listing Ads ---
 11 A. Yes.
 12 PROFESSOR SMITH: --- and I just want to come back to ---
 13 A. Good.
 14 PROFESSOR SMITH: --- some of the issues.
 15 A. Yes.
 16 PROFESSOR SMITH: As I recall, we discussed the fact that
 17 CLAs weren't as attractive as PLAs in presentation
 18 and ---
 19 A. Mm. Yes.
 20 PROFESSOR SMITH: --- information richness, and I think there
 21 was a discussion about how these experiments with CLAs
 22 would have had to be conducted in a quite compressed
 23 time period. One could imagine, with more time, one
 24 could look at richer formats or alternatives.
 25 I want to ask about one possibility, that where

86

1 a user search showed a particular interest in price
 2 comparison, or showed particular price sensitivity,
 3 the cheapest ---
 4 A. Yes.
 5 PROFESSOR SMITH: --- muppet toy --- we are going to stick to
 6 that ---
 7 A. Yes.
 8 PROFESSOR SMITH: --- or the largest OLED TV screen within my
 9 budget.
 10 A. Yes, or even "comparison shop for ...", you know to take
 11 a more extreme example, but, yes.
 12 PROFESSOR SMITH: That is strictly for quite a sophisticated
 13 user who knows exactly ---
 14 A. Yes, yes.
 15 PROFESSOR SMITH: But as a signal, could that be part ---
 16 I mean, if that then --- if such a user were led to
 17 CLAs ---
 18 A. Yes.
 19 PROFESSOR SMITH: --- might their experience, their reaction
 20 to it ---
 21 A. Yeah.
 22 PROFESSOR SMITH: --- be more positive than the typical user
 23 who, you know, has --- who is not particularly
 24 price-sensitive, might be quality-sensitive and the PLAs
 25 hit the mark for them and the CLAs are a very, very

87

1 inferior product --- very inferior experience. But if
 2 you could identify users who were really particularly
 3 interested in price comparisons, who were particularly
 4 price-sensitive ---
 5 A. Yeah.
 6 PROFESSOR SMITH: --- would CLAs --- if you could point CLA ---
 7 point them to CLAs, their experience might be more
 8 positive?
 9 A. Right.
 10 PROFESSOR SMITH: Is that a ---
 11 A. That is certainly technically feasible, right? You
 12 could, you know, create models to figure out when a user
 13 is more likely to be interested in a --- in a comparison
 14 shopping site as opposed to an individual product,
 15 right, and if you did it right, then you should get some
 16 improvement in the metrics over just all queries, right?
 17 So that is true.
 18 Now, the question is how much of an improvement,
 19 right, and is it --- you know, in what cases, if any,
 20 would you get a better user experience compared to PLAs?
 21 PROFESSOR SMITH: Because the experiments --- you talked
 22 about some of them, and I have forgotten the word and
 23 I cannot look it up, but the CLAs were way, way behind
 24 PLAs?
 25 A. Correct. Right.

88

1 PROFESSOR SMITH: So what you are saying is ---
 2 A. There's quite a bit of ground to be made up.
 3 PROFESSOR SMITH: Indeed.
 4 A. Right. So I'm not saying that --- you know, that it's
 5 impossible that there was some subset of queries where
 6 they would perform better, but it would --- given
 7 the overall metrics, the only way that would be
 8 possible, if it was a very small slice of queries,
 9 right? Because, again, I remember having reviewed
 10 a document recently. If you look at the --- when CLAs
 11 were displayed by default in that experiment and if you
 12 compare the click-through rate on that unit compared to
 13 the click-through rate in the regular --- in the control
 14 where PLAs were shown, the PLA unit got 12x times,
 15 right? So the math is such that the only way the CLA
 16 could outperform on some subset is if that subset is
 17 very small. You understand?
 18 PROFESSOR SMITH: Yes, I understand. Thank you.
 19 MS ROSE: Under the Remedy, as I understand it,
 20 the algorithms that tended to demote CSSs, particularly
 21 algorithm A and Panda ---
 22 A. Mm-hm.
 23 MS ROSE: --- are still operational. Would there have been
 24 any downside, from Google's perspective, if you had
 25 implemented a Remedy box along the lines that was

89

1 implemented ---
 2 A. Okay.
 3 MS ROSE: --- but also modified those algorithms so that they
 4 did not have the very severe impact on the organic
 5 ranking ---
 6 A. Understood.
 7 MS ROSE: --- of CSSs that they do have ---
 8 A. Understood.
 9 MS ROSE: --- so that, under the box, you would be more
 10 likely to have CSSs showing up on the first page? Is
 11 there any downside to Google in that?
 12 A. Right, again, the caveat that the organics, you know,
 13 area is not my area, but ---
 14 MS ROSE: Yes.
 15 A. --- what I will say is that my understanding is that
 16 those algorithms were implemented for --- because these
 17 sites were low quality in general, and it wasn't CSSs
 18 specifically, it was this idea of these --- I forget what
 19 the terms are, actually, but it's, like, these
 20 pass-through sites or something like that, you know, are
 21 interested to show ... you know. So --- and this is ---
 22 the other caveat, this is not, like, direct experience,
 23 because it wasn't my organisation, but my understanding
 24 is that those were implemented because Google wanted to
 25 improve the quality of their search results and that, in

90

1 fact, this did that. So there would be a quality hit,
 2 is my understanding.
 3 THE CHAIRMAN: I think what is being suggested is not that
 4 you would get rid of these algorithms all together,
 5 because they perform a valuable function applying to all
 6 results ---
 7 A. Yeah.
 8 THE CHAIRMAN: --- on quality ---
 9 A. Yeah.
 10 THE CHAIRMAN: --- but I think Ms Rose is asking, if they
 11 were to be modified ---
 12 A. Yeah.
 13 THE CHAIRMAN: --- so that they did not have this particular
 14 dramatic result ---
 15 A. Right.
 16 THE CHAIRMAN: --- that they had on CSSs.
 17 A. Right. I mean, here it would be hard for me to really
 18 speculate, right? Like, so I think the question I'm
 19 being asked, as I understand it, is, you know, would
 20 there be a way to sort of determine: okay, this is a CSS
 21 site that this algorithm is being applied to, and now I
 22 need to use different criteria than I would otherwise to
 23 determine the quality?
 24 MS ROSE: For example ---
 25 A. You see what I mean?

91

1 MS ROSE: Let me give you an example. There is, assume, an
 2 algorithm that uprates a site based on original
 3 content ---
 4 A. Yes.
 5 MS ROSE: --- but does not uprate a site based on
 6 functionality, such as filters for price, product,
 7 specification, all the different things we have been
 8 talking about, what you have described, I think,
 9 as "rich functionality" that is appropriate to a CSS.
 10 Now, so you could tweak that algorithm so that you give
 11 credit not just for original content but also for rich
 12 functionality that is specific and appropriate for CSSs,
 13 for example.
 14 A. Right. I mean, I --- again, with the normal caveat,
 15 right, I'm an ads guy not an organic guy, but that
 16 sounds like something that would be technically
 17 feasible, I think. I mean, I don't know for sure.
 18 The question is, like, you know, would doing so still
 19 result in --- like, would that make a difference in
 20 quality, right? Would you --- would that end up making
 21 it so that --- that the results that you're boosting ---
 22 MS ROSE: Yes, are very ---
 23 A. --- kind of deserve that boost, right, because
 24 the quality is actually high, and that I really don't
 25 know.

92

1 MS ROSE: I mean, I do not think we have heard any evidence
 2 that Google has ever trialed that. Are you aware of any
 3 test or experiment along those lines?
 4 A. I'm not, but I probably wouldn't be.
 5 MS ROSE: You would not be, okay.
 6 THE CHAIRMAN: We are thinking in conjunction with
 7 considering the Remedy.
 8 MS ROSE: Yes.
 9 A. Yeah, so I ---
 10 THE CHAIRMAN: In which you were involved.
 11 A. Yeah, so I ---
 12 THE CHAIRMAN: You were involved in the discussion of that.
 13 A. I do not recall that being under consideration.
 14 MS ROSE: Okay.
 15 THE CHAIRMAN: Yes. Is there ---
 16 MR JOWELL: Can I ask, sir, two further questions just
 17 arising out of that?
 18 THE CHAIRMAN: We can take one of two courses. We can
 19 either sit a bit longer, which may be preferable if you
 20 have not got a lot of further questions and then
 21 Mr Friedman can be released. If you are, between you,
 22 going to take 25 minutes, then it is probably better
 23 to rise.
 24 MR JOWELL: I have got basically two questions. It is hard
 25 to know how long.

93

1 MR PICKFORD: I have one short question --- well, I have one
 2 question.
 3 MR WEST: I have one --- I have two very short questions.
 4 MS ROSE: It is not a competition!
 5 THE CHAIRMAN: It is not an auction!
 6 I think we will come back at 1.50, and then we will
 7 also want to consider with you what is going to happen
 8 this afternoon, because we see in the timetable
 9 apparently we were supposed to have a very early lunch,
 10 and there is a witness from California who clearly must
 11 be heard today and presumably cannot be heard before
 12 4 o'clock, or thereabouts, so has to finish at 5. So
 13 perhaps could you give some thought, bearing in mind
 14 this also: We have an application regarding expert
 15 evidence, we have a number of things we want to raise
 16 with you concerning the expert evidence about which we
 17 have some concerns, so that may well take a good half
 18 hour, and we note that in the timetable tomorrow is
 19 a day held in reserve and it seems to us we might need
 20 to plan for part of tomorrow, because we do not want
 21 rush witnesses, that would not be appropriate. It may
 22 be that our discussion with you on the expert evidence
 23 will have the effect of reducing the time needed for
 24 expert evidence next week. I do not want to say more.
 25 We will return at 1.50.

94

1 Mr Friedman, I am sorry, but you are kept, as we
 2 say, in purdah over lunch.
 3 A. Understood.
 4 (12.59 pm)
 5 (The short adjournment)
 6 (1.50 pm)
 7 (Proceedings delayed)
 8 (1.57 pm)
 9 THE CHAIRMAN: Yes, Mr Jowell.
 10 Further cross-examination by MR JOWELL
 11 MR JOWELL: Yes, Mr Friedman.
 12 A. Yes.
 13 Q. Good afternoon.
 14 You mentioned in answer to the Tribunal, you
 15 mentioned that --- the Whole Page Auction ---
 16 A. Yes.
 17 Q. --- that Google currently operates?
 18 A. Yes.
 19 Q. You expressed scepticism that a single CSS
 20 shopping box ---
 21 A. Yes.
 22 Q. --- would win the --- such as the variety of ---
 23 the sandbox variety, would win in that Whole Page
 24 Auction.
 25 A. Yes.

95

1 Q. Do you recall that?
 2 A. Yes.
 3 Q. Okay --- or you said it would not win very often,
 4 I think.
 5 A. Correct.
 6 Q. I just want just to rewind and take us back to 2008,
 7 because if we go back to 2008, you had a situation where
 8 you had the box, let us just call it the shopping box,
 9 it was then the Product Universal ---
 10 A. Okay.
 11 Q. --- and that was not part of the Whole Page Auction,
 12 was it?
 13 A. That's correct.
 14 Q. Okay.
 15 So now, we heard evidence from Mr Goodrow and it is
 16 clear from the paper --- from the documents in any event,
 17 that one of the things that triggered whether that box
 18 came up was not an auction at all, but actually
 19 the presence of a rival comparison shopping service in
 20 the 10 organic results?
 21 A. Okay, yeah.
 22 Q. Okay?
 23 A. I saw that in one of the documents.
 24 Q. Yes.
 25 He said, well, that told us it was a commercial

96

1 query, he said, and therefore we put up the box.
 2 He also gave evidence that the priority for — one
 3 of the commercial — very strong commercial priorities
 4 for Google at that time was increasing shopping starts,
 5 or shopping sessions on Google. You are aware of that?
 6 A. I think so.
 7 Q. Yes, okay. So he said, well, the reason we were putting
 8 up the box is because we want to get more people
 9 searching on Google.com, right, for product queries?
 10 A. Mm—hm.
 11 Q. That was also the reason why they tolerated what was
 12 called the cannibalisation —
 13 A. Mm.
 14 Q. — you recall? Which was effectively the loss of text
 15 ad revenue —
 16 A. Okay.
 17 Q. — to people clicking through the free — the free box?
 18 A. I understand what you're saying, yeah.
 19 Q. Right.
 20 So if we now go back to 2008 and we imagine a single
 21 CSS option, it is a very different calculus for Google,
 22 is it not?
 23 A. A single — so like —
 24 Q. Yes, I mean, you do not have the auction and it is not
 25 the same rivalry with text ads, is there? I mean, there

97

1 is a rivalry in the sense that you have
 2 the cannibalisation issue, but what you are really
 3 trying to do is just get people on to Google.com to
 4 begin with, right?
 5 A. Yeah, okay.
 6 Q. So if we imagine — if we go back to 2008 and we imagine
 7 that one was applying a Remedy then, you would not have
 8 this issue of losing the — I mean, first of all, there
 9 is not a Whole Page Auction, but even if there were,
 10 the commercial calculus would be completely different,
 11 would it not?
 12 A. Well, yeah, I mean, so PLAs were not — in 2008, there
 13 were no Shopping ads.
 14 Q. Yes.
 15 A. Right?
 16 Q. Yes.
 17 A. So, you know ... So, yes, it would be quite different.
 18 Q. Yes.
 19 Google might have chosen at that stage to have these
 20 single CSSs featuring very regularly, because they were
 21 trying to get people starting their shopping sessions on
 22 Google; correct?
 23 A. I can't speak to that. I mean, that's —
 24 Q. Okay.
 25 A. I wasn't involved in those —

98

1 Q. Okay.
 2 A. — discussions, or anything like that.
 3 Q. Fair enough.
 4 Can I just ask you, speaking, now if we go forward,
 5 back forward, if you imagine a situation where, let us
 6 say, that you did have a situation where it was
 7 mandatory for Google to have either a single CSS OneBox
 8 and/or a CLA—type of arrangement —
 9 A. Okay.
 10 Q. — instead of the current ... would not — and you said,
 11 well, they would be outcompeted in the auction.
 12 A. Yeah.
 13 Q. But again, if you imagine a scenario where that
 14 happened, right, and they were regularly outcompeted in
 15 the auction and therefore people came to Google with
 16 product queries and all they saw most of the time was
 17 text ads —
 18 A. Mm—hm.
 19 Q. — would that not be a concern? Would that not change
 20 the commercial calculus in the way you have that
 21 auction? Because you want it — because it is all very
 22 well saying: oh, well, text ads are more profitable in
 23 a single instance.
 24 A. Mm—hm. Right.
 25 Q. But if people are not going to come to Google at all

99

1 because there is no attractive comparison shopping
 2 manifestation —
 3 A. Right.
 4 Q. — right?
 5 A. Right.
 6 Q. That is going to change things, is it not?
 7 A. Well, I mean —
 8 Q. So my point is you would choose to have that box more
 9 frequently?
 10 A. I think that that is a plausible scenario for senior
 11 management to take that into consideration, right? Now,
 12 there's always the tension, right, between how much
 13 you're willing to, you know, sort of tolerate, you know,
 14 cannibalisation or revenue loss and — and other
 15 considerations, right?
 16 Q. Yes.
 17 A. Yeah, and of course I wasn't involved in any of those
 18 discussions at all at that time.
 19 Q. No, but that would certainly be — that would not
 20 necessarily simply be as simple as perhaps you were
 21 portraying it?
 22 A. Yes, my assumption, which maybe I didn't clearly state,
 23 was that we were talking about an ads—based solution,
 24 and the reason that I was assuming that is because
 25 that's my area of expertise. That's also of course

100

1 the way that the system worked from 2012 on, right? So
 2 I was assuming an ads-based solution.
 3 Q. Yes, but even with an ads-based solution, you want to
 4 have people — you have got to have people starting
 5 their shopping sessions on Google, and if you do not
 6 have that comparison shopping box on the page, or let us
 7 call it the truncated comparison shopping box on
 8 the page at all and you just have text ads, Google does
 9 not become — is not a very attractive place to start
 10 shopping sessions, is it?
 11 A. I think I understand your question. So you're saying
 12 even with an ads-based system —
 13 Q. Yes.
 14 A. — would Google have said, "Well, we're willing to take
 15 a certain amount of revenue loss in order to, you know,
 16 increase shopping starts on Google"?
 17 Q. Yes.
 18 A. Well, so that is possible. I can't — I won't say it's
 19 impossible. It's a different calculus once you're in
 20 the ads world, right? The ads world has a — has a —
 21 has, you know, more of a focus on whether — you know,
 22 they try to make very highly principled, long-term value
 23 calculations, right?
 24 Q. Yes.
 25 A. So, like, you know, I can't say to what extent or not

101

1 that would necessarily enter into Decision-makers, but
 2 it would be different under an ads system and it would
 3 probably — I believe — this is — I will say I'm
 4 speculating, I believe there would be significantly less
 5 tolerance for revenue loss, especially long-term
 6 value —
 7 Q. Well, there would be a — you would calculate, would you
 8 not? You would say, well, we are losing per impression,
 9 right? We are getting —
 10 A. Uh—huh.
 11 Q. — less revenue, but if we do not have the box
 12 a sufficient number of times in response to these
 13 queries, we are going to lose impressions, right?
 14 A. Or lose queries/shopping starts.
 15 Q. You are going to lose shopping starts, exactly.
 16 A. Right. I would expect that senior management would —
 17 would weigh those factors.
 18 Q. Yes, and therefore you might find that actually the box
 19 does appear rather more often than you would expect?
 20 A. Well, that I can't say.
 21 Q. You cannot say.
 22 A. Right? I mean, it's super-hypothetical and something
 23 that I have no, you know — I mean I have no
 24 Decision-making power on and never did, so ...
 25 MR JOWELL: Okay, thank you.

102

1 I have got no further questions.
 2 THE CHAIRMAN: Yes, Mr West.
 3 Further cross-examination by MR WEST
 4 MR WEST: Mr Friedman, you were asked about the charging
 5 models of comparison shopping services, including
 6 Google's.
 7 A. Yes.
 8 Q. You mentioned that Google's model was based on an
 9 auction —
 10 A. Yes — well —
 11 Q. — in 2013?
 12 A. Google's — sorry, the first sentence you — actually,
 13 let me — I won't ask you to repeat, let me look at
 14 the transcript.
 15 Okay, I'm just a little confused by the first
 16 sentence and then the second sentence.
 17 THE CHAIRMAN: We are talking about post what Mr Friedman
 18 calls unification?
 19 MR WEST: Yes.
 20 A. Okay, and pre-Remedy?
 21 Q. Pre-Remedy, yes.
 22 A. Okay. All right, go on.
 23 Q. Under that system, the results of the auction fed into
 24 the ranking of the products within the comparison
 25 shopping service page?

103

1 A. We're talking about the — the Shopping subdomain or
 2 the Shopping property?
 3 Q. Yes, yes.
 4 A. Correct.
 5 Q. Are you aware that that model is sometimes called "pay
 6 for placement"?
 7 A. Yeah, I've heard that term.
 8 Q. But most comparison shopping services actually use
 9 a different model, which is sometimes called "paid
 10 inclusion". Are you aware of the difference between
 11 these terms?
 12 A. Actually, no.
 13 Q. The terminology is not used uniformly, but if I can just
 14 explain what I mean. Under a paid inclusion model —
 15 A. Yeah.
 16 Q. — merchants need to pay to have their products appear
 17 on the CSS.
 18 A. Okay.
 19 Q. But the amount that they pay does not affect where their
 20 products are ranked.
 21 A. Okay.
 22 Q. This was the latter system, so paid inclusion, what I am
 23 calling paid inclusion, was in fact the most common
 24 model. Were you aware of that?
 25 A. No.

104

1 Q. Could we just look very briefly at Ms Raff's statement
2 {H3A/3/8}.

3 Sorry, this is —

4 THE CHAIRMAN: H2A, is it not?

5 MR WEST: {H2A/3/8}. I apologise. Paragraphs 17 to 18.

6 So Ms Raff says:

7 "In common with most CSSs, Foundem has always
8 utilised a 'paid inclusion' model. That is, by default,
9 Foundem has always ranked its product results by price,
10 presenting the cheapest offer for a particular product
11 first."

12 Then 18:

13 "By contrast, as was widely discussed within
14 the industry at the time, from 2013 onwards Google's CSS
15 has utilised a 'pay for placement' model, whereby
16 merchants bid for placement in Google's CSS. That is,
17 Google's product results are not by default presented
18 with the cheapest first but are instead ranked primarily
19 by the revenue that a click will earn Google."

20 But you are not in a position to agree or disagree
21 with Ms Raff's contention that the more common —

22 A. (Overspeaking — inaudible) — well, sorry, with which
23 contention?

24 Q. That the more common model was the paid inclusion model?

25 A. That portion, paragraph 17, I don't have knowledge about

105

1 and I can't opine on.

2 Now, you did speak to 18, which I do have some
3 thoughts on, but I will only share those thoughts if it
4 is useful to the Tribunal.

5 Q. Well, I will leave that to the Tribunal.

6 Very quickly, you were asked about the relationship
7 between the Shopping property and the Shopping Unit.
8 Again, we are in the same period of time, 2013 to 2018,
9 or 2017 rather, and it was suggested to you that they
10 are based on the same auction and the same other
11 infrastructure and so on. Do you remember that? Being
12 asked about that?

13 A. There was a fair amount of common auction and
14 infrastructure, you know, code and service, etc. It
15 wasn't — it was not identical. There was a decent
16 amount of differentiation in how the algorithms worked,
17 which we talked about recently, actually, right?

18 Q. Yes.

19 I just want to show you that the Commission actually
20 made some findings about this and just to ask if they
21 accord with your recollection.

22 A. Okay.

23 Q. That is in paragraphs or recitals 415 to 416 of
24 the Commission Decision, {BA/2/121}.

25 I think some of this may be confidential, so please

106

1 do not read it out, perhaps just read it to yourself and
2 tell us if that accords with your recollection?

3 A. Okay, and, sorry, which paragraphs would you like me to
4 read?

5 Q. 415 and 416, and I do not think you need to carry on
6 with the subparagraphs in 416. It should be in front of
7 you now.

8 A. Okay, yeah, I see 4 — okay, give me just a moment.

9 (Pause)

10 Okay, so I've read 415(a) and (b) and I've read
11 the first part of 416, but not the (a) and (b) of 416.

12 Q. Does that accord with your memory?

13 A. Well, so 415(a) looks correct to me. 415(b) doesn't
14 really look correct, or at least seems a little oddly
15 stated. Okay, so let me get into some detail. So it
16 says —

17 Q. Well, it is confidential, so —

18 A. Oh.

19 Q. — you may have to speak in generalities rather than
20 specifics.

21 A. Oh, yes, yes, yes. Okay, let me — let me do my best to
22 do so. Hold on one moment.

23 Okay, so in part (ii) of —

24 MR PICKFORD: Sir, if the witness needs to speak to respond
25 appropriately, then we probably need to go into

107

1 confidential session.

2 THE CHAIRMAN: Yes, well, let us —

3 You give your answer, Mr Friedman. If you feel you
4 cannot adequately answer the way you would like to, then
5 we will go into camera.

6 A. Okay.

7 THE CHAIRMAN: But if you want to have a go —

8 A. Okay.

9 THE CHAIRMAN: Of trying and if you feel then it is
10 difficult, we will go into camera.

11 A. Okay.

12 Let me take a look and see if I can do a reasonable
13 job. It won't take me too long to determine that and
14 then I can let you know.

15 It would be easier for me to be able to —

16 THE CHAIRMAN: Yes, we will do that.

17 But, Mr West, these have been agreed to be binding.

18 MR WEST: Yes.

19 THE CHAIRMAN: So —

20 MR WEST: Perhaps —

21 THE CHAIRMAN: — is anything gained by exploring this?

22 MR WEST: Well, perhaps we could just leave it that there
23 are certain recitals in the Decision which — which
24 address this point. Perhaps if I can just raise that
25 with the Tribunal.

108

1 THE CHAIRMAN: Well, we see that. That is not a question
 2 for Mr Friedman.
 3 MR WEST: Indeed.
 4 Well, let us move on, Mr Friedman. I do have
 5 a third one that has been added over lunch, but again it
 6 is very quick.
 7 Ms Rose asked you whether, as part of the Remedy,
 8 Google could have amended some organic demotion
 9 algorithms to exempt comparison shopping sites and you
 10 had some concerns about quality. Do you recall that
 11 before lunch?
 12 A. Yes.
 13 Q. Are you aware that within the AdWords part of Google's
 14 business there was an appeal system whereby advertisers
 15 who had been subject to AdWords penalties could appeal
 16 against them if they thought they had been unfairly
 17 applied?
 18 A. I'm aware that that existed, although not the details of
 19 it.
 20 Q. But included, for example, again, were you aware of
 21 this, a telephone line that they could use and some
 22 people called product evangelists who could guide them
 23 through the process? Again, were you aware of that?
 24 A. Maybe not the detail. It sounds plausible. I know no
 25 information to the contrary, let's put it that way.

109

1 Q. So another possibility, if you were concerned about
 2 the quality implications of amending the algorithms,
 3 would have been to introduce an appeal mechanism whereby
 4 if comparison shopping sites thought they had been
 5 unfairly penalised within the organic results, they
 6 could have pursued an appeal against that of a similar
 7 kind?
 8 A. I suppose that would — that would be one possibility.
 9 Q. That is all I am putting to you.
 10 A. Given the context of the Decision, it would potentially
 11 be cumbersome, but, you know, it's certainly possible.
 12 Q. But it was something that Google managed to do in its
 13 AdWords division?
 14 A. Apparently so. I mean, I am aware that there was an
 15 appeals process for AdWords.
 16 MR WEST: Thank you very much.
 17 Further re-examination by MR PICKFORD
 18 MR PICKFORD: Mr Friedman, Professor Smith asked you
 19 a question before the lunch adjournment about how Google
 20 might handle a CSS-oriented query. You recall that
 21 exchange?
 22 A. Yes.
 23 Q. Subject to the usual caveats about the extent of your
 24 knowledge, to what extent, if at all, were each of
 25 the different parts of Google's SERP capable of

110

1 directing a user who appeared to be looking for
 2 a CSS-style experience, given what their search was,
 3 towards a CSS?
 4 A. Well, so we did discuss that you could, in the Shopping
 5 Unit, for example, you could display the CLA tab as
 6 the default rather than the PLA tab, so that would be
 7 one instance that's — that we already discussed.
 8 It could affect, I suppose, the ranking of
 9 organic — of generic organic results, but I would
 10 expect that that would already be happening as part of
 11 — you know, this is not — this is speculation —
 12 perhaps I shouldn't speculate — but I would expect that
 13 to be just part of the general algorithms that ...
 14 Then, let's see, are there other parts of the page?
 15 I mean, you know, at different points, Google had some
 16 functionality to provide some kind of specialised
 17 results on some part of the page. Like one example
 18 would be, like, the knowledge panel, which may or may
 19 not have been ever discussed in this Trial. Like,
 20 you know, if — this isn't related to Product Search,
 21 you know, but if someone's searching for — is doing an
 22 information query for some entity that Google knows
 23 about, they might display, on the right-hand side
 24 I think it usually was, you know, some informational
 25 sort of — it's kind of like a OneBox, but it wasn't

111

1 part of the main organic search results. So, you know,
 2 theoretically, you could go there, I suppose.
 3 I'm trying to think if there's any other places.
 4 You know, I guess I'll give the caveat again, the system
 5 was complex, worked on by many people, evolved quite
 6 a bit over time and not my area of expertise, so —
 7 Q. Thank you.
 8 A. — sorry.
 9 Q. Not at all.
 10 Finally, Mr West took you to paragraph 18 of
 11 Ms Raff's statement, that is to be found at {H2A/3/8}.
 12 I think he read 18 to you, but then he did not ask you
 13 a question about it and you said you could speak to it.
 14 What was it that you were able to speak to?
 15 A. Okay, so let — I'll refresh my memory just by looking
 16 at this quickly, so ...
 17 (Pause)
 18 Okay, so, yeah, it says:
 19 " ... Google's product results are not by default
 20 presented with the cheapest first ... "
 21 That's generally true. That part I don't have any
 22 dispute with. But now we get into the problematic area:
 23 " ... but are instead ranked primarily by the revenue
 24 that a click will earn Google. This is calculated using
 25 the formula bid times predicted click-through-rate."

112

1 So, in my witness — I think in my Second Witness
 2 Statement, if I recall, I tried to address this. So
 3 there were other quality components that figured into
 4 the auction score and therefore the ranking, and so it's
 5 not accurate to say that — that the results were ranked
 6 primarily by the rev — or, yeah, primarily by
 7 the revenue if the click were in Google. There were —
 8 you know, and this varied over time, but there were
 9 a p—relevance model that was at times in the auction
 10 score, there was a click duration model, there was
 11 a conversion rate model. So there were other
 12 components, it was not just bid times pCTR for
 13 the ranking formula.

14 I guess the other aspect of this statement is,
 15 you know, we were — we were discussing, maybe a little
 16 bit before lunch, that on the Shopping property,
 17 you know, depending on the query and whether we had
 18 essentially matched offers or not, the initial ranking
 19 would be organic by product, and then within product
 20 offers would then be ranked by auction. So those —
 21 I guess those are the two things I wanted to point out.

22 MR PICKFORD: I have no further questions.

23 Further questions from THE TRIBUNAL

24 THE CHAIRMAN: Is that really what you are dealing with by
 25 reference not to Ms Raff's statement, but Mr Raff's

113

1 statement in your Second Witness Statement, which is
 2 {H3A/15/5}?

3 A. Mm.

4 THE CHAIRMAN: In your second statement, you have in hand
 5 copy, on page 5?

6 A. Page 5.

7 THE CHAIRMAN: Paragraph 20. Is that the point that you
 8 have just been making?

9 A. Okay, paragraph —

10 THE CHAIRMAN: Page 5.

11 A. Yeah. Should I read paragraph 20 to myself?

12 THE CHAIRMAN: Yes, sure.

13 (Pause)

14 A. Yes, this is what I was speaking to, with the —

15 the only kind of additional information is that I think
 16 I was speaking to in this one what was the ranking in
 17 the Shopping Unit, right, and I think we were previously
 18 talking about on Google's CSS, in other words, you know,
 19 on the Shopping property, but they both used these
 20 additional quality signals.

21 THE CHAIRMAN: Mr Pickford —

22 MR PICKFORD: No, no further questions.

23 THE CHAIRMAN: (Off microphone — inaudible).

24 Well, thank you very much, Mr Friedman. You have
 25 been giving evidence a long time and we are very

114

1 grateful. You are now discharged as a witness.

2 A. Oh, thank you.

3 I did want to just offer — and, again, the Tribunal
 4 should feel free to refuse, but I was asked why we
 5 didn't consider the organic options as part of
 6 the Remedy and I was thinking that is a very good
 7 question, so I was thinking about it over the luncheon
 8 and I remembered something that was relevant.

9 THE CHAIRMAN: Yes.

10 A. So, initially, like when we first were — when
 11 the Decision first came out, we really didn't know what
 12 was going to be acceptable to the Commission or not,
 13 what they were looking for, so we were exploring a very
 14 broad range of options, but at a relatively quick —
 15 you know, within — I can't remember exactly how long,
 16 but let's say within a small number of weeks at most, it
 17 became increasingly clear that the Commission was very
 18 focused on the Shopping Unit, on the — you know, on
 19 the PLA as the area that needed addressing. They wanted
 20 to see that opened up to rival CSSs. That — that was
 21 their kind of guidance and direction. Now, they weren't
 22 mandating it, but they were making it clear that that
 23 was a good direction to go. So we — that's why we
 24 focused on that.

25 THE CHAIRMAN: Yes.

115

1 MS ROSE: Yes, one question we asked you yesterday —

2 A. Yes.

3 MS ROSE: — was whether the sandbox solution that was under
 4 discussion in 2017 —

5 A. Yes.

6 MS ROSE: — whether that would have been technically
 7 possible back in 2009, and I think you said you would
 8 consider that overnight.

9 A. Yes, I did think about that some. So I wanted — okay,
 10 so to address that, like, yeah, and I'm making
 11 the assumption that we're talking about the sandbox in
 12 particular, right, not the four —

13 MS ROSE: No, the sandbox, yes.

14 A. I'm also making the assumption that it would be an
 15 ads—based solution, right, both because that's my area
 16 of expertise and because that's what this is, right?

17 So given that it would be a Shopping ads—based
 18 solution, right, and making no further assumptions about
 19 earlier development or — or launches or whatever, I'll
 20 just say that Shopping ads weren't released in Europe
 21 until I guess it was 2013, I think, right? So that's —
 22 that's one consideration with regard to whether it would
 23 have been possible earlier.

24 In terms of, once you get to the release of PLAs in
 25 2013, then I didn't see — you know, thinking about it

116

1 some, not — not giving it incredibly extensive detailed
 2 thought, but thinking about it some, I didn't see any
 3 technical impediments other than the ones we've
 4 discussed already.
 5 MS ROSE: Right, about latency and so on?
 6 A. Latency, quality, you know, being able to effectively
 7 compete in a Whole Page Auction.
 8 MS ROSE: It is essentially the same in 2013 and 2017?
 9 A. Yes, I believe that's correct.
 10 MS ROSE: For the earlier period, the difference is
 11 a commercial difference?
 12 A. Yes, that you wouldn't have —
 13 MS ROSE: But not a technical difference?
 14 A. Well, you know, it's — the commercial difference is
 15 implemented with technology.
 16 MS ROSE: Yes, but a Decision to introduce PLAs in 2009 —
 17 A. Oh.
 18 MS ROSE: — could have —
 19 A. Yeah, certainly if there was a Decision to introduce
 20 PLAs early enough and — and then that system was built
 21 out sufficiently, and it takes some time to build out
 22 the system, right, you know, then you could be — you
 23 can imagine that that would be possible. But I would —
 24 I don't think, like, the earliest iterations of PLA
 25 would probably support that, or they just weren't fully

117

1 developed yet.
 2 Further re-examination by MR PICKFORD
 3 MR PICKFORD: Sorry, I did have one question arising out of
 4 that, I am afraid.
 5 Could we please turn to document {J2B/44}. If we go
 6 to {J2B/44/2}, please.
 7 Have you seen this document before?
 8 A. (Reads to self).
 9 I mean, given the information on this page, I don't
 10 recognise it, but I may have seen it, I don't know.
 11 I don't immediately recognise it.
 12 Q. Then —
 13 THE CHAIRMAN: Was this prepared for the submission to
 14 the Commission —
 15 MR PICKFORD: That is correct.
 16 A. Oh, is this my annex?
 17 Q. This is for the General Court appeal. So this is an
 18 annex that was submitted —
 19 A. Oh.
 20 Q. — to the General Court.
 21 A. Oh.
 22 Q. A technical annex.
 23 A. I don't immediately recognise it, and now we're going to
 24 find out that I wrote it, which is quite possible, but
 25 given the information on my screen and my current

118

1 memory, I cannot say with confidence that I've seen this
 2 document.
 3 THE CHAIRMAN: We all suffer from that.
 4 A. Yes, exactly, especially as we get older.
 5 MR PICKFORD: Could we go, please, to {J2B/44/26} of this
 6 document. Can we make it bigger, please. Sorry, can we
 7 go on to the next — the next page {J2B/44/27}. I am
 8 afraid I am slightly ... I am actually looking for
 9 footnote 123, I believe, which I am trying to find and
 10 I am doing it quite on the hoof. There we go.
 11 Okay, footnote 123 {J2B/44/33} says:
 12 "Product ads ([including] PLAs), including with
 13 the top ad variation, were launched in November 2011 in
 14 the UK, France, Germany, and early 2012 in Spain, Italy,
 15 and the Netherlands."
 16 A. Okay.
 17 Q. Do you know whether that is correct, incorrect or have
 18 any other information to add to that?
 19 A. I don't know. I've no reason to doubt it. So, in other
 20 words, my — my assertion that PLAs weren't launched
 21 until 2013 was just my vague recollection. It's not
 22 like I have detailed information to contradict that.
 23 MR PICKFORD: I have no further questions.
 24 THE CHAIRMAN: We can now say that you are released.
 25 A. Thank you very much. I hope this was helpful.

119

1 THE CHAIRMAN: Thank you.
 2 (The witness withdrew)
 3 So we have, as we understand it, two further factual
 4 witnesses, Mr Braendle and Mr Kalyanpur, and
 5 Mr Kalyanpur is giving remote evidence from California
 6 where they are, I think, eight hours behind, and that is
 7 scheduled for 4 pm, and I would have thought one hour
 8 should be sufficient, Mr Jowell, Mr West? There is no
 9 reason it should take more than an hour, is there?
 10 MR JOWELL: (Off microphone — inaudible).
 11 THE CHAIRMAN: So I think we must absolutely adhere to that,
 12 which means therefore that we have got an hour and
 13 a half now, but that may not be sufficient, from what is
 14 said here, to complete the evidence of Mr Braendle; is
 15 that right?
 16 MR JOWELL: I think there is a chance if we start him right
 17 now that we might get through it, but it depends also on
 18 Mr West, how much he has, and how much re-examination
 19 there is and how much the witness speaks.
 20 THE CHAIRMAN: Well, I think it is then sensible to make
 21 a start. I am not sure we really can sit beyond 5. We
 22 can say something at 5 o'clock about the expert
 23 evidence, and, if necessary, we may have to resume for
 24 an hour tomorrow to discuss the evidence.
 25 But, well, let us do exactly what you suggest and

120

1 start with Mr Braendle (off microphone — inaudible).
 2 MR SAMUEL BRAENDLE (affirmed)
 3
 4 Do sit down, Mr Braendle.
 5 You heard that exchange and you know that there is
 6 another witness who is giving evidence by video—link
 7 from California, so we will have to, whatever happens,
 8 stop your evidence at 4. It may or may not be
 9 completed. If we have to interrupt it, I think you
 10 understand the reasons why.
 11 A. Understood.
 12 Examination—in—chief by MR GREGORY
 13 MR GREGORY: Sir, as we have had with other witnesses,
 14 Mr Braendle's second and third statements are his Trial
 15 statements.
 16 THE CHAIRMAN: Yes.
 17 Q. So could you please start by turning to your Second
 18 Witness Statement. For Opus that is {H3A/3}.
 19 Could we turn, please, to page {H3A/3/39}.
 20 Do you see a signature there?
 21 A. I do.
 22 Q. Is that your signature?
 23 A. That is my signature, yes.
 24 Q. Do the facts set out in your second statement remain
 25 true to the best of your knowledge and belief?

121

1 A. Yes, they do.
 2 Q. Then please take up your Third Witness Statement which,
 3 for Opus, is at {H3A/16}.
 4 Please turn to page {H3A/16/17}.
 5 Do you see a signature there?
 6 A. I do.
 7 Q. Is that your signature?
 8 A. That is my signature, yes.
 9 Q. Do the facts and matters set out in your Third Witness
 10 Statement remain true to the best of your knowledge and
 11 belief?
 12 A. They remain true as well, yes.
 13 MR GREGORY: Thank you.
 14 I have no further questions, but I will hand over to
 15 Mr Jowell.
 16 Cross—examination by MR JOWELL
 17 MR JOWELL: Good afternoon.
 18 Is it "Mr Braendle" —
 19 A. That's correct.
 20 Q. You joined Google in March 2016 as a product manager for
 21 data quality for ads; is that correct?
 22 A. That is correct, yes.
 23 Q. That was for Google Shopping?
 24 A. That was for Google Shopping, yes, for Shopping ads.
 25 Q. You left Google in December 2023?

122

1 A. That's also correct, yes.
 2 Q. Now, you say in paragraph 12 of your statement {H3A/3/4}
 3 that you:
 4 "... became aware of the Commission's investigation
 5 into Google following the Shopping Decision being made
 6 in June 2017 ..."
 7 Is that right?
 8 A. That's correct, yes.
 9 Q. Were you aware that there was a team within Google that
 10 had been dealing with the Commission investigation?
 11 A. I mean, it's something that was mentioned once in
 12 a while and that I was vaguely aware of, but I wasn't
 13 aware of any details of what was being discussed.
 14 Q. Do you know who was in the team that was dealing with
 15 the Commission's investigation?
 16 A. I don't know, no.
 17 Q. I am right in thinking that you were not part of
 18 the team that considered the fundamental structure of
 19 the Remedy?
 20 A. No. No, I was involved only after the Decision had been
 21 publicised, and then I was only involved at
 22 the beginning in the discussion of CSS participation
 23 requirements and then later my scope expanded.
 24 Q. Okay. So you were not aware, for example, of any
 25 details about the commitments that were offered to

123

1 the Commission?
 2 A. No.
 3 Q. Now, you referred at paragraph 4 of your statement
 4 {H3A/3/2} to something that you call "the development
 5 phase", which you define as the period between July 2017
 6 and September 2017; do you recall that?
 7 A. That's right, yes.
 8 Q. I understand that you personally did not have any direct
 9 interactions with the Commission throughout
 10 the development phase; that is right?
 11 A. Not during that period, no.
 12 Q. Then you also referred to what is
 13 called "the implementation period", so that is
 14 the period after 2017, and I understand from
 15 the evidence you gave in the *PriceRunner* proceedings
 16 that you had just one meeting with the Commission in
 17 that period?
 18 A. I had one meeting with the Commission, yes, that was in
 19 February '18, a big meeting we had with their advisers
 20 in Brussels, yes.
 21 Q. Yes, and it was largely about technical matters?
 22 A. That was largely about technical matters, that's
 23 correct, yes.
 24 Q. Now, you say in — if we go to paragraph 28 of your
 25 statement, that is {H3A/3/8}, and you see that you say

124

1 — in the second sentence, you say:
 2 "I personally had never heard of the term CSSs
 3 before the Development Phase."
 4 So you had never heard the term "comparison shopping
 5 service"?
 6 A. Yes, that term I didn't hear, no. I was aware of
 7 the concept of these sites, but not of this term.
 8 Q. Okay, so had you heard of the term "comparison shopping
 9 engines"?
 10 A. Maybe.
 11 Q. Okay.
 12 A. Yeah.
 13 Q. What about "vertical" or "specialised search services"
 14 in the product area? Had you heard of that?
 15 A. It's not something that within my work came up as
 16 a topic, no.
 17 Q. Okay.
 18 THE CHAIRMAN: When you say "aware of the concept", what
 19 name would you have given the concept?
 20 A. I mean, as a consumer I was aware of the concept —
 21 THE CHAIRMAN: Yes.
 22 A. — and I would have called them "aggregators"
 23 or "comparison sites".
 24 MR JOWELL: Were you familiar with the details of how a CSS
 25 business model operated at that time?

125

1 A. Not at the time of the Decision, but of course, as we
 2 got into what CSSs were and how they operated,
 3 I understood it more and more.
 4 Q. Okay.
 5 Now, you say that — if we go to your — if we can
 6 just go to the transcript of your testimony in
 7 the *PriceRunner* proceedings, this is at {O/10}.
 8 THE CHAIRMAN: These are the Swedish proceedings?
 9 MR JOWELL: The Swedish proceedings.
 10 If we can go to {O/10/10}, please.
 11 You see at the bottom, you see the last paragraph —
 12 THE CHAIRMAN: Page 10?
 13 MR JOWELL: 10, yes.
 14 You can see at the bottom:
 15 "And then we had the CSSs and before this Decision
 16 the term 'CSS' was not something that we actually knew,
 17 or comparison shopping services, so we had to first
 18 figure out what the Commission meant exactly with that
 19 and by looking at some of the examples of complainants
 20 and seeing what the common denominators were, we
 21 understood what constitutes a CSS, and a CSS does not
 22 sell products themselves, they're an intermediary that
 23 connects consumers and merchants ..."
 24 Yes?
 25 A. Yes.

126

1 Q. Now, when you say "we didn't know what CSSs were", you
 2 mean you did not know, but —
 3 A. It was me and my colleagues who were charged with
 4 figuring out how to define participation criteria for
 5 this new program, yes.
 6 Q. Okay.
 7 You defined — you sought to define participation
 8 criteria then based on what you considered to be — or
 9 you were trying to find out were CSSs?
 10 A. Exactly, yes.
 11 Q. Okay.
 12 Now, you say in your statement and also in this
 13 evidence, you refer to CSSs being — if we go to — let
 14 us go to paragraph 26 of your statement {H3A/3/7}. It
 15 is paragraph 26.
 16 You see you say:
 17 "I understand that a CSS is a website that allows
 18 consumers to search for and compare product offerings
 19 from different merchants. In most cases, the business
 20 model is some kind of arbitrage play, where the CSS
 21 acquires traffic from some other sources and then
 22 funnels that traffic to merchants selling it at a higher
 23 price ..."
 24 That is quite a reductive description, if I may say
 25 so. I mean, you could say that about almost any digital

127

1 service, that they are — any digital service that is
 2 reliant on Google traffic, could you not? I mean, you
 3 could say the same about a booking platform, or an
 4 online marketplace, could you not, that it is an
 5 arbitrage model?
 6 A. Some of them probably are similar to a CSS in
 7 the shopping space, yes.
 8 Q. But a fairer description, let me put to you what Mr —
 9 how Mr Friedman was asked what was a CSS today, and he
 10 said a CSS provides:
 11 "... high quality shopping comparison capabilities
 12 to users and then to ... make money and repeat customers
 13 ..."
 14 That may be a more fairer description of what a CSS
 15 is actually doing, is it not?
 16 A. That's also what a CSS does, yes, that's correct.
 17 Q. Now, you say you were involved in setting the criteria
 18 for what a CSS was to be under the Remedy?
 19 A. Yes, that's correct.
 20 Q. Could I just ask you some questions about that.
 21 The first time you set the minimum requirements for
 22 participation in the Remedy, you required that there
 23 should be a — that the participants had to be — have
 24 a comparison shopping service website that showed —
 25 that allowed users to search for and compare different

128

1 products and different offers for the same products from
 2 different merchants; do you recall that?
 3 A. That's correct, yes.
 4 Q. The site had to show product offers that led users to
 5 a page where they could buy the listed product?
 6 A. Yes.
 7 Q. But you did not, in September 2017, initially, require
 8 that the site had to have any sort of sorting or
 9 filtering functionality to be a CSS, did you?
 10 A. That's correct. That was only added later.
 11 Q. Yes, about in 2019, I think you added it, did you not?
 12 A. Let me think. This was — must have been late '18 or
 13 early '19, yes.
 14 Q. I think in your statement you say it is early '19?
 15 A. That's possible.
 16 Q. Paragraph 42 {H3A/3/12}?
 17 A. Yeah.
 18 Q. You did not require, in 2017, that the website should
 19 exclusively focus on shopping, did you?
 20 A. That was not a requirement, no.
 21 Q. You did not require that there should be any detailed
 22 product information or reviews, did you?
 23 A. No, we did not request that and we did not request that
 24 because doing so would have excluded several players
 25 that the Commission cared about and wanted to make sure

129

1 could participate.
 2 Q. Okay.
 3 Now, I would like to just ask you about something
 4 else. You say in paragraph 47 of your Third Witness
 5 Statement, so that is {H3A/16/13}, and you are
 6 commenting on paragraph 118 of Mr Stables' statement,
 7 and you quote him, that the Remedy only requires:
 8 " ... requires 'only the ability to function as an ad
 9 provider, allowing merchants to upload their feeds to
 10 Google'."
 11 Yes?
 12 You say below that — and he says — and you also
 13 quote him as saying:
 14 " ... that 'Kelkoo is struggling to operate as a CSS,
 15 but rather acting as a marketing agency' within
 16 the Remedy."
 17 A. Mm—hm.
 18 Q. You say:
 19 "I do not agree with Mr Stables' characterisation of
 20 the role of CSSs in the Remedy. In particular, I note
 21 that buying ads to acquire traffic that they would then
 22 pass on to their merchant customers was always part of
 23 the CSSs' business models. I also note that both GSE
 24 and third-party CSSs interact with the Shopping Unit in
 25 the same way."

130

1 But if we go — could I show you a comment that
 2 somebody within Google made at the time? It is at
 3 {K1/25}.
 4 You see at the bottom that the comment comes from
 5 a Thomas Wlazik. Now, I think he is based in Germany.
 6 I think you are based in Switzerland — were based in
 7 Switzerland; is that right?
 8 A. That is correct, yes.
 9 Q. Do you happen to know Mr Wlazik?
 10 A. I don't remember him, no.
 11 Q. His title is "LCS [Germany]", which, we are told is
 12 "Large Customer Sales", and it says he is "Industry Head
 13 Comparison". Can you help us — or "Industry Manager
 14 Comparison". Can you help us with what that role would
 15 be?
 16 A. So he must have been someone on the sales team that
 17 worked with large clients, and "Industry [Head]
 18 Comparison" probably means that he led a team that
 19 worked with comparison sites.
 20 Q. With comparison sites, so he would be somebody who would
 21 know a bit more than you did at the time about —
 22 A. Probably, yes.
 23 Q. If we go over the page {K1/25/2}, perhaps if you can
 24 just read the first three paragraphs.
 25 A. Okay.

131

1 (Pause)
 2 Yes, I've read it.
 3 Q. So Mr Wlazik is making a distinction there between, on
 4 the one hand, price or product comparison, and on
 5 the other hand, an agency business model, is he not?
 6 A. Yes.
 7 Q. He is saying that the true price comparison sites, price
 8 or product comparison sites, want traffic on their
 9 website and create added value to the user by offering
 10 price comparison and also product comparison with
 11 reviews and tests and so on. He contrasts that with
 12 the agency or arbitrage model players, which are
 13 basically just buying traffic discounted, yes?
 14 A. I — I disagree with this characterisation. I don't
 15 think he's comparing CSSs and agencies, I think he's
 16 comparing different types of CSSs. He's comparing
 17 high-quality CSSs (with high-quality pages that invest
 18 into product data, and so on, and want more traffic to
 19 their site to add value to the traffic) from low-quality
 20 CSSs (that have an arbitrage-like business and operate
 21 on ready-made feeds from other players). So it's
 22 a distinction between different quality CSSs he's
 23 making, because agencies typically don't operate on an
 24 arbitrage model, agencies have a very fair and
 25 transparent pricing of a certain percentage that they

132

1 apply to bids they place on behalf of their customers.
 2 Q. Okay. But under the — but whichever type of CSS there
 3 is, it must be a core part of the CSS — the core part
 4 of the CSS offering is to offer price and product
 5 comparison?
 6 A. For high-quality CSSs, this is absolutely true, and —
 7 Q. Well, for all CSSs, Mr Braendle?
 8 A. Not for all CSSs. There were huge quality differences
 9 among CSSs. My colleague here mentions Idealo, which is
 10 probably one of the highest quality CSSs there is with
 11 very detailed product information. I remember at the
 12 time when I looked at Idealo, who didn't participate in
 13 the Remedy but was sort of a benchmark looked at, they
 14 allowed customers to filter trash cans by lid shape.
 15 This was the level of detail. I know they had — I had
 16 several meetings with Idealo leadership and they had
 17 hundreds of people who manually invested into collecting
 18 product data and enhancing data to that level of detail.
 19 Very few CSSs did that, right?
 20 At the other end of the spectrum, you have CSSs that
 21 basically invested nothing into product data and they
 22 just passed on feeds that they acquired from others and
 23 then put on their own site.
 24 Q. But under the Google Remedy, the CSSs are just
 25 performing a limited agency function. They are

133

1 operating a pure arbitrage role, are they not?
 2 A. No, I will not — not agree with this. So the arbitrage
 3 model is based on acquiring traffic at a low price and
 4 then selling it at a high price and earning
 5 the difference, and that's not what an agency typically
 6 does.
 7 Q. Right, well, I think we will have to agree to disagree
 8 about that, Mr Braendle.
 9 If — I mean, you say in paragraph — let us go to
 10 your witness statement, paragraph 34 {H3A/3/9}.
 11 In paragraph 34 you describe "Ad Agencies", yes?
 12 A. Yeah.
 13 Q. You state there that:
 14 " ... the agency model traditionally was that an
 15 agency would place ads on behalf of a merchant for some
 16 service fee ... to compensate the agency for optimising
 17 [the] ads ... "
 18 Yes?
 19 In paragraph 36 {H3A/3/10}, you say:
 20 "Prior to the Operative Phase, ad agencies were
 21 already working with multiple merchants and placing ads
 22 on their behalf through Google Shopping, managing
 23 the logistics in the background, optimising the product
 24 data ... "
 25 And so on.

134

1 Do you recall that?
 2 A. (No audible response).
 3 Q. Then if we go to paragraph 37, you note that:
 4 " ... as the Remedy gained traction merchants asked
 5 ad agencies about whether they would be better off
 6 working with the CSSs in the Remedy auction (due to
 7 the financial advantage CSSs had over Google Shopping
 8 ...). These ad agencies did not want to lose their
 9 customers, and one way of preventing that was for them
 10 to either partner with a CSS and work directly with that
 11 CSS and place ads through them, or create their own CSS
 12 offering, which required them to work with a partner or
 13 set up their own CSS website."
 14 So, in other words, the ad agencies were recognising
 15 that the role that the CSSs were playing, when bidding
 16 on behalf of merchants under the Remedy, was very
 17 similar to the role that they had previously been
 18 playing; correct?
 19 A. That is right, yes. CSSs did, to some extent, things
 20 that agencies did before, yes.
 21 Q. Yes, so the CSSs were effectively becoming
 22 intermediaries like the agencies, optimising
 23 the merchants' ads and bids; correct?
 24 A. That's part of what they did, yes.
 25 Q. Okay.

135

1 Now, in addition to the ad agencies, there were also
 2 some digital advertising management companies that
 3 provided services to the ad agencies like Kenshoo, Marin
 4 and Adobe. Were you familiar with them?
 5 A. Not familiar with them, no.
 6 Q. Okay.
 7 Were you familiar with Google's own enterprise
 8 search platform called "Doubleclick Search"?
 9 A. I know of it, but I'm not aware of its detailed
 10 functionalities, no.
 11 Q. Okay.
 12 If we go to {M1/448/3}, please.
 13 You can see here an email from someone called
 14 Chrissy Seib at Google?
 15 A. Yeah.
 16 Q. Are you familiar with her?
 17 A. I know her and I worked with her briefly, yes.
 18 Q. This is dated July 19, 2017.
 19 If we go to — if we go, please, to {M1/448/4} you
 20 can see there is a heading in bold:
 21 "Feedback on [the] reseller approach."
 22 Do you see that? It is about a third the way down.
 23 A. "Feedback ...", yes, I can see that, yes.
 24 Q. This seems to have been one of the possible remedies
 25 that was under contemplation by Google at the time. Are

136

1 you aware of that?

2 A. I was not aware of that, no. This was before the time

3 that I was involved in these kinds of discussions.

4 Q. Okay.

5 She says:

6 "I am approaching this as if agencies like

7 Marin/Kenshoo would become CSSs because I agree with

8 the conclusion that they would ..."

9 Then if you look down, she says:

10 "This means traditional CSSs will compete [with]

11 Kenshoo and ... the CSSs in question likely would not be

12 as sophisticated as these players so it's not clear that

13 they would benefit from them. Is that okay?"

14 Were you aware of this?

15 A. I am neither aware of this discussion, nor of

16 the business model of Kenshoo and the other players

17 mentioned here.

18 Q. But it seems she seems to have a concept of

19 a traditional CSS on the one hand, and then agencies

20 like Marin, Kenshoo on the other, yes?

21 A. She seems to, but I can't comment because I don't know

22 what the business model of Marin and Kenshoo is.

23 Q. Okay.

24 If we can go to {H3A/3/29} and have a look at

25 paragraph 110 of your statement, please.

137

1 You can see — perhaps if you just read to yourself

2 paragraph 110 and 111 to remind yourself. I am sure you

3 are familiar with them.

4 (Pause)

5 A. I've read 110. Should I also read 111?

6 Q. Yes, please do.

7 A. Okay.

8 (Pause)

9 Q. I think you just need the first couple of lines really.

10 A. Okay, yeah.

11 Q. So we have seen that Ms Seib seemed to have a concept of

12 a traditional CSS with a particular business model

13 distinct from an agency business model, did she not?

14 A. That seems so, yes.

15 Q. So at least some people in Google did seem to have

16 a clear view of the distinction between these two types

17 of business models, did they not?

18 A. I'm not sure. I mean, the parts of text that we saw

19 from Ms Seib was very vague and high level. I don't

20 know what exactly her understanding was of what

21 a traditional CSS is.

22 Q. Okay, well, let us look at some other people.

23 If we go to {M1/449}, we see an email from

24 Chris Mysen, dated 26 July. If we — and you see then

25 an email — if we look at the email second from

138

1 the bottom, you see it is starting:

2 "btw ..."

3 By the way?

4 A. Yes.

5 Q. "[By the way] — if this is required — there are some

6 potentials for a pure arbitrage scheme in which a CSS

7 only exists to pass feeds to google but at a cost

8 discount to what the merchant would pay directly to

9 google.

10 "This comes from the fact that the bid we enter into

11 the auction is less than what the merchant is paying to

12 google.

13 "So if a 3rd party says 'i'll bid google's effective

14 bid + 1c and get you the same traffic but at a discount,

15 i'll take a cut of the difference for my services'.

16 "Basically the discount creates an arbitrage

17 opportunity for a fake CSS with otherwise limited

18 operational costs."

19 So, again, I suggest to you that there were some

20 within Google who had a very clear idea of there being

21 a fake CSS?

22 A. So at what point in time did this email chain happen?

23 Q. This is July 2017, so — 26 July 2017, so it is

24 the development stage.

25 A. Yes.

139

1 Q. Again, if you see, if we go to {M1/463}. If we could go

2 to {M1/463/3}.

3 We see an email to Nicolas Leroy of Kelkoo Group

4 from Adam Cohen, yes? Forgive me, let me find exactly

5 where it is.

6 If you look under "Definition of CSSs", it says:

7 "This is something we're still writing up ... We

8 also want to ensure that it's only sites that offer

9 genuine comparison shopping functionality (rather than

10 agencies) that meet the criteria."

11 So there was a sense of a distinction between

12 genuine CSSs and —

13 A. And agencies, yes, of course, and that's why we required

14 in the participation requirements that CSSs have

15 a website where consumers can search, find products, be

16 led to the merchant site and so on, because an agency

17 doesn't have such a website.

18 Q. But even though you set up requirements for these —

19 certain requirements for CSSs, in practice, the bids are

20 normally by CSSs, but in reality they are just a conduit

21 for bids by the merchants, are they not?

22 A. That depends on the business models the CSSs chose,

23 right? In a self-service model, it's the merchant that

24 places the bids with the CSS and the CSS then passes

25 them on. In a serviced model, it's the CSS who manages

140

1 the campaigns.
 2 Q. But in practice it is the CSSs passing the cost back to
 3 the merchant, it is just a conduit?
 4 A. Yeah, of course, the CSSs passes the cost back to
 5 the merchant in whatever form of pricing scheme that
 6 they choose, yes.
 7 Q. The CSS does not, under the Remedy, provide any
 8 comparison shopping service, it does not actually
 9 provide to users any comparison shopping functionality,
 10 does it?
 11 A. So there's different parts to comparison shopping
 12 functionality. In terms of enhancing the product data,
 13 selecting product offers, uploading them to Google, that
 14 is something that the CSS does under the Remedy. In
 15 terms of offering comparison shopping functionality to
 16 consumers in a consumer experience, that they do to
 17 a limited extent in the Remedy, right, to the extent
 18 that traffic goes to their own site through the "By CSS"
 19 links or "view more" links or CLAs, yes.
 20 Q. But that is a tiny — that is like less than 1%, is it
 21 not?
 22 A. Yes, that's about 1% of total traffic, yes, that's
 23 correct.
 24 Q. If you put yourself in the shoes of a company like
 25 Idealo, and you mentioned they have this great

141

1 functionality of, I think you mentioned lid-shaped
 2 filtering and so on, there is absolutely no opportunity
 3 for them to provide that under the Remedy, is there?
 4 A. Yes, so Idealo decided not to participate in the Remedy
 5 at all, but even if it had participated, only a fraction
 6 of the traffic would have gone to their own site, that
 7 is correct, yes.
 8 Q. Yes, so they had no opportunity to actually provide
 9 their service as a CSS; they are providing a different
 10 kind of service to merchants, effectively they are
 11 acting as ad intermediaries really?
 12 A. Yes, but also, right, they would gain exposure, acquire
 13 more brand recognition, get more customers, who then go
 14 directly to their site and use their service if they
 15 really appreciate it, and they would expect that Idealo
 16 has a large share of consumers who directly go to Idealo
 17 without going through any search engine because they
 18 know and appreciate their service.
 19 Q. But I think you mentioned a moment ago when you say they
 20 gain exposure, they are only getting — you said, 1% of
 21 the traffic goes to them. That is the extent of it?
 22 A. That's the extent of it, of course, but when a user
 23 discovers a comparison site through the Google Shopping
 24 Unit, goes there —
 25 Q. In that 1% of cases?

142

1 A. In that 1% of cases, yes, and appreciates the service
 2 they find there, then it's likely that, at another point
 3 in time, they will go directly again to that comparison
 4 site, bypassing Google.
 5 THE CHAIRMAN: I do not know why Idealo — did they tell you
 6 why they are not participating in the Remedy?
 7 A. I think they were afraid that participating in
 8 the Remedy would give the appearance that they agree
 9 with it and they were very much opposed to the Remedy,
 10 and in their view the Shopping Unit should have
 11 disappeared entirely. They wanted the Shopping Unit to
 12 be gone from Google and organic results to be shown
 13 primarily (inaudible).
 14 MR JOWELL: You mentioned earlier that — you drew
 15 a distinction between CSSs and agencies, do you recall
 16 that? Could I show you another document, {M1/489}.
 17 This is a document that Google produced. I am not
 18 sure I have got the date of it. We can find out:
 19 "CSS Program."
 20 "A guide for Agencies to set up for success with
 21 Shopping ads as a Comparison Shopping Service."
 22 Are you familiar with this document?
 23 A. I'm not familiar with this document, no. I don't think
 24 I've seen this.
 25 THE CHAIRMAN: Is this a Google document?

143

1 MR JOWELL: This is a Google document. If we go to — it is
 2 dated 31 August 2018.
 3 If we go to {M1/489/3}, you can see:
 4 "Opening a range of opportunities."
 5 "You now have more choices to participate in
 6 Shopping ads."
 7 It says — and you can see the diagram?
 8 A. Yeah.
 9 Q. Essentially trying to show how an agency can become
 10 a CSS for the purpose of the Remedy, yes?
 11 A. Yes.
 12 Q. If we go to {M1/489/4}, we see it offers advice for
 13 agencies interested in running a test. You see
 14 the third box:
 15 "Testing is Possible."
 16 "For agencies interested in running a test, several
 17 options are available."
 18 The Google team will follow up with you to [advise
 19 you] on the best testing [opportunities] ... "
 20 So are you aware that Google was encouraging
 21 agencies to become supposed CSSs for the purposes of
 22 the Remedy?
 23 A. I was aware that we explained to them how the Remedy
 24 worked and to agencies that were concerned about
 25 a financial disadvantage of how they could partner with

144

1 CSSs to also take advantage of that. I wasn't aware of
 2 this particular document, no.
 3 Q. Presumably this was to try and get the numbers of
 4 participants in the Remedy up; is that correct?
 5 A. That was probably the aim here, yes.
 6 Q. To reduce everything to the lowest common denominator by
 7 encouraging arbitrage; is that right?
 8 A. No, I wouldn't put it that way, because again, arbitrage
 9 is not the typical business model of an agency.
 10 Q. But it would have had that effect, would it not?
 11 A. It would have which effect?
 12 Q. Of driving everything down to the lowest common
 13 denominator and just making it a pure arbitrage
 14 mechanism.
 15 A. I'm not sure I understand what you mean with this,
 16 because again, agencies typically didn't run an
 17 arbitrage model.
 18 Q. Very well. Let me — I think I have put the points to
 19 you.
 20 A. Yeah.
 21 Q. Comparison Listing Ads. Comparison Listing Ads were
 22 launched in March 2019 at the request of the Commission.
 23 Were you aware of that?
 24 A. I'm aware of that, yes.
 25 Q. If I can show you an answer you gave in the *PriceRunner*

145

1 proceedings again, it is at {O/10/61}, when you were
 2 asked about this. You can see your answer at the top of
 3 the page.
 4 A. Mm—hm.
 5 Q. You say:
 6 "It depends on what the user is looking for, right?"
 7 Perhaps we should see the question actually. Can we
 8 go one page back {O/10/60}:
 9 "Would you agree that if you see a PLA, it would be
 10 a much more specific result, with a ..."
 11 You had been asked about CLAs and then you were
 12 asked:
 13 "Would you agree that if you see a PLA, it would be
 14 a much more specific result, with a product and
 15 a price?"
 16 Then you answer:
 17 "It depends on what the user is looking for, right?"
 18 You could also argue that the PLA is a very narrow
 19 result that might not be broad enough for what the user
 20 is looking for. So with the combination of PLAs and
 21 CLAs we tried to address different kinds of situations
 22 that users would find themselves in. In some situations
 23 they might look for a very specific product and then
 24 PLAs might be what helps them. In other kinds of
 25 situations they might have a broad idea, like they're

146

1 looking for a gift for their spouse, or they're trying
 2 to find something around a specific event, and then
 3 maybe having a CLA dedicated to a topic or to a category
 4 ... is the right thing for them."
 5 So I think you would agree then that, in theory at
 6 least, for some kinds of queries, a CLA could be what
 7 a user most wants?
 8 A. Yes, if there's a more broader search intent than on
 9 a specific product, then a CLA might be exactly what
 10 the user is looking for.
 11 Q. But under the Remedy, CLAs have never been the default
 12 tab, have they?
 13 A. Only in small experiments that we ran, yes.
 14 Q. So the PLA was always the default. You must have known
 15 that users would rarely click on a tab that was never
 16 the default?
 17 A. It takes more effort to make an extra click, yes, that's
 18 correct.
 19 Q. Now, CLAs did not contain any information on pricing,
 20 did they?
 21 A. They did not, no.
 22 Q. They did not contain any information on the number of
 23 offers available?
 24 A. They — no, they didn't, unless the CSS put that in
 25 the customised text that they could put into the CLA,

147

1 yes.
 2 Q. A number of traditional CSSs tried to get Google —
 3 tried to persuade Google to present CLA tabs as
 4 a default, did they not?
 5 A. That's correct, yes.
 6 Q. They also — a number of CSSs also asked that the format
 7 of the CLAs be improved with prices and pictures, did
 8 they not?
 9 A. I think it was mainly Kelkoo who suggested that with
 10 even specific designs that they proposed, yes.
 11 Q. Google never did that, did they? They never agreed to
 12 put in prices or pictures, did they?
 13 A. It did not iterate on this format, no.
 14 Q. It is fair to say that Google had had years and years of
 15 opportunity to improve and iterate the format of the PLA
 16 ads, had it not?
 17 A. That is correct, yes.
 18 Q. Also that Google had used data on click-through rates
 19 and other data to do that?
 20 A. That's correct, yes.
 21 Q. With CLAs placed behind the hidden tab and in its very
 22 bland format, there was always going to be very little
 23 data for CSSs to improve that format, was there not?
 24 A. There was also very little interest from both CSSs and
 25 consumers and that's probably why Google never made

148

1 further investments into that CLA tab, yes.
 2 Q. Well, it is a bit chicken and egg, is it not?
 3 A. It is a bit chicken and egg, yes, but we actually
 4 expected more CSSs to try and start participating in
 5 CLAs and we only saw very few who did that, yeah.
 6 Q. Well, now, Google's own Google Shopping Europe never
 7 participated in the CLAs, did it?
 8 A. They were not allowed to. The European Commission asked
 9 us that Google Shopping Europe not participate in CLAs.
 10 Q. Okay.
 11 Can I take you to a letter from Google to
 12 the European Commission. This is at {M3/240.1}.
 13 We see it is dated 8 — 5 October 2022.
 14 A. Yes.
 15 Q. Did you see this letter at the time?
 16 A. I would have, yes.
 17 Q. Were you involved in drafting it?
 18 A. I'm not sure. I would have to see the rest of
 19 the letter to assess whether it has components that
 20 I provided.
 21 Is this the one where we discuss the results of
 22 the experiment or is it the one before?
 23 Q. I think it is the one before.
 24 A. If it is the one before, then probably there is no
 25 contributions from me in there. I know that

149

1 I contributed to the second one with the results of
 2 the experiment and some price comparisons that we had
 3 done.
 4 Q. If we go to {M3/240.1/4}, we see what it says:
 5 "We plan to complement our CSS outreach with
 6 quantitative analysis. We plan to run small live
 7 traffic experiments in one or more European countries to
 8 test the user impact of exposing users more to CLAs. In
 9 these experiments, we will give CLAs more prominence as
 10 follows: for those queries where we show CLAs (which are
 11 normally behind the 'Comparison Sites' tab) ..."
 12 Actually always behind, but ...:
 13 "... we will remove the PLA unit, and show the CLA
 14 unit instead in its place. This treatment will thereby
 15 make CLAs the only ads that we show in a Shopping Unit
 16 when CLAs are available and eligible to be shown.
 17 "We are working towards a timeline to start these
 18 experiments this Autumn, although this is subject to
 19 a number of milestones that may slip in view of ...
 20 competing priorities ..."
 21 Then they say:
 22 "As we've communicated in the past, we believe this
 23 experiment will perform poorly, by providing users with
 24 a less helpful experience, undermining merchants'
 25 ability to promote their products, and proving to be

150

1 economically non—viable for Google to show such units."
 2 Now, just pausing there. It is pretty clear that
 3 Google had decided what the results were going to be in
 4 advance, had it not?
 5 A. This was not deciding results in advance, this was based
 6 on experience and other studies in the industry that we
 7 were aware of that told us what users typically
 8 expected. But then we ran this experiment to actually
 9 find out what the truth is and our suspicion was
 10 confirmed that it did indeed perform poorly.
 11 Q. Well, and then you say:
 12 "Assuming the experiment results bear out our
 13 expectations, we do not intend to launch the treatment."
 14 A. Yes.
 15 Q. It would have been pretty embarrassing for Google, would
 16 it not, to have come back and then said, "Oh,
 17 the experiment did not work as we expected", would it
 18 not? This was a foregone conclusion, as far as you were
 19 concerned, was it not?
 20 A. Well, if the experiment results had turned out
 21 differently, I would assume this would have led to
 22 a discussion of whether we would make this treatment
 23 permanent or not.
 24 Q. Then if we read on, we see they say:
 25 "We are gathering live experiment data to test our

151

1 hypotheses with live traffic, and we will shut down
 2 the experiments once we have gathered sufficient data.
 3 We do not plan to communicate this experiment to CSSs."
 4 Do you know why Google did not want to communicate
 5 the experiment to CSSs?
 6 A. I don't know. It might have had to do with the timeline
 7 that we wanted to get this done, and if we had
 8 communicated it, we would have needed to give CSSs time
 9 to prepare. I actually argued that we should let them
 10 know and help them make the most of this experiment to
 11 make it as successful as possible, right, and then have
 12 as strong a case to be made in either direction, but
 13 this is not what was eventually done. I don't know why
 14 we did not inform them, no.
 15 Q. I think you were right, Mr Braendle. I mean, that would
 16 have been the fair thing to do, would it not, clearly?
 17 A. I agree, yes. I assume it was the timeline that did not
 18 make this feasible.
 19 Q. I mean, an even fairer thing to do would have been to
 20 have adopted some of Kelkoo's suggestions for improving
 21 CLAs in advance, would it not?
 22 A. That was also challenging, right, making format changes
 23 would have required additional months of investments
 24 because the format we used, this was an existing format
 25 from a different format that was called "showcase ads",

152

1 and we could only launch it as quickly as we did because
 2 we reused all that infrastructure that we had from
 3 showcase ads. So making significant changes to the UI
 4 and the display would have taken additional months of
 5 investment.
 6 Q. What was the big rush?
 7 A. What was the big rush?
 8 Q. Yes.
 9 A. There was a lot of pressure from the European Commission
 10 to send more traffic to CSS pages and we tried to find
 11 ways to make that happen.
 12 Q. Yes, but why would you not spend another couple
 13 of months making the CLA viable before running
 14 the experiment? I mean, the CSSs had been waiting over
 15 a decade for traffic?
 16 A. We could have spent a few more months on this. I don't
 17 think there was patience for this. Also, given
 18 the extent of the results, maybe I think Mr Friedman
 19 mentioned this before, that the traffic dropped more
 20 than 90%.
 21 Q. Well, we have not — you have not got the results at
 22 this stage, do you?
 23 A. We don't have the results at this stage, but knowing
 24 the results, I think format changes would not have made
 25 up —

153

1 Q. Well, we do not know, do we, because —
 2 A. Well, we know from other format changes that Google made
 3 in the past what the typical impact is of format changes
 4 and that's in an order of magnitude that's very
 5 different from the gap that would have had to be covered
 6 there.
 7 Q. Well, I suggest you cannot possibly know what the result
 8 of the experiment would have been if it had been done
 9 fairly.
 10 If we go to {M3/244}.
 11 This is the internal report relating to
 12 the subsequent experiment, and the project leader was
 13 Greg Friedman, who we have heard from, and your name is
 14 not mentioned at the top, but we do see your name in
 15 some of the comments on this document.
 16 A. Yes, that's correct.
 17 Q. Your comments are dated 18 October 2022, so it is about
 18 a week after the other comments on 11 October 2022. So
 19 was I right to assume that you did not have much to do
 20 with the design of the experiment, you just made — put
 21 in some queries afterwards to understand its
 22 implications? Is that right?
 23 A. I was at a high level involved in the design of
 24 the experiment but not in the engineering details, and
 25 then tried to understand the results once the experiment

154

1 had concluded, yes.
 2 Q. We see the "Before" and the "After" in the images below,
 3 and as we have discussed already, there is —
 4 the information in the CLA box has nothing — no
 5 information on the number of stores or products, does
 6 it?
 7 A. (Inaudible).
 8 Q. (overspeaking) No information on prices, and the images
 9 are much smaller, are they not?
 10 A. That's correct, because we show multiple images instead
 11 of just one, yes.
 12 Q. Yes.
 13 You have not taken up any of Kelkoo's suggestions
 14 for improving it, have you?
 15 A. We haven't. I'm not sure when Kelkoo made those
 16 suggestions, whether it was before or after this
 17 experiment, but, no, they did not flow into this
 18 experiment, that's correct.
 19 Q. There are an awful lot of comments from — on this
 20 experiment from Henry Mostyn. He is a partner at
 21 Cleary Gottlieb Steen and Hamilton, am I right?
 22 A. That's correct, yes.
 23 Q. So there was clearly a lot of legal input into this; is
 24 that correct?
 25 A. We discussed with external counsel, yes, how to approach

155

1 this experiment, yes.
 2 Q. If we go to {M3/534}.
 3 This is an internal Google document from April 2022,
 4 and if we go to {M3/534/10}, please, we see the second
 5 comment is from you.
 6 If we go to {M3/534/11}, we see more comments.
 7 So you were involved in commenting on this document?
 8 A. I was, yes. I was actually the author of this document.
 9 Q. Oh, you were the author?
 10 A. Yes, you see my LDAP, my Google user name at the top
 11 "sambra" {M3/534/1}. That was me, yes.
 12 Q. If you go on this page {M3/534/11} you see, four
 13 comments down, a comment from Frederic Abrard?
 14 A. Yes.
 15 Q. Do you see that? Who was Mr Abrard?
 16 A. He led the account management team that worked with CSSs
 17 in the context of the Remedy.
 18 Q. Okay. He starts his comment:
 19 "Devil's advocate ..."
 20 If we can go back to page {M3/534/2}, I am going to
 21 take you to a few of Mr Abrard's comments in a moment.
 22 A. Sure, yes.
 23 Q. But if we go back to page 2, please, you can see
 24 "The proposal", yes, and it says:
 25 "Some traditional CSSs, including Kelkoo, have long

156

1 demanded that clicks on Shopping units lead consumers to
2 CSS sites rather than merchant pages. We have always
3 resisted this request because a more direct path to
4 a product purchase is better for both consumers and
5 merchants.

6 "In early 2019, we reached a compromise agreement
7 with the Commission and launched a new ad unit ...
8 (CLAs). These show up in a separate tab ... They can
9 use the same product inventory, but have separate
10 campaigns and a separate auction ..."

11 But {M3/534/3}:

12 "Consumers always see the PLA slate by default. If
13 there is sufficient CLA inventory matching a query, we
14 show the second tab that users can switch to. It shows
15 cards ..."

16 Forgive me, am I — oh, we need to go over the page.
17 Sorry, I was reading from my notes {M3/534/3}:

18 "It shows [the] cards representing groups of
19 products. If they are clicked, the user is [then] taken
20 to a landing page on the CSS website."

21 We then see an image — another image of the two
22 tabs side by side, and again we can see the striking
23 difference in the size of the images and the amount of
24 information, yes?

25 A. Yes.

157

1 Q. Then it is asserted that CLAs are less popular with
2 consumers and there is some information around that,
3 yes?

4 A. Yes.

5 Q. You can see the second comment on the right, and then
6 they say, comment number 7:

7 "Kelkoo, Compare and other complainants argue that
8 the low popularity of CLAs is due to the fact PLAs are
9 shown by default."

10 A. Yes.

11 Q. Well, that has clearly got a lot of force to it, because
12 you can hardly expect similar clicks if one is always
13 the default and the other is not, can you?

14 A. That's right, yes.

15 Q. Then it is said:

16 "Devil's advocate: CSSs claim these merchants will
17 start working with them. Also these don't participate
18 as they're associated with Google Shopping and other
19 CSSs not doing CLAs. If CLAs were the default those
20 CSSs will have incentives to participate."

21 Again, that is obviously correct, is it not? If
22 CLAs were the default, then more CSSs would be bidding
23 on the CLAs; correct?

24 A. Yeah, this was a different concern, right? This was, if
25 you see on the left-hand side in the document, there's

158

1 — there was only a small fraction of overall product
2 inventory that was targeted by CLAs.

3 Q. Yes.

4 A. So with the switch from PLAs to CLAs as a default, some
5 merchants would have been completely excluded from
6 the experience. That was the concern, and CSSs believed
7 that if we forced this change, then merchants will be
8 forced to work with them and that they basically would
9 all come back through this route and that the amount of
10 clicks on CLAs would equal those on PLAs. That was
11 the belief that CSSs had, yes.

12 Q. Again, there is some force to that, is there not? There
13 would have been an increase if CLAs had become
14 the default; correct?

15 A. So if we had forced CLAs as the default and gotten rid
16 of PLAs entirely, then probably more merchants would
17 have started working with CSSs, that's correct. I'm not
18 sure about the user behaviour, if that would have
19 followed suit, because the experiment has shown that is
20 much less popular, yes.

21 MS ROSE: Can I just ask a question?

22 A. Yes.

23 MS ROSE: Did you have any visibility of the views of
24 the merchants —

25 A. We had some conversations with merchants, yes, and

159

1 merchants typically wanted traffic to come as directly
2 as possible to their site with the fewest number of
3 intermediaries in between.

4 MR JOWELL: Then we see the next bullet:

5 "CLAs lead the user to a CSS page that may not even
6 show the product that they are interested in."

7 Then you see the comment number 12:

8 "Devil's advocate: isn't it due to current design
9 limitations of CLAs that do not pass on the products
10 shown in the ad? Also the query is not passed on in 40%
11 of cases according to some CSSs, making it impossible to
12 show anything relevant."

13 A. Yes, well, the query was passed on in the vast majority
14 of cases, and even in those cases, and we looked at
15 hundreds if not thousands of examples, the relevance of
16 the pages shown by CSSs was low compared to what people
17 had searched on Google.

18 Q. But that is because they had not had a chance to
19 optimise and to improve their results, right?

20 A. I would argue they could already have optimised without
21 needing traffic to do so.

22 Q. Well, you need data to optimise, do you not?

23 A. Yeah, but —

24 Q. And you need traffic.

25 A. — they set up — CLAs were typically around a theme,

160

1 right, where they would say "women's shoes" or something
 2 similar, or "Christmas gifts", and then they would
 3 associate their respective offers. So based on that
 4 they could already optimise to make sure that someone
 5 who clicked on the "women's shoes" CLA would get women's
 6 shoes results when they came to the CSS and even that
 7 was often not the case.

8 MS ROSE: Why not?

9 A. That is a very good question. I'm not sure how much
 10 the CSSs invested into these pages and making sure that
 11 they matched the ads that they had created. Often it
 12 was simply a search that they ran and then showed
 13 a search results page.

14 MR JOWELL: Well, they would not invest unless they were
 15 the default and they were getting sufficient traffic,
 16 would they?

17 A. This is, again, it's a, as you said, a chicken and egg
 18 situation, right? The better your experience is,
 19 the more likely they get traffic, and the better
 20 the traffic is, the more they are likely to invest. So
 21 it needs to start at one end or the other.

22 Q. Yes.

23 A. Yes.

24 Q. You need to give them an opportunity at least to be
 25 the default, to know that they are the default and to

161

1 invest and have time to invest in advance, right?

2 A. That's true, but it's a huge risk to take for Google,
 3 merchants and consumers to make the CLA tab the default
 4 and then hope that things will improve over time and
 5 that the experience for consumers and merchants and also
 6 the CSSs will catch up.

7 Q. Well, a risk for Google, that I see. I am not sure it
 8 is a risk for anybody else.

9 A. It's also a huge risk for merchants and CSSs, right, who
 10 also lost traffic and revenue opportunities in
 11 the search.

12 Q. Well, if we go on to {M3/534/4}, we see there is
 13 consideration of an experiment in which PLAs and CLAs
 14 might compete side by side, and it is written — if we
 15 — I am just trying to find ... it is written:

16 "If we did this, the CLA slate would probably never
 17 win (or at least extremely rarely). But we could argue
 18 that we show the CLA slate first whenever it creates
 19 more value than the PLA unit."

20 Then you see the comment on 21; do you see that
 21 under —

22 A. Yeah, I can see it.

23 Q. It says:

24 "Devil's advocate: this 'creates more value' is
 25 a good view when there's direct traffic to merchants.

162

1 When there's an intermediary (like CSSs in this case)
 2 this doesn't work. CSSs would argue a significant part
 3 of the value is created on their own website and would
 4 charge merchants higher fees for clickout from the CSS
 5 website than what CSSs would pay for CLA."

6 Then he gives an example. Again, that is a good
 7 point, is it not? That is correct?

8 A. So the context here is, right, one possible experiment
 9 might have been that we have the PLA slate and the CLA
 10 slate compete against each other in this Whole Page
 11 Auction approach, and the fear was that the CLA slate
 12 would very rarely win. One of the drivers for this was
 13 that bids were significantly lower on the CLA slate,
 14 I think by about 80% on average, compared to PLA, and
 15 this indicates that actually the CSSs themselves who
 16 placed these bids saw less value in a click from a CLA
 17 than in a click from a PLA.

18 MS ROSE: But why is that a problem? I mean, if they can
 19 bid CLA against PLA —

20 A. Yeah.

21 MS ROSE: — and in fact the PLAs always win or almost
 22 always win, then that is just competition.

23 A. That's competition, but it doesn't address
 24 the Commission's request to increase traffic to CSS
 25 pages.

163

1 MS ROSE: But do the Commission want to increase traffic to
 2 CSS pages even where that is not the competitive
 3 outcome? That seems like an odd —

4 A. I think they were mainly interested in increasing
 5 traffic to the CSSs —

6 MS ROSE: Come what may.

7 A. — even at a potential cost to other players, yes.

8 MS ROSE: Even if that is worse for consumers?

9 A. Yes. Yes.

10 MR JOWELL: But the point that is being made in this comment
 11 is that the CSS adds value —

12 A. Yes.

13 Q. — does it not? Therefore the click-through they will
 14 gain once these things are up and running, they will
 15 provide a more valuable service to the merchant than
 16 a click-through from the CLA?

17 A. That is correct, yes, but if the CSS is able to resell
 18 that click at a much higher value because of all
 19 the value that they add, they should also be able to bid
 20 for that click correspondingly on Google.

21 Q. Well, it depends on the format. It depends on
 22 the format of the PLA, does it not? It depends — you
 23 have to — you may — I think that is quite a complex
 24 economic calculation there, is there not?

25 A. I don't think it's that complex, right? If a CSS

164

1 says: if someone comes to my website I'm able to add so
 2 much value to that click that I'm able to resell it to
 3 a merchant at a much higher price, that should mean that
 4 their willingness to bid for that click on Google should
 5 also be higher, because then they get more traffic from
 6 Google that they can add value to and make more money
 7 on. Right? So it would be rational for a CSS to bid
 8 more for a CLA click because they are confident they can
 9 add value to it and then resell it at an even higher
 10 cost to a merchant.
 11 Q. I am not going to debate this with you because I think
 12 we need to ask the economists about this, because
 13 I think there are differences, effectively you are
 14 comparing apples and pears when you make that
 15 comparison. But I think we need to — let us ask — we
 16 have got professional economists who are coming to give
 17 evidence —
 18 A. That's fine.
 19 Q. — and I am going to ask them about that.
 20 If we go to {M3/534/7}, we see at the bottom of
 21 the page — we see — and I think this gives the answer
 22 to your question about —
 23 A. Yes.
 24 Q. — whether it was before or after that Kelkoo had made
 25 its request and it is before, because we see here:

165

1 "Kelkoo in a meeting on May 19, 2022 suggested that
 2 we show CLAs by default and also made proposals for
 3 design changes of the Unit. These are the enhancements
 4 they proposed."
 5 You can see, on the left, they say:
 6 "More real estate for images."
 7 "Display of number of shops and number of offers."
 8 "Indication of prices or price ranges."
 9 "Overlay with more details on the CSS's services."
 10 Then:
 11 "For narrow queries:
 12 "Less emphasis on diversity of images."
 13 Therefore much larger images:
 14 "Displaying reviews."
 15 "Highlighting of price drops."
 16 Then a:
 17 "Potential alternative :
 18 "Bigger CSS logos for greater brand recognition."
 19 So they had made specific proposals to substantially
 20 improve the attractiveness of CLAs; correct?
 21 A. Yes.
 22 Just two comments on this. This would have required
 23 additional product data that we would have needed to
 24 collect from CSSs, like the reviews and number of shops
 25 and additional data, and CSSs were already struggling

166

1 with providing the basic data for CLAs.
 2 The bigger problem is, it would have increased
 3 the vertical height of these ads and there was a concept
 4 in ads that basically measured how much vertical height
 5 the ads needed, that was a factor in the Whole Page
 6 Auction, because they would have displaced more text
 7 ads, the whole box would have needed to create
 8 proportionately more value to show. So if we had done
 9 this, then CLAs would have, in most cases in the Whole
 10 Page Auction, been replaced by text ads and would never
 11 have shown. So this real estate, in a sense, was too
 12 expensive to extend the ads like Kelkoo suggested.
 13 Q. If we go to {M3/534/8}, we see what was written at the
 14 time.
 15 A. Yeah.
 16 Q. You say at the top:
 17 "We could consider some design enhancements for
 18 the experiments as well (inspired by Kelkoo's
 19 suggestions), but this would mean significantly more
 20 work, may require new processes and infrastructure, and
 21 of course it would take longer until we could start
 22 the first experiments."
 23 But there is no suggestion that there was anything
 24 unworkable about implementing some improvements,
 25 was there?

167

1 A. No, but as I mentioned, right, a new process
 2 and Infrastructure would be to require this additional
 3 data and process that and that was not something that
 4 was realistic within the timelines, yes.
 5 Q. If we go to {M3/534/5}, we see there is a description of
 6 the set up of the — potential set up of the experiment?
 7 A. Yes.
 8 Q. If you see comment 47, it starts there:
 9 "I think we would need to ..."
 10 If we could see the whole comment, it is on
 11 {M3/534/14}. Could we go to page 14, please.
 12 Again, it is the point about notice.
 13 A. Yes.
 14 Q. It is from you. You say:
 15 "I think we would need to let them know. Ahead of
 16 time. So they can get ready and make the most of it."
 17 I think this verifies your point that you would have
 18 preferred them to know?
 19 A. That's what I mentioned before, yes.
 20 Q. If we go to {M3/534/16}, we see a comment from you,
 21 number 63:
 22 "For merchants we can mainly measure the loss of
 23 traffic from Google. But we don't know about
 24 the traffic they get from CSSs, we can only estimate
 25 that.

168

1 "How often consumers click on CLAs will give us an
 2 indication of the value they see in them."
 3 So just to be clear from that, you do not actually
 4 know how much traffic merchants will get from CSSs
 5 because you cannot monitor the amount of traffic that
 6 CSSs send on to merchants; correct?
 7 A. Exactly, that's something that we don't know. We knew
 8 from different other sources what benchmarks were,
 9 I think it was, like, 40 to 60% clickout rate or
 10 something like that, but of course we didn't have
 11 insight into what happened to a CLA click after the user
 12 went to the CSS page.
 13 Q. Now, if we go, please, to {M3/535}.
 14 This is Google's internal report on options for
 15 the CLA as live default experiment, and we see on page 1
 16 under "CLA only":
 17 " ... In current production, we show CLA as a second
 18 tab where PLA is the first tab. In the experiment, we
 19 will show CLA only, and coverage of CLA will be
 20 controlled to be similar to production."
 21 On page 1, on the right, we see a discussion in
 22 the comments as to the countries where the experiments
 23 should be conducted.
 24 If we go to — do you recall that discussion?
 25 A. I recall that discussion, yes.

169

1 Q. If we go to {M3/535/14}, we can see there is a comment
 2 from you, I think it is 9R1.
 3 A. Yes.
 4 Q. Do you see that one?
 5 You say:
 6 "Let's look at CLA campaign coverage as well.
 7 I suspect it's very low in Poland, Spain, Sweden and
 8 much higher in Germany, France, UK."
 9 Then we see a comment from Mr Taylor Pospisil:
 10 "Germany is a clear candidate for volume and
 11 campaign coverage.
 12 "UK has volume but not as much campaign coverage,
 13 France looks good as well as Italy."
 14 If we go to {M3/535/1}, you see the comment 11R1 on
 15 the right-hand side. You see someone has said:
 16 "Then I'd vote for Germany to give this the best
 17 chance of success. If it fails there, we can be
 18 confident it wouldn't work anywhere else either."
 19 A. Yes.
 20 Q. Could that have been your comment?
 21 A. Could be, yes.
 22 Q. But the experiment never was implemented in Germany
 23 where it had the best chance of success, was it?
 24 THE CHAIRMAN: Just the — ah, yes, sorry, go on. 11R1,
 25 yes.

170

1 A. Can you remind me which countries it was run in
 2 eventually? I think Netherlands was one of them
 3 and ...?
 4 MR JOWELL: Yes.
 5 A. It was more than one country.
 6 Q. The UK.
 7 A. The UK?
 8 Q. Yes.
 9 The experiment was just designed to fail, was it
 10 not?
 11 A. It was not designed to fail. I think it was a difficult
 12 tradeoff we had to make because we knew this would cost
 13 both Google and merchants a lot of money, that was our
 14 expectation, and we wanted to limit the revenue impact.
 15 So we tried to find countries where we had enough
 16 activities for the experiment to be meaningful, but at
 17 the same time limited the downside in terms of revenue
 18 impact for both merchants and Google.
 19 Q. In any event, it was inevitable, given the way it was
 20 set up, that it would fail, was it not?
 21 A. I don't think that's true, no.
 22 Q. Let me turn to another topic. Go to {M1/501}.
 23 This is a letter from Google to the Commission,
 24 dated 2 August 2021, and it concerns the launch in
 25 Europe of free product results.

171

1 Are you aware of this?
 2 A. I'm not sure if I was involved here, but maybe I was.
 3 Q. Okay.
 4 The main feature of this product ads unit is that it
 5 involves free merchant results. The bit I want to focus
 6 on is on page 3, if we can go to that {M1/501/3}.
 7 You can see in the second bullet:
 8 "CSS choice carousel. We will include a choice
 9 carousel listing free links that go to CSSs. The CSSs
 10 listed in the choice carousel will be selected and
 11 ranked based on algorithmic criteria that will apply
 12 equally to Google Shopping and third-party CSSs. These
 13 CSSs links are an example of how we are continuing to
 14 advance and develop 'user choice', as we have done in
 15 other areas."
 16 Now, clearly Google had no technical difficulty in
 17 launching such a choice carousel for different CSSs
 18 ranked on the basis of fair criteria?
 19 A. I wasn't involved in this work, I focused on ads, so I'm
 20 not sure to what extent this was actually launched and
 21 how this worked, sorry.
 22 MS ROSE: Is this the item that appears under
 23 the heading "Product sites"?
 24 MR JOWELL: Yes, I believe so.
 25 I just want to ask you about one final thing.

172

1 If we go to your statement {H3A/16/16}, and in
 2 paragraph 61 you state — you say that:
 3 "I do not understand the ..."
 4 You are talking about Mr Stables' statements, and
 5 you say:
 6 "I do not understand the logic of Mr Stables'
 7 example. As I explained at paragraph 56 above,
 8 I understand Mr Stables is correct that GSE deducted
 9 a 20% margin. However, this would mean that Kelkoo
 10 could deduct any margin lower than 20% and beat GSE in
 11 the ad auction while still making a healthy profit."
 12 Yes?
 13 A. Yes.
 14 Q. Could we go to {M1/486}, please.
 15 You can see this is KPMG's report on the Remedy,
 16 dated 14 May 2018.
 17 Would you have been familiar with this at the time?
 18 A. I was involved in some information that went into this
 19 report, yes.
 20 Q. Okay.
 21 If we go to {M1/486/5}, you see "Executive summary".
 22 It says:
 23 "The rival CSSs from which we have received
 24 information appear to have operating costs that are, on
 25 a per-click basis, considerably higher than those

173

1 allocated to GSE. This appears to be due at least in
 2 part to the mostly fixed nature of their other operating
 3 costs coupled with disparities in volumes of Shopping
 4 Unit clicks achieved by GSE and rivals.
 5 "If this is the case, in order to generate positive
 6 operating margins, rival CSSs may need to earn gross
 7 margins that are higher than those GSE currently earns.
 8 Indeed, at present, rival CSSs' gross margins are higher
 9 than GSE's gross margin.
 10 "If the disparities in volumes between GSE and CSSs
 11 persist, however, then the profitability constraints
 12 that Google has set GSE may allow it to operate
 13 profitably at a level of gross margin that would not
 14 allow rival CSSs to operate profitably."
 15 You see that?
 16 A. I see that, yes.
 17 Q. So if it is the case that CSSs incur higher operating
 18 costs per click, partly because of GSE's volume
 19 advantages, then they cannot necessarily make a healthy
 20 profit, as you put it?
 21 A. Yes, but Mr Stables' argument was a different one,
 22 right? In his example he said because of
 23 Google Shopping's margin of 20% CSSs cannot charge more
 24 than 1%, and that's the argument that didn't make sense
 25 to me, because purely based on the competition with

174

1 Google Shopping, anything lower than 20% would make
 2 the CSSs win against Google Shopping in the auction.
 3 Q. Well, but that would not necessarily enable them to make
 4 a healthy profit as you suggested, that is —
 5 A. That's a different argument. The argument here seems to
 6 be that even the 20% are not enough for CSSs to make
 7 a healthy profit and they need more than that, right?
 8 But that's a different argument.
 9 Q. That reflects the fact that GSE has got lower operating
 10 costs; correct?
 11 A. Per click, due to the higher volume.
 12 Q. Yes.
 13 A. Yes.
 14 MR JOWELL: Right.
 15 Thank you. I have no further questions for this
 16 witness.
 17 THE CHAIRMAN: I think, having regard to time, Mr West, how
 18 long do you think?
 19 MR WEST: I actually have no follow-on cross-examination.
 20 THE CHAIRMAN: You have no cross-examination, right.
 21 Because we need to take a break and we need to do that
 22 to be back for 4 o'clock.
 23 So Mr Gregory, how much —
 24 MR GREGORY: Sir, I also have no questions in
 25 re-examination.

175

1 THE CHAIRMAN: No questions.
 2 Questions from THE TRIBUNAL
 3 THE CHAIRMAN: If we go back to {M3/535}, I think, the —
 4 this is the preparation for the experiment. Can you
 5 just explain, when creating this experiment, how did you
 6 deal with Amazon in that experiment?
 7 A. Are you referring to the CLA experiment?
 8 THE CHAIRMAN: Yes.
 9 A. So in what respect do you mean Amazon?
 10 THE CHAIRMAN: Well, was Amazon included as a CLA example?
 11 A. So Amazon could have been included as a merchant that
 12 a CSS included in a CLA, yes.
 13 THE CHAIRMAN: It was in the experiment, or ...?
 14 A. I don't remember whether Amazon was in there. There
 15 were lots of CSSs that had Amazon inventory, so I think
 16 it's fair to assume that Amazon inventory might also
 17 have been part of CLA campaigns, yes.
 18 (Pause)
 19 THE CHAIRMAN: We have got no further questions, so you are
 20 released as a witness, Mr Braendle. Thank you.
 21 (The witness withdrew)
 22 We will rise now and we will come back with the live
 23 stream for the final witness.
 24 (3.49 pm)
 25 (A short break)

176

1 (4.03 pm)
 2 THE CHAIRMAN: Yes, Ms Morrison.
 3 MS MORRISON: For the transcribers, I am Ms Morrison, acting
 4 for Google.
 5 Google's next witness is Mr Bharat Kalyanpur. He is
 6 in — giving evidence remotely from California in
 7 the United States, where it is 8 am. He is attended by
 8 an independent lawyer from the Silicon Valley office of
 9 the firm HSF Kramer, called Ms Jacqueline Momah.
 10 I think she is just off screen in the blur, but she is
 11 there. She will be helping with display of documents
 12 via Opus and so forth.
 13 If the Tribunal is content, please could this
 14 witness be affirmed?
 15 THE CHAIRMAN: Good morning to you, Mr Kalyanpur, good
 16 afternoon here.
 17 Thank you for attending early in the morning so that
 18 we can hear your evidence. You are about to be
 19 affirmed, I think. I am the Chair of this Tribunal,
 20 sitting with my two colleagues, Ms Rose on my left,
 21 Professor Smith on my right, and you are nodding,
 22 I assume you can hear me?
 23 A. Yes, I can. Good afternoon, sir, and good afternoon
 24 the other members of the Tribunal as well.
 25 THE CHAIRMAN: I should just remind you that you are of

177

1 course, although giving evidence remotely by link, your
 2 evidence is just as much court evidence as if you were
 3 here in the courtroom in London.
 4 A. Yes, sir. I understand.
 5 THE CHAIRMAN: Now, if you could please be affirmed.
 6 I think there is a lawyer with you.
 7 MS MOMAH: Yes, I am here.
 8 THE CHAIRMAN: Thank you. If you could please administer
 9 the affirmation.
 10 MS MOMAH: We confirm that he has nothing in front of him,
 11 he only has his statement printed out before him and he
 12 is not reading from anything else and there is nothing
 13 else in this room.
 14 THE CHAIRMAN: Thank you.
 15 MS MORRISON: Mr Kalyanpur, could you take up the hard copy
 16 of your statement then, please.
 17 THE CHAIRMAN: Mr Kalyanpur has not been affirmed.
 18 MR BHARAT KALYANPUR (affirmed)
 19 (Via video—link)
 20 THE CHAIRMAN: Thank you.
 21 Examination—in—chief by MS MORRISON
 22 MS MORRISON: Mr Kalyanpur, if you have got the hard copy of
 23 your witness statement there, for Opus, it is at
 24 {H3A/8}.
 25 A. Yes.

178

1 Q. Could we go to paragraph 14 of your statement. It is at
 2 {H3A/8/4}.
 3 A. Yes.
 4 Q. It says in the last line:
 5 "I am between jobs."
 6 I understand you have an update for the Tribunal on
 7 that?
 8 A. That is correct.
 9 About two months ago, in the first week of May,
 10 I started working at Uber Technologies as a senior
 11 engineer and director, and I'm still employed with them
 12 at this moment.
 13 Q. Could we turn to page 15 of your statement —
 14 THE CHAIRMAN: Is that — sorry, did you say "Guber
 15 Technologies"? Is that right, "Guber"?
 16 MS MORRISON: Uber.
 17 A. Uber, yes.
 18 THE CHAIRMAN: Uber. Right.
 19 A. Uber, yes, the company that does ride—sharing and other
 20 things.
 21 THE CHAIRMAN: Yes.
 22 MS MORRISON: Mr Kalyanpur, if you are at {H3A/8/15} of your
 23 statement, is that your signature at the top of the page
 24 under the statement of truth?
 25 A. Yes, it is.

179

1 Q. Subject to the single update you have provided on your
 2 employment status, is this statement the evidence that
 3 you wish to give for this Trial?
 4 A. Yes.
 5 Q. Do the facts set out in your statement remain true to
 6 the best of your knowledge and belief?
 7 A. Yes.
 8 MS MORRISON: I am sure counsel for Kelkoo have some
 9 questions for you.
 10 Cross—examination by MR JOWELL
 11 MR JOWELL: Good morning, Mr Kalyanpur.
 12 A. Good afternoon to you.
 13 Q. You were the main engineer at Google responsible for
 14 the creation of an algorithm that became known
 15 as "the diversity algorithm" or "the comparison shopping
 16 service demotion algorithm"; is that correct?
 17 A. That is correct, yes.
 18 Q. The origin of the algorithm was a concern that there
 19 were specifically too many price comparison sites
 20 appearing in Google's general search results; correct?
 21 A. Correct.
 22 Q. I think you started off by running an experiment to test
 23 users' reactions to demoting shopping comparison
 24 results. Now, I know it was a long time ago, so I am
 25 going to take you to quite a few documents to try and

180

1 refresh your memory.
 2 Could I ask you to be shown, please, {M1/48}.
 3 Can you see that?
 4 A. I can. What we're going to try and do is expand it
 5 a little bit.
 6 Q. At the bottom of the page, you should see an email from
 7 you, dated 22 November 2006?
 8 A. Correct.
 9 Q. Do you see that?
 10 A. Yes, I do. We're just trying to make it bigger so I can
 11 read the actual words. Give us a moment. (Pause).
 12 Yes, I do see it, yes.
 13 Q. You see it?
 14 You say:
 15 "The side-by-side experiment results have come back.
 16 Overall, the experiment shows a loss ..."
 17 If we can go over to the next page {M1/48/2}, you
 18 see you go down a number of numbered points.
 19 A. Yes.
 20 Q. Then you give your overall impression and you say:
 21 "My overall impression is that the raters feel
 22 the bizrate/nextag/epinions pages are moderately good
 23 results. They are usually well-formatted, rarely
 24 broken, load quickly and on-topic. We win if we are
 25 able to replace those pages with especially good pages.

181

1 A replacement by an etailer who actually sells
 2 the product is rarely considered a win ...
 3 "A few other observations:
 4 "Our list of comparison shopping sites includes
 5 epinions ... and eBay ..."
 6 And so on.
 7 Then, towards the bottom, you then say:
 8 "The biggest concern is that the raters (and perhaps
 9 our users) seem to like the meta-shopping site more than
 10 a page from an actual retailer."
 11 Do you see that?
 12 A. Yes. The last word was "retailer", but, yes, I do see
 13 it.
 14 Q. "Actual retailer", forgive me.
 15 So the results of this experiment suggested that
 16 systematic demotion of comparison shopping results
 17 across the board resulted in a worse user experience;
 18 correct?
 19 A. I — can we just scroll back to the top of this? I just
 20 want to see what the date of this is.
 21 Q. This is 22 November 2006.
 22 A. Okay, okay.
 23 Q. So it is early days.
 24 A. Right, right.
 25 Q. It is quite an extreme version of your algorithm, yes?

182

1 A. Right, right. So, yes, sorry, did you have a question
 2 or ...
 3 Q. Let me put the question again.
 4 The results of this experiment suggested that
 5 the systematic demotion of comparison shopping results
 6 across the board resulted in a worse user experience
 7 because users, at least insofar as they were reflected
 8 by your raters, valued comparison shopping sites?
 9 A. So I — I don't know if I have used
 10 the word "systematic" in this — in this — in this
 11 email. It is true that this particular version, very
 12 early, what we actually eventually decided to launch
 13 was — a whole seven months ago, was quite different,
 14 but, yes, this version was negative, correct.
 15 Q. So that meant that users seemed to actually value
 16 shopping comparison services, did they not?
 17 A. They valued them as one amongst other things that they
 18 valued.
 19 Q. Yes, yes.
 20 If we go to {M3/260}, we see an email from you to
 21 Mr Singhal and Mr Cutts about a month later on
 22 5 December 2006. We see that you submitted another
 23 side-by-side valuation with a new iteration of your
 24 algorithm; do you see that?
 25 A. We're trying to make it bigger so I can —

183

1 Q. If I can show you the paragraph starting:
 2 "However ..."
 3 Do you see that? It says:
 4 "However ..." —
 5 A. Yes.
 6 Q. — "... I'm still worried ..."
 7 Do you see that?
 8 A. Yes.
 9 Q. You are:
 10 "... still worried that we can have cases where we
 11 do not preserve a single meta-shopping site in
 12 the top 10 or top 5 results ..."
 13 You say:
 14 "I'm afraid that these could be big losses and too
 15 sudden a change from current Google behaviour."
 16 Yes?
 17 A. Yes.
 18 Q. Do you see that?
 19 A. I do see that. Yes, I do.
 20 Q. Then you note that you did another head-to-head
 21 comparison of this algorithm versus itself, except that
 22 you do not demote the first meta-shopping result. You
 23 say: I have not submitted that version to the raters,
 24 but you think that "keep one", in other words always
 25 keeping one CSS in the results, is better; do you see

184

1 that?

2 A. I do see it, yes.

3 Q. So would this be a fair summary, that by this stage, you

4 had reached the conclusion that it would likely be

5 better for raters and users if there is at least one

6 comparison shopping site in the results?

7 A. Yes, I think that's fair to say.

8 Q. Then you note in the next paragraph, if you see, you

9 say:

10 "I know that you had some valid criticisms of

11 the 'keep one' technique I was using before. You may

12 remember that I had initially hand-selected a few sites

13 that qualified for the 'keep first one' result. You had

14 disapproved of this because it was arbitrary and overly

15 hard-coded. I have changed this now. Basically all

16 the US-based sites qualify for the 'keep first one'

17 pass. It is only the non-US sites (such as

18 kelkoo.co.uk) that don't qualify. No human judgment is

19 involved except for identifying non-US domains."

20 Now, Kelkoo was a very well-established British and

21 European comparison shopping site, was it not?

22 A. I believe it was.

23 Q. The reason that you were taking that out was not because

24 of its quality, it was just because you knew that it was

25 a UK site and your algorithm was going to apply in

185

1 the US at this point; correct?

2 A. Correct. I should just clarify that this was — this

3 was not anything that was actually launched, this was

4 just one amongst many, many experiments run.

5 Q. Yes, of course.

6 A. Yeah.

7 Q. I am going to go to a few more.

8 A. Yeah.

9 Q. But you are basically — the reason for taking that out

10 was because you were assuming that shoppers in

11 the United States would not be interested in a UK site?

12 A. Yes, I think that was probably the rationale I used at

13 the time.

14 Q. If we then can go, please, to {M3/17}.

15 This is dated 11 December 2006, and it is to

16 Amit Singhal, Matt Cutts and Cody Kwok. If you read

17 with me from the bottom of the third paragraph.

18 A. Mm—hm.

19 Q. You can see it says, just at the bottom of that third

20 paragraph, it says:

21 "Both experiments ..."

22 You have got more side-by-side experiments have come

23 back, we can see that in the first paragraph. Then you

24 say:

25 "Both experiments have an overall negative result ie

186

1 more losers than winners.

2 "I've analysed the losses from the 3806 experiment.

3 Broadly, the reasons are the same as we've discussed

4 before. The bizrate/nextag/epinions pages are decently

5 good results. They are usually well-formatted, rarely

6 broken, load quickly and ... on-topic. Raters tend to

7 like them. I make this point because the replacement

8 pages that we promote are occasionally off-topic or dead

9 links. Another positive aspect of the meta-shopping

10 pages is that they usually give a variety of choices.

11 A search for (say) 'womens jeans' will tend to bring up

12 a nextag or bizrate page that lists a variety of womens

13 jeans. The single retailer pages tend to be single

14 product pages. For more general query, raters like

15 the variety of choices that the meta-shopping site seems

16 to give."

17 So, just so that I understand this, what this is

18 suggesting is that even when you applied an algorithmic

19 demotion that sought to keep in one comparison shopping

20 result in the results but demoted the rest, the raters

21 still found that they preferred the algorithm without

22 the demotions?

23 A. That's correct, but the — the amount of the demotion in

24 this particular experiment compared to the one launched

25 seven months ago might have been different, may have

187

1 been more or less aggressive, I do not remember.

2 Q. But your explanation for that at the time was

3 essentially that comparison shopping results give users

4 a good choice, a good variety, and raters like that

5 variety; correct?

6 A. For queries such as "women's jeans", yes. For a query

7 such as "LG 575 LCD", perhaps no, so ...

8 Q. Let me show you something else {J2A/10}, please. Maybe

9 we can make this ...

10 These are Google's weekly updates and it seems to be

11 — they seem to be a record of what all the engineers

12 are doing in Google.

13 Have you seen this type of document before?

14 A. Yes.

15 Q. I know your name is on the top here on page 1, we will

16 come back to that.

17 But if we go to {J2A/10/4}, you can see your name,

18 about two-thirds down, "Bharat"?

19 A. Yes.

20 Q. That would be you, I take it?

21 A. Yes.

22 Q. We see a comment under — this is 30 April 2007, and it

23 says you are working on the:

24 "Automated identification of comparison shopping

25 sites.

188

1 "Lots of tuning.
 2 "Almost complete with satisfactory list."
 3 Yes?
 4 A. Yes.
 5 Q. So you are creating a classifier, actually, is it not,
 6 for the automated identification of comparison shopping
 7 sites?
 8 A. Correct.
 9 Q. We will come back to this document to see what — how
 10 that developed.
 11 But if we go next to {M1/86}, if you go to
 12 {M1/86/2}, you can see there, there is a reference to
 13 a list and an algorithmic list. Then you say that:
 14 "... the only site I may want to add to
 15 the algorithmic list (as a manual override) is
 16 ciao.co.uk."
 17 So, again, you have created a list of CSSs to which
 18 you wish to apply the demotion algorithm and you have
 19 chosen to add Ciao.co.uk to that list; that is correct?
 20 A. That is correct, however this algorithmic list is
 21 a different list — is a different algorithm from
 22 the one that we launched in June.
 23 Q. Yes, well, I know.
 24 If we then go to — back to {J2A/10} —
 25 THE CHAIRMAN: Can I just ask, why do you say, "I may want

189

1 to add ... Ciao ..."?
 2 A. Sorry, I wasn't certain who asked the question.
 3 THE CHAIRMAN: Sorry, that was the Chair of the Tribunal.
 4 A. Oh, sorry. Thank you.
 5 THE CHAIRMAN: Yes.
 6 A. I honestly do not remember at this point. I would have
 7 to guess that I probably saw it being promoted in
 8 the place (loss of audio) were demoted and felt my list
 9 wasn't complete.
 10 MR JOWELL: If we go to — back to {J2A/10}, and now we are
 11 on the first page —
 12 A. Mm—hm.
 13 Q. — and we see we are in June, 19 June 2007, and it says
 14 under your name:
 15 "Classifier for Comparison Shopping:
 16 "Successfully completed implementation of an
 17 automated classifier of comparison shopping sites.
 18 "Completed for English. Currently, we find [around]
 19 600 sites."
 20 So — then it says:
 21 "Manual review indicates very few false positives,
 22 and we catch all the big ones (so no false negatives of
 23 the obvious ones).
 24 "The classifier is built on the same infrastructure
 25 as Vineet's shopping page classifier. I wrote a wrapper

190

1 class for it to work as a client of the cdoservice.
 2 "Classifier in other languages to follow after
 3 SQE translation of the terms in the model."
 4 So it seems that you successfully built an
 5 algorithmic classifier to identify comparison shopping
 6 sites?
 7 A. Yes, that's correct.
 8 Q. You were going to — at that time at least, you intended
 9 to also apply it to other languages?
 10 A. Yes, that's what that bullet says. I mean, we didn't
 11 actually do that, but that is correct, that's what that
 12 bullet suggests.
 13 Q. That was the intention?
 14 A. Yes.
 15 Q. That was — you could have done that if you had chosen
 16 to?
 17 A. I mean, it would have taken a bunch of time. I mean,
 18 what I'm referring to here is the first step was to use
 19 SQE, I think stood for search quality evaluators, who
 20 were experts in many languages, so they would take all
 21 the terms I had, translate them into a bunch of
 22 languages, then you would run it, you would see if it
 23 worked. So it would be a fair amount of work, but, yes.
 24 Q. Thank you.
 25 If we go to {M3/330} — forgive me, if we go to

191

1 {M1/63}, I think if we go to that first.
 2 We see the background to this is that there was
 3 a move, it seems, to manually demote third-party search
 4 results within the Google Search results which was being
 5 done by Paul Haahr.
 6 Do you recall that at all?
 7 A. Only vaguely, because it's — I mean, I'm copied on some
 8 of those mails, but it's not something I personally did,
 9 so it was 19 years ago, I — I wouldn't remember it
 10 clearly.
 11 Q. I totally understand that.
 12 A. Yeah.
 13 Q. If we go to {M1/63/2} we see at the top, I think —
 14 I think we see March 6, 2007 an email from you. I think
 15 maybe we need to go to the previous page {M1/63/1} and
 16 go down to the bottom of that page.
 17 Is that — that is the bottom? Mm. Oh, if we go to
 18 the very bottom of page 1 — oh, yes — we see an email
 19 — yes, we see an email from you there, at the very
 20 bottom there, towards the bottom, and you are replying
 21 to an email from Bill Brougher.
 22 THE CHAIRMAN: It actually starts at the top with an email
 23 from Mr Kalyanpur. It works back, perhaps.
 24 MR JOWELL: I think, as so often with these —
 25 THE CHAIRMAN: It works back.

192

1 MR JOWELL: — it works backwards, so one has to go back.
 2 But if we go over the page to {M1/63/2}, we should
 3 see an email at the top, and it says, and I think it's
 4 from — it says:
 5 "Some in eval have argued that for some queries
 6 these provide ... "
 7 We see an email that says:
 8 "Some in eval have argued that for some queries
 9 these provide good results ... "
 10 {M1/63/1}:
 11 "We can discuss this more if you like."
 12 That is a comment from Mr Brougher.
 13 If we go back, please, to page 1, at the bottom, you
 14 see you say:
 15 "I did several rating experiments which demonstrated
 16 that raters like some of the nextag (and other meta
 17 shopping) search results. We can discuss this more if
 18 you like."
 19 Then we can see above that, we see that
 20 Mr Bill Brougher says:
 21 "Yes, I need to see those."
 22 Then above that, if we can go a bit up, please, and
 23 a bit further up, you say:
 24 "Bill,
 25 "Just to be clear, my approach did not distinguish

193

1 between 'search—results' and other pages from the meta
 2 shopping site. I was targeting all comparison shopping
 3 sites (English—US), not any specific one. My demotion
 4 was 'gentle', not an outright removal from the index.
 5 So, in many ways it's different from the current issue
 6 under discussion.
 7 "Anyway, with all those disclaimers, the most recent
 8 side—by—side experiment I did ..."
 9 Then you give the references to those and the older
 10 ones, and you say:
 11 "I had written a script to estimate the impact on
 12 traffic and I can modify it to see how many of
 13 the results had 'search' in the url.
 14 "But, I don't see a systematic difference between
 15 [a] url with 'search ... ' versus one without it."
 16 You compare the two pages.
 17 You are basically saying, I think, that based on
 18 your experiments, having at least some CSS search
 19 results in the SERP was valued by users, that is what
 20 you are telling him, and also that it did not really
 21 matter whether they were search results themselves or
 22 not?
 23 A. Yes, I think that's what I'm saying. But once again,
 24 I know it was made clear, I just do want to clarify,
 25 this was not my project or the one I launched, I am just

194

1 opining on another issue raised by someone else.
 2 Q. Yes, but I think it reflects your view at the time,
 3 does it not?
 4 A. Yes.
 5 Q. If we go next to {M3/21/2}, we see an email from
 6 Bill Brougher again, dated 8 March 2007, and you can see
 7 the heading is "shopping". Yes, you see the heading:
 8 "shopping: Amazon, eBay, Shopping.com, Bizrate,
 9 kelkoo, overstock."
 10 Do you see that?
 11 A. Just give me a moment.
 12 Q. It is just at the bottom.
 13 A. Okay, yes, I see that now, yes.
 14 Q. Bill Brougher writes:
 15 "Jeff ... "
 16 To Jeff Bartelma:
 17 "... can you give us a list of shopping sites? We
 18 are culling search engine result pages from our index so
 19 we want to check all the usual suspects especially in
 20 the shopping category."
 21 Then he asked:
 22 "Cody — anyone from ..."
 23 Then there is a phrase that refers to an algorithm
 24 which we call "algorithm A":
 25 "... land that we should note?"

195

1 Are you familiar with that algorithm at all,
 2 algorithm A?
 3 A. Not really. I mean, I — I have heard the name, of
 4 course, but I do not remember enough about the insides
 5 of it to comment.
 6 Q. Cody, that would be Cody Kwok, yes?
 7 A. Yes, that would be Cody Kwok, yes.
 8 Q. Would algorithm A be a similar algorithm to your
 9 diversity algorithm?
 10 A. I would say no. Like I said, I do not remember enough
 11 of the details of it, but I don't think it was —
 12 I mean, it was — at some level it was in the same
 13 space, but I — I wouldn't say it was similar.
 14 Q. Okay.
 15 If we then look above, we see an email from
 16 Mr Paul Haahr, and he writes:
 17 "Cody forwarded the German list to Bharat, who's
 18 working on something more general; I think it's very
 19 useful."
 20 Do you remember what the German list was that Cody
 21 sent you? Was that a list of CSS sites in Germany?
 22 A. Honestly, I do not remember. None of the non—English
 23 work was ever sort of proceeded with, so it's not at all
 24 fresh in my memory in any way.
 25 Q. Okay.

196

1 A. At least with me, maybe —
 2 (Simultaneous speakers — inaudible)
 3 Q. Maybe somebody else, yes.
 4 You [sic] say:
 5 "I think we've previously removed search results
 6 from many of the sites you mentioned. I have a few more
 7 coming up."
 8 Then it says:
 9 "Bharat will be running an eval which removes them."
 10 Could you explain that to me?
 11 A. I actually don't know what this refers to. I do not
 12 personally remember ever running an eval that targeted
 13 search result pages versus non-search result pages, so
 14 I don't know what Paul is referring to when he says
 15 that.
 16 Q. Okay.
 17 If we go up, we see Paul Haahr then forwards a list
 18 of results, and if we go to {M3/21/2}, you can see
 19 the list includes a lot of Kelkoo results from .com,
 20 .co.uk, France, Germany, Netherlands, Spanish sites.
 21 These all seem to have been what are called "bad URLs",
 22 pages that have been specifically demoted by Google in
 23 its rankings manually; is that right?
 24 A. If that's what actually happened, yes. I mean, I'm just
 25 interpreting this email out of context 19 years later

197

1 and I didn't personally do it.
 2 Q. But it seems as though European comparison shopping
 3 sites have been subjected to these manual penalties,
 4 have they not?
 5 A. Perhaps. I mean, I do not know if there were subsequent
 6 emails, whether it was actually checked in and so on and
 7 so forth. I mean, this suggests there was at least
 8 a conversation about doing it.
 9 Q. Okay, let us go to another one {J2B/25}, please.
 10 We see an email from Mr Haahr, halfway down, to you,
 11 dated 10 March, in the middle. He says:
 12 "I spent most of the morning trying to figure out if
 13 there's a useful pattern which distinguishes the good
 14 from bad nextag search result. I don't think there is
 15 one, certainly not at the URL level. While I think most
 16 of the pages we had indexed were bad, our ranking is
 17 pretty good and we didn't show the bad pages as much as
 18 the good ones. (Of course, there are lots of
 19 counter-examples.) But, especially when were showing
 20 nextag results in top positions — which the
 21 [side-by-side] does call out — they seem to be ranked
 22 appropriately a good fraction of the time.
 23 "At this stage, especially given what's going on
 24 with their business, I think I should put them back in
 25 the index: if I do it this morning, that should have an

198

1 effect by Monday or Tuesday ... Then Bill can talk with
 2 them Tuesday, with much less pressure on, about coming
 3 up with a useful partitioning between things that are
 4 and are not adding much value for users.
 5 "So, unless I hear otherwise, I'll unblock nextag
 6 again later this morning.
 7 "The other search results pages we removed this week
 8 don't appear to be as useful and won't have
 9 a devastating impact on the sites, so I'm planning to
 10 leave them blocked, at least until we have some contrary
 11 evidence about their utility [to] users."
 12 So basically what he is doing is he is unblocking
 13 the NexTag results, but he is keeping the manual
 14 penalties on Kelkoo and the other sites, is he not?
 15 A. He is — that's right, he's unblocking NexTag and
 16 keeping penalties on something else. I — I do not know
 17 the entire exact chronological sequence as to what those
 18 other sites are. I mean, you showed me a different
 19 email which had Kelkoo in it, but I don't know if that's
 20 what the state of affairs was at this moment.
 21 Q. Then you reply, you say:
 22 "I think you mentioned a pattern where you'd like to
 23 demote nextag in the head versus in the tail (where it
 24 is often the best of a bunch of bad results). The score
 25 squashing technique, suggested by Amit, that

199

1 the comparison shopping demotion twiddler uses is
 2 a pretty good fit.
 3 "I was able to find a decent compromise between
 4 rater perception (which hopefully is a proxy for our
 5 users) and reducing the preponderance of
 6 comparison shopping results by tuning this technique."
 7 Do you see that?
 8 A. Actually, I don't, sorry.
 9 Whoever is controlling this, can you scroll back up
 10 to the portion that was just read out?
 11 Q. Forgive me. Yes.
 12 A. Right, can you just give me a moment to just quickly
 13 read it?
 14 Q. Yes, of course. Just, if you read the first two
 15 paragraphs.
 16 (Pause)
 17 A. Okay, I've read it.
 18 Would you mind repeating your question, please?
 19 Q. I didn't ask a question yet, but I will now.
 20 A. Okay. No worries. Thank you.
 21 Q. So the question is this: are you there saying that you
 22 are compromising two factors? On the one hand there is
 23 rater perception, which, as you say, should hopefully be
 24 a proxy for what users want, and on the other hand there
 25 is the policy of reducing the preponderance of

200

1 comparison shopping results and you are trying to
 2 compromise those two things; is that right?
 3 A. I mean, that's what the statement says. I mean, in
 4 retrospect, I think the correct word would be "tradeoff"
 5 and not "compromise".
 6 Q. Okay, tradeoff, yes.
 7 A. Or "balance" perhaps is the right word.
 8 Q. Yes. So that suggests that there was a policy, if you
 9 like, of trying to reduce CSS results and you were
 10 balancing that off, as you say, trading that off against
 11 user satisfaction?
 12 A. I think, yes, but I think I should clarify, and other
 13 documents say this, our — our rating systems at the
 14 time did not rate diversity, they rated each result
 15 purely on its own.
 16 Q. Yes.
 17 A. I mean —
 18 Q. Yes, sure, but —
 19 A. So — yeah.
 20 Q. Yes.
 21 Then, if we read the next two paragraphs, you say:
 22 "In my project, I did not distinguish
 23 between 'search results' and non-search urls from nextag
 24 (or anyone else). But we could easily add that
 25 distinction to allow the search urls a lower 'free ir

201

1 score' amount or a heavier demotion factor.
 2 "I guess the key question is whether this is
 3 a 'quality' demotion or a 'policy' demotion. If it's
 4 a quality demotion, then the score squashing approach,
 5 or some variant/improvement thereof, may be better than
 6 writing patterns to be bad url'ed."
 7 So, again, you are saying here there is a specific
 8 further policy of demoting search results — you are
 9 asking in a sense — let me start that question again.
 10 You are asking: is there a specific further policy
 11 of demoting search results, or is the presence of search
 12 results just a quality issue; is that right?
 13 A. Yes, that appears to be what I'm asking at the time,
 14 yes.
 15 Q. You are saying, based on your own experience —
 16 experiments, the demotion of search pages page results
 17 specifically would seem to be based only properly on
 18 policy, not on quality?
 19 A. Yes, that's what I'm saying, I think.
 20 Q. Then you say in the last paragraph:
 21 "It also has the benefit of obfuscating what we are
 22 doing from nextag (and the rest) — which may be a good
 23 thing or a bad thing. And it may be more of a bad thing
 24 if we are using a collaborative approach with Nextag in
 25 Bill's meeting on Tuesday."

202

1 So you are saying that if you frame it as an
 2 algorithmic quality demotion, rather than a manual
 3 demotion, then that would obfuscate it from NexTag; is
 4 that right? Because if it is algorithmic and gradual,
 5 then you would effectively conceal what you were doing
 6 more effectively than if you suddenly manually demote
 7 NexTag?
 8 A. I mean, I've used the word "obfuscate", so that's what
 9 I said at the time. I would point out what I actually
 10 launched was always the quality, the squashing version.
 11 Q. That is fair.
 12 A. Yeah.
 13 Q. But that is what you meant, was it not?
 14 A. I think so, yes.
 15 Q. Okay.
 16 If we could go next —
 17 MS ROSE: Could I just ask a question?
 18 When you say "if it is a quality demotion, the score
 19 squashing approach may be better", are you referring
 20 there to algorithm A? Is that what you mean
 21 by "the score squashing approach"?
 22 A. Sorry, no, I believe — is that — is that madam from
 23 the Tribunal I'm speaking to?
 24 MS ROSE: Yes, it is. Hello.
 25 A. Okay. I'm sorry, I can't see the entire courtroom.

203

1 No, I am referring to the approach that I used in my
 2 algorithm, which we haven't discussed so far in the last
 3 few minutes, which was — just in principle, it was
 4 a part of the score is left alone and then we sort of
 5 have a — the score above a certain number is halved, so
 6 I think we used the word "squashing" to refer to that.
 7 But that's the approach I used. I do not know what
 8 [redacted] used.
 9 MR JOWELL: If we go, please, to {J2B/36}, and if we go to
 10 {J2B/36/2} of this, we see an email dated 27 March 2007,
 11 to Bill Brougher from Todd Nemet, I think, and it is
 12 about various Shopzilla sites that have been demoted in
 13 various websites, including a number in Europe.
 14 If we go back to {J2B/36/1}, you can see that you
 15 were asked about this by Bill Brougher. At the very
 16 bottom, he writes:
 17 "shopzilla was hit earlier as you say bharat, we
 18 just want to know if this is a double-whammy."
 19 So he is asking you whether the Shopzilla sites were
 20 hit twice by two demotions on the part of Google.
 21 We see your response, in the first paragraph you
 22 explain that the French and German sites should be
 23 unaffected by your algorithm, yes, because it is just
 24 "English (US)"?
 25 Then we see the second and third paragraphs, and you

204

1 note that you have not changed the one US Shopzilla site
 2 yet, but you say that you would expect it to be demoted
 3 and lose about 20% of its appearances on the SERP.
 4 Then we see, in the fourth paragraph, you explain
 5 that whether there has been a "double-whammy" will
 6 depend on the mechanism.
 7 First, you say that:
 8 "With Cody's [algorithm A], it will be one or
 9 the other, not both. But if we 'badurl' something (as
 10 Paul Haahr had done but has now reverted), then it is
 11 double-whammy in the sense that (say) nextag would lose
 12 an additional 10–15% of whatever survived the 'badurl'.
 13 So you are saying that a site will not be hit by
 14 both algorithm A and diversity; is that because they are
 15 basically doing the same thing?
 16 A. I — I don't remember what mechanism we had that would
 17 be one or the other. I don't think they're doing
 18 the same thing. Like I said before, I don't remember
 19 the exact details of algorithm A, as you call it, but
 20 I mean, they had some similarities, but I wouldn't refer
 21 to them as doing the same thing.
 22 I also do want to make one clarification. This
 23 email — these emails are dated April. We are referring
 24 at this point to a version of my algorithm which we
 25 actually didn't launch. We thought we were going to

205

1 launch it, but then, as a consequence of some of these
 2 discussions, we said I should go back and create
 3 the algorithmic list, which is what we then completed by
 4 June. I just did want to clarify that.
 5 Q. No, and you are absolutely right, you had not — it was
 6 delayed.
 7 A. Yes.
 8 Q. But I just want to understand, if you "bad URL"
 9 something manually, like Paul Haahr was, you were saying
 10 that would be cumulative with your algorithms and with
 11 algorithm A?
 12 A. Yes, that is my — that was my understanding at the
 13 time, yes.
 14 Q. Then the "ps" is interesting, because you say:
 15 "I now have a list of German comparison shopping
 16 sites so I'm starting to do some experiments to extend
 17 to [Germany]. But that's not close to launch at all."
 18 So, at this stage, you were planning to launch to
 19 extend your algorithm to Germany; correct?
 20 A. Yes. I mean, I don't know if I was doing it with 5% of
 21 my time or, you know what it was, but, yes, correct.
 22 Q. Okay.
 23 Now, it is absolutely right that your
 24 diversity algorithm, the implementation of it was a bit
 25 delayed. If we go to {M1/96}, if we can go to

206

1 {M1/96/6}. If we see at the bottom — I'm afraid
 2 the format is horrible, but there is an email from
 3 Elizabeth Tucker to you, and she says:
 4 "Bharat — It's almost done, but it's solidly
 5 negative. Here's ..."
 6 If we can go over the page {M1/96/7}:
 7 "... an interesting comment from a rater 'R lists
 8 review sites like nextag and epinions higher. When
 9 a parent is looking for a car seat they want to read
 10 reviews and price comparisons. R has more comparison
 11 and shopping results'.
 12 "I also saw a couple of items which don't seem to
 13 involve shopping comparison sites."
 14 And so on.
 15 So, broadly speaking, again, the rater experiments
 16 were not approving of demoting to only one CSS at this
 17 stage; correct?
 18 A. I think that's right. Again, this is not the version we
 19 actually launched. I do not remember whether this
 20 particular version was keep one, I do not remember
 21 whether it used a stronger demotion factor than my final
 22 version and so on. But, yes, this was a not-launched
 23 prior version that we were experimenting with.
 24 Q. Then if we go back to {M1/96/6}, she says —
 25 Elizabeth Tucker says to you — or rather, I think you

207

1 are writing here, you say — you say I am — I am — it
 2 says here, I could — forgive me, can we — I am trying
 3 to find the — yes, Elizabeth Tucker says to you:
 4 "I could squeeze you in for 15 minutes or so today.
 5 I don't have any profound ideas, except to say that at
 6 some level we are going to have to figure out what
 7 experiments to run and what we are comfortable with,
 8 given that raters genuinely like shopping comparison
 9 sites for some queries (and full disclosure—in some
 10 cases I agree with them)."
 11 So it is starting to get a bit frustrating for you,
 12 I imagine, that everyone, even Ms Tucker, liked
 13 comparison shopping results?
 14 A. I mean, I wouldn't say it's frustrating. I think —
 15 I think if you look at the entirety of the documents
 16 that I've written, I've always been clear that in and of
 17 themselves comparison shopping sites were not bad.
 18 The challenge was when, you know, the top ten results
 19 had eight of those or nine of those. So I don't
 20 actually disagree with the comment there. It was
 21 the number and the overwhelmingness of it that was
 22 the challenge.
 23 Q. Fair enough.
 24 If we go back to {M1/96/4} in this document, you see
 25 about two-thirds down it starts:

208

1 "Meanwhile ..."
 2 You are writing to Ms Tucker, you say:
 3 "Meanwhile, I'm going to run the same 200 queries
 4 through a slightly different heuristic to see what
 5 happens.
 6 "My overall opinion is similar to what I've stated
 7 before:
 8 "The comparison shopping sites (especially the big
 9 popular/dominant ones) tend to have reasonably good
 10 pages ..."
 11 And so on:
 12 "But each additional such results add incrementally
 13 less value, and because they all operate off the same
 14 feeds, they all provide the same prices.
 15 "Losing the (say) 4th comparison shopping result
 16 doesn't really reduce any value [to] the user."
 17 Going over the page {M1/96/5}, you say, about
 18 two-thirds of the way down, you say:
 19 "The final philosophical question is whether direct
 20 retailer results are better than 'indirect'
 21 comparison shopping results. Mostly the raters appear
 22 to prefer comparison shopping results but on some
 23 queries they seem to like it if the right 'brand name'
 24 site was in the top results."
 25 So, again, a reflection that is very clear that

209

1 Google's internal raters generally liked shopping — at
 2 least some shopping comparison results; correct?
 3 A. Yes.
 4 Q. Then if we go to {M1/96/3}, at the bottom right, if we
 5 could bring that up, we see you say — you write to
 6 Ms — you write to Elizabeth Tucker, and you say:
 7 "A positive eval at last! This experiment is quite
 8 solidly positive ..."
 9 You say — effectively you say — well, it does feel
 10 — it does feel from this that it has been quite hard
 11 for you actually to make these demotions positive from
 12 a user perspective, has it not? You have got there "at
 13 last!"?
 14 A. Yeah, I think the only clarification I would make is
 15 you're using the word "user" and — and this is all
 16 rater, I think is the only correction I'd make to what
 17 you said.
 18 Q. Anyway, you see — but that was — but the raters are
 19 intended to be proxies for users, are they not?
 20 A. Oh, yes, they are, just we've always gotten better over
 21 the years at making them better and better proxies. At
 22 that time, 20 years ago, they were some proxy.
 23 Q. Then you see the changes were, as we see, what you did
 24 was:
 25 " ... to 'keep two' [CSS] results and to demote

210

1 off-country results when the query is strongly
 2 commercial."
 3 Your proxy for "strongly commercial" was two or more
 4 CSSs in the top ten?
 5 A. Yes.
 6 Q. So is this right, so essentially the algorithm
 7 functioned such that where you had two CSSs in the top
 8 ten, then the results would limit it to those two and
 9 then you also would demote sites that were not US-based?
 10 A. Not exactly. First, just to take your two points one by
 11 one, we would leave two exactly as they were, we did not
 12 touch them, like not change their score at all.
 13 The third one would be demoted slightly, but, by demote,
 14 I mean its score would be reduced. That may or may not
 15 actually change its position, because you may not reduce
 16 its score by enough to make it, you know, score less
 17 than what was fourth, say. So — so I do want to
 18 clarify, we keep two, as in we don't touch two at all,
 19 and the others are — slightly had their scores reduced,
 20 which may or may — it depends how much they actually
 21 get pushed down in the ranking.
 22 Then the other clarification I'd make was the change
 23 that I actually launched — and I'm sure there's
 24 something in that email there that says it — I did not
 25 make any change to the country part of it. You know,

211

1 I passed on my findings to another team that specialised
 2 in country demotion across all queries, not just
 3 commercial queries, and — and, you know, they — they
 4 just took my — my results as motivational examples.
 5 Q. But, basically, in order to find a positive evaluation,
 6 you had to keep at least two comparison shopping sites
 7 in the search results?
 8 A. Correct.
 9 Q. If we go to {M3/333}, we see — on page {M3/333/2}, we
 10 see an email from Amit Singhal dated 1 July 2008 that
 11 includes you and Mr Cutts, and he writes:
 12 "Bharat was in the process of launching
 13 comparison shopping demotion. Bharat, where are we and
 14 what was the impact? How did we detect these sites?"
 15 If we go to {M3/333/1}, at the bottom, we see an
 16 email from you. If we go to page 1, please, an email
 17 from you dated 7 January 2008, and you say:
 18 "Comparison shopping demotion finally launched at
 19 all data centres last month. It is active for
 20 English/US only.
 21 "The demotion is mild. Typically,
 22 the comparison shopping pages will not be eliminated
 23 entirely and at least two results are untouched.
 24 The comparison shopping results are usually demoted in
 25 the 'head' where several good results are available, and

212

1 not in the tail when they are usually the best results
2 from bad result sets. In my experiments, the large
3 comparison shopping sites showed SERP declines between
4 8% and 20% from this change.

5 "We had evaluated somewhat more aggressive demotions
6 but [we] eventually had to go with the mild version that
7 received a positive [side by side]. There are several
8 parameters in the code and we could possibly 'turn the
9 knob' to make it more aggressive."

10 Then you explain how you had generated it.

11 A. Mm—hm.

12 Q. "... a two—step process — a classifier followed by
13 confirmation with some toolbar/traffic signals:

14 You say that:

15 "The classifier uses regular expressions that
16 commonly occur on comparison shopping sites as well as
17 negative signals whose presence suggests it is not
18 a comparison shopping site."

19 Then you explain how the classifier is made and you
20 say:

21 "[You are] pretty satisfied that the list was fairly
22 comprehensive and didn't have false positives.

23 "[In my opinion], identifying comparison shopping
24 sites was not that challenging ... The challenge is what
25 to promote in its place, and reconciling our intuitions

213

1 with raters' opinions."

2 So, again, it is very clear that you did both create
3 and apply an algorithmic classifier for CSS sites;
4 correct, using signals?

5 A. Correct, yes.

6 Q. Then we see — if we go back up, we see a response — we
7 see a response from Mr Yakovenko, and you add at the top
8 there:

9 "I had looked at different demotion policies for
10 commercial queries vs non—commercial queries. There is
11 some merit in this but in fact the presence of many
12 comparison shopping results is at least as strong an
13 indication of the commercialness of the query as
14 the commercial query detector.

15 "I also felt that the comparison shopping results
16 were more useful for broad queries like 'women's gloves'
17 than very specific queries ... For broad queries, some
18 of the comparison shopping results showed the breadth of
19 products matching the query in a nicely organized
20 manner."

21 So, to summarise, you could have adjusted your
22 diversity algorithm to make it more aggressive in its
23 demotion of CSSs, but your view was that all
24 the evidence was firmly against that, that that would
25 not have been in users' interests?

214

1 A. Yes, I mean, I'm — even now, 20 years ago, I felt —
2 I found the correct tradeoff given all the data.

3 Q. So if somebody had said to you, "Right, we are going to
4 adjust our algorithms to effectively demote almost all
5 CSSs from SERP", that would have been contrary to all
6 the evidence that you saw of users' best interests?

7 A. I mean, I'd say yes. I mean, I would qualify it.

8 I imagine they would do it on — you know, they would
9 have other conditions, you know, this kind of query or,
10 you know, something like that. But if you phrase it as
11 a — as a very general statement like that, I would
12 agree with you.

13 Q. You would say, well, then you should use a classifier to
14 protect CSSs, or at least some CSSs, would you not, in
15 those circumstances?

16 A. I don't know. I'm sorry, you're asking me for — for
17 your — my opinion on a hypothetical project. I don't
18 quite know how to answer it.

19 Q. Fair enough. But that would have been technically
20 possible, would it not?

21 A. Sorry, to do what?

22 Q. To use a classifier — your classifier to protect CSSs
23 from the effect of another algorithm.

24 A. I imagine so. I mean, I think everything depends on how
25 you want to use a particular list. I mean, my list was,

215

1 I think, a fairly comprehensive list of CSSs at the
2 time. It did not distinguish between, you know, CSSs
3 that loaded quickly versus loaded slowly and so on, so
4 I wouldn't consider it a good list as a — in some sense
5 of the word a protection list. Yeah, I think there's
6 a lot of nuance in — in what a list should be used for
7 or not. It would be a good starting point, yeah.

8 Q. It would be a good starting ...

9 There is no technical reason why you could not have
10 refined that list to make it more nuanced, as you say?

11 A. I mean, no technical reason. I don't know if it would
12 have been quite as easy. I think, you know, we didn't
13 go over it, but I found these sites more based on
14 the content of the site, the words on the site, the text
15 on the site. I think the nuance of a site that loads
16 quickly versus doesn't, it's not based on that, it's
17 then based on other kinds of signals of how users
18 behave, and latencies and so on. So in theory, yes, but
19 it wouldn't be easy, right? It would be a separate
20 system.

21 Q. Thank you.

22 Just one final question. Your algorithm was not
23 extended outside of the United States, as far as you are
24 aware. Do you know why that was?

25 A. I think, primarily — I mean, if — if I remember back

216

1 to, you know, 2006 when I started working on this, most
2 of the feedback we got was, I mean, partly because we
3 lived in the US, but a lot of blogosphere in
4 the United States was talking about how Google was
5 inundated with these comparison shopping sites, it
6 wasn't brought up in that context as something that was
7 quite as bad internationally and so that's what we ended
8 up doing.

9 MR JOWELL: Thank you. I have no further questions.

10 MR WEST: I have no questions.

11 THE CHAIRMAN: Any re-examination?

12 Re-examination by MS MORRISON

13 MS MORRISON: Mr Kalyanpur, can we go back to {M1/96}. You
14 were taken to quite a few parts of this email exchange,
15 but if we could go to {M1/96/6}, at the top — actually,
16 {M1/96/5}, at the bottom, just to show you this is an
17 email from you on 29 May 2007. If you could just read
18 that email there. It goes from end of page 5 over to
19 page 6.

20 A. Sorry, can you just remind me who I'm speaking to at
21 this moment?

22 Q. This is the exchange with Elizabeth Tucker and others
23 about the evaluations —

24 A. Oh, no, no, sorry, I meant, sorry, who are you?

25 Q. Oh, I am so sorry, it is Ms Morrison. I am for Google.

217

1 I apologise Mr Kalyanpur.

2 A. Okay. I apologise. I haven't met you in person.

3 I apologise.

4 Q. No, that is one unfortunate of having witnesses all over
5 the world is that we have not met before.

6 A. Yes. Sorry. Sorry, can you repeat your question to me?

7 Q. If I could just ask you to read the bottom of page 5 of
8 this email exchange, and it goes over to page 6.

9 THE CHAIRMAN: The one starting:

10 "Tomorrow is fine too."

11 A. Yes, so:

12 "Tomorrow is fine too."

13 Do you want me just to read it in my head? I will,
14 yes.

15 MS MORRISON: Yes, that is fine.

16 A. Yeah, can you — can whoever is controlling it scroll to
17 the next page then? Okay.

18 (Pause)

19 Okay.

20 Q. Mr Kalyanpur, it was put to you in various ways that you
21 were frustrated, or you were trying too hard to get this
22 over the line. If you had come to the view that this
23 algorithm was not worth applying, would you have been
24 prepared to abandon the attempt?

25 A. Yes, I mean, those are the words I've used: "then this

218

1 isn't worth launching". I would also point out, in many
2 of the emails brought up I have tried to be as — always
3 trying to look at it from the user perspective.
4 You know, for example, the whole exchange about search
5 results versus non-search results. So, you always like
6 a project to be completed quickly, but I was very much
7 motivated to do the right thing.

8 Q. Why, Mr Kalyanpur, did you come to the view that
9 the algorithm that you launched was doing the right
10 thing for users?

11 A. I — what I feel with the algorithm we launched was we
12 were trying to improve the diversity of results for
13 search queries. We knew that our rating system did not
14 reward diversity because of how it was set up, so if you
15 could find the right tradeoff where raters said, "Yes,
16 these results are ..." — in fact, my final eval was
17 actually, you know, on the positive side of neutral and
18 it improved diversity, then I was very convinced that it
19 was both accomplishing the goal of diversity while, in
20 fact, slightly, in addition, improving results as
21 measured by raters at the time.

22 Q. Correct me if I am wrong, Mr Kalyanpur, algorithm A also
23 applied in the US, did it not?

24 A. Sorry, all — sorry, what applied in the US?

25 Q. Algorithm A. I am sorry, it is odd to use that kind of

219

1 terminology, but —

2 A. Oh, yeah, yeah. No, no. I — I believe so. Like

3 I said, I didn't launch that. I have to assume it

4 launched — it was launched in the US too, if it was

5 launched at all.

6 MS MORRISON: Thank you. That is all my questions.

7 THE CHAIRMAN: We have no questions, Mr Kalyanpur. That
8 concludes your evidence. Thank you very much for
9 assisting the Tribunal.

10 A. Thank you so much, everyone.

11 THE CHAIRMAN: We can disconnect the video-link.
12 (The witness withdrew)

13 (Pause)

14 Housekeeping

15 We will have to rise by 5.15, but regarding
16 the experts, and we are looking at the joint expert
17 statement, which is in bundle I1, and the application
18 that is now made for additional expert evidence, we have
19 to say we are quite concerned that a significant part of
20 the expert evidence seems to go to things that are
21 either where we have binding findings and therefore
22 cannot be opened up by expert evidence, which means that
23 the evidence is just irrelevant and therefore
24 inadmissible, and other parts of the expert evidence are
25 dealing with matters that are matters of fact or law

220

1 for the Tribunal and are not matters of economic expert
2 evidence at all, even, in many places, say so in express
3 terms but then proceed to give their opinions on it. We
4 do not think it is appropriate to have such evidence,
5 and their opinions on that are simply irrelevant and
6 inadmissible.

7 So that curtails, in our views, quite significantly
8 the scope of expert evidence in this case, and in
9 particular we note that the recent application, I think
10 from Mr Noble, to put in a supplementary expert report,
11 and then Mr Hunt possibly to respond to that, seems to
12 go to what the experts have called the assessment in
13 the Pre-Decision Period. In particular there is
14 a question of how did algorithm A affect traffic to CSSs
15 prior to the Decision Period, and a whole lot of
16 analysis of domains and subdomains and so on. But we
17 have the binding recital, recital 352, in the Decision
18 which, if we remind ourselves of that — which, for
19 the Opus reference, is {BA/2/86} — is:

20 "Comparison shopping services are prone to being
21 demoted by [algorithm A] due to the characteristics of
22 those services."

23 Then three reasons are set out, all of them binding.
24 Now, that is for the Decision Period, but there has been
25 no evidence, or indeed suggestion, that algorithm A was

221

1 materially changed at the start of the Decision Period
2 from the way it operated previously. So in the absence
3 of any such evidence, that applies for the Pre-Decision
4 Period and that is binding. So whatever the experts
5 want to conduct in terms of elaborate analysis of
6 domains and subdomains and all the rest of it is simply
7 irrelevant. Of course we can hear, if you wish,
8 tomorrow submissions against that view, but we have
9 given this some thought and it therefore seems to us
10 that the whole section of the work they have done is not
11 admissible and therefore any supplementary reports going
12 to that are therefore not appropriate. That is as
13 regards the particular application that we have, and we
14 do not propose obviously to explore that with
15 the experts, nor do we think anyone else is entitled to
16 do so.

17 We have looked also at some of the other parts of
18 the matters that they address, and again, we have
19 concerns. This is what they call section 1A of
20 the issues they have identified. If one goes to 1B,
21 which is: did the application have an impact on
22 competition between CSSs, including Google's CSS? Well,
23 that is also, as we read what they say, based on this
24 domain-level analysis and therefore not appropriate. We
25 know the effect on Foundem of the whitelisting, and that

222

1 Foundem's ranking then went up significantly — leave
2 aside any question of manual penalties and whether it
3 should have gone up further or not — so, clearly,
4 algorithm A had an effect on Foundem. There is
5 a question of whether that is due to the fact that
6 Foundem was, to put it bluntly, a rather poor CSS and
7 therefore failed the various quality metrics in
8 algorithm A, or because it is simply because Foundem was
9 a new entrant, but that is a question of looking at what
10 were the conditions and criteria of algorithm A, on
11 which we have evidence, but not a question for
12 economists, and we do not see there is anything now that
13 appears on the evidence to support real diversion to
14 Google's CSS, which was Froogle at the time. So, again,
15 we do not see that as a matter where the experts can
16 assist us.

17 1C, which is on page 21 of this document, well, in
18 fact, Mr Hunt has not addressed this. Mr Noble
19 addresses the particular point by looking at it as
20 a question of fact and not as a question of economics,
21 and one sees that from the top of page 23, and that is
22 a matter for this Tribunal and submissions and not for
23 economic evidence. So we really do not get assistance
24 from the experts on that.

25 2A, economic background to the assessment. All of

223

1 that, in our view, seems to be questions of fact, and it
2 is particularly striking when one looks at issue 2.4 on
3 page 30: what are the changes to the compliance
4 mechanism or Remedy box compared to the Shopping Unit?
5 Both experts set out what are the differences between
6 the two. Well, that is not economic evidence, that is
7 simply factual evidence on which we have heard, we have
8 got evidence before us and it is for us to determine
9 that. We do not want to hear Mr Noble's analysis of
10 the factual differences and him cross-examined. You
11 might as well be cross-examining the members of
12 the Tribunal on that basis.

13 Now, the areas where we think the experts do give
14 potentially relevant evidence is on 2B, where they are
15 looking at the question of whether the CSS — Google's
16 CSS or the Remedy box, to use a neutral word, is
17 the same market as CSSs, and that, we think, is
18 potentially a question for economic experts, because it
19 goes to market definition, and we think, there, they do
20 say matters that merit exploration and which we can deal
21 with in the hot tub.

22 2C, what is discrimination, we think is a legal
23 question, but 2D and most of 2E, we can explore,
24 I think, all of it in the hot tub. Some of it relates
25 back indeed to this question of whether they are in

224

1 the same market. So there is some valuable material in
 2 their reports on that part of the case.
 3 One then comes on to part 3, which starts on
 4 page 62.
 5 PROFESSOR SMITH: I think you — sorry, I am not sure you
 6 have covered 2F on page 44.
 7 THE CHAIRMAN: Thank you.
 8 Yes. Professor Smith is pointing out page 44, 2F.
 9 Yes, thank you.
 10 Professor Smith reminds me, 2F we think is all just
 11 factual analysis. If there is some disagreement simply
 12 on their evaluation of the data, then that can be
 13 useful, if they do not agree on what percentage goes and
 14 they have done, as it were, data analysis, not really
 15 economist expertise but sometimes in these cases, as we
 16 know, experts assist by just having evaluated a lot of
 17 data and come to some conclusions, and if there is
 18 disagreement about the percentage, that can be useful.
 19 But beyond that — some of it they agree on, but such
 20 questions as whether the Google search engine results
 21 page is an important source of business for CSSs, well,
 22 we have a binding recital on that as regards
 23 the Decision Period and no suggestion in any of
 24 the evidence that things have changed materially, so
 25 that is not a question that is open for us.

225

1 On the other issues, such as 219, they really relate
 2 back to the question of whether the Remedy box is in
 3 the same market or not, so one comes back to that same
 4 fundamental point.
 5 Then one can go to issue 3, which is the — well,
 6 issue 3.1, we note that Mr Noble indeed starts out by
 7 saying that this is a legal question. We agree. He
 8 then goes on to express an opinion. To some extent what
 9 is said here is really blindingly obvious and the two
 10 experts of course agree, but we do not need their
 11 opinion that one has to have a lawful option and it has
 12 got to be realistic. Well, yes, indeed, but we do not
 13 need evidence from them for that, and
 14 the contemporaneous evidence can assist. Yes, that is
 15 also obvious. So we do not really get much out of any
 16 of that.
 17 We do think that there is help, however, in 3B on
 18 the assessment of the counterfactuals, the various
 19 different counterfactuals to the extent that they can
 20 assist on that, and we would not want to, I think, shut
 21 out questioning counterfactuals.
 22 So that was a fairly, necessarily, rushed expression
 23 of our view on where we stand, but it does mean, on
 24 the thing — obviously work would have to be done
 25 straight away about any supplementary report — that

226

1 seems to go entirely to the first part, we think it is
 2 just not open to the parties, nor indeed to Mr Hunt to
 3 put in evidence on that because it has been determined.
 4 It would only be relevant if we had heard from Google
 5 witnesses that actually algorithm A operated in
 6 a completely different way in the Pre-Decision Period.
 7 But it did not.

8 So that is where we are. The matters that we think
 9 are properly admissible we think can all be explored in
 10 the hot tub.

11 Now, I am very conscious of the time and that you
 12 may wish to consider what we have said. We can resume
 13 tomorrow. We are — it is an important case for all
 14 the parties and we are very ready come back if necessary
 15 tomorrow morning. Perhaps the sensible thing to do is
 16 that we will, as I have told you we have to, rise now,
 17 and if you can send a message to the Tribunal, I hope in
 18 the next half hour, as to whether you wish to reconvene
 19 and make submissions on what we have said. Obviously
 20 you need to discuss it with those instructing you.

21 Now we shall rise and wait to hear from you.

22 (5.22 pm)

23 (The Court adjourned until a time to be confirmed)

24

25

227

INDEX

1	MR GREG FRIEDMAN (continued)	1
2	Cross-examination by MR WEST (continued)	1
3	Re-examination by MR PICKFORD	32
4	Questions from THE TRIBUNAL	60
5	Further cross-examination by MR JOWELL	95
6	Further cross-examination by MR WEST	103
7	Further re-examination by MR PICKFORD	110
8	Further questions from THE TRIBUNAL	113
9	Further re-examination by MR PICKFORD	118
10	MR SAMUEL BRAENDLE (affirmed)	121
11	Examination-in-chief by MR GREGORY	121
12	Cross-examination by MR JOWELL	122
13	Questions from THE TRIBUNAL	176
14	MR BHARAT KALYANPUR (affirmed)	178
15	Examination-in-chief by MS MORRISON	178
16	Cross-examination by MR JOWELL	180
17	Re-examination by MS MORRISON	217
18	Housekeeping	220
19		
20		
21		
22		
23		
24		
25		

228

A						
a138 (1) 15:12	152:23 153:4 166:23,25	12:13,17 19:12 20:12 23:2	92:11 94:7,14 97:2,11	apples (1) 165:14	assuming (6) 53:9 84:12	106:10 127:8 131:5,6,6
a222 (1) 32:25	168:2 205:12 209:12	26:20 28:13,25 30:12	100:25 116:14 120:17	application (5) 94:14 220:17	100:24 101:2 151:12	134:3 151:5 161:3 172:11
abandon (1) 218:24	220:18	43:12 59:22 68:25 72:11	123:1 124:12 127:12	221:9 222:13,21	186:10	174:25 194:17 202:15,17
ability (4) 13:25 66:1 130:8	address (9) 5:18 58:4 59:22	75:15,24 89:9 90:12 92:14	128:16 130:12,23 132:10	applied (5) 91:21 109:17	assumption (6) 9:15 10:1	216:13,16,17 222:23
150:25	108:24 113:2 116:10	99:13 106:8 109:5,20,23	136:1 138:5 140:8 142:12	187:18 219:23,24	12:9 100:22 116:11,14	basic (4) 47:17 52:15 55:8
able (23) 14:23 15:23 16:22	146:21 163:23 222:18	112:4 115:3 139:19 140:1	145:1 146:18	applies (2) 21:6 222:3	assumptions (1) 116:18	167:1
20:8 54:1,7 71:7 77:20,21	addressed (4) 17:13 40:10	143:3 145:8,16 146:1	148:6,6,18,24 152:22	apply (7) 6:12 133:1 172:11	attempt (1) 218:24	basically (18) 20:5 39:22
78:9,18,22 84:17,19	59:21 223:18	157:22 158:21 159:12	153:17 158:17 160:10	185:25 189:18 191:9 214:3	attended (1) 177:7	45:10 51:14 58:4 62:20
108:15 112:14 117:6	addresses (1) 223:19	161:17 163:6 168:12 183:3	162:5,9,10 164:19 165:5	applying (4) 20:25 91:5 98:7	attending (1) 177:17	93:24 132:13 133:21
164:17,19 165:1,2 181:25	addressing (3) 35:15 76:2	189:17 194:23 195:6 199:6	166:2 175:24 176:16 191:9	218:23	attention (1) 54:12	139:16 159:8 167:4 185:15
200:3	115:19	202:7,9 207:15,18 209:25	194:20 202:21 205:22	appreciate (2) 142:15,18	attractive (3) 86:17 100:1	186:9 194:17 199:12
above (6) 29:14 173:7	adds (2) 50:4 164:11	214:2 222:18 223:14	207:12 211:9 214:15	appreciates (1) 143:1	101:9	205:15 212:5
193:19,22 196:15 204:5	adequately (1) 108:4	against (8) 109:16 110:6	219:1,22 222:17,23 226:15	approach (18) 40:14,18	attractiveness (1) 166:20	basis (5) 55:16,17 172:18
abrad (2) 156:13,15	adhere (1) 120:11	163:10,19 175:2 201:10	alternative (1) 166:17	48:13 72:3,10 73:12 84:2,6	auction (67) 21:18 22:8,24	173:25 224:12
abrad (1) 156:21	adjourned (1) 227:23	214:24 222:8	alternatives (1) 86:24	136:21 155:25 163:11	31:14 46:6,10,17,23,25	beal (1) 41:23
absence (1) 222:2	adjournment (2) 95:5 110:19	agencies (26) 27:12,16,22	although (5) 30:14 79:22	193:25 202:4,24 203:19,21	47:3,7,10 52:14 56:18,19	bear (1) 151:12
absolute (1) 43:24	adjust (1) 215:4	132:15,23,24 134:11,20	109:18 150:18 178:1	204:1,7	64:12 65:10,21 66:4	bearing (1) 94:13
absolutely (7) 9:3 47:15	adjusted (1) 214:21	135:5,8,14,20,22 136:1,3	always (19) 57:23 100:12	approached (1) 27:22	67:8,24 68:19,19,21	beat (1) 173:10
120:11 133:6 142:2	administer (1) 178:8	137:6,19 140:10,13	105:7,9 130:22 147:14	approaches (1) 39:20	47:3,7,10 52:14 56:18,19	became (5) 26:16,17 115:17
200:5,23	admissible (2) 222:11 227:9	143:15,20 144:13,16,21,24	148:22 150:12 157:2,12	approaching (1) 137:6	72:22 75:23 77:5,11	123:4 180:14
acceptable (1) 115:12	admixer (8) 51:15,16,18,25	145:16	158:12 163:21,22 184:24	appropriate (6) 92:9,12	79:13,16 80:7,11 84:15,18	become (6) 9:16 101:9 137:7
access (5) 10:9 14:23 17:19	52:5,10,12 53:2	agency (12) 130:15 132:5,12	203:10 208:16 210:20	94:21 221:4 222:12,24	94:5 95:15,24 96:11,18	144:9,21 159:13
18:2 19:5	adobe (1) 136:4	133:25 134:5,14,15,16	219:2,5	appropriately (2) 107:25	97:24 98:9 99:11,15,21	becoming (1) 135:21
accessing (1) 18:22	adopted (3) 13:13 77:5	138:13 140:16 144:9 145:9	amazon (16)	198:22	103:9,23 106:10,13	before (40) 11:24,25 14:12
accomplish (1) 61:6	152:20	aggregator (2) 18:17,20	16:11,12,13,13,15,24	approval (1) 24:16	113:4,9,20 117:7 135:6	20:2 25:7 33:12 39:12 44:7
accomplishing (1) 219:19	adoption (1) 61:3	aggregators (8)	17:1,3	approving (1) 207:16	139:11 157:10 163:11	50:21 51:19 74:8 77:19
accord (2) 106:21 107:12	ads (86) 5:11,12 17:22	18:8,14,15,18 19:5,7,9	176:6,9,10,11,14,15,16	april (3) 156:3 188:22 205:23	167:6,10 173:11 175:2	84:15 94:11 109:11 110:19
according (1) 160:11	29:17 47:4	125:22	195:8	arbitrage (12) 127:20 128:5	audible (1) 135:2	113:16 118:7 125:3 126:15
accords (1) 107:2	52:6,7,12,16,18,20 53:11	aggressive (4) 188:1 213:5,9	amazons (1) 17:1	132:12,24 134:1,2	audio (1) 190:8	135:20 137:2 149:22,23,24
account (1) 156:16	56:9,23 57:13,14,24	214:22	amend (1) 3:1	139:6,16 145:7,8,13,17	augment (2) 144:2 171:24	153:13,19 155:2,16
accurate (1) 113:5	58:1,3,3,13,20,20,23	ago (11) 9:24 28:17 37:2	amended (1) 109:8	arbitragelike (1) 132:20	author (2) 156:8,9	165:24,25 168:19 178:11
achievable (1) 1:21	73:17,20	142:19 179:9 180:24	amending (2) 9:23 110:2	arbitrary (2) 45:5 185:14	automated (3) 188:24 189:6	185:11 187:4 188:13
achieve (2) 13:16 17:6	74:4,5,6,7,8,14,17,21,22	183:13 187:25 192:9	amit (3) 186:16 199:25	area (17) 3:6,22 4:20,22 8:7	190:17	205:18 209:7 218:5 224:8
achieved (1) 174:4	75:7,8,18,20 84:19	210:22 215:1	212:10	11:22 25:6 28:25 79:23	autumn (1) 150:18	begin (1) 98:4
acknowledge (1) 63:13	86:3,5,10 92:15 97:25	agree (22) 15:3 19:23 24:8	among (4) 79:13,15,16 133:9	90:13,13 100:25 112:6,22	available (14) 12:11 13:9	beginning (3) 5:4 33:19
acknowledging (1) 4:24	98:13 99:17	31:9 49:21 50:1 105:20	amongst (2) 183:17 186:4	115:19 116:15 125:14	15:1,23 16:11,12,23,25	123:22
acquire (2) 130:21 142:12	101:8,20,20 102:2 116:20	130:19 134:2,7 137:7	amount (10) 101:15 104:19	172:15 224:13	19:25 63:15 144:17 147:23	begins (2) 42:8 53:19
acquired (1) 133:22	119:12 122:21,24 130:21	143:8 146:9,13 147:5	106:13,16 157:23 159:9	arent (1) 16:12	150:16 212:25	behalf (8) 18:3 21:1 24:11
acquires (1) 127:21	134:15,17,21 135:11,23	152:17 208:10 215:12	169:5 187:23 191:23 202:1	argue (5) 146:18 158:7	average (1) 163:14	26:22 133:1 134:15,22
acquiring (1) 134:3	143:21 144:6 145:21,21	225:13,19 226:7,10	analyse (1) 57:8	160:20 162:17 163:2	aware (44) 2:9,10 3:8 25:5	135:16
across (3) 182:17 183:6	148:16 150:15 152:25	agreed (3) 49:19 108:17	analysed (1) 187:2	argued (3) 152:9 193:5,8	26:24 27:3,5 28:14	behave (1) 216:18
212:2	153:3 161:11	148:11	analysing (1) 38:11	argument (5) 174:21,24	36:16,20,25 37:4 68:12	behaviour (3) 38:11 159:18
acting (5) 21:15 23:13	167:3,4,5,7,10,12 172:4,19	agreement (2) 23:17 157:6	analysis (13) 47:8 56:23	175:5,5,8	93:2 97:5 104:5,10,24	184:15
130:15 142:11 177:3	asbated (6) 100:23	ah (1) 170:24	57:1,25 84:16 85:23 150:6	arising (2) 93:17 118:3	109:13,18,20,23 110:14	behind (7) 31:23 46:11 88:23
active (2) 46:21 212:19	101:2,3,12 116:15,17	ahead (2) 28:12 168:15	221:16 222:5,24 224:9	arose (1) 31:4	123:4,9,12,13,24	120:6 148:21 150:11,12
activities (3) 21:17 25:4	101:2,3,12 116:15,17	aim (1) 145:5	225:11,14	around (5) 26:24 147:2	125:6,18,20 136:9	being (29) 4:4 6:14 8:9
171:16	advance (5) 151:4,5 152:21	aka (1) 40:13	andor (2) 76:7 99:8	158:2 160:25 190:18	137:1,2,14,15 144:20,23	14:17 23:7,25 40:22 47:12
actual (5) 14:17 36:21	162:1 172:14	algorithm (52) 2:2 4:12	annex (3) 118:16,18,22	arrangement (1) 99:8	145:1,23,24 151:7 172:1	51:5 54:1 62:16 71:7 73:7
181:11 182:10,14	advantage (4) 22:8,24 135:7	10:2,2 89:21 91:21 92:2,10	another (20) 1:18 10:19 16:9	arrow (2) 7:4 11:11	216:24	73:7 78:6 91:3,19,21 93:13
actually (62) 4:11 7:18 12:22	145:1	180:14,15,16,18 182:25	46:14 66:22 75:7 110:1	aside (3) 4:25 18:1 223:2	away (2) 72:10 226:25	106:11 117:6 123:5,13
14:12 23:3 44:17 51:11	advantages (2) 72:17 174:19	183:24 184:21 185:25	121:6 143:2,16 153:12	ask (29) 6:11 10:24 20:17	awful (1) 155:19	127:13 139:20 164:10
58:2,15 65:19 66:8,9 72:9	advertise (2) 20:6 62:1	187:21 189:18,21	157:21 171:22 183:22	32:2 33:16 40:2 44:3 48:15		190:7 192:4 221:20
77:16 78:10 79:5 90:19	advertisers (9) 18:15	195:23,24 196:1,2,8,8,9	184:20 187:9 195:1 198:9	49:3 50:24 53:22 86:25		belief (4) 121:25 122:11
92:24 96:18 102:18 103:12	25:14,19 26:16,17,19,21	203:20 204:2,23	212:1 215:23	93:16 99:4 103:13 106:20	b (2) 107:10,11	159:11 180:6
104:8,12 106:17,19 119:8	78:7 109:14	205:8,14,19,24	answer (14) 5:4 36:18,24	112:12 128:20 130:3	ba2121 (1) 106:24	believe (27) 3:14 20:2,4
126:16 128:15 141:8 142:8	advertising (6) 26:22	206:11,19,24 211:6 214:22	37:2,7 59:25 95:14 108:3,4	159:21 165:12,15,19	ba286 (1) 221:19	22:18 25:10 32:6 36:18
146:7 149:3 150:12 151:8	27:16,22 28:6 63:8 136:2	215:23 216:22 218:23	145:25 146:2,16 165:21	172:25 181:2 189:25	back (50) 17:16 43:3,8,14	39:19 48:12 66:25 68:5
152:9 156:8 163:15 169:3	adverts (1) 30:4	219:9,11,22,25	215:18	200:19 203:17 218:7	48:19 75:12 82:22 86:2,12	74:23 76:7 102:14 79:11
172:20 175:19 182:1	advice (1) 144:12	221:14,21,25 223:4,8,10	answers (1) 5:3	asked (23) 32:11,23 38:18	94:6 96:6,7 97:20 98:6	84:10,13 102:3,4 117:9
183:12,15 186:3 189:5	advise (1) 144:18	227:5	anybody (1) 162:8	57:18 59:17 91:19 103:4	99:5 116:7 141:2,4 146:8	119:9 150:22 172:24
191:11 192:22 197:11,24	advisers (1) 124:19	algorithmic (10) 172:11	anyone (4) 30:16 195:22	106:6 112:1 109:7 110:18	151:16 156:20,23 159:9	185:22 203:22 220:2
198:6 200:8 203:9 205:25	advocate (4) 156:19 158:16	187:18 189:13,15,20 191:5	201:24 222:15	115:4 116:1 128:9 135:4	175:22 176:3,22 181:15	believed (1) 159:6
207:19 208:20 210:11	160:8 162:24	203:2,4 206:3 214:3	anything (13) 5:7 34:13 40:2	146:2,11,12 148:6 149:8	182:19 186:23 188:16	bells (1) 45:25
211:15,20,23 217:15	adwords (4) 109:13,15	6:12 9:23 89:20 90:3,16	54:1 67:10 99:2 108:21	190:2 195:21 204:15	189:9,24 190:10 192:23,25	below (3) 29:19 130:12
219:17 227:5	110:13,15	91:4 106:16 109:9 110:2	160:12 167:23 175:1	asking (10) 4:19 42:15	193:1,13 198:24 200:9	155:2
ad (28) 7:17 18:16 20:4,9	affairs (1) 199:20	111:13 206:10 215:4	178:12 186:3 223:12	58:15,17 91:10	204:14 206:2 207:24	benchmark (1) 133:13
27:12 29:19 38:15,15	affect (4) 84:10 104:19	allocated (1) 174:1	anyway (2) 194:7 210:18	202:9,10,13 204:19 215:16	208:24 214:6 216:25	benchmarks (1) 169:8
46:17 47:6 51:15	111:8 221:14	allow (6) 46:25 47:23 62:10	anywhere (2) 45:6 170:18	aspect (3) 56:22 113:14	217:13 224:25 226:2,3	benefit (3) 13:5 137:13
64:12,17,24 97:15 119:13	affiliate (1) 68:3	174:12,14 201:25	api (3) 40:13 45:14 49:9	187:9	227:14	202:21
130:8 134:11,20	affirmation (1) 178:9	allowed (3) 128:25 133:14	apologise (7) 4:2 32:17	aspects (2) 5:10 39:22	backend (2) 42:6,9	beside (2) 11:6,15
135:5,8,14 136:1,3 142:11	affirmed (8) 121:2 177:14,19	149:8	77:13 105:5 218:1,2,3	asserted (1) 158:1	background (3) 134:23 192:2	best (23) 6:10 7:20 9:25
157:7 160:10 173:11	178:5,17,18 228:12,16	allowing (2) 52:11 130:9	apparently (3) 42:13 94:9	assertion (1) 119:20	223:25	20:21 22:15 36:24 39:16
adam (1) 140:4	afford (1) 72:21	allows (1) 127:17	110:14	assess (4) 38:7 39:22,24	backwards (1) 193:1	44:15 45:1 65:22 70:25
adbased (2) 82:19,24	afraid (7) 54:23 55:3 118:4	almost (6) 49:23 127:25	appeal (7) 18:12 19:4	149:19	bad (18) 16:6 57:24	79:12 83:3 107:21 121:25
add (13) 43:5 119:18 132:19	119:8 143:7 184:14 207:1	163:21 189:2 207:4 215:4	109:14,15 110:3,6 118:17	223:25 226:18	58:1,2,3,20 197:21	122:10 144:19 170:16,23
164:19 165:1,6,9	after (10) 19:19 24:11	alone (1) 204:4	appeals (1) 110:15	assist (6) 7:4 37:21 223:16	198:14,16,17 199:24	180:6 199:24 213:1 215:6
189:14,19 190:1 201:24	123:20 124:14 154:18	111:7,10 117:4 134:21	10:3,5 14:6 2			

199:3 200:3 201:23 213:3 216:2 222:22 224:5 beyond (2) 120:21 225:19 bharat (10) 177:5 178:18 188:18 196:17 197:9 204:17 207:4 212:12,13 228:16 bid (15) 21:6 46:9 47:6 64:24 71:7 105:16 112:25 113:12 139:10,13,14 163:19 164:19 165:4,7 bidding (5) 21:17 24:10 64:17 135:15 158:22 bids (12) 20:25 24:11 31:11,14 46:22 133:1 135:23 140:19,21,24 163:13,16 big (9) 53:18 63:24 72:17 124:19 153:6,7 184:14 190:22 209:8 bigger (6) 22:24 119:6 166:18 167:2 181:10 183:25 biggest (1) 182:8 bill (8) 192:21 193:20,24 195:6,14 199:1 204:11,15 billions (1) 55:13 bills (1) 202:25 binaries (1) 45:9 binding (6) 108:17 220:21 221:17,23 222:4 225:22 bit (20) 11:18 39:18 47:21 50:5 53:18 65:6 73:18 89:2 93:19 112:6 113:16 131:21 149:2,3 172:5 181:5 193:22,23 206:24 208:11 bizrate (2) 187:12 195:8 bizratenextagepinions (2) 181:22 187:4 bland (1) 148:22 blindingly (1) 226:9 blocked (1) 199:10 blogosphere (1) 217:3 blue (1) 29:18 bluntly (1) 223:6 blur (1) 177:10 board (2) 182:17 183:6 bold (1) 136:20 booking (1) 128:3 boost (1) 92:23 boosting (1) 92:21 both (18) 319:20 38:6 52:21 114:19 116:15 130:23 148:24 157:4 171:13,18 186:21,25 205:9,14 214:2 219:19 224:5 bots (2) 3:12,16 bottom (27) 10:16,17 29:9 33:1 53:17 126:11,14 131:4 139:1 165:20 181:6 182:7 186:17,19 192:16,17,18,20,20 193:13 195:12 204:16 207:1 210:4 212:15 217:16 218:7 box (36) 11:16 12:2 15:1,11 17:20 20:24 27:18 29:10 30:14 31:15 37:24 59:4 60:5,6,9 73:7 89:25 90:9 95:20 96:8,8,17 97:1,8,17 100:8 101:6,7 102:11,18 144:14 155:4 167:7 224:16 226:2 boxes (1) 18:2 braendle (15) 25:23 26:5 32:4,6 120:4,14 121:1,2,4 122:18 133:7 134:8 152:15 176:20 228:12 braendles (1) 121:14 brand (4) 30:18 142:13 166:18 209:23 breach (1) 79:21 breadth (2) 84:7 214:18 break (4) 60:13,16 175:21 176:25 briefly (9) 6:19 10:13 17:14 20:17 25:23 27:9 59:8	105:1 136:17 bring (2) 187:11 210:5 british (1) 185:20 broad (7) 56:6 85:8 115:14 146:19,25 214:16,17 broader (4) 16:23,25 18:9 147:8 broadly (2) 187:3 207:15 broken (2) 181:24 187:6 bros (3) 30:18 31:1,3 brothers (2) 30:20,25 brougner (7) 192:21 193:12,20 195:6,14 204:11,15 brought (4) 31:16 59:15 217:6 219:2 brussels (1) 124:20 btw (1) 139:2 budget (1) 87:9 build (2) 27:23 117:21 built (4) 37:11 117:20 190:24 191:4 bullet (4) 160:4 172:7 191:10,12 bunch (6) 58:10 79:2,11 191:17,21 199:24 bundle (2) 39:4 220:17 business (23) 21:20 24:3 61:6,6,19,20,25 63:6 109:14 125:25 127:19 130:23 132:5,20 137:16,22 138:12,13,17 140:22 145:9 198:24 225:21 businesses (1) 61:14 buy (8) 17:21,22 18:1,17 19:8,10 61:15 129:5 buying (2) 130:21 132:13 bypassing (2) 52:16 143:4	cans (1) 133:14 cant (16) 7:16 11:2 16:4 23:18 37:21 43:25 52:17 68:14 98:23 101:18,25 102:20 106:1 115:15 137:21 203:25 canvassed (1) 40:21 capabilities (3) 61:23 62:5 128:11 capability (1) 63:9 capable (1) 110:25 car (1) 207:9 cards (2) 157:15,18 cared (2) 26:10 129:25 carefully (1) 14:16 carousel (5) 47:5 172:8,9,10,17 carry (1) 107:5 cases (13) 47:11 67:3 88:19 127:19 142:25 143:1 160:11,14,14 167:9 184:10 208:10 225:15 catalog (1) 77:2 catch (2) 162:6 190:22 categories (1) 77:15 category (3) 79:7 147:3 195:20 caveat (9) 5:4 8:6 11:3 65:5 69:1 90:12,22 92:14 112:4 caveats (1) 110:23 cdocservice (1) 191:1 centres (2) 45:12 212:19 certain (15) 1:10 5:10 7:16 13:19 38:19,20 72:11 77:15,15 101:15 108:23 132:25 140:19 190:2 204:5 chain (1) 139:22 chair (3) 38:18 177:19 190:3 chairman (202) 1:6 2:23 4:18 5:20,24 6:2,4,8,11,18,23 8:9,13,18,25 9:4,8,16,19 17:11 23:25 24:7,9 30:23 31:1 32:2,5,7 33:25 34:15,24 35:1 37:14,19 54:18,20,22 55:5 60:13,18,21,25 61:11,18,21 62:4,15 63:1,21 64:3,6,14,19,23 65:4,14 68:18,21,24 69:12,14 70:8,11,13,15,18,20,23 71:4,9,12,15,21,23 72:1,7 73:24 74:4,11,14,21 75:1,6,9 76:2,5,10,13,16,18,24 77:7,10 78:2 79:24 80:1,3,12,17,19,22 81:1,3,6,14,19,23 82:2,6,9,12,17,19,22 83:11,14,20,22,25 84:4,6,20,23 85:1,4,7,15 86:1 91:3,8,10,13,16 93:6,10,12,15,18 94:5 95:9 103:2,17 105:4 108:2,7,9,16,19,21 109:1 113:24 114:4,7,10,12,21,23 115:9,25 118:13 119:3,24 120:1,11,20 121:16 125:18,21 126:8,12 143:5,25 170:24 175:17,20 176:1,3,8,10,13,19 177:2,15,25 178:5,8,14,17,20 179:14,18,21 189:25 190:3,5 192:22,25 217:11 218:9 220:7,11 225:7 challenge (3) 208:18,22 213:24 challenges (1) 49:22 challenging (4) 42:10 83:22 152:22 213:24 chance (5) 50:2 120:16 160:18 170:17,23 chances (1) 49:17 change (17) 20:1 22:11	56:22 63:24 70:13 73:11 75:14 76:13 99:19 100:6 159:7 184:15 211:12,15,22,25 213:4 changed (9) 3:15 71:13 72:7 77:4,11 185:15 205:1 222:1 225:24 changes (16) 17:4,7 19:24,24 58:10 64:1 82:17 83:18 152:22 153:3,24 154:2,3 166:3 210:23 224:3 channel (1) 63:8 characterisation (2) 130:19 132:14 characteristics (1) 221:21 charge (3) 62:3 163:4 174:23 charged (1) 127:3 charging (1) 103:4 cheapest (6) 65:17,20 87:3 105:10,18 112:20 check (1) 195:19 checked (1) 198:6 checks (1) 79:22 chicken (3) 149:2,3 161:17 choice (7) 73:12 172:8,8,10,14,17 188:4 choices (3) 144:5 187:10,15 chose (2) 100:8 141:6 chose (2) 20:6 140:22 chosen (4) 70:16 98:19 189:19 191:15 chris (1) 138:24 chrissy (1) 136:14 christmas (1) 161:2 chronological (1) 199:17 ciao (1) 190:1 ciaouck (2) 189:16,19 circumstances (2) 57:7 215:15 circumvent (1) 27:11 cla (37) 35:10 88:6 89:15 111:5 147:3,6,9,25 148:3 149:1 150:13 153:13 155:4 157:13 161:5 162:3,16,18 163:5,9,11,13,16,19 164:16 165:8 169:11,15,16,17,19,19 170:6 176:7,10,12,17 claims (1) 55:22 clarification (3) 205:22 210:14 211:22 clarify (7) 78:5 82:3 186:2 194:24 201:12 206:4 211:18 clarity (1) 7:3 clas (48) 36:2 86:3,9,17,21 87:17,25 88:6,7,23 89:10 141:19 146:11,21 147:11,19 148:7,21 149:5,7,9 150:8,9,10,15,16 152:21 157:8 158:1,8,19,19,22,23 159:2,4,10,13,15 160:5,9,25 162:13 166:2,20 167:1,9 169:1 class (1) 191:1 classifier (14) 189:5 190:15,17,24,25 191:2,5 213:12,15,19 214:3 215:13,22,22 clatype (1) 99:8 clear (21) 44:22 52:24 59:25 65:9 67:10 68:18 80:12 96:16 115:17,22 137:12 138:16 139:20 151:2 169:3 170:10 193:25 194:24 208:16 209:25 214:2 clearly (11) 1:23 5:14 30:4 94:10 100:22 152:16 155:23 158:11 172:16 192:10 223:3 clearly (1) 155:21 click (30) 16:7 20:15 21:4,7 22:9,20 29:21,24 30:7 47:24 57:10 63:10 69:20 105:19 112:24 113:7,10	147:15,17 163:16,17 164:18,20 165:2,4,8 169:1,11 174:18 175:11 clickable (1) 47:4 clicked (4) 10:6 28:17 157:19 161:5 clicking (2) 47:25 97:17 clickout (2) 163:4 169:9 clicks (10) 18:20 20:16 22:4 29:19 66:14 68:4 157:1 158:12 159:10 174:4 clickthrough (8) 16:8 56:12 63:11 89:12,13 148:18 164:13,16 clickthroughrate (1) 112:25 client (1) 191:1 clients (3) 18:3 20:13 131:17 close (2) 49:17 206:17 closer (1) 1:24 clothes (1) 59:18 clothing (2) 79:5,7 cloud (4) 44:21,24 45:3,11 code (2) 106:14 213:8 cody (7) 186:16 195:22 196:6,6,7,17,20 codys (1) 205:8 cohen (1) 140:4 collaborative (1) 202:24 colleague (1) 133:9 colleagues (2) 127:3 177:20 collect (1) 166:24 collecting (1) 133:17 colocated (1) 45:8 colours (1) 59:18 column (1) 49:14 com (1) 197:19 combination (1) 146:20 come (24) 14:12 35:20 49:23 56:24 64:11 68:21 70:8 77:19 86:12 94:6 99:25 151:16 159:9 160:1 164:6 176:22 181:15 186:22 188:16 189:9 218:22 219:8 225:17 227:14 comes (6) 69:23 131:4 139:10 165:1 225:3 226:3 comfortable (1) 208:7 coming (6) 38:11 39:20,21 165:16 197:7 199:2 comment (24) 42:1 131:1,4 137:21 156:5,13,18 158:5,6 160:7 162:20 164:10 168:8,10,20 170:1,9,14,20 188:22 193:12 196:5 207:7 208:20 commenter (1) 42:20 commenting (2) 130:6 156:7 comments (18) 41:14,15,20 42:11,17 44:2 48:9,11 49:13 154:15,17,18 155:19 156:6,13,21 166:22 169:22 commercial (14) 20:20 52:13 96:25 97:3,3 98:10 99:20 117:11,14 211:2,3 212:3 214:10,14 commercialised (1) 73:14 commercialness (1) 214:13 commission (30) 2:6,18 13:2 22:1,14,23 23:6 60:5 81:4,10,14 106:19,24 115:12,17 118:14 123:10 124:1,9,16,18 126:18 129:25 145:22 149:8,12 153:9 157:7 164:1 171:23 commissions (6) 23:22 27:21 81:8 123:4,15 163:24 commitments (2) 5:21 123:25 common (8) 104:23 105:7,21,24 106:13 126:20 145:6,12 commonly (1) 213:16 communicate (2) 152:3,4 communicated (2) 150:22 152:8 companies (1) 136:2	company (2) 141:24 179:19 comparative (2) 63:2 81:16 compare (7) 16:22 67:23 89:12 127:18 128:25 158:7 194:16 compared (6) 88:20 89:12 160:16 163:14 187:24 224:4 comparing (4) 132:15,16,16 165:14 comparison (123) 2:7,13 3:2,8,20 7:2 10:10 15:14,24,25 16:9,17 18:9 27:1,12,17,19,23 28:22 29:3,10 31:15 36:23 60:10 61:23 62:4 63:16 67:20,20 68:7 82:10 86:3,5,10 87:2,10 88:13 96:19 100:1 101:6,7 103:5,24 104:8 109:9 110:4 125:4,8,23 126:17 128:11,24 131:13,14,18,19,20 132:4,7,8,10,10 133:5 140:9 141:8,9,11,15 142:23 143:3,21 145:21,21 150:11 165:15 180:15,19,23 182:4,16 183:5,8,16 184:21 185:6,21 187:19 188:3,24 189:6 190:15,17 191:5 194:2 198:2 200:1,6 201:1 206:15 207:10,13 208:8,13,17 209:8,15 21:21 22:10 212:6,13,18,22,24 213:3,16,18,23 214:12,15,18 217:5 221:20 comparisons (4) 62:6 88:3 150:2 207:10 compensate (1) 134:16 compete (6) 46:10,22 117:7 137:10 162:14 163:10 competing (1) 150:20 competition (5) 94:4 163:22,23 174:25 222:22 competitive (2) 47:3 164:2 competitors (1) 23:4 complainants (2) 126:19 158:7 complement (1) 150:5 complete (3) 120:14 189:2 190:9 completed (5) 121:9 190:16,18 206:3 219:6 completely (5) 24:19 48:1 98:10 159:5 227:6 complex (3) 112:5 164:23,25 complexity (1) 54:2 compliance (7) 1:12 20:23 23:21 24:5 31:6 39:21 224:3 compliant (1) 23:7 comply (2) 23:23 62:20 complying (1) 62:22 components (4) 56:19 113:3,12 149:19 comprehensive (2) 213:22 216:1 compressed (1) 86:22 comprised (1) 64:9 compromise (4) 157:6 200:3 201:2,5 compromising (1) 200:22 conceal (1) 203:5 concept (8) 77:18 125:7,18,19,20 137:18 138:11 167:3 concern (10) 4:19 5:19 46:23 61:8 75:11 99:19 158:24 159:6 180:18 182:8 concerned (8) 5:2,7 60:4 61:3 110:1 144:24 151:19 220:19 concerning (1) 94:16 concerns (6) 23:23 38:19 94:17 109:10 171:24	222:19 concluded (1) 155:1 concludes (1) 220:8 conclusion (3) 137:8 151:18 185:4 conclusions (1) 225:17 conditions (3) 57:9 215:9 223:10 conduct (1) 222:5 conducted (3) 36:21 86:22 169:23 conduit (2) 140:20 141:3 confidence (2) 75:17 119:1 confident (2) 165:8 170:18 confidential (8) 54:4,6,13,20,21 106:25 107:17 108:1 confirm (1) 178:10 confirmation (1) 213:13 confirmed (5) 18:7 36:21,22 151:10 227:23 conflict (2) 47:13,21 confused (3) 4:12 35:17 103:15 confusing (1) 15:17 conjunction (1) 93:6 connects (1) 126:23 conscious (2) 47:12 227:11 consequence (1) 206:1 consider (10) 8:25 9:2,4 83:3 94:7 115:5 116:8 167:17 216:4 227:12 considerably (1) 173:25 consideration (7) 82:22 83:10,11 93:13 100:11 116:22 162:13 considerations (2) 24:20 100:15 considered (12) 1:11,19 5:21 6:12,14 58:8 80:15 81:11 82:14 123:18 127:8 182:2 considering (3) 6:17 56:21 93:7 consistent (3) 8:23 62:22 74:10 constitutes (1) 126:21 constrained (1) 60:8 constraint (1) 53:20 constraints (3) 41:3,7 174:11 construct (1) 52:17 constructing (1) 46:15 consumer (2) 125:20 141:16 consumers (15) 26:12 126:23 127:18 140:15 141:16 142:16 148:25 157:1,4,12 158:2 162:3,5 164:8 169:1 contain (2) 147:19,21 contained (1) 7:11 contemplation (1) 136:25 contemporaneous (1) 226:14 content (4) 92:3,11 177:13 216:14 contention (2) 105:21,23 content (10) 32:21 37:23 60:1 67:24 85:23 110:10 156:17 163:8 197:25 217:6 contextspecific (1) 13:6 contingent (1) 84:7 continued (4) 1:5,7 228:3,4 continuing (2) 49:8 172:13 contracting (2) 24:25 25:3 contradict (1) 119:22 contrary (3) 109:25 199:10 215:5 contrast (1) 105:13 contrasts (1) 132:11 contributed (1) 150:1 contributions (1) 149:25 control (4) 44:19 46:14 75:19 89:13 controlled (1) 169:20 controlling (2) 200:9 218:16 conversation (1) 198:8 conversations (1) 159:25 conversion (2) 56:15 113:11 convicted (1) 219:18
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<p>copied (1) 192:7</p> <p>copy (3) 114:5 178:15,22</p> <p>copyright (1) 79:21</p> <p>core (3) 57:5 133:3,3</p> <p>corpus (1) 78:12</p> <p>correct (98) 2:5 9:25 12:25</p> <p>14:19 19:15 20:14 21:2,8</p> <p>26:23 53:13 55:19</p> <p>60:7,7,11 64:21,22</p> <p>68:17,25 70:14 72:15</p> <p>76:15 82:11,11 18 83:24</p> <p>85:17 88:25 96:5,13 98:22</p> <p>104:20 107:13,14 117:9</p> <p>118:15 119:17</p> <p>122:19,21,22 123:1,8</p> <p>124:23 128:16,19 129:3,10</p> <p>131:8 135:18,23 141:23</p> <p>142:7 145:4 147:18</p> <p>148:5,17,20 154:16</p> <p>155:10,18,22,24 158:21,23</p> <p>159:14,17 163:7 164:17</p> <p>166:20 169:6 173:8 175:10</p> <p>179:8 180:16,17,20,21</p> <p>181:8 182:18 183:14</p> <p>186:1,2 187:23 188:5</p> <p>189:8,19,20 191:7,11</p> <p>201:4 206:19,21 207:17</p> <p>210:2 212:8 214:4,5 215:2</p> <p>219:22</p> <p>correction (1) 210:16</p> <p>correctly (1) 64:16</p> <p>correspondingly (1) 164:20</p> <p>cost (6) 139:7 141:2,4 164:7</p> <p>165:10 171:12</p> <p>costs (5) 139:18 173:24</p> <p>174:3,18 175:10</p> <p>couk (1) 197:20</p> <p>couldnt (1) 11:2</p> <p>counsel (2) 155:25 180:8</p> <p>counterexamples (1) 198:19</p> <p>counterfactuals (5) 4:7 5:16</p> <p>226:18,19,21</p> <p>countries (4) 150:7 169:22</p> <p>171:1,15</p> <p>country (3) 171:5 211:25</p> <p>212:2</p> <p>couple (5) 82:12 83:7 138:9</p> <p>153:12 207:12</p> <p>coupled (1) 174:3</p> <p>course (22) 35:12 42:2 47:22</p> <p>50:11 60:23 67:15 81:22</p> <p>100:17,25 126:1 140:13</p> <p>141:4 142:22 167:21</p> <p>169:10 178:1 186:5 196:4</p> <p>198:18 200:14 222:7</p> <p>226:10</p> <p>courses (1) 93:18</p> <p>courtroom (2) 178:3 203:25</p> <p>coverage (5) 28:14 169:19</p> <p>170:6,11,12</p> <p>covered (2) 154:5 225:6</p> <p>crawl (4) 3:13,16 9:12 12:11</p> <p>crawlers (2) 13:21 14:2</p> <p>create (8) 27:16 78:11 88:12</p> <p>132:9 135:11 167:7 206:2</p> <p>214:2</p> <p>created (3) 161:11 163:3</p> <p>189:17</p> <p>creates (3) 139:16 162:18,24</p> <p>creating (2) 176:5 189:5</p> <p>creation (1) 180:14</p> <p>creative (1) 38:9</p> <p>credit (1) 92:11</p> <p>criteria (15) 29:4,5 31:23</p> <p>32:3 39:24 50:9 71:2 91:22</p> <p>127:4,8 128:17 140:10</p> <p>172:11,18 223:10</p> <p>criticisms (1) 185:10</p> <p>crossexamination (14) 1:7</p> <p>4:4 50:16 95:10 103:3</p> <p>122:16 175:19,20 180:10</p> <p>228:4,7,8,14,18</p> <p>crossexamined (1) 224:10</p> <p>crossexamining (1) 224:11</p> <p>croud (3) 29:11,18,21</p> <p>crouds (2) 29:14,22</p>	<p>css (110) 10:6 12:8</p> <p>17:3,19,21 20:8,14</p> <p>22:5,7,9,20 28:18,18</p> <p>29:2,11,22 30:7 31:7,11</p> <p>40:8,8 47:23 51:16 52:17</p> <p>60:6 61:19 64:4 66:23</p> <p>67:15 81:11 84:20 85:2,4</p> <p>91:20 92:9 95:19 97:21</p> <p>99:7 104:17 105:14,16</p> <p>111:3 114:18 123:22</p> <p>125:24 126:16,21,21</p> <p>127:17,20</p> <p>128:6,9,10,14,16,18 129:9</p> <p>130:14 133:2,3,4</p> <p>135:10,11,11,13 137:19</p> <p>138:12,21 139:6,17,21</p> <p>140:24,24,25 141:7,14,18</p> <p>142:9 143:19 144:10</p> <p>147:24 150:5 153:10</p> <p>157:2,20 160:5 161:6</p> <p>163:4,24 164:2,11,17,25</p> <p>165:7 166:18 169:12 172:8</p> <p>176:12 184:25 194:18</p> <p>196:21 201:9 207:16</p> <p>210:25 214:3 222:22</p> <p>223:6,14 224:15,16</p> <p>cssoriented (1) 110:20</p> <p>csss (153) 9:6,22 10:7 14:23</p> <p>17:19 18:2 19:21 20:2,5</p> <p>22:5,24 26:12,14,16</p> <p>31:5,24 44:16</p> <p>46:9,14,19,20,21</p> <p>47:8,14,18,18,19 51:8</p> <p>52:9,11,17 61:13,18,20</p> <p>62:24 63:1,5 66:19 68:1</p> <p>84:9 89:20 90:7,10,17</p> <p>91:16 92:12 98:20 105:7</p> <p>115:20 125:2 126:2,15</p> <p>127:1,9,13 130:20,23,24</p> <p>132:15,16,17,20,22</p> <p>133:6,7,8,9,10,19,20,24</p> <p>135:6,7,15,19,21</p> <p>137:7,10,11</p> <p>140:6,12,14,19,20,22</p> <p>141:2,4 143:15 144:21</p> <p>145:1 148:2,6,23,24 149:4</p> <p>152:3,5,8 153:14</p> <p>156:16,25 158:16,19,20,22</p> <p>159:6,11,17 160:11,16</p> <p>161:10 162:6,9</p> <p>163:1,2,5,15 164:5</p> <p>166:9,24,25 168:24</p> <p>169:4,6 172:9,12,13,17</p> <p>173:23</p> <p>174:6,8,10,14,17,23</p> <p>175:2,6 176:15 189:17</p> <p>211:4,7 214:23</p> <p>215:5,14,14,22 216:1,2</p> <p>221:14 222:22 224:17</p> <p>225:21</p> <p>csstyle (1) 111:2</p> <p>culling (1) 195:18</p> <p>cumbersome (1) 110:11</p> <p>cumulative (1) 206:10</p> <p>current (8) 15:1,19 99:10</p> <p>118:25 160:8 169:17</p> <p>184:15 194:5</p> <p>currently (4) 29:24 95:17</p> <p>174:7 190:18</p> <p>curtains (1) 221:7</p> <p>customer (1) 131:12</p> <p>customers (8) 21:22 61:24</p> <p>128:12 130:22 133:1,14</p> <p>135:9 142:13</p> <p>customised (1) 147:25</p> <p>cut (2) 45:3 139:15</p> <p>cutts (3) 183:21 186:16</p> <p>212:11</p> <p>D</p> <p>d (2) 15:8 82:15</p> <p>damage (2) 25:18 62:21</p> <p>data (23) 45:11 122:21</p> <p>132:18 133:18,18,21</p> <p>134:24 141:12</p> <p>148:18,19,23 151:25 152:2</p>	<p>160:22 166:23,25 167:1</p> <p>168:3 212:19 215:2</p> <p>225:12,14,17</p> <p>date (5) 33:21 34:9,14</p> <p>143:18 182:20</p> <p>dated (15) 136:18 138:24</p> <p>144:2 149:13 154:17</p> <p>171:24 173:16 181:7</p> <p>186:15 195:6 198:11</p> <p>204:10 205:23 212:10,17</p> <p>day (2) 19:4 94:19</p> <p>day10mt15514 (1) 36:15</p> <p>days (5) 48:7 49:24,25 83:21</p> <p>182:23</p> <p>dead (1) 187:8</p> <p>deadline (1) 51:18</p> <p>deal (6) 32:6 35:20 43:24</p> <p>80:1 176:6 224:20</p> <p>dealing (5) 35:18 113:24</p> <p>123:10,14 220:25</p> <p>deals (4) 32:4 40:8 41:2 68:2</p> <p>dalt (1) 38:21</p> <p>debate (1) 165:11</p> <p>decade (1) 153:15</p> <p>december (3) 122:25 183:22</p> <p>186:15</p> <p>decent (2) 106:15 200:3</p> <p>decently (1) 187:4</p> <p>decide (1) 24:14</p> <p>decided (5) 17:4 67:22 142:4</p> <p>151:3 183:12</p> <p>deciding (2) 75:25 151:5</p> <p>decision (24) 2:6,11 3:1</p> <p>19:19 24:18 39:21 43:22</p> <p>73:16 75:16 106:24 108:23</p> <p>110:10 115:11 117:16,19</p> <p>123:5,20 126:1,15</p> <p>221:15,17,24 222:1 225:23</p> <p>decisionmakers (1) 102:1</p> <p>decisionmaking (1) 102:24</p> <p>declines (1) 213:3</p> <p>dedicated (1) 147:3</p> <p>deduct (1) 173:10</p> <p>deducted (1) 173:8</p> <p>deep (1) 28:25</p> <p>default (24) 69:22 89:11</p> <p>105:8,17 111:6 112:19</p> <p>147:11,14,16 148:4 157:12</p> <p>158:9,13,19,22</p> <p>159:4,14,15 161:15,25,25</p> <p>162:3 166:2 169:15</p> <p>define (3) 124:5 127:4,7</p> <p>defined (1) 127:7</p> <p>definition (2) 140:6 224:19</p> <p>definitively (1) 33:13</p> <p>degree (2) 28:16 46:14</p> <p>delayed (4) 1:3 95:7 206:6,25</p> <p>delinking (6) 32:12,18 34:5</p> <p>35:4 36:13,16</p> <p>demand (1) 157:1</p> <p>demonstrated (1) 193:15</p> <p>demote (10) 2:12 89:20</p> <p>184:22 192:3 199:23 203:6</p> <p>210:25 211:9,13 215:4</p> <p>demoted (10) 2:7 3:2 187:20</p> <p>190:8 197:22 204:12 205:2</p> <p>211:13 212:24 221:21</p> <p>demoting (5) 10:2 180:23</p> <p>202:8,11 207:16</p> <p>demotion (24) 109:8 180:16</p> <p>182:16 183:5 187:19,23</p> <p>189:18 194:3 200:1</p> <p>202:1,3,3,4,16 203:2,3,18</p> <p>207:21 212:2,13,18,21</p> <p>214:9,23</p> <p>demotions (4) 187:22 204:20</p> <p>210:11 213:5</p> <p>denominator (2) 145:6,13</p> <p>denominators (1) 126:20</p> <p>depend (2) 85:9 205:6</p> <p>depended (1) 69:3</p> <p>dependencies (3) 43:6,8,15</p> <p>dependency (2) 42:6,9</p> <p>depending (4) 57:7 66:1</p> <p>78:7 113:17</p> <p>depends (16) 15:4 17:2 50:2</p>	<p>51:20 67:1,15 85:9 120:17</p> <p>140:22 146:6,17</p> <p>164:21,21,22 211:20</p> <p>215:24</p> <p>describe (6) 64:3,4 65:6</p> <p>71:13 86:4 134:11</p> <p>described (2) 63:3 92:8</p> <p>description (5) 33:16 127:24</p> <p>128:8,14 168:5</p> <p>deserve (1) 92:23</p> <p>design (7) 31:18 53:7</p> <p>154:20,23 160:8 166:3</p> <p>167:17</p> <p>designed (3) 28:5 171:9,11</p> <p>designing (2) 25:12,17</p> <p>designs (1) 148:10</p> <p>detail (8) 5:9 15:5 46:7 57:16</p> <p>107:15 109:24 133:15,18</p> <p>detailed (8) 7:13 9:14 57:1</p> <p>117:1 119:22 129:21</p> <p>133:11 136:9</p> <p>details (13) 23:19 29:5</p> <p>54:13,15 60:3 109:18</p> <p>123:13,25 125:24 154:24</p> <p>166:9 196:11 205:19</p> <p>detect (1) 212:14</p> <p>detector (1) 214:14</p> <p>determine (5) 68:19</p> <p>91:20,23 108:13 224:8</p> <p>determined (2) 64:15 227:3</p> <p>determining (1) 52:8</p> <p>devastating (1) 199:9</p> <p>develop (3) 4:5 59:6 172:14</p> <p>developed (3) 43:2 118:1</p> <p>189:10</p> <p>developing (2) 4:10 58:5</p> <p>development (6) 63:9 116:19</p> <p>124:4,10 125:3 139:24</p> <p>devils (4) 156:19 158:16</p> <p>160:8 162:24</p> <p>diagram (2) 55:1 144:7</p> <p>didnt (23) 32:17 58:14 82:25</p> <p>100:22 115:5,11 116:25</p> <p>117:2 125:6 127:1 133:12</p> <p>145:16 147:24 169:10</p> <p>174:24 191:10 198:1,17</p> <p>200:19 205:25 213:22</p> <p>216:12 220:3</p> <p>difference (14) 10:20 20:10</p> <p>55:12 61:25 92:19 104:10</p> <p>117:10,11,13,14 134:5</p> <p>139:15 157:23 194:14</p> <p>differences (5) 20:11 133:8</p> <p>165:13 224:5,10</p> <p>different (67) 6:16 11:23</p> <p>12:7 19:1 29:4 36:1 38:21</p> <p>39:5,22 41:24,24 42:13</p> <p>45:15,17 54:25 56:17 57:2</p> <p>61:5 62:7,13 63:21 66:18</p> <p>67:1,2,14,16,20 69:17,18</p> <p>83:5 91:22 92:7 97:21</p> <p>98:10,17 101:19 102:2</p> <p>104:9 110:25 111:15</p> <p>127:19 128:25 129:1,2</p> <p>132:16,22 141:11 142:9</p> <p>146:21 152:25 154:5</p> <p>158:24 169:8 172:17</p> <p>174:21 175:5,8 183:13</p> <p>187:25 189:21,21 194:5</p> <p>199:18 209:4 214:9 226:19</p> <p>227:6</p> <p>differentiation (1) 106:16</p> <p>differently (1) 151:21</p> <p>difficult (3) 17:6 108:10</p> <p>171:11</p> <p>difficulty (1) 172:16</p> <p>digital (6) 8:14 69:12,15</p> <p>127:25 128:1 136:2</p> <p>direct (6) 32:14 90:22 124:8</p> <p>157:3 162:25 209:19</p> <p>directed (1) 29:20</p> <p>directing (1) 111:1</p> <p>direction (3) 115:21,23</p> <p>152:12</p> <p>directly (10) 7:25 36:6,13</p> <p>73:15 135:10 139:8</p>	<p>142:14,16 143:3 160:1</p> <p>director (1) 179:11</p> <p>disadvantage (1) 144:25</p> <p>disagree (4) 105:20 132:14</p> <p>134:7 208:20</p> <p>disagreement (2) 225:11,18</p> <p>disappeared (1) 143:11</p> <p>disapproved (1) 185:14</p> <p>disbelieve (1) 25:8</p> <p>discharged (1) 115:1</p> <p>disclaimed (1) 4:6</p> <p>disclaimers (1) 194:7</p> <p>disclosure (1) 39:5</p> <p>disclosurein (1) 208:9</p> <p>disconnect (1) 220:11</p> <p>disconnects (1) 43:11</p> <p>discount (3) 139:8,14,16</p> <p>discounted (1) 132:13</p> <p>discovers (1) 142:23</p> <p>discrimination (1) 224:22</p> <p>discuss (6) 111:4 120:24</p> <p>149:21 193:11,17 227:20</p> <p>discussed (18) 5:21 6:5 9:7</p> <p>51:5,19 55:10 81:4 86:5,16</p> <p>105:13 111:7,19 117:4</p> <p>123:13 155:3,25 187:3</p> <p>204:2</p> <p>discussing (11) 1:10,15 2:3</p> <p>8:4 17:8 18:23 35:2,7</p> <p>48:14 76:23 113:15</p> <p>discussion (24) 34:7</p> <p>37:24,25 42:5,8,16 43:21</p> <p>51:6 55:11 59:14,24</p> <p>86:2,9,21 93:12 94:22</p> <p>116:4 123:22 137:15</p> <p>151:22 169:21,24,25 194:6</p> <p>discussions (5) 75:16 99:2</p> <p>100:18 137:3 206:2</p> <p>disparities (2) 174:3,10</p> <p>displaced (1) 167:6</p> <p>display (6) 13:9 111:5,23</p> <p>153:4 166:7 177:11</p> <p>displayed (2) 38:15 89:11</p> <p>displaying (4) 11:6,15 67:16</p> <p>166:14</p> <p>dispute (1) 112:22</p> <p>distinct (1) 138:13</p> <p>distinction (7) 65:9 132:3,22</p> <p>138:16 140:11 143:15</p> <p>201:25</p> <p>distinguish (3) 193:25</p> <p>201:22 216:2</p> <p>distinguishes (1) 198:13</p> <p>distorted (1) 65:21</p> <p>distributed (1) 19:3</p> <p>diversion (1) 223:13</p> <p>diversity (11) 166:12 180:15</p> <p>196:9 201:14 205:14</p> <p>206:24 214:22</p> <p>219:12,14,18,19</p> <p>division (1) 110:13</p> <p>document (49) 6:15 12:20</p> <p>18:25 29:7 33:11,12,21,24</p> <p>34:2 38:24 39:3,12,15,17</p> <p>40:6,17,20,23,25 50:12,13</p> <p>54:9 77:2 78:11,11,16 80:6</p> <p>83:9 89:10 118:5,7 119:2,6</p> <p>143:16,17,22,23,25 144:1</p> <p>145:2 154:15 156:3,7,8</p> <p>158:25 188:13 189:9</p> <p>208:24 223:17</p> <p>documents (13) 7:22 33:8</p> <p>38:18,20 39:6 83:2,4</p> <p>96:16,23 177:11 180:25</p> <p>201:13 208:15</p> <p>does (33) 16:13,14,15</p> <p>24:10,14 30:16 33:22,23</p> <p>37:15,16 47:25 67:25 92:5</p> <p>101:8 102:19 104:19</p> <p>107:12 126:21 128:16</p> <p>134:6 141:7,8,10,14 155:5</p> <p>164:13,22 179:19 195:3</p> <p>198:21 210:9,10 226:23</p> <p>doesn't (8) 7:24 58:21 107:13</p> <p>140:17 163:2,23 209:16</p> <p>216:16</p>	<p>doing (20) 57:19,20 85:22</p> <p>92:18 111:21 119:10</p> <p>128:15 129:24 158:19</p> <p>188:12 198:8 199:12</p> <p>202:22 203:5 205:15,17,21</p> <p>206:20 217:8 219:9</p> <p>domaineinv (1) 222:24</p> <p>domains (3) 185:19 221:16</p> <p>222:6</p> <p>done (27) 3:5,19 10:25 11:17</p> <p>34:4,19 43:17 49:25 52:19</p> <p>64:25 66:9 72:11 83:21</p> <p>86:4 150:3 152:7,13 154:8</p> <p>167:8 172:14 191:15 192:5</p> <p>205:10 207:4 222:10</p> <p>225:14 226:24</p> <p>dont (77) 3:25 6:14,17</p> <p>7:13,24 9:13 14:9 16:15</p> <p>33:15 36:18 39:25</p> <p>42:19,21</p> <p>43:15,17,17,18,22 44:1</p> <p>45:4 46:7 66:7,8 72:9,12</p> <p>77:18 78:5,5 83:13</p> <p>92:17,24 105:25 112:21</p> <p>117:24 118:9,10,11,23</p> <p>119:19 123:16 131:10</p> <p>132:14,23 137:21 138:19</p> <p>143:23 152:6,13 153:16,23</p> <p>158:17 164:25 168:23</p> <p>169:7 171:21 176:14 183:9</p> <p>185:18 194:14 196:11</p> <p>197:11,14 198:14 199:8,19</p> <p>200:8 205:16,17,18 206:20</p> <p>207:12 208:5,19 211:18</p> <p>215:16,17 216:11</p> <p>doubleclick (1) 136:8</p> <p>doublewhammy (3) 204:18</p> <p>205:5,11</p> <p>doubt (1) 119:19</p> <p>down (30) 4:13 8:20 9:1,2,10</p> <p>22:19 40:7 45:3 49:5 62:11</p> <p>64:10 66:2 68:24 71:23</p> <p>76:25 80:19 81:25 121:4</p> <p>136:22 137:9 145:12 152:1</p> <p>156:13 181:18 188:18</p> <p>192:16 198:10 208:25</p> <p>209:18 211:21</p> <p>downside (3) 89:24 90:11</p> <p>171:17</p> <p>drafting (1) 149:17</p> <p>dramatic (2) 84:13 91:14</p> <p>dramatically (1) 43:9</p> <p>draw (1) 51:6</p> <p>drawing (1) 54:12</p> <p>dress (2) 30:16,19</p> <p>drew (1) 143:14</p> <p>drivers (1) 163:12</p> <p>driving (1) 145:12</p> <p>dropped (1) 153:19</p> <p>drops (1) 166:15</p> <p>due (7) 135:6 158:8 160:8</p> <p>174:1 175:11 221:21 223:5</p> <p>duration (1) 113:10</p> <p>during (2) 50:16 124:11</p> <p>dynamic (3) 55:16,17 85:22</p> <p>dynamically (1) 85:24</p> <p>E</p> <p>earlier (13) 34:6 37:15 39:8</p> <p>59:21,24 72:16 73:3 82:12</p> <p>116:19,23 117:10 143:14</p> <p>204:17</p> <p>earliest (1) 117:24</p> <p>early (10) 34:15 94:9 117:20</p> <p>119:14 129:13,14 157:6</p> <p>177:17 182:23 183:12</p> <p>earn (3) 105:19 112:24 174:6</p> <p>earning (1) 134:4</p> <p>earnings (1) 21:17</p> <p>earns (2) 20:24 174:7</p> <p>easier (2) 20:1 108:15</p> <p>easiest (1) 53:2</p> <p>easily (1) 201:24</p> <p>easy (2) 216:12,19</p> <p>ebay (2) 182:5 195:8</p> <p>ec (1) 59:1</p>	<p>economic (6) 164:24 221:1</p> <p>223:23,25 224:6,18</p> <p>economically (1) 151:1</p> <p>economics (1) 223:20</p> <p>economist (1) 225:15</p> <p>economists (3) 165:12,16</p> <p>223:12</p> <p>ecosystem (1) 61:4</p> <p>effect (11) 2:23 3:23 13:17</p> <p>24:21 94:23 145:10,11</p> <p>199:1 215:23 222:25 223:4</p> <p>effective (1) 139:13</p> <p>effectively (11) 47:6 64:4</p> <p>97:14 117:6 135:21 142:10</p> <p>165:13 203:5,6 210:9</p> <p>215:4</p> <p>effectiveness (1) 84:6</p> <p>effects (1) 57</p>
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143:11 159:16 212:23 227:1 entirety (1) 208:15 entities (1) 26:25 entitled (2) 50:18 222:15 entity (3) 24:22 25:3 111:22 entrant (1) 223:9 entry (1) 77:2 envisionable (1) 84:11 epinions (2) 182:5 207:8 equal (1) 159:10 equally (1) 172:12 especially (8) 83:21 102:5 119:4 181:25 195:19 198:19,23 209:8 essential (1) 46:11 essentially (18) 44:16 46:9 47:4 48:13 52:16 65:5 67:3,4,19 69:8,9 71:8 81:9 113:18 117:8 144:9 188:3 211:6 estate (2) 166:6 167:11 estimate (3) 51:20 168:24 194:11 estimation (1) 62:19 etailer (2) 182:1 209:20 etc (14) 4:12 21:22,22 43:2,2 44:19,19 46:22 56:25 57:11,11 67:16,21 106:14 etsy (1) 78:25 eu (1) 27:11 europe (9) 20:18,19,24 21:15 116:20 149:6,9 171:25 204:13 european (8) 25:4 27:20 149:8,12 150:7 153:9 185:21 198:2 eval (8) 38:6 56:16 193:5,8 197:9,12 210:7 219:16 evaluated (3) 77:3 213:5 225:16 evaluation (4) 38:21 56:25 212:5 225:12 evaluations (1) 217:23 evaluators (1) 191:19 evangelists (1) 109:22 even (23) 57:13 81:19 83:22 87:10 98:9 101:3,12 140:18 142:5 148:10 152:19 160:5,14 161:6 164:2,7,8 165:9 175:6 187:18 208:12 215:1 221:2 event (3) 96:16 147:2 171:19 events (1) 52:20 eventually (4) 152:13 171:2 183:12 213:6 ever (8) 33:15 43:17 49:17 50:2 93:2 111:19 196:23 197:12 everyone (2) 208:12 220:10 everything (6) 4:6 55:2 57:12 145:6,12 215:24 evidence (54) 4:15 36:12 37:20,23 40:11 60:18 93:1 94:15,16,22,24 96:15 97:2 114:25 120:5,14,23,24 121:6,8 124:15 127:13 165:17 177:6,18 178:1,2,2 180:2 199:11 214:24 215:6 220:8,18,20,22,23,24 221:2,4,8,25 222:3 223:11,13,23 224:6,7,8,14 225:24 226:13,14 227:3 evolve (1) 66:24 evolved (2) 65:11 112:5 evolving (1) 39:15 exact (9) 66:11 67:7,22 69:3,24 85:12,13 199:17 205:19 exactly (28) 9:9 29:17 42:19 55:9,17 60:7,11 63:19 70:9 72:12 73:19 82:8,8 85:17 87:13 102:15 115:15 119:4 120:25 126:18 127:10 138:20 140:4 147:9 169:7 211:10,11	examination (1) 37:16 examinationinchief (4) 121:12 178:21 228:13,17 example (37) 10:6 12:9 13:17,21 14:5 15:11 16:1 20:1 21:3 27:9 29:9,19 42:7,22 46:16 50:4 57:19,21 58:6 59:5 66:2,7 78:4 87:11 91:24 92:1,13 109:20 111:5,17 123:24 163:6 172:13 173:7 174:22 176:10 219:4 examples (4) 59:16 126:19 160:15 212:4 except (4) 9:19 184:21 185:19 208:5 exception (1) 9:18 exchange (10) 56:2 58:25 59:7 60:1 110:21 121:5 217:14,22 218:8 219:4 excluded (3) 83:12 129:24 159:5 exclusively (4) 82:7,9,9 129:19 executive (1) 173:21 exempt (1) 109:9 existed (2) 17:17 109:18 existence (1) 29:6 existing (2) 7:9 152:24 exists (3) 31:12,16 139:7 expand (1) 181:4 expanded (1) 123:23 expect (7) 102:16,19 111:10,12 142:15 158:12 205:2 expectation (1) 171:14 expectations (1) 151:13 expected (3) 149:4 151:8,17 expensive (1) 167:12 experience (26) 14:25 15:22 28:23 30:13 37:6 38:12 57:10 62:8 63:2 66:17,18 87:19 88:1,7,20 90:22 111:2 141:16 150:24 151:6 159:6 161:18 162:5 182:17 183:6 202:15 experiment (50) 34:6,9 38:9 56:23 89:11 93:3 149:22 150:2,23 151:8,12,17,20,25 152:3,5,10 153:14 154:8,12,20,24,25 155:17,18,20 156:1 159:19 162:13 163:8 168:6 169:15,18 170:22 171:9,16 176:4,5,6,7,13 180:22 181:15,16 182:15 183:4 187:2,24 194:8 210:7 experimenting (1) 207:23 experiments (41) 32:12,13,18 33:9,17 34:4,5,14,18,21,23 35:2,4,8 36:6,13,17,21 37:15 56:21 86:21 88:21 147:13 150:7,9,18 152:2 167:18,22 169:22 186:4,21,22,25 193:15 194:18 202:16 206:16 207:15 208:7 213:2 expert (14) 12:14 94:14,16,22,24 120:22 220:16,18,20,22,24 221:1,8,10 expertise (13) 3:6,23 8:7 11:22 25:7 28:25 43:13 65:3 79:23 100:25 112:6 116:16 225:15 experts (13) 6:24 191:20 220:16 221:12 222:4,15 223:15,24 224:5,13,18 225:16 226:10 explain (13) 22:17 39:4,14 44:12 47:16 51:5 104:14 176:5 197:10 204:22 205:4 213:10,19 explained (3) 84:4 144:23	173:7 explanation (2) 55:1 188:2 explicit (2) 20:3 62:25 explicitly (1) 20:7 exploration (1) 224:20 explore (7) 1:18 5:17 55:5 62:11 79:24 222:14 224:23 explored (4) 62:15 63:11 80:15 227:9 exploring (3) 4:16 108:21 115:13 exposing (1) 150:8 exposure (2) 142:12,20 express (2) 221:2 226:8 expressed (2) 76:6 95:19 expression (1) 226:22 expressions (1) 213:15 extend (3) 167:12 206:16,19 extended (1) 216:23 extensive (4) 84:12 85:10,23 117:1 extent (12) 101:25 110:23,24 135:19 141:17,17 142:21,22 153:18 172:20 226:8,19 external (1) 155:25 extra (2) 53:12 147:17 extreme (2) 87:11 182:25 extremely (4) 42:25 43:4 60:19 162:17 eyes (1) 16:5 <div>F</div> f (1) 82:15 factor (3) 167:5 202:1 207:21 factors (3) 46:5 102:17 200:22 factual (4) 120:3 224:7,10 225:11 fail (3) 171:9,11,20 failed (1) 223:7 fails (1) 170:17 failure (2) 43:10 49:22 fair (15) 22:17 79:6 99:3 106:13 132:24 148:14 152:16 172:18 176:16 185:3,7 191:23 203:11 208:23 215:19 fairer (3) 128:8,14 152:19 fairly (5) 24:1 154:9 213:21 216:1 226:22 fake (2) 139:17,21 false (3) 190:21,22 213:22 familiar (17) 2:2,14,17 12:15 33:2 74:9 78:24 125:24 136:4,5,7,16 138:3 143:22,23 173:17 196:1 familiarity (2) 5:10 65:1 far (9) 3:18 4:21 25:6 52:22 68:12 75:17 151:18 204:2 216:23 fbeat (1) 41:21 fear (1) 163:11 feasible (5) 48:7 53:8 88:11 92:17 152:18 feature (1) 172:4 features (1) 60:5 featuring (1) 98:20 february (1) 124:19 fed (1) 103:23 fee (1) 134:16 feed (2) 45:18 78:6 feedback (3) 136:21,23 217:2 feeds (7) 18:15 55:8 130:9 132:21 133:22 139:7 209:14 feel (7) 108:9,3 115:4 181:21 210:9,10 219:11 fees (1) 163:4 fell (1) 79:5 felt (4) 60:7 190:8 214:15 215:1 few (20) 4:8 16:7 19:24 28:17 29:24 47:7 60:21	71:1 133:19 149:5 153:16 156:21 180:25 182:3 185:12 186:7 190:21 197:6 204:3 217:14 fewest (1) 160:2 field (2) 4:20,25 figure (4) 88:12 126:18 198:12 208:6 figured (1) 113:3 figuring (1) 127:4 filter (4) 62:11 70:11,15 133:14 filtered (1) 70:24 filtering (7) 56:17 58:11 59:19 65:23 66:2 129:9 142:2 filters (4) 59:18 66:5 70:10 92:6 final (8) 55:20 58:24 172:25 176:23 207:21 209:19 216:22 219:16 finally (3) 84:1 112:10 212:18 financial (2) 135:7 144:25 find (24) 31:19 39:25 61:13 66:10,10 102:18 118:24 119:9 127:9 140:4,15 143:2,18 146:22 147:2 151:9 153:10 162:15 171:15 190:18 200:3 208:3 212:5 219:15 findings (4) 2:11 106:20 212:1 220:21 fine (4) 165:18 218:10,12,15 finish (1) 94:12 firm (2) 5:4 177:9 firmly (1) 214:24 first (46) 10:3,5 17:21 19:4 21:9 32:20 48:23 60:25 65:17,20 67:5,17 69:1,5 71:19,21 90:10 98:8 103:12,15 105:11,18 107:11 112:20 115:10,11 126:17 128:21 131:24 138:9 162:18 167:22 169:18 179:9 184:22 185:13,16 186:23 190:11 191:18 192:1 200:14 204:21 205:7 211:10 227:1 fit (1) 200:2 five (1) 81:7 fixed (1) 174:2 flow (2) 51:9 155:17 focus (4) 26:8 101:21 129:19 172:5 focused (4) 65:2 115:18,24 172:19 follow (2) 144:18 191:2 followed (2) 159:19 213:12 following (6) 3:1 13:17 14:11 48:21,25 123:5 followon (1) 175:19 follows (1) 150:10 footnote (2) 119:9,11 force (2) 158:11 159:12 forced (3) 159:7,8,15 foregone (1) 151:18 forget (1) 90:18 forgive (6) 140:4 157:16 182:14 191:25 200:11 208:2 forgotten (1) 88:22 form (2) 81:16 141:5 format (18) 82:20,23 85:21 148:6,13,15,22,23 152:22,24,24,25 153:24 154:2,3 164:21,22 207:2 formats (2) 13:9 86:24 formed (1) 58:4 formula (2) 112:25 113:13 forth (2) 177:12 198:7 forward (2) 99:4,5 forwarded (1) 196:17 forwards (1) 197:17 found (6) 38:8 60:18 112:11 187:21 215:2 216:13	foundem (6) 105:7,9 222:25 223:4,6,8 foundems (2) 5:13 223:1 four (6) 27:15 53:23 71:16 72:1 116:12 156:12 fourth (2) 205:4 211:17 fraction (3) 142:5 159:1 198:22 frame (1) 203:1 france (4) 119:14 170:8,13 197:20 frankly (2) 4:24 57:13 frederic (1) 156:13 frederick (1) 41:23 free (11) 72:17 73:7,9,22 97:17,17 115:4 171:25 172:5,9 201:25 freestanding (1) 80:23 french (1) 204:22 frequently (1) 100:9 fresh (1) 196:24 friedman (29) 1:5,8 4:15,19,24 5:3,5,15,17 23:25 31:5,25 32:11 37:14 60:18 93:21 95:1,11 103:4,17 108:3 109:2,4 110:18 114:24 128:9 153:18 154:13 228:3 friedmans (1) 37:20 friont (2) 107:6 178:10 froogle (1) 223:14 frustrated (1) 218:21 frustrating (2) 208:11,14 full (7) 10:9 36:22 45:24 63:18 69:21 85:24 208:9 fully (1) 117:25 function (3) 91:5 130:8 133:25 functionalities (1) 136:10 functionality (21) 10:10 15:15 18:1 19:8,11 59:1,4,5,9,16 62:9 92:6,9,12 111:16 129:9 140:9 141:9,12,15 142:1 functioned (1) 211:7 functions (1) 62:5 fund (1) 63:8 fundamental (2) 123:18 226:4 fundamentally (1) 73:11 funnels (1) 127:22 further (35) 4:10 8:21 10:15 37:10 40:2 44:2 45:13 60:12 93:16,20 95:10 103:1,3 110:17 113:22,23 114:22 116:18 118:2 119:23 120:3 122:14 149:1 175:15 176:19 193:23 202:8,10 217:9 223:3 228:7,8,9,10,11 future (1) 59:6 <div>G</div> g10 (1) 77:23 gain (3) 142:12,20 164:14 gained (2) 108:21 135:4 gap (1) 154:5 gathered (1) 152:2 gathering (1) 151:25 gave (6) 1:16 22:6,7 97:2 124:15 145:25 general (13) 3:25 18:12 19:4 52:12 85:19 90:17 111:13 118:17,20 180:20 187:14 196:18 215:11 generalities (1) 107:19 generally (2) 112:21 210:1 generate (1) 174:5 generated (1) 213:10 generating (1) 52:19 generic (6) 7:19,22 9:13 12:8 13:18 111:9 gentle (1) 194:4 genuine (7) 27:1 28:21 29:3 31:7,24 140:9,12 genuinely (1) 208:8	german (4) 196:17,20 204:22 206:15 germany (11) 119:14 131:5,11 170:8,10,16,22 111:15,22 112:24 113:7 196:21 197:20 206:17,19 get (43) 8:14,15 31:22 32:17 33:22 42:25 43:3 44:7 45:8 49:19 50:4 64:19,24 66:22 67:3 69:14 88:15,20 91:4 97:8 98:3,21 107:15 112:22 116:24 119:4 120:17 139:14 142:13 145:3 148:2 152:7 161:5,19 165:5 168:16,24 169:4 208:11 211:21 218:21 223:23 226:15 gets (3) 55:1 66:14,19 getting (7) 7:24 49:25 57:16 79:11 102:9 142:20 161:15 gift (1) 147:1 gifts (1) 161:2 give (27) 22:23 62:6 92:1,10 94:13 107:8 108:3 112:4 143:8 150:9 152:8 161:24 165:16 169:1 170:16 180:3 181:11,20 187:10,16 188:3 194:9 195:11,17 200:12 221:3 224:13 given (17) 25:25 52:25 70:6 83:10 89:6 110:10 111:2 116:17 118:9,25 125:19 153:17 171:19 198:23 208:8 215:2 222:9 gives (6) 4:15 63:5,9,14 163:6 165:21 giving (6) 114:25 117:1 120:5 121:6 177:6 178:1 glance (1) 11:24 gloves (1) 214:16 goal (7) 61:19,20 62:23,25 63:1,1 219:19 goals (3) 61:7 62:16,18 goes (9) 141:18 142:21,24 217:18 218:8 222:20 224:19 225:13 226:8 going (43) 4:13 22:4 32:22 35:20 36:6,8 40:2,3 42:9 43:16 46:5 54:14 57:4 68:4 75:12 82:22 87:5 93:22 94:7 99:25 100:6 102:13,15 115:12 118:23 142:17 148:22 151:3 156:20 165:11,19 180:25 181:4 185:25 186:7 191:8 198:23 205:25 208:6 209:3,17 215:3 222:11 gone (3) 142:6 143:12 223:3 good (40) 1:8,9 31:2 38:13 47:23 60:20 77:17 86:13 94:17 95:13 115:6,23 122:17 161:9 162:25 163:6 170:13 177:15,15,23,23 180:11,12 181:22,25 187:5 188:4,4 193:9 198:13,17,18,22 200:2 202:22 209:9 212:25 216:4,7,8 goodrow (3) 35:3,4 96:15 goodrows (1) 36:12 google (180) 1:11 2:15,25 3:9,12,13,15,17,19,20 5:22 6:13 7:1,12,15 8:21 9:21 10:24 11:16 13:5,13,15,18 17:4 18:13,15 19:3 20:17,19,24 21:15 22:15 23:15 25:3,11,15,18,19 26:10 27:11,15,18,19,22 29:17 31:12,16 33:25 34:2,18 37:25 38:10,15 39:14 43:1,2,20 44:20,21,24,25 45:2 50:19,25 51:9 52:4 57:19 61:3,8 62:18 64:4 68:8,16 72:13,16 73:11,21 75:13,17 81:9,20 82:7,9,10 90:11,24 93:2 95:17	97:4,5,21 98:19,22 99:7,15,25 101:5,8,14,16 105:19 109:8 110:12,19 111:15,22 112:24 113:7 122:20,23,24,25 123:5,9 128:2 130:10 131:2 133:24 134:22 135:7 136:14,25 138:15 139:7,9,12,20 141:13 142:23 143:4,12,17,25 144:1,18,20 148:2,3,11,14,18,25 149:6,9,11 151:1,3,15 152:4 154:2 156:3,10 158:18 160:17 162:2,7 164:20 165:4,6 168:23 171:13,18,23 172:12,16 174:12,23 175:1,2 177:4 180:13 184:15 188:12 192:4 197:22 204:20 217:4,25 225:20 227:4 googlecertified (2) 28:4,10 googlecom (3) 65:3 97:9 98:3 googles (41) 2:8 3:8 7:9 8:15 13:10,21 14:7,18 16:20 18:11 24:25 43:2 44:18,18 45:4 55:22 81:10,11,16 89:24 103:6,8,12 105:14,16,17 109:13 110:25 112:19 114:18 136:7 139:13 149:6 169:14 177:5 180:20 188:10 210:1 222:22 223:14 224:15 gotten (2) 159:15 210:20 gottlieb (1) 155:21 gradual (1) 203:4 grateful (1) 115:1 great (2) 46:7 141:25 greater (1) 166:18 green (2) 7:4 11:11 greg (3) 1:5 154:13 228:3 gregory (6) 121:12,13 122:13 175:23,24 228:13 grew (1) 61:3 gross (4) 174:6,8,9,13 ground (1) 89:2 group (1) 140:3 grouped (2) 11:7 67:18 grouping (1) 17:11 groups (1) 157:18 gse (25) 21:6 22:6,8,16,24,25 23:10,12,17,23 24:2,4,10,17,20,22 130:23 173:8,10 174:1,4,7,10,12 175:9 gses (7) 21:9,23 22:12 23:3 24:2 174:9,18 guber (2) 179:14,15 guess (14) 6:15 14:1
---	---	---	---	--	---	---

h3a339 (1) 121:19	137:17 145:5 163:8 165:25	199:5	increased (5) 21:12,24,25 22:25 167:2	into (34) 15:5 39:21 46:5 54:15 55:24 56:13 57:16	j2a76 (1) 27:9	knew (6) 37:17 126:16 169:7 171:12 185:24 219:13
h3a34 (1) 123:2	172:2 175:5 177:16	im (67) 1:22 9:9 11:23 15:6	increases (1) 53:2	58:11 63:18,18 79:6	j2a762 (1) 27:14	knob (1) 213:9
h3a37 (1) 127:14	178:3,7 188:15 191:18	28:7 32:17 41:5 42:25	increasing (2) 97:4 164:4	100:11 102:1 103:23	j2a763 (1) 27:24	know (237) 3:18,24 4:21
h3a38 (2) 105:2 124:25	202:7 208:1,2 226:9	43:16 57:4,16 63:16	increasingly (1) 115:17	107:15,25 108:5,10 112:22	j2a833 (1) 29:8	6:15 7:13,17,21,24 9:10
h3a39 (1) 134:10	heres (4) 67:9 83:5 85:14 207:5	67:10,13 69:16 73:19,21 74:9,11,11,16 75:24 77:17	incredibly (1) 117:1	113:3 123:5 126:2 132:18	j2a834 (1) 30:6	12:7,13 14:9 16:3,4
h3a7 (1) 61:1	hes (5) 132:15,15,16,22 199:15	79:12 86:8 89:4 91:18	incrementally (1) 209:12	133:17,21 139:10 147:25	j2b25 (1) 198:9	20:1,5,8,14,15 22:13
h3a710 (1) 61:1	hesitate (1) 58:14	92:15 93:4 102:3 103:15	incur (1) 174:17	149:1 155:17,23 161:10	j2b36 (1) 204:9	23:7,17,19,20
h3a723 (1) 76:22	hesitance (1) 58:14	109:18 112:3 116:10,14	independence (1) 20:18	169:11 173:18 191:21	j2b361 (1) 204:14	24:16,17,19,20,21 25:6,6
h3a724 (1) 76:3	hesitantly (1) 209:4	136:9 138:18 143:23	independent (5) 20:19 24:3,19 67:6 177:8	introduce (4) 1:12 110:3 117:16,19	j2b44 (1) 118:5	26:17 27:7 29:5,6 33:13
h3a725 (1) 63:22	hidden (1) 148:21	145:15,24 149:18 155:15	independently (4) 21:15 23:13 24:14 47:4	introduces (5) 4:8,17 13:15 19:19 21:9	j2b442 (1) 118:6	34:23 37:15 38:10,11
h3a726 (1) 63:25	high (14) 23:24 42:25	159:17 161:9 165:1,2	index (11) 3:13,16 7:9,18,21 56:14 78:12 194:4 195:18	introduced (5) 4:8,17 13:15 19:19 21:9	j2b4426 (1) 119:5	39:23,25,25 41:21 42:22
h3a727 (1) 71:16	highly (5) 25:21 26:1 82:13	172:2,19 179:11 184:6,14	independently (1) 209:12	intuitions (1) 213:25	j2b447 (1) 119:7	43:1,8,10,11,12,15,17,18,23,24
h3a732 (3) 25:21 26:1 82:13	73:12 84:12 92:24 128:11	191:18 192:7 194:23	index (11) 3:13,16 7:9,18,21 56:14 78:12 194:4 195:18	undated (1) 217:5	j2b4433 (1) 119:11	46:19 47:2,18 49:9
h3a734 (1) 80:13	134:4 138:19 154:23	197:24 199:9 202:13,19	198:25 228:1	inventory (7) 18:16 40:8 157:9,13 159:2 176:15,16	j2b5651 (1) 18:7	50:1,3,4,5 51:17,20,21
h3a745 (1) 22:18	higher (16) 50:19,25 55:22 127:22 163:4 164:18	203:23,25 206:16 207:1	indexed (1) 198:16	invest (5) 132:17 161:14,20 162:1,1	inest (1) 118:5	52:3,18,20 53:9 55:17
h3a746 (1) 83:17	highest (1) 133:10	209:3 211:23 215:1,16	indicated (2) 38:12 58:1	invested (3) 133:17,21 161:10	inest (1) 118:5	56:8,11,19,23 57:3,9,12,23
h3a75 (1) 25:13	highlighting (3) 54:22,23 166:15	217:20	indicates (2) 163:15 190:21	invested (3) 133:17,21 161:10	inest (1) 118:5	58:5,8,20,22 59:11
h3a8 (1) 178:24	highly (5) 46:24 47:2 49:16 50:8 101:22	image (8) 6:23 7:7 12:5 13:22 14:6 15:18	indication (3) 166:8 169:2 214:13	invested (3) 133:17,21 161:10	inest (1) 118:5	61:22,24
h3a81 (1) 179:22	highly (5) 46:24 47:2 49:16 50:8 101:22	157:21,21	indirect (1) 209:20	invested (3) 133:17,21 161:10	inest (1) 118:5	62:3,9,10,12,17,19,21,23
h3a84 (1) 179:2	highly (5) 46:24 47:2 49:16 50:8 101:22	images (13) 10:20,25 11:6,13 13:7,23 155:2,8,10	individual (4) 11:6 46:17 72:3 88:14	invested (3) 133:17,21 161:10	inest (1) 118:5	63:6,8,14 65:5,22
haahr (6) 192:5 196:16	highly (5) 46:24 47:2 49:16 50:8 101:22	157:23 166:6,12,13	individually (1) 17:13	invested (3) 133:17,21 161:10	inest (1) 118:5	66:7,8,24 67:6,14,20
hah (17) 198:10 205:10 206:9	highly (5) 46:24 47:2 49:16 50:8 101:22	172:2,19 179:11 184:6,14	industry (5) 105:14 131:12,13,17 151:6	invested (3) 133:17,21 161:10	inest (1) 118:5	68:7,25 69:1,10,19 70:1,3
half (5) 6:22 33:1 94:17 120:13 227:18	highly (5) 46:24 47:2 49:16 50:8 101:22	191:18 192:7 194:23	inevitable (1) 171:19	invested (3) 133:17,21 161:10	inest (1) 118:5	73:16,17,21 75:15 76:6
halfway (3) 22:19 76:25 198:10	highly (5) 46:24 47:2 49:16 50:8 101:22	197:24 199:9 202:13,19	inferior (2) 88:1,1	invisible (2) 9:17 13:20	inest (1) 118:5	77:19,24 78:20 79:3
halved (1) 204:5	highly (5) 46:24 47:2 49:16 50:8 101:22	203:23,25 206:16 207:1	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	81:21,24 83:14 84:16
hamilton (1) 155:21	highly (5) 46:24 47:2 49:16 50:8 101:22	209:3 211:23 215:1,16	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	85:11,20,21,22 87:10,23
hand (6) 122:14 132:4,5 137:19 200:22,24	highly (5) 46:24 47:2 49:16 50:8 101:22	212:14 222:21	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	88:12,19 89:4 90:12,20,21
handful (1) 46:20	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	91:19 92:17,18,25 93:25
handle (1) 110:20	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	98:17 100:13,13
handmade (1) 79:2	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	101:15,21,21,25 102:23
handout (1) 19:3	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	106:14 108:14 109:24
handselected (1) 185:12	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	110:11 111:11,15,20,21,24
happen (6) 12:13 51:9 94:7 131:9 139:22 153:11	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	112:1,4 113:8,15,17
happened (3) 99:14 169:11 197:24	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	114:18 115:11,15,18
happening (1) 111:10	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	116:25 117:6,14,22 118:10
happens (2) 121:7 209:5	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	119:17,19 121:5,12 123:14,16
happy (2) 21:22 37:22	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	127:1,2 131:9,21 133:15
hard (8) 49:19 91:17 93:24 114:4 178:15,22 210:10 218:21	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	136:9,17 137:21 138:20
hardcoded (1) 185:15	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	142:18 143:5 149:25
hardly (1) 158:12	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	152:4,6,10,13 154:1,2,7
havent (4) 33:14 155:15 204:2 218:2	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	161:25 168:15,18,23
having (13) 1:22 10:5 46:16 47:1 57:2 59:1 77:14 89:9 147:3 175:17 194:18 218:4 225:16	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	169:4,7 180:24 183:9
head (7) 23:17 24:17 131:12,17 199:23 212:25 218:13	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	185:10 188:15 189:23
heading (6) 15:17 63:22 136:20 172:23 195:7,7	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	194:24 197:11,14 198:5
headtohead (1) 184:20	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	199:16,19 204:7,18
healthy (5) 61:4 173:11 174:19 175:4,7	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	206:20,21 208:18
hear (7) 125:6 177:18,22 199:5 222:7 224:9 227:21	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	211:16,25 212:3
heard (22) 13:25,25 14:3,5 25:7 27:7 64:8 72:16 93:1 94:11,11 96:15 104:7 121:5 125:2,4,8,14 154:13 196:3 224:7 227:4	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	215:8,9,10,16,18
hearing (2) 1:22 14:9	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	216:2,11,12,24 217:1
heavier (1) 202:1	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	219:4,17 222:25 225:16
height (2) 167:3,4	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	220:7 228:16
held (2) 23:7 94:19	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	220:7 228:16
hello (1) 203:24	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	220:7 228:16
help (7) 12:20 22:23 35:1 131:13,14 152:10 226:17	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	220:7 228:16
helpful (4) 5:2 60:19 119:25 150:24	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	220:7 228:16
helpfully (2) 34:10 82:13	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 118:5	220:7 228:16
helping (1) 177:11	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inferior (2) 88:1,1	invited (1) 27:22	inest (1) 118:5	220:7 228:16
helps (1) 146:24	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	inform (1) 152:14	invited (1) 27:22	inest (1) 118:5	220:7 228:16
henry (1) 155:20	highly (5) 46:24 47:2 49:16 50:8 101:22	immediate (2) 48:21,25 immediately (2) 118:11,23	information (24) 12:11 14:1,3 38:14 55:3 86:20	invited (1) 27:22	inest (1) 1	

latest (1) 40:17	101:25 107:3 108:4	looking (25) 5:22 6:2,8,15	m353411 (2) 156:6,12	122:9 124:21,22 220:25,25	merit (2) 214:11 224:20	99:22 100:8 101:21 102:19
latter (1) 104:22	111:17,18,19,25 115:10	11:24,25 25:18 40:24 55:8	m353414 (1) 168:11	221:1 222:18 224:20 227:8	message (1) 227:17	105:21,24 120:9 126:3,3
launch (9) 151:13 153:1	116:10 117:24 119:22	83:4 111:1 112:15 115:13	m353416 (1) 168:20	maximisation (1) 57:20	met (4) 29:4 62:16 218:2,5	128:14 131:21 132:18
171:24 183:12 205:25	130:3 135:22 136:3	119:8 126:19 146:6,17,20	m35342 (1) 156:20	maximise (3) 21:17 23:6	meta (3) 14:2 193:16 194:1	141:19 142:13,13 144:5
206:1,17,18 220:3	137:6,20 141:20,24 146:25	147:1,10 207:9 220:16	m35343 (2) 157:11,17	62:24	metadata (2) 14:1 33:22	146:10,14 147:8,17 149:4
launched (19) 27:19	163:1 164:3 166:24 167:12	223:9,19 224:15	m35344 (1) 162:12	maximum (1) 21:4	metashopping (5) 182:9	150:7,8,9 153:10,16,19
119:13,20 145:22 157:7	169:9,10 182:9 187:7,14	looks (11) 12:1,4 32:24 33:7	m35345 (1) 168:5	maybe (18) 7:23,23 15:5	184:11,22 187:9,15	156:6 157:3 158:22 159:16
172:20 186:3 187:24	188:4 193:11,16,18 196:10	34:6 49:16 53:3 72:7	m35347 (1) 165:20	32:17 44:20 56:25 69:21	metatag (5) 12:15,17,18,19	161:19,20 162:19,24
189:22 194:25 203:10	199:22 201:9 205:18 206:9	107:13 170:13 224:2	m35348 (1) 167:13	100:22 109:24 113:15	13:16	164:15 165:5,6,8 166:6,9
207:19 211:23 212:18	207:8 208:8 209:23 211:12	loose (6) 77:18 78:21	m3535 (2) 169:13 176:3	125:10 147:3 153:18 172:2	metatags (2) 13:12,20	167:6,8,19 171:5 174:23
219:9,11 220:4,4,5	214:16 215:10,11 219:5	79:7,8,16 80:7	m35351 (1) 170:14	188:8 192:15 197:1,3	metrics (7) 38:10 57:2,5,7	175:7 182:9 186:7,22
launches (1) 116:19	220:2	lose (6) 102:13,14,15 135:8	m353514 (1) 170:1	mean (97) 3:6,22 5:9 7:17	88:16 89:7 223:7	187:1,14 188:1 193:11,17
launching (3) 172:17 212:12	liked (2) 208:12 210:1	205:3,11	madam (2) 46:2 203:22	11:2 12:10 17:1 21:19,25	mic (1) 1:24	196:18 197:6 202:23 203:6
219:1	likelihood (2) 23:7 43:9	losers (1) 187:1	magnification (1) 41:5	23:19 24:16 36:18 37:16	microphone (5) 34:7 71:11	207:10 211:3 213:5,9
lawful (1) 226:11	likely (13) 23:23 28:22	losing (3) 98:8 102:8 209:15	magnitude (1) 154:4	38:1 40:24 49:24 50:3,3	114:23 120:10 121:1	214:16,22 216:10,13
lawyer (2) 177:8 178:6	40:22,24 57:9 70:24 88:13	loss (7) 97:14 100:14 101:15	mails (1) 192:8	52:14 55:5 56:5 60:2 63:10	middle (2) 76:22 198:11	morning (9) 1:8,9 177:15,17
lcd (1) 188:7	90:10 137:11 143:2	102:5 168:22 181:16 190:8	main (7) 20:15 51:15 52:3	66:7 67:11 68:1,2 73:18	might (38) 1:19 6:25	180:11 198:12,25 199:6
lcs (1) 131:11	161:19,20 185:4	losses (3) 58:12 184:14 187:2	82:13 112:1 172:4 180:13	74:17,18 75:24 78:5 82:3	12:8,13,19,20 16:10,10	227:15
ldap (1) 156:10	likewise (1) 11:5	lost (1) 162:10	mainly (3) 148:9 164:4	83:21 87:16 91:17,25	32:6 41:20 62:7 67:23	morrison (16) 177:2,3,3
lead (3) 59:20 157:1 160:5	limit (4) 25:18 31:23 171:14	lot (19) 17:1 47:19	168:22	92:14,17 93:1 97:24,25	69:20 70:1,2,16 72:20 85:4	178:15,21,22 179:16,22
leader (1) 154:12	211:8	49:21,21,22 53:3 58:5 79:5	maintain (1) 44:23	98:8,12,23 100:7	87:19,24 88:7 94:19 98:19	180:8 217:12,13,25 218:15
leadership (1) 133:16	limitations (2) 85:20 160:9	93:20 153:9 155:19,23	majority (3) 47:10 67:3	102:22,23 104:14 110:14	120:18 120:10 111:23	220:6 228:17,19
learned (1) 36:9	limited (11) 4:8,23 5:11 8:7	158:11 171:13 197:19	160:13	111:15 118:9 123:11	120:17 146:19,23,24,25	moss (7) 30:18,19,20,21,25
least (26) 11:24 12:3 21:25	15:14 25:4 55:18 133:25	216:6 217:3 221:15 225:16	makes (1) 52:5	125:20 127:2,25 128:2	147:9 152:6 162:14 163:9	31:1,3
44:21 45:2 54:6 57:6 66:17	139:17 141:17 171:17	lots (5) 49:19 54:25 176:15	making (21) 41:20 55:24	134:9 138:18 145:15	176:16 187:25 224:11	most (19) 20:16 67:24 69:4
107:14 138:15 147:6	line (4) 64:10 109:21 179:4	189:1 198:18	61:4 62:1 69:16 92:20	152:15,19 153:14 163:18	mild (2) 212:21 213:6	70:18 99:16 104:8,23
161:24 162:17 174:1 183:7	218:22	low (8) 16:8 63:12 72:21	114:8 115:22 116:10,14,18	165:3 167:19 173:9 176:9	milestones (1) 150:19	105:7 115:16 127:19 147:7
185:5 191:8 194:18 197:1	lines (7) 53:23 71:16 72:1	90:17 134:3 158:8 160:16	132:3,23 145:13 152:22	191:10,17,17 192:7	milliseconds (2) 51:19,21	152:10 167:9 168:16 194:7
198:7 199:10 210:2	81:7 89:25 93:3 138:9	170:7	153:3,13 160:11 161:10	196:3,12 197:24 198:5,7	mind (3) 59:9 94:13 200:18	198:12,15 217:1 224:23
212:6,23 214:12 215:14	link (9) 18:16,18 20:14 28:18	lower (6) 68:24 163:13	173:11 210:21	199:18 201:3,3,17	minimise (1) 62:21	mostly (2) 174:2 209:21
leave (6) 4:25 106:5 108:22	19:18,21,25 30:7 178:1	173:10 175:1,9 201:25	managed (1) 110:12	203:8,20 205:20 206:20	minimum (1) 128:21	mostyn (1) 155:20
199:10 211:11 223:1	linked (4) 17:22 19:8,10	lowest (5) 12:5 66:10 71:3	management (8) 39:18	208:14 211:14	minutes (4) 28:17 93:22	motivated (1) 219:7
leaving (1) 18:1	20:12	145:6,12	44:19 58:13,14 100:11	215:1,7,7,24,25 216:11,25	204:3 208:4	motivational (1) 212:4
led (6) 87:16 129:4 131:18	links (11) 14:24 16:1,7 36:22	lowquality (1) 132:19	102:16 136:2 156:16	217:2 218:25 226:23	misheard (1) 2:20	move (5) 17:14 37:22 51:24
140:16 151:21 156:16	38:1 66:20 141:19,19	lunch (6) 94:9 95:2 109:5,11	manager (4) 42:3 58:16	meaningful (1) 171:16	mm (10) 3:4 23:11,14 29:13	109:4 192:3
left (4) 122:25 166:5 177:20	172:9,13 187:9	110:19 113:16	122:20 131:13	means (6) 18:22 71:4 120:12	30:11 68:9 86:19 97:13	moved (2) 15:9 72:9
204:4	list (31) 66:19 69:15,21	luncheon (1) 115:7	manages (1) 140:25	131:18 137:10 220:22	114:3 192:17	ms (153) 33:21
lefthand (1) 158:25	78:16 85:13 182:4		managing (1) 134:22	114:3 192:17	mmhm (23) 15:2,13 18:4	34:6,11,13,20,25
legal (4) 24:22 155:23	189:2,13,13,15,17,19,20,21		mandating (1) 115:22	183:15 203:13 217:24	19:22 26:4,13 27:13 31:8	35:5,9,11,13,17,22,25 36:3
224:22 226:7	190:8 195:17 196:17,20,21		mandatory (1) 99:7	209:1,3	53:21 57:22 72:23	44:7,9,12 45:14,20,23,25
leroy (1) 140:3	197:17,19 206:3,15 213:21		manifestation (2) 81:16	measure (1) 168:22	81:13,18 82:16 89:22	47:12,16 52:2,24
less (15) 15:22 72:4 102:4,11	215:25,25 216:1,4,5,6,10		100:2	measured (2) 167:4 219:21	97:10 99:18,24 130:17	53:6,8,10,12,14 54:4,6,10
139:11 141:20 150:24	listed (2) 129:5 172:10		manifesting (1) 82:1	mechanism (9) 1:12 20:23	146:4 186:18 190:12	55:6,10,12,16,21 57:22
158:1 159:20 163:16	listing (6) 86:3,5,10		manner (1) 214:20	31:6 85:11 110:3 145:14	213:11	58:25 59:18 60:1,4,9
166:12 188:1 199:2 209:13	145:21,21 172:9		manual (6) 189:15 190:21	205:6,16 224:4	mockup (5) 6:25 8:11,12	65:15,19,25 66:6,12
211:16	listings (1) 30:9		198:3 199:13 203:2 223:2	mechanisms (1) 65:11	10:19 11:13	68:1,6,10,12,16 69:9
let (41) 6:11 14:16,21 17:20	lists (2) 187:12 207:7		manually (5) 133:17 192:3	meet (2) 71:2 140:10	model (37) 56:11 63:24	70:5,10 71:11
32:19 40:3 48:23 49:6	little (13) 1:25 4:3,12 11:18		197:23 203:6 206:9	meeting (5) 124:16,18,19	72:17 73:12,14 76:20	72:13,16,20,24
78:4,5 82:3 92:1 96:8 99:5	14:16 15:5 39:18 103:15		many (20) 2:6 17:3 39:19	166:1 202:25	77:5 12 103:8	73:3,5,7,9,11,14
101:6 103:13,13	107:14 113:15 148:22,24		46:20 47:7 62:15 69:17	meetings (3) 75:24 76:7	104:5,9,14,24	74:2,5,7,12,17,22,25
107:15,21,21 108:2,12,14	181:5		70:15,20 112:5 180:19	133:16	105:8,15,24,24	75:2,5,10,14 79:1,15,18,21
109:4 112:15 120:25	live (8) 38:9 53:12 55:16		186:4,4 191:20 194:5,12	meets (1) 62:17	113:9,10,11 125:25 127:20	80:2 82:7 89:19,23
127:13 128:8 129:12 134:9	150:6 151:25 152:1 169:15		197:6 214:11 219:1 221:2	members (2) 177:24 224:11	128:5 132:5,12,24	90:3,7,9,14 91:10,24
138:22 140:4 145:18 152:9	176:22		mapping (1) 55:18	memory (6) 76:20 107:12	134:3,14 137:16,22	92:1,5,22 93:1,5,8,14 94:4
165:15 168:15 171:22	lived (1) 217:3		mappings (1) 84:20	112:15 119:1 181:1 196:24	138:12 137:140:23,25	105:1,6,21 109:7 112:11
183:3 188:8 198:9 202:9	load (2) 181:24 187:6		march (6) 122:20 145:22	mens (2) 30:4,16	145:9,17 191:3	113:25 116:1,3,6,13
lets (11) 23:20 41:21 42:1	loaded (2) 216:3,3		192:14 195:6 198:11	mentioned (27) 9:23 25:10	models (12) 56:12,15	117:5,8,10,13,16,18
62:24 66:3,10,10 75:21	loads (1) 216:15		204:10	28:17 35:6 36:11 37:7,23	58:5,11 61:6,25 63:7 88:12	138:11,19 159:21,23 161:8
78:4,6 109:25 111:14	located (1) 45:6		margin (17) 20:25	42:3 46:6 52:1 62:22 84:14	103:5 130:23 138:17	163:18,21 164:1,6,8
115:16 170:6	locking (1) 12:3		21:6,9,16,23 22:6,25	95:14,15 103:8 123:11	140:22	172:22 177:2,3,3,9,20
letter (4) 149:11,15,19	logging (1) 52:20		23:10,18,24 24:12,15	137:17 141:25 142:1,19	moderately (1) 181:22	178:7,10,15,21,22
171:23	logic (1) 173:6		173:9,10 174:9,13,23	143:14 153:19 154:14	modified (2) 90:3 91:11	179:16,22 180:8 203:17,24
level (13) 5:9 21:16 24:12,15	logical (2) 9:8 70:18		margins (3) 174:6,7,8	168:1,19 197:6 199:22	modify (1) 194:12	208:12 209:2 210:6
65:7 133:15,18 138:19	logistics (1) 134:23		marin (3) 136:3 137:20,22	mentioning (1) 2:18	momah (3) 177:9 178:7,10	217:12,13,25 218:15 220:6
154:23 174:13 196:12	logos (1) 166:18		marinkenshoo (1) 137:7	mentions (1) 133:9	moment (11) 35:15 107:8,22	228:17,19
198:15 208:6	london (1) 178:3		mark (2) 14:1 87:25	merchant (31) 18:3,18 19:10	142:19 156:21 179:12	much (54) 3:23 10:16 12:1
lg (1) 188:7	long (8) 37:2 93:25 108:13		marked (2) 14:5 54:6	20:3,6,7,13,16 21:3 37:12	181:11 195:11 199:20	13:10 31:25
lid (1) 133:14	114:25 115:15 156:25		markedup (1) 13:19	47:24,25 64:16 67:20	200:12 217:21	34:6,10,14 154:19 155:9
lidshaped (1) 142:1	175:18 180:24		market (6) 46:21 47:8	70:1,2 72:4 130:22 134:15	monday (1) 199:1	35:8,12,18 37:25 50:1
life (1) 33:14	longer (3) 3:2 93:19 167:21		224:17,19 225:1 226:3	139:8,11 140:16,23	monetisable (1) 47:4	55:2,8,18 57:16 58:22
lightweight (1) 84:23	longterm (6) 21:20		marketing (2) 29:14 130:15	141:3,5 157:2 164:15	monetised (1) 74:8	85:20 88:18 100:12 110:16
like (120) 1:18 3:23 4:12 7:1	58:18,19,22 101:22 102:5		marketplace (1) 128:4	165:3,10 172:5 176:11	money (6) 61:24 62:1 63:7	114:24 119:25
8:2 10:1,25 11:12 12:1,4	look (40) 6:21 10:13,17		markup (1) 13:12	merchants (64)	128:12 165:6 171:13	120:18,18,19 143:9
13:7 18:14 21:7 23:17	11:12 14:11,16,21 15:11		match (7) 38:14,14 77:20,25	16:11,12,13,23,25 17:2,3	monitor (1) 169:5	146:10,14 154:19 155:9
24:16 26:8 29:4 31:2	18:7,25 21:20 25:23 27:9		78:19,20 85:12	21:1 22:6 24:11 25:1	monitoring (2) 29:25 30:2	159:20 161:9 164:18
32:20,25 33:7 34:6 38:6	29:7,17 32:25 33:2 44:7		matched (5) 38:8 78:18 79:9	26:12,19,21,22 32:15 36:6	month (2) 183:21 212:19	165:2,3 166:13 167:4
39:24 44:23 45:12 46:18	49:6 60:25 70:20 71:15		113:18 161:11	38:2 46:18 47:2,13,20	months (8) 27:15 152:23	169:4 170:8,12 175:23
48:19 49:3,5,10,16 50:3	74:23 86:24 88:23 89:10		matching (4) 67:4 85:10	61:12 62:3 68:3 69:18,24	153:4,13,16 179:9 183:13	178:2 198:17 199:2,4
51:10,21 52:18 53:3	103:13 105:1 107:14		157:13 214:19	71:5,7 72:18,20 78:7	187:25	211:20 219:6 220:8,10
54:2,11,25 56:20,21,21,24	108:12 137:9,24 138:22,25		material (2) 29:15 225:1	104:16 105:16 126:23	more (98) 5:2 11:18	

myself (3) 41:9 44:8 114:11	november (3) 119:13 181:7	96:3,10,14,21,22 97:7,16	68:8 69:6 75:4 80:10 83:8	parameters (1) 213:8	perclick (1) 173:25	57:16 67:9 106:25 118:5,6
mysen (1) 138:24	182:21	98:5,24 99:1,9 102:25	90:4 92:15 96:20 109:8	parent (1) 207:9	perform (4) 89:6 91:5 150:23	119:5,6 121:17,19 122:2,4
N	nuance (2) 216:6,15	103:15,20,22 104:18,21	110:5 111:9,9 112:1	part (45) 20:4 26:14,17 28:7	151:10	126:10 136:12,19 137:25
n2181 (1) 33:10	nuanced (1) 216:10	106:22	113:19 115:5 143:12	39:4 52:18,19 63:22 64:21	performance (2) 29:25 30:2	138:6 156:4,23 168:11
name (11) 57:14 70:1 125:19	number (28) 26:25 39:5	107:3,8,8,10,15,21,23	organically (2) 9:5 75:21	67:24 75:3,7 76:10,12,13	performing (1) 133:25	169:13 173:14 177:13
154:13,14 156:10	47:3,19 51:14,23 52:21	108:6,8,11 112:15,18	organics (1) 90:12	81:11 86:7 87:15 94:20	perhaps (35) 6:19 10:23	178:5,8,16 181:2 186:14
188:15,17 190:14 196:3	69:22 79:6 94:15 102:12	114:9 116:9 119:11,16	organisation (2) 5:12 90:23	96:11 107:11,23 109:7,13	12:12 15:11 17:10 18:25	188:8 193:13,22 198:9
209:23	115:16 147:22 148:2,6	123:24 125:8,11,17 126:4	organized (1) 214:19	111:10,13,17 112:1,21	21:3 26:9 50:6 51:21 52:2	200:18 204:9 212:16
namely (1) 72:17	150:19 155:5 158:6	127:6,11 130:2 131:25	origin (1) 180:18	115:5 123:17 130:22	56:21,24 69:20 70:18	plused (1) 42:2
narrow (2) 146:18 166:11	160:2,7 166:7,7,24 168:21	133:2 135:25 136:6,11	original (2) 92:2,11	133:3,3 135:24 163:2	73:18 74:16 77:22 79:19	pm (8) 60:17 95:4,6,8 120:7
nature (3) 60:2 67:1 174:2	181:18 204:5,13 208:21	137:4,13,23 138:7,10,22	originally (1) 74:7	174:2 176:17 204:4,20	94:13 100:20 107:1	176:24 177:1 227:22
navigate (3) 15:23,25 29:23	numbered (1) 181:18	149:10 156:18 172:3	others (4) 13:13 133:22	211:25 220:19 225:2,3	108:20,22,24 111:12	pointed (1) 13:5
navigated (1) 16:17	numbers (1) 145:3	173:20 182:22,22 195:13	211:19 217:22	227:1	131:23 138:1 146:7 182:8	pointing (1) 225:8
necessarily (5) 100:20 102:1	O	196:14,25 197:16 198:9	otherwise (4) 9:16 91:22	participant (1) 28:21	188:7 192:23 198:5 201:7	points (8) 4:5,8,8 56:10
174:19 175:3 226:2		200:17,20 201:6 203:15,25	139:17 199:5	participants (6) 29:2 46:17	227:15	111:15 145:18 181:18
necessary (2) 120:23 227:14	o10 (1) 126:7	206:22 218:2,17,19	ourselves (2) 32:24 221:18	47:7 71:1 128:23 145:4	period (18) 17:16 22:21	211:10
need (35) 2:11 11:10 13:9	o1010 (1) 126:10	older (4) 68:8,13 119:4 194:9	outcome (1) 164:3	participate (10) 46:19 52:14	35:19 86:23 106:8 117:10	poland (1) 170:7
25:12 26:9 28:13 41:4	o1060 (1) 146:8	oled (1) 87:8	outcomes (1) 65:21	72:22 130:1 133:12 142:4	124:5,11,13,14,17	policies (1) 214:9
59:22 69:20 71:2,2 79:24	o1061 (1) 146:1	once (11) 26:17 67:22	outcompete (1) 84:19	144:5 149:9 158:17,20	221:13,15,24 222:1,4	policy (8) 20:1,20 200:25
91:22 94:19 104:16	obfuscate (2) 203:3,8	70:20,24 101:19 116:24	outcompeted (2) 99:11,14	participated (2) 142:5 149:7	225:23 227:6	201:8 202:3,8,10,18
107:5,25 138:9 157:16	obfuscating (1) 202:21	123:11 152:2 154:25	outwear (1) 85:2	participating (6) 26:25 46:21	permanent (1) 151:23	politically (1) 58:9
160:22,24 161:24	obscured (1) 28:2	164:14 194:23	outperform (1) 89:16	72:18 143:6,7 149:4	permission (1) 20:3	poor (3) 28:22 30:12 223:6
165:12,15 168:9,15 174:6	observations (1) 182:3	onebox (5) 74:2,6 75:4 99:7	outreach (1) 150:5	participation (7) 22:2 31:23	permit (1) 65:15	poorly (2) 150:23 151:10
175:7,21,21 192:15 193:21	obvious (4) 82:4 190:23	111:25	outright (1) 194:4	123:22 127:4,7 128:22	permitted (1) 3:16	popular (2) 158:1 159:20
226:10,13 227:20	226:9,15	oneoff (1) 78:24	outside (2) 44:17 216:23	140:14	persist (1) 174:11	populardominant (1) 209:9
needed (8) 20:2 64:11 94:23	obviously (6) 21:19 56:6	ones (10) 5:16 16:5 17:8	over (35) 13:23 22:24	particular (23) 1:20 4:14	person (2) 41:22 218:2	popularity (1) 158:8
115:19 152:8 166:23	158:21 222:14 226:24	69:22 117:3 190:22,23	27:14,24 30:3,6 36:6 37:12	157:9 55:4 65:12,16	personally (5) 124:8 125:2	porn (1) 58:7
167:5,7	227:19	194:10 198:18 209:9	39:6 53:15 63:25 65:11	87:1,2 91:13 105:10	192:8 197:12 198:1	portion (2) 105:25 200:10
needing (1) 160:21	occasionally (1) 187:8	onesided (1) 48:1	66:24 88:16 95:2 109:5	116:12 130:20 138:12	perspective (3) 89:24 210:12	portraying (1) 100:21
needs (2) 107:24 161:21	occur (2) 67:8 213:16	online (4) 61:5,14 80:8 128:4	112:6 113:8 115:7 122:14	145:2 183:11 187:24	219:3	position (9) 5:5,17,18 22:11
negative (4) 183:14 186:25	oclock (3) 94:12 120:22	onto (1) 64:19	131:23 135:7 153:14	207:20 215:25 221:9,13	persuade (1) 148:3	23:3 24:2 81:21 105:20
207:5 213:17	175:22	ontopic (2) 181:24 187:6	157:16 162:4 181:17 193:2	222:13 223:19	phase (4) 124:5,10 125:3	211:15
negatives (1) 190:22	october (3) 149:13	onwards (1) 105:14	207:6 209:17 210:20	particularly (8) 2:2 4:25 37:4	134:20	positions (1) 198:20
neither (1) 137:15	154:17,18	open (5) 19:25 37:16 48:15	216:13 217:18 218:4,8,22	87:23 88:2,3 89:20 224:2	philosophical (1) 209:19	positive (10) 87:22 88:8
nemet (1) 204:11	odd (4) 24:3,7 164:3 219:25	225:25 227:2	overall (7) 89:7 159:1	181:16,20,21 186:25 209:6	philosophy (1) 73:3	174:5 187:9 210:7,8,11
netherlands (3) 119:15 171:2	oddly (1) 107:14	opened (2) 115:20 220:22	181:16,20,21 186:25 209:6	overcharge (1) 21:21	phrase (2) 195:23 215:10	212:5 213:7 219:17
197:20	offcountry (1) 211:1	operate (6) 130:14	overlay (1) 166:9	overlay (1) 166:9	pickford (48) 4:2 25:25	positives (2) 190:21 213:22
network (3) 43:11 44:18 45:4	offensive (2) 58:8,9	132:20,23 174:12,14,	overly (1) 185:14	overly (1) 185:14	32:8,9,10 33:22	pospisil (1) 170:9
networks (2) 43:2 45:6	offer (11) 63:17 67:7,11	209:13	overnight (1) 116:8	overnight (1) 116:8	34:2,8,12,16,22	possibility (3) 86:25 110:1,8
neutral (2) 219:17 224:16	77:18,22 78:9,13 105:10	operated (4) 125:25 126:2	override (1) 189:15	overspeaking (3) 53:10	35:15,20,23 36:1,4,14	possible (24) 1:18 3:7,18
never (13) 33:14 102:24	115:3 133:4 140:8	222:2 227:5	207:6 209:17 210:20	220:24 222:17	37:18,22 46:2 48:3 53:15	4:22 5:20 30:15 39:20
125:2,4 147:11,15	offered (2) 27:25 123:25	operates (1) 95:17	216:13 217:18 218:4,8,22	220:24 222:17	54:5,8,12,17,19,21,23	42:20 55:25 84:13 89:8
148:11,11,25 149:6 162:16	offering (4) 132:9 133:4	operating (6) 134:1 173:24	105:22 155:8	overstock (1) 195:9	55:20 58:24 59:20 60:12	101:18 110:11 116:7,23
167:10 170:22	135:12 141:15	174:2,6,17 175:9	overwhelmingness (1)	overwhelmingness (1)	94:1 107:24 110:17,18	117:23 118:24 129:15
news (2) 27:10 28:4	offerings (1) 127:18	operational (2) 89:23 139:18	208:21	208:21	113:22 114:21,22	136:24 144:15 152:11
next (18) 14:6 34:9 37:22	offers (46) 55:13 56:14,18	operative (1) 134:20	own (14) 3:8 20:21 24:4,15	185:17	118:2,3,15 119:5,23	160:2 163:8 215:20
49:11 80:13 94:24 119:7,7	65:8,10,15 66:10	operator (1) 49:3	133:23 135:11,13 136:7	passed (4) 133:22 160:10,13	228:5,9,11	possibly (4) 32:4 154:7 213:8
160:4 177:5 181:17 185:8	67:9,17,23 72:4 75:22	operators (2) 28:4,10	141:18 142:6 149:6 163:3	212:1	pictures (3) 74:8 148:7,12	221:11
189:11 195:5 201:21	76:19 77:10,20,25	opine (1) 106:1	201:15 202:15	212:1	pillars (6) 25:10,19	post (1) 103:17
203:16 218:17 227:18	78:1,8,14,14,15,17,18,18,20,21,22	opining (1) 195:1		passages (2) 140:24 141:4	26:3,14,18 62:21	postclick (1) 57:10
nextag (15) 187:12 193:16	79:7,8,11,15,16 80:7,7	opinion (5) 209:6 213:23		passing (3) 5:10 35:6 141:2	pla (212) 32:24 35:10 61:3	postlaunch (1) 22:21
198:14,20 199:5,13,15,23	85:4,14,25 113:18,20	215:17 226:8,11		pastthrough (1) 90:20	64:17 89:14 111:6 115:19	postremedy (1) 46:19
201:23 202:22,24 203:3,7	129:14 141:13 144:12	opinions (3) 214:1 221:3,5		past (4) 13:4 27:15 150:22	117:24 146:9,13,18 147:14	postunification (1) 78:8
205:11 207:8	147:23 161:3 166:7	opportunities (3) 144:4,19		154:3	148:15 150:13 157:12	potential (6) 6:8 54:14 55:13
nfs (1) 58:6	office (1) 177:8	162:10		path (1) 157:3	162:19 163:9,14,17,19	164:7 166:17 168:6
nically (1) 214:19	offtopic (1) 187:8	opportunity (8) 26:1 49:22		patience (1) 153:17	164:22 169:18	potentially (10) 16:22,24
nicolas (1) 140:3	often (8) 78:23 96:3 102:19	148:15 161:24		pattern (2) 198:13 199:22	place (16) 17:22 18:3 19:7,9	17:1,2 47:23 59:6 62:2
night (1) 57:21	161:7,11 169:1 192:24	161:10 163:25 164:2		patterns (5) 84:8 85:1,7,19	20:4,9 29:2 42:16 46:22	110:10 224:14,18
nikon (1) 15:8	199:24	181:22,25,25		202:6	101:9 133:1 134:15 135:11	potentials (1) 139:6
nine (1) 208:19	oh (30) 2:22 7:18 15:10	187:4,8,10,13,14 194:1,16		paul (6) 192:5 196:16	150:14 190:8 213:25	power (1) 102:24
noble (3) 221:10 223:18	30:19 45:7 48:17 54:5	195:18 197:13,13,22		197:14,17 205:10 206:9	placed (3) 20:8 148:21	practice (3) 63:11 140:19
226:6	60:20 74:1,6 76:23 79:10	209:10 212:22		pause (17) 11:21 40:3	163:16	141:2
nobles (1) 224:9	99:22 107:18,21 115:2	209:16 212:22		41:12,18 51:3 53:24 107:9	placement (4) 71:8 104:6	pre (1) 78:7
nodding (1) 177:21	117:17 118:16,19,21	112:17 114:13 132:1		112:17 114:13 132:1	105:15,16	precise (2) 38:14 77:14
noncommercial (1) 214:10	151:16 156:9 157:16 190:4	138:4,8 176:18 181:11		138:4,8 176:18 181:11	places (5) 20:25 24:11 112:3	precisely (1) 72:9
nonconfidential (2) 54:8,10	192:17,18 210:20	200:16 218:18 220:13		200:16 218:18 220:13	140:24 221:2	predication (4) 19:14 221:13
none (1) 196:22	217:24,25 220:2	pausing (1) 151:2		pay (7) 21:4 104:5,16,19	placing (2) 20:12 134:21	222:3 227:6
nonenglish (1) 196:22	okay (163) 1:22,24 2:20,24	pay (7) 21:4 104:5,16,19		105:15 139:8 163:5	plan (4) 94:20 150:5,6 152:3	predicted (1) 112:25
nonfamily (1) 58:7	5:23 7:13 12:10,23 13:3	105:15 139:8 163:5		paying (1) 139:11	140:24 221:2	prefer (2) 34:17 209:22
nonsearch (3) 197:13 201:23	14:14,16,21,22,22	105:15 139:8 163:5		payment (4) 68:3,10,14 73:1	planning (2) 199:9 206:18	preferable (1) 93:19
219:5	15:4,13,16,20 17:10 18:24	105:15 139:8 163:5		pctr (2) 56:11 113:12	plas (22) 32:15,22 36:2	preference (2) 36:5 37:11
nonus (2) 185:17,19	19:14,17 23:20 25:22	105:15 139:8 163:5		pears (1) 165:14	89:14 98:12 116:24	preferred (5) 32:13 36:22
nonviable (1) 151:1	26:11 28:12,12 29:13	105:15 139:8 163:5		penalised (1) 110:5	117:16,20 119:12,20	52:25 168:18 187:21
nor (3) 137:15 222:15 227:2	33:7,18,20 35:22,25 36:3	105:15 139:8 163:5		penalties (5) 109:15 198:3	146:20,24 158:8	prevalence (1) 113:9
normal (2) 29:20 92:14	37:1 38:25 39:9,11 40:5	105:15 139:8 163:5		199:14,16 223:2	159:4,10,16 162:13 163:21	preparation (1) 176:4
normally (2) 140:20 150:11	41:6,11,13,17,19,21	105:15 139:8 163:5		people (25) 16:7 29:24	platform (2) 128:3 136:8	prepare (1) 152:9
note (11) 13:14 94:18	42:12,18 43:16,24	105:15 139:8 163:5		31:19,21 36:22 38:6 42:13	plausible (2) 100:10 109:24	prepared (3) 53:12 118:13
130:20,23 135:3 184:20	44:5,10,14 45:7,10 48:17	105:15 139:8 163:5		45:17 70:15,20 72:25	play (2) 31:5 127:20	218:24
185:8 195:25 205:1 221:9	49:4,6,8,12,15 50:23	105:15 139:8 163:5		97:8,17 98:3,21 99:15,25	players (8) 61:5,12 129:24	preponderance (2) 200:5,25
226:6	51:4,14,23 52:1 53:25	105:15 139:8 163:5		101:4,4 109:22 112:5	132:12,21 137:12,16 164:7	preremedy (5) 19:14 33:7
notes (1) 157:17	54:16 57:8,23 63:14	105:15 139:8 163:5		133:17 138:15,22 160:16	playing (2) 135:15,18	81:22 103:20,21
nothing (7) 31:6 36:1 37:17	66:4,12 69:7 73:2 74:9,23	105:15 139:8 163:5		per (5) 21:4,7 102:8 174:18	please (61) 6:22 12:21 26:1	presence (4) 96:19 202:11
133:21 155:4 178:10,12	75:12 77:16,16,17,20,21	105:15 139:8 163:5		175:11	32:22 33:1,6,8,10,16,17	213:17 214:11
notice (1) 168:12	78:9 79:2,5					

transcripts@opus2.com
020 4515 2275

required (6) 128:22 135:12 139:5 140:13 152:23 166:22 requirement (4) 31:11,14,17 129:20 requirements (6) 38:1 123:23 128:21 140:14,18,19 requires (2) 130:7,8 resell (3) 164:17 165:2,9 reseller (1) 136:21 reserve (1) 94:19 resisted (1) 157:3 respect (1) 176:9 respective (1) 161:3 respond (2) 107:24 221:11 responded (2) 4:9 55:23 responding (1) 23:22 response (7) 27:20 52:2 102:12 135:2 204:21 214:6,7 responsibility (1) 69:2 responsible (3) 43:5 44:22 180:13 rest (4) 149:18 187:20 202:22 222:6 restrained (1) 59:1 result (26) 10:4,6 11:15 14:6 46:24 60:22 74:24 75:3,7 91:14 92:19 146:10,14,19 154:7 184:22 185:13 186:25 187:20 195:18 197:13,13 198:14 201:14 209:15 213:2 resulted (2) 182:17 183:6 resultformats (1) 13:6 results (137) 2:8 3:10,19,21 5:6,8,19 7:1,3,8,19,20 8:2,15,22 9:13 10:2 11:4,6 13:18 14:8,17 15:19 16:20,22 31:2 52:4,18 53:11 55:23 57:8,24 58:6,7 64:9,11 65:20 67:16 68:2,19 72:25 74:18,18 81:10 90:25 91:6 92:21 96:20 103:23 105:9,17 110:5 111:9,17 112:1,19 113:5 143:12 149:21 150:1 151:3,5,12,20 153:18,21,23,24 154:25 160:19 161:6,13 171:25 172:5 180:20,24 181:15,23 182:15,16 183:4,5 184:12,25 185:6 187:5,20 188:3 192:4,4 193:9,17 194:13,19,21 197:5,18,19 198:20 199:7,13,24 200:6 201:1,9,23 202:8,11,12,16 207:11 208:13,18 209:12,20,21,22,24 210:2,25 211:1,8 212:4,7,23,24,25 213:1 214:12,15,18 219:5,5,12,16,20 225:20 resume (2) 120:23 227:12 retailer (4) 182:10,12,14 187:13 retailers (1) 28:1 retained (1) 72:3 retrieval (2) 56:14 79:10 retrospect (1) 201:4 return (3) 52:6 60:13 94:25 reused (1) 153:2 rev (1) 113:6 revenue (16) 20:25 25:14 57:20 58:12,22 97:15 100:14 101:15 102:5,11 105:19 112:23 113:7 162:10 171:14,17 reverted (1) 205:10 review (2) 190:21 207:8 reviewed (1) 89:9 reviews (7) 12:6 15:7 129:22 132:11 166:14,24 207:10 reward (1) 219:14 rewind (1) 96:6	rich (7) 13:7 15:22 59:5,16 62:9 92:9,11 richer (3) 14:25 59:9 86:24 richness (1) 86:20 rid (2) 91:4 159:15 ridesharing (1) 179:19 righthand (6) 14:13,14 41:14 49:14 111:23 170:15 rise (6) 1:16 93:23 176:22 220:15 227:16,21 rising (3) 4:2 22:21,22 risk (4) 162:2,7,8,9 risky (1) 49:16 rival (9) 3:20 7:2 9:22 96:19 115:20 173:23 174:6,8,14 rivalry (2) 97:25 98:1 rivals (3) 22:12 24:2 174:4 role (6) 31:5 130:20 131:14 134:1 135:15,21 room (1) 178:13 rose (124) 33:21 34:6,11,13,20,25 35:5,9,11,13,17,22,25 36:3 44:7,9,12 45:14,20,23,25 47:12,16 52:2,24 53:6,8,10,12,14 54:4,6,10 55:6,10,12,16,21 57:22 58:25 59:18 60:1,4,9 65:15,19,25 66:6,12 68:1,6,10,12,16 69:9 70:5,10 71:11 72:13,16,20,24 73:3,5,7,9,11,14 74:2,5,7,12,17,22,25 75:2,5,10,14 79:1,15,18,21 80:2 82:7 89:19,23 90:3,7,9,14 91:10,24 92:1,5,22 93:1,5,8,14 94:4 109:7 116:1,3,6,13 117:5,8,10,13,16,18 159:21,23 161:8 163:18,21 164:1,6,8 172:22 177:20 203:17,24 round (1) 31:20 route (2) 4:13 159:9 ruling (1) 27:11 run (13) 27:12 43:2 44:23,25 56:20 58:17 145:16 150:6 171:1 186:4 191:22 208:7 209:3 running (8) 45:12 144:13,16 153:13 164:14 180:22 197:9,12 rums (1) 44:25 rush (3) 94:21 153:6,7 rushed (1) 226:22	202:7,15,19 203:1 205:13 206:9 226:7 scenario (4) 8:13 84:11 99:13 100:10 sceptical (2) 43:5 55:22 scepticism (1) 95:19 scheduled (1) 120:7 schema (1) 13:16 scheme (7) 12:16,18,19 27:20 85:16 139:6 141:5 scope (2) 123:23 221:8 score (14) 56:19 113:4,10 199:24 202:1,4 203:18,21 204:4,5 211:12,14,16,16 scores (1) 211:19 screen (4) 13:17 87:8 118:25 177:10 screenshot (3) 14:11 15:9,18 script (1) 194:11 scroll (5) 11:10 49:5 182:19 200:9 218:16 scrolling (1) 71:23 search (59) 8:13 13:18 16:20 23:15 30:14 31:2 37:5 55:14,14 61:13,15 68:16 69:12 72:14 73:22 74:24 75:3,7 87:1 90:25 111:2,20 112:1 125:13 127:18 128:25 136:8,8 140:15 142:17 147:8 161:12,13 162:11 180:20 187:11 191:19 192:3,4 193:17 194:13,15,18,21 195:18 197:5,13 198:14 199:7 201:23,25 202:8,11,11,16 212:7 219:4,13 225:20 searched (2) 84:23 160:17 searching (3) 29:16 97:9 111:21 searchresults (1) 194:1 seat (1) 207:9 second (17) 9:23 103:16 113:1 114:1,4 121:14,17,24 125:1 138:25 150:1 156:4 157:14 158:5 169:17 172:7 204:25 secondly (1) 69:3 section (9) 41:2 48:5 49:8 50:18,21,22,24 202:10,19 see (197) 9:21 10:19,21 11:7,9 13:23 15:6,14 22:2,3,20,23 26:5 29:9,13 30:3,6,9,16,23 40:3,7,17 41:2,21 42:1 48:6 52:25 53:17 62:13,16 63:3,12,19 66:12 67:6,17 69:19,21,21,25,25 70:1,2 91:25 94:8 107:8 108:12 109:1 111:14 115:20 116:25 117:2 121:20 122:5 124:25 128:11,11,14 127:16 131:4 136:13,20,22,23 138:1,23,24 139:1 140:1,3 144:3,7,12,13 146:2,7,9,13 149:13,15,18 150:4 151:24 154:14 155:2 156:4,6,10,12,15,23 157:12,21,22 158:5,25 160:4,7 162:7,12,20,20,22 165:20,21,25 166:5 167:13 168:5,8,10,20 169:2,15,21 170:1,4,9,14,15 172:7 173:15,21 174:15,16 181:3,6,9,12,13,18 182:11,12,20 183:20,22,24 184:3,7,18,19,25 185:2,8 186:19,23 188:17,22 189:9,12 190:13 191:22 192:2,13,14,18,19 193:3,7,14,19,19,21 194:12,14 195:5,6,7,10,13 196:15 197:17,18 198:10 200:7 203:25 204:10,14,21,25 205:4 207:1 208:24 209:4	210:5,18,23,23 212:9,10,15 214:6,6,7 223:12,15 seeing (4) 15:6 28:7 33:15 126:20 seeking (1) 25:11 seem (10) 4:10 36:22 138:15 182:9 188:11 197:21 198:21 202:17 207:12 209:23 seemed (2) 138:11 183:15 seems (22) 37:19 40:24 45:17 94:19 107:14 136:24 137:18,18,21 138:14 164:3 175:5 187:15 188:10 191:4 192:3 198:2 220:20 221:11 222:9 224:1 227:1 seen (12) 5:24 24:14 33:12,14,15 83:1 118:7,10 119:1 138:11 143:24 188:13 sees (4) 13:5 29:10 40:13 223:21 seib (3) 136:14 138:11,19 selected (3) 65:23 85:4 172:10 selecting (1) 141:13 self (3) 15:16 44:10 118:8 selfish (1) 24:20 selfservice (1) 140:23 sell (1) 126:22 selling (6) 61:12 69:18,24 72:21 127:22 134:4 sells (1) 182:1 send (3) 153:10 169:6 227:17 senior (3) 100:10 102:16 179:10 sense (10) 9:12 63:14 67:25 98:1 140:11 167:11 174:24 202:9 205:11 216:4 sensible (2) 120:20 227:15 sensitivity (1) 87:2 sent (4) 29:22 47:19,20 196:21 sentence (4) 103:12,16,16 125:1 separate (9) 7:23 50:11 59:12 71:18 81:19 157:8,9,10 216:19 september (2) 124:6 129:7 sequence (1) 199:17 serp (6) 81:12 110:25 194:19 205:3 213:3 215:5 server (14) 7:12,16,23 42:23 43:7,10,12 44:18 45:3,5,12 51:10,15 52:3 servers (4) 42:25 43:1,7 45:16 service (21) 3:9 27:19 81:17 82:1 96:19 103:25 106:14 125:5 128:1,1,24 134:16 141:8 142:9,10,14,18 143:1,21 164:15 180:16 serviced (1) 140:25 services (24) 2:7,13 3:21 7:2 13:10 18:10 27:2 29:3 31:7,15 44:21,23,24 45:11 103:5 104:8 125:13 126:17 136:3 139:15 166:9 183:16 221:20,22 serving (2) 41:25 57:8 session (1) 108:1 sessions (4) 97:5 98:21 101:5,10 set (27) 21:16 23:10 12,15,24 43:7 67:4 69:24 80:5 82:12 85:14,24 121:24 122:9 128:21 135:13 140:18 143:20 160:25 168:6,6 171:20 174:12 180:5 219:14 221:23 224:5 sets (2) 5:14 213:2 setting (1) 128:17 settled (1) 43:20 seven (2) 183:13 187:25	several (7) 79:20 129:24 133:16 144:16 193:15 212:25 213:7 severe (1) 90:4 shall (2) 26:7 227:21 shape (1) 133:14 share (3) 22:10 106:3 142:16 shares (1) 22:20 shipping (2) 67:21 70:2 ships (1) 70:3 shoes (4) 141:24 161:1,5,6 shop (1) 87:10 shoppers (2) 29:16 186:10 shopping (212) 2:7,13 3:3,8,9,13,17,20,20 6:13 7:1,2 8:10,14,15,20,21 9:1,2,2,5,11,12,16,18,21 10:10 15:14,19,24 16:9,17 17:17 18:9,14 19:5 20:9,17,19,24,24 21:15 22:4 27:1,18,19,23 28:5,22 29:3,10,17 31:15 33:1 37:24 40:13 45:8,12 49:9 52:8 58:2 61:5,15,23 62:4 63:2,24 64:1,19,25 65:2 66:14,14,20 71:18 72:2 73:9 76:13 77:1,4 80:19,23,24 81:10,15,17,20,25 82:1,10,17,24 88:14 95:20 96:8,19 97:4,5 98:13,21 100:1 101:5,6,7,10,16 102:15 103:5,25 104:1,2,8 106:7,7 109:9 110:4 111:4 113:16 114:17,19 115:18 116:17,20 122:23,24,24 123:5 125:4,8 126:17 128:7,11,24 129:19 130:24 134:22 135:7 140:9 141:8,9,11,15 142:23 143:10,11,21,21 144:6 149:6,9 150:15 157:1 158:18 172:12 174:3 175:1,2 180:15,23 182:4,16 183:5,8,16 185:6,21 187:19 188:3,24 189:6 190:15,17,25 191:5 193:17 194:2,2 195:7,8,17 20:20 198:2 200:1,6 201:1 206:15 207:11,13 208:8,13,17 209:8,15,21,22 210:1,2 212:6,13,18,22,24 213:3,16,18,23 214:12,15,18 217:5 221:20 224:4 shoppingcom (1) 195:8 shoppings (1) 174:23 shoppingspecific (1) 56:13 shops (2) 166:7,24 shopzilla (4) 204:12,17,19 205:1 short (8) 17:15 53:19 56:6 60:16 94:1,3 95:5 176:25 shots (1) 13:17 should (39) 6:2,12 9:5 14:12 18:11 33:12 36:9 58:17 88:15 107:6 114:11 115:4 120:8,9 128:23 129:18,21 138:5 143:10 146:7 152:9 164:19 165:3,4 169:23 177:25 181:6 186:2 193:2 195:25 198:24,25 200:23 201:12 204:22 206:2 215:13 216:6 223:3 shouldnt (3) 58:21,23 111:12 show (34) 12:8,20 32:19 47:1 48:23 58:21,23 63:19 84:17 90:21 106:19 129:4 131:1 143:16 144:9 145:25 150:10,13,15 151:1 155:10 157:8,14 160:6,12 162:18 166:2 167:8 169:17,19 184:1 188:8 198:17 217:16 showcase (2) 152:25 153:3 showed (9) 32:13 72:4	87:1,2 128:24 161:12 199:18 213:3 214:18 showing (5) 29:18 38:19 47:3 90:10 198:19 shown (15) 14:17,18 34:24 36:5 37:12 65:16 89:14 143:12 150:16 158:9 159:19 160:10,16 167:11 181:2 shows (6) 7:7 30:14 50:6 157:14,18 181:16 shut (3) 81:24 152:1 226:20 shutting (4) 8:19 9:1,10 80:19 sic (1) 197:4 side (17) 7:17 14:13,14 41:14 42:17 74:4,21,22 111:23 157:22,22 158:25 162:14,14 170:15 213:7,7 sidebyside (5) 181:15 183:23 186:22 194:8 198:21 signal (1) 87:15 signals (8) 56:10,16 69:10 114:20 213:13,17 214:4 216:17 signature (7) 121:20,22,23 122:5,7,8 179:23 significant (3) 153:3 163:2 220:19 significantly (6) 38:12 102:4 163:13 167:19 221:7 223:1 signing (1) 52:18 silicon (1) 177:8 similar (10) 13:12 110:6 128:6 135:17 158:12 161:2 169:20 196:8,13 209:6 similarities (1) 205:20 similarly (1) 71:23 simple (2) 24:1 100:20 simpler (1) 55:8 simplest (1) 85:11 simplified (1) 65:12 simultaneous (3) 30:22 73:25 197:2 since (1) 13:14 singhal (3) 183:21 186:16 212:10 single (15) 47:5,6,6 53:22 69:23 95:19 97:20,23 98:20 99:7,23 180:1 184:11 187:13,13 209:8,15,21,22 107:24 121:13 175:24 177:23 178:4 sit (3) 93:19 120:21 121:4 site (50) 14:7 17:22 18:22 20:16 28:22 47:20,20 62:2 63:16,17,20 68:7,10,13 72:14 73:9 74:15 88:14 91:21 92:2,5 129:4,8 132:19 133:23 140:16 141:18 142:6,14,23 143:4 160:2 182:9 184:11 185:6,21,25 186:11 187:15 189:14 194:2 205:1,13 209:24 213:18 216:14,14,15,15 219:17 20:16 107:6 114:11 115:4 27:12,17,23 28:5 32:14 34:17 36:6 37:12 90:17,20 109:9 110:4 125:7,23 131:19,20 132:7,8 140:8 150:11 157:2 172:23 180:19 182:4 206:2 185:12,16,17 188:25 189:7 190:17,19 191:6 194:3 195:17 196:21 197:6,20 198:3 199:9,14,18 204:12,19,22 206:16 207:8,13 208:9,17 209:8 211:9 212:6,14 213:3,16,24 214:3 216:13 217:5 sitting (1) 177:20 situation (5) 54:25 96:7 99:5,6 161:18	situations (3) 146:21,22,25 sixth (1) 64:10 size (1) 157:23 sky (2) 27:10 28:4 slate (7) 157:12 162:16,18 163:9,10,11,13 sleep (1) 32:17 slice (1) 89:8 slight (2) 4:18 10:13 slightest (1) 1:22 slightly (7) 15:17 19:1 119:8 209:4 211:13,19 219:20 slip (1) 150:19 slowly (1) 216:3 small (9) 30:15,23 69:21 89:8,17 115:16 147:13 150:6 159:1 smaller (3) 72:4,20 155:9 smith (26) 66:13,17,22 86:2,9,12,14,16,20 87:5,8,12,15,19,22 88:6,10,21 89:1,3,18 110:18 177:21 225:5,8,10 snapshot (1) 65:12 snapshots (1) 39:5 snippets (1) 13:7 solidly (2) 207:4 210:8 solution (10) 1:19 49:24 50:4 54:2 100:23 101:2,3 116:3,15,18 solutions (2) 6:9 83:8 solve (1) 49:19 somebody (4) 131:2,20 197:3 215:3 someone (7) 58:17 131:16 136:13 161:4 165:1 170:15 195:1 someones (1) 111:21 something (54) 2:14 3:24 5:1 6:13,23 8:25 10:23,24 11:16 12:15 14:5 21:7 23:20 24:21 30:25 37:9 40:10 43:13 50:7 51:21 57:3,5 63:3,21 65:1 83:6 85:16 90:20 92:16 102:22 110:12 115:8 120:22 123:11 124:4 125:15 126:16 130:3 140:7 141:14 147:2 161:7 205:9 169:7,10 188:8 192:8 196:18 199:16 205:9 206:9 214:24 215:10 217:6 sometimes (4) 54:24 104:5,9 225:15 somewhat (2) 65:7 213:5 sophisticated (4) 55:14 85:9 87:12 137:12 sophistication (1) 55:12 sort (17) 8:18 9:8 22:15 45:6 47:2 62:13 67:19 73:5 78:24 85:22 91:20 100:13 111:25 129:8 133:13 196:23 204:4 sorting (3) 59:19 65:23 129:8 sought (2) 127:7 187:19 sounds (4) 2:24 9:8 92:16 109:24 source (1) 225:21 sources (2) 127:21 169:8 space (4) 62:11 84:19 128:7 196:13 spain (2) 119:14 170:7 spanish (1) 197:20 speak (13) 1:24 3:25 4:11 5:7 54:23 55:3 68:14 98:23 106:2 107:19,24 112:13,14 speakers (3) 30:22 73:25 197:2 speaking (7) 77:17 99:4 114:14,16 203:23 207:15 217:20 speaks (1) 120:19 specialised (4) 7:22 111:16 125:13 212:1 specific (15) 12:3,6 43:22 92:12 146:10,14,23
--	--	---	--	---	--	---

147:2,9 148:10 166:19 194:3 202:7,10 214:17 specifically (6) 14:9 50:14 90:18 180:19 197:22 202:17 specification (1) 92:7 specifics (1) 107:20 spectrum (1) 133:20 speculate (3) 83:15 91:18 111:12 speculating (4) 43:16 66:8 75:24 102:4 speculation (1) 111:11 spend (1) 153:12 spent (2) 153:16 198:12 spoke (1) 6:16 sponsored (2) 66:19 68:2 spouse (1) 147:1 sqe (2) 191:3,19 square (1) 77:7 squashing (6) 199:25 202:4 203:10,19,21 204:6 squeeze (1) 208:4 sr110 (1) 69:15 stables (6) 130:6,19 173:4,6,8 174:21 stack (1) 56:10 stage (9) 51:11 98:19 139:24 153:22,23 185:3 198:23 206:18 207:17 stages (1) 56:17 stakeholders (1) 26:10 stand (1) 226:23 standards (1) 29:1 stands (1) 21:13 starratings (1) 13:8 start (15) 22:19 20:20,22 101:9 120:16,21 121:1,17 149:4 150:17 158:17 161:21 167:21 202:9 222:1 started (5) 13:15 159:17 179:10 180:22 217:1 starting (10) 33:19 98:21 101:4 139:1 184:1 206:16 208:11 216:7,8 218:9 starts (11) 52:4 97:4 101:16 102:14,15 156:18 168:8 192:22 208:25 225:3 226:6 227:12 209:6 statement (47) 4:1 12:22 22:18 25:9 54:7 57:4 60:25 61:2 63:22 82:25 86:4,8 105:1 112:11 113:2,14,25 114:1,1,4 121:18,24 122:2,10 123:2 124:3,25 127:12,14 129:14 130:5,6 134:10 137:25 173:1 178:11,16,23 179:1,13,23,24 180:2,5 201:3 215:11 220:17 statements (5) 73:19,21 121:14,15 173:4 states (4) 177:7 186:11 216:23 217:4 static (2) 55:18 85:21 status (1) 180:2 staying (1) 45:4 steadily (1) 22:21 steen (1) 155:21 step (2) 9:8 191:18 steps (1) 2:25 stick (1) 87:5 still (13) 66:4 67:14 68:18 81:15 84:13 89:23 92:18 140:7 173:11 179:11 184:6,10 187:21 stood (1) 191:19 stop (2) 67:9 121:8 stores (1) 155:5 straight (1) 226:25 straightforward (1) 13:11 strand (1) 4:10 stream (1) 176:23 strictly (1) 87:12 striking (2) 157:22 224:2 strong (3) 97:3 152:12	214:12 stronger (1) 207:21 strongly (2) 211:1,3 structure (1) 123:18 struggling (2) 130:14 166:25 studies (3) 38:6 58:18 151:6 stuff (1) 27:7 su (2) 71:18 81:9 subdomain (1) 104:1 subdomains (2) 221:16 222:6 subject (8) 8:6 11:3 66:4 70:10 109:15 110:23 150:18 180:1 subjected (1) 198:3 submit (1) 78:8 submitted (6) 31:11,15 78:6 118:18 183:22 184:23 subparagraph (1) 76:21 subparagraphs (1) 107:6 subsections (1) 62:12 subsequent (2) 154:12 198:5 subsequently (1) 21:12 subserver (2) 7:15 8:1 subset (3) 89:5,16,16 subsets (1) 72:11 substantial (4) 27:25 53:5 58:12 83:18 substantially (1) 166:19 subtleties (1) 47:22 subtracting (1) 24:12 success (3) 143:20 170:17,23 successful (1) 152:11 successfully (2) 190:16 191:4 sudden (1) 184:15 suddenly (1) 203:6 suffer (1) 119:3 sufficient (7) 75:18 102:12 120:8,13 152:2 157:13 161:15 sufficiently (2) 10:3 117:21 suggest (11) 14:24 15:15 17:5,20 23:12 30:12 31:4 47:9 120:25 139:19 154:7 suggested (11) 47:9 84:16 91:3 106:9 148:9 166:1 167:12 175:4 182:15 183:4 199:25 suggesting (2) 26:24 187:18 suggestion (7) 19:18 44:14,19 48:18 167:23 221:25 225:23 suggestions (4) 152:20 155:13,16 167:19 suggests (5) 77:10 191:12 198:7 201:8 213:17 suit (1) 159:19 suits (5) 30:4,10,16,19 31:3 summarise (1) 214:21 summary (3) 65:13 173:21 185:3 summer (1) 84:24 supercritical (1) 57:12 superhypothetical (1) 102:22 supplementary (3) 221:10 222:11 226:25 supplying (1) 45:18 support (2) 117:25 223:13 suppose (3) 110:8 111:8 112:2 supposed (2) 94:9 144:21 sure (36) 17:2 32:18 33:2 37:3 49:6 61:4 64:6 67:13 73:19 74:11,11 79:1,12 81:6 92:17 114:12 120:21 129:25 138:2,18 143:18 145:15 149:18 155:15 156:22 159:18 161:4,9,10 162:7 172:2,20 180:8 201:18 211:23 225:5 surprising (1) 31:19 survived (1) 205:12 suspect (1) 170:7 suspects (1) 195:19 suspicion (1) 151:9 sweden (1) 170:7	swedish (2) 126:8,9 switch (3) 75:13 157:14 159:4 switzerland (2) 131:6,7 system (18) 7:14 28:6 52:16 64:12 71:13,17 75:20 101:1,12 102:2 103:23 104:22 109:14 112:4 117:20,22 216:20 219:13 systematic (4) 182:16 183:5,10 194:14 systems (5) 50:20 51:1 52:21 58:11 201:13 <hr/> T <hr/> tab (15) 9:18,19 66:14 111:5,6 147:12,15 148:21 149:1 150:11 157:8,14 162:3 169:18,18 tabs (2) 148:3 157:22 tags (1) 14:2 tail (2) 199:23 213:1 taken (18) 2:25 28:18 29:14 32:14 38:20 39:3,5,8,12 50:13,15,21,22 153:4 155:13 157:19 191:17 217:14 takes (3) 16:3 117:21 147:17 taking (5) 36:12 42:16 51:18 185:23 186:9 talk (3) 63:23 64:1 199:1 talked (3) 76:19 88:21 106:17 talking (25) 9:10 11:3 12:2,4,12 13:1 34:20 42:25 44:15 45:14,16 61:9 62:10 67:15 74:23 80:14,20 92:8 100:23 103:17 104:1 114:18 116:11 173:4 217:4 target (1) 20:15 targeted (2) 159:2 197:12 targeting (1) 194:2 taylor (1) 170:9 team (13) 6:8 37:5 58:3,3 59:12 123:9,14,18 131:16,18 144:18 156:16 212:1 technical (16) 1:15 4:20 7:14 38:19 53:20 54:13,15 83:18 117:3,13 118:22 124:21,22 172:16 216:9,11 technically (8) 1:21 3:5 17:5 83:18 88:11 92:16 116:6 215:19 technique (3) 185:11 199:25 200:6 technologies (2) 179:10,15 technology (3) 55:15 56:13 117:15 telephone (1) 109:21 telling (2) 77:8 194:20 ten (3) 208:18 211:4,8 tend (4) 187:6,11,13 209:9 tended (4) 2:12,21,22 89:20 tension (3) 47:13 48:2 100:12 term (10) 18:9 77:19 78:18 104:7 125:2,4,6,7,8 126:16 terminology (2) 104:13 220:1 terms (13) 56:6,6 71:7 90:19 104:11 116:24 141:12,15 171:17 191:3,21 221:3 222:5 test (6) 93:3 144:13,16 150:8 151:25 180:22 testimony (1) 126:6 testing (2) 144:15,19 tests (1) 132:11 text (13) 74:7 75:8 84:19 97:14,25 99:17,22 101:8 138:18 147:25 167:6,10 216:14 thank (36) 1:25 10:16 31:25 32:7,10 34:8 46:2 54:8,12 80:12 86:1 89:18 102:25	110:16 112:7 114:24 115:2 119:25 120:1 122:13 175:15 176:20 177:17 178:8,14,20 190:4 191:24 200:20 216:21 217:9 220:6,8,10 225:7,9 thats (101) 2:5 7:24 8:23 9:9 12:4 20:14 21:14 24:24 30:18 31:21,25 52:10,21 53:4 55:9,11,19 60:7,11 64:21 21:22 65:3 67:7,24 68:5,17,17,25 71:6,10 72:15 76:17,17 79:23 96:13 98:23 100:25,25 111:7 112:21 115:23 116:15,16,21,22 117:9 122:19 123:1,8 124:7,22 128:16,16,19 129:3,10,15 134:5 135:24 140:13 141:22,22 142:22 147:17 148:5,20,25 154:4,4,16 155:10,18,22 158:14 159:17 162:2 163:23 165:18 168:19 169:7 171:21 174:24 175:5,8 185:7 187:23 191:7,10,11 194:23 197:24 199:15,19 201:3 202:19 203:8 204:7 206:17 207:18 217:7 theme (1) 160:25 themselves (6) 36:7 126:22 146:22 163:15 194:21 208:17 theoretically (1) 112:2 theory (2) 147:5 216:18 thereabouts (1) 94:12 thereafter (1) 42:11 thereby (1) 150:14 therefore (15) 64:24 97:1 99:15 102:18 113:4 120:12 164:13 166:13 220:21,23 222:9,11,12,24 223:7 thereof (1) 202:5 theres (23) 42:2 47:21,22 49:21,23,24 61:25 62:3 77:20,24 78:25 85:20 89:2 100:12 112:3 141:11 147:8 158:25 162:25 163:1 198:13 211:23 216:5 theyre (8) 43:8 62:12 79:20 126:22 146:25 147:1 158:18 205:17 thin (1) 70:25 thing (23) 10:19 17:23 24:4,7 37:7 42:22 62:14 79:4 80:13 147:4 152:16,19 172:25 202:23,23,23 205:15,18,21 219:7,10 226:24 227:15 thinking (13) 1:11 9:9 24:4 40:17 42:19 61:18 84:20 93:6 115:6,7 116:25 117:2 123:17 third (16) 28:3,8,9 44:24 46:11 109:5 121:14 122:2,9 130:4 136:22 144:14 186:17,19 204:25 211:13 thirdparty (13) 22:5,7,23 42:23 43:7,7,15 45:16 51:8,16 130:24 172:12 192:3 thomas (1) 131:5 though (6) 69:2 72:7 77:4 81:19 140:18 198:2 thought (9) 57:21 72:16 94:13 109:16 110:4 117:2 120:7 205:25 222:9 thoughts (2) 106:3,3 thousands (3) 46:18 47:1 160:15 three (9) 10:15 25:10,19 26:3,14,18 51:13 131:24 221:23 thrive (1) 63:4 through (24) 6:15 13:12	28:13 29:22 30:7 41:16 55:14 61:25 63:7,10 64:12 68:4 75:18 77:22 97:17 109:23 120:17 134:22 135:11 141:18 142:17,23 159:9 209:4 throughout (2) 77:3 124:9 thumbnail (1) 13:7 time (64) 1:19 2:6 3:9 17:17 31:13 37:2 39:6 41:2,7 42:20 44:16 61:9 64:8 65:11 66:24 86:23,23 94:23 97:4 99:16 100:18 105:14 106:8 112:6 113:8 114:25 117:21 125:25 126:1 128:21 131:2,21 133:12 136:25 137:2 139:22 143:3 149:15 152:8 162:1,4 167:14 168:16 171:17 173:17 175:17 180:24 186:13 188:2 191:8,17 195:2 198:22 201:14 202:13 203:9 206:13,21 210:22 216:2 219:21 223:14 227:11,23 timeline (3) 150:17 152:6,17 timelines (1) 168:4 times (7) 41:24 67:21 89:14 102:12 112:25 113:9,12 timetable (2) 94:8,18 tiny (1) 141:20 title (1) 131:11 today (3) 94:11 128:9 208:4 todd (1) 204:11 together (7) 11:7,16 17:11 55:2 61:14 67:18 91:4 told (5) 28:4 96:25 131:11 151:7 227:16 tolerance (1) 102:5 tolerate (1) 100:13 tolerated (1) 97:11 tomorrow (8) 94:18,20 120:24 218:10,12 222:8 227:13,15 tonne (1) 43:13 too (11) 55:2 57:16 85:8 108:13 167:11 180:19 184:14 218:10,12,21 220:4 220:2) 112:10 212:4 toolbartraffic (1) 213:13 tools (1) 56:24 topic (4) 55:20 125:16 147:3 171:22 topics (2) 17:15 50:10 total (1) 141:22 totally (1) 192:11 touch (2) 211:12,18 touched (1) 76:20 toward (1) 42:6 towards (7) 29:9 48:4 53:17 111:3 150:17 182:7 192:20 toy (3) 79:18,19 87:5 toys (1) 79:20 traction (1) 135:4 tradeoff (5) 171:12 201:4,6 215:2 219:15 trading (1) 201:10 traditional (6) 137:10,19 138:12,21 148:2 156:25 traditionally (1) 134:14 traffic (40) 47:19,20 62:24 127:21,22 128:2 130:21 132:8,13,18,19 134:3 139:14 141:18,22 142:6,21 150:7 152:1 153:10,15,19 160:1,21,24 161:15,19,20 162:10,25 163:24 164:1,5 165:5 168:23,24 169:4,5 194:12 221:14 trained (1) 56:16 transcribers (1) 177:3 transcript (3) 36:10 103:14 126:6 translate (1) 191:21 translation (1) 191:3 transparent (1) 132:25	trash (1) 133:14 treatment (5) 55:1 69:3 150:14 151:13,22 treatments (1) 67:2 tremendous (1) 55:24 trial (5) 56:25 77:19 111:19 121:14 180:3 tried (1) 93:2 tribunal (29) 39:25 40:3 51:6 52:22 57:15,18 59:16 60:24 95:14 106:4,5 108:25 113:23 115:3 176:2 177:13,19,24 179:6 190:3 203:23 220:9 221:1 223:22 224:12 227:17 228:6,10,15 tried (9) 31:19 113:2 146:21 148:2,3 153:10 154:25 171:15 219:2 triggered (1) 96:17 trouble (1) 1:22 true (14) 24:18 68:5 71:10 88:17 112:21 121:25 122:10,12 132:7 133:6 162:2 171:21 180:5 183:11 truly (1) 68:8 trump (2) 65:24,25 truncated (1) 101:7 trust (2) 72:24 73:12 truth (2) 151:9 179:24 try (11) 1:24 11:11 19:25 31:23 39:19 58:18 101:22 145:3 149:4 180:25 181:4 trying (25) 23:23 27:11 43:5 57:23 60:9 62:18 77:7 98:3,21 108:9 112:3 119:9 127:9 144:9 147:1 162:15 181:10 183:25 198:12 201:1,9 208:2 218:21 219:3,12 tub (3) 224:21,24 227:10 tucker (7) 207:3,25 208:3,12 209:2 210:6 217:22 tuesday (3) 199:1,2 202:25 tuning (2) 189:1 200:6 turn (8) 2:12 25:12 118:5 121:19 122:4 171:22 179:13 213:8 turned (1) 151:20 turning (1) 121:17 tv (2) 30:10 87:8 tweak (1) 92:10 twice (1) 204:20 twiddler (1) 200:1 twostage (2) 79:17 80:9 twostep (1) 213:12 twothirds (4) 40:7 188:18 208:25 209:18 type (3) 39:14 133:2 188:13 types (2) 132:16 138:16 typical (3) 87:22 145:9 154:3 typically (9) 44:25 67:8 132:23 134:5 145:16 151:7 160:1,25 212:21 <hr/> U <hr/> uber (5) 179:10,16,17,18,19 uhhuh (9) 14:14,22 68:11,11 71:14 73:4,4 74:9 102:10 ui (5) 41:25 59:12 67:2 69:3 153:3 uk (7) 119:14 170:8,12 171:6,7 185:25 186:11 ultimately (1) 43:20 unaffected (1) 204:23 unblock (1) 199:5 unblocking (2) 199:12,15 unchanged (1) 82:5 unclear (1) 4:3 underlines (1) 23:2 undermining (1) 150:24 underneath (2) 20:15 53:19 understand (35) 4:18 8:9,18 15:18 16:15 34:10 37:3 46:12 47:17 58:18 61:18 68:1 75:17 89:17,18,19 91:19 97:18 101:11 120:3	121:10 124:8,14 127:17 145:15 154:21,25 173:3,6,8 178:4 179:6 187:17 192:11 206:8 understanding (28) 3:14 7:5 8:23 9:25 17:24 21:14 22:1,14 24:24 25:2 28:24 29:1 34:16,22 38:5 51:7 62:19 63:17 68:14 69:4 74:10 81:21,24 90:15,23 91:2 138:20 206:12 understood (15) 35:11,13,18 39:13 64:6,16 81:6,15 84:7 90:6,8 95:3 121:11 126:3,21 undertaken (1) 39:17 unfairly (2) 109:16 110:5 unfortunate (1) 218:4 unification (7) 63:23 64:21 68:13 76:5,10,14 103:18 uniformly (1) 104:13 unit (51) 8:4,20 9:1,2,11 15:19 17:17 18:14 19:6 20:9 22:2,5,10 29:13 33:1,7 46:8,10,15,25 47:5 50:6 58:2 65:3 80:24 81:15,25 82:1,5,17,24 89:12,14 106:7 111:5 114:17 115:18 130:24 142:24 143:10,11 150:13,14,15 157:7 162:19 166:3 172:4 174:4 224:4 united (4) 177:7 186:11 216:23 217:4 units (4) 52:13 84:16 151:1 157:1 universal (2) 77:23 96:9 unless (5) 5:20 20:7 147:24 161:14 199:5 unlikely (4) 40:22 46:24 47:9 84:17 unmatched (3) 78:22 79:7,11 unreasonable (1) 14:10 until (5) 116:21 119:21 167:21 199:10 227:23 untouched (1) 212:23 unworkable (1) 167:24 update (2) 179:6 180:1 updates (1) 188:10 upload (1) 130:9 uploading (1) 141:13 upon (1) 52:8 uprate (1) 92:5 uprates (1) 92:2 uptake (1) 22:2 url (4) 194:13,15 198:15 206:8 urled (1) 202:6 urls (4) 52:18 197:21 201:23,25 usbased (2) 185:16 211:9 used (19) 39:14,16,24 56:17 79:4 104:13 114:19 148:18 152:24 183:9 186:12 203:8 204:1,6,7,8 207:21 216:6 218:25 useful (14) 14:25 15:22 16:10 38:8 39:23 40:1 106:4 196:19 198:13 199:3,8 214:16 225:13,18 user (49) 10:6,9 15:23 16:10,17 18:17 28:23 29:19 30:13 37:6 47:24 58:25 59:4 65:22 66:14,17,18,19 84:23 85:13,23 87:1,13,16,22 88:12,20 111:1 132:9 142:22 146:6,17,19 147:7,10 150:8 156:10 157:19 159:18 160:5 169:11 172:14 182:17 183:6 201:11 209:16 210:12,15 219:3 users (47) 13:20 14:3,23 25:14,19 28:17 30:15
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