

# **EXHIBIT 18**

**REDACTED VERSION OF DOCUMENT(S)  
SOUGHT TO BE SEALED**

# **EXHIBIT II**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
MATTHEW CAMPBELL, MICHAEL  
HURLEY, and DAVID SHADPOUR,  
on behalf of themselves and  
all others similarly situated,  
Plaintiffs,  
vs. No. 4:13-cv-05996-PJH  
FACEBOOK, INC.,  
Defendants.

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\*\*HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY\*\*  
\*\*CONTAINS SOURCE CODE\*\*

VIDEOTAPED 30(b)(6) DEPOSITION OF  
RAY HE  
Wednesday, October 28, 2015

Reported by:  
COREY W. ANDERSON  
CSR No. 4096  
Job No. SF 2173701B  
PAGES 1 - 114

1 Q. Okay. Can you please point us to the 16:13:26  
2 source code that performs that functionality? 16:13:29  
3 A. Yes. 16:13:32  
4 (Pause) 16:13:32  
5 A. So at a high level, the code I have loaded 16:14:08  
6 here will [REDACTED] the 16:14:11  
7 [REDACTED] That 16:14:20  
8 would be line 54. 16:14:24  
9 Q. And is this the source code that says 16:14:39  
10 [REDACTED] 16:14:42  
11 [REDACTED] 16:14:50  
12 A. Yes. 16:14:51  
13 Q. A few lines below that there is code that 16:14:57  
14 [REDACTED]? 16:14:59  
15 A. Yes. 16:15:01  
16 Q. What function does that code perform? 16:15:04  
17 A. [REDACTED] 16:15:09  
18 [REDACTED] 16:15:14  
19 [REDACTED] 16:15:17  
20 [REDACTED] 16:15:20  
21 [REDACTED] 16:15:23  
22 Q. What is a [REDACTED] in the context of the 16:15:36  
23 answer you just gave? 16:15:38  
24 A. A [REDACTED] 16:15:44  
25 [REDACTED] 16:15:53

1 [REDACTED] . 16:16:00

2 Q. What did you mean by [REDACTED] 16:16:17

3 [REDACTED] 16:16:18

4 [REDACTED]? What does 16:16:22

5 that mean? 16:16:25

6 A. So for instance, you have -- let's say you 16:16:26

7 share something, say I can see this, but Josh can't, 16:16:32

8 it's a photo. You have made it so only I can see 16:16:39

9 it. 16:16:42

10 Now, if I share it, [REDACTED] 16:16:43

11 [REDACTED] 16:16:47

12 [REDACTED] [REDACTED] 16:16:51

13 [REDACTED] . 16:16:55

14 Q. In section 1 (b) the response states "[REDACTED] 16:17:23

15 [REDACTED] 16:17:28

16 [REDACTED]" 16:17:30

17 Do you see that? 16:17:32

18 A. Yes. 16:17:32

19 Q. [REDACTED] 16:17:34

20 [REDACTED]? 16:17:36

21 A. [REDACTED] 16:17:41

22 [REDACTED] 16:17:44

23 [REDACTED] 16:17:47

24 Q. Does this code [REDACTED] 16:17:56

25 [REDACTED] 16:18:01

1 A. So at the -- at a high level it's the code 17:55:21  
2 on the left. 17:55:23  
3 Q. Okay. And this is -- which file is this 17:55:24  
4 again? 17:55:28  
5 A. This is [REDACTED] 17:55:28  
6 Q. Okay. And what lines are you referring 17:55:33  
7 to? 17:55:35  
8 A. [REDACTED] 17:55:38  
9 [REDACTED] [REDACTED] 17:55:43  
10 [REDACTED] 17:55:51  
11 [REDACTED] 17:55:56  
12 Q. In the context of [REDACTED] 17:56:18  
13 [REDACTED] 17:56:26  
14 [REDACTED]? 17:56:29  
15 A. [REDACTED] 17:56:40  
16 [REDACTED] 17:56:43  
17 [REDACTED] 17:56:48  
18 [REDACTED] 17:56:58  
19 [REDACTED]. 17:57:02  
20 Q. Can you point to the code that [REDACTED] 17:57:06  
21 [REDACTED] 17:57:08  
22 [REDACTED]? 17:57:13  
23 A. Yes. 17:57:15  
24 (Pause) 17:57:24  
25 A. So the code I have on the left is code 18:00:30

1 couple of questions talking about [REDACTED] 19:11:58  
2 [REDACTED]. 19:12:00  
3 MR. RUDOLPH: Yes. 19:12:03  
4 THE WITNESS: Just want to paint a picture 19:12:04  
5 of what actually changed. 19:12:05  
6 [REDACTED] 19:12:07  
7 [REDACTED] 19:12:12  
8 [REDACTED], 19:12:16  
9 [REDACTED] [REDACTED] 19:12:24  
10 [REDACTED] 19:12:26  
11 [REDACTED] 19:12:31  
12 BY MR. RUDOLPH: 19:12:38  
13 Q. Okay. Is there anything else? 19:12:39  
14 A. That was it. 19:12:41  
15 Q. If you can go back to [REDACTED] please? 19:12:44  
16 A. Yes. 19:12:51  
17 Q. [REDACTED] 19:13:03  
18 [REDACTED] 19:13:05  
19 Do you see that? 19:13:07  
20 A. Yes. 19:13:07  
21 Q. And you, we discussed that [REDACTED] 19:13:08  
22 [REDACTED] 19:13:10  
23 [REDACTED] 19:13:13  
24 A. Yes. 19:13:18  
25 Q. Okay. [REDACTED] 19:13:18

1 I, the undersigned, a Certified Shorthand  
2 Reporter of the State of California, do hereby  
3 certify:

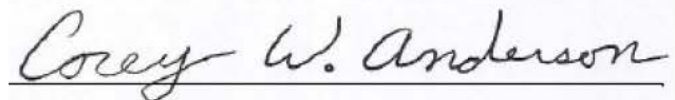
4 That the foregoing proceedings were taken  
5 before me at the time and place herein set forth;  
6 that any witnesses in the foregoing proceedings,  
7 prior to testifying, were administered an oath; that  
8 a record of the proceedings was made by me using  
9 machine shorthand which was thereafter transcribed  
10 under my direction; that the foregoing transcript is  
11 a true record of the testimony given.

12 Further, that if the foregoing pertains to  
13 the original transcript of a deposition in a Federal  
14 Case, before completion of the proceedings, review  
15 of the transcript was not requested.

16 I further certify I am neither financially  
17 interested in the action nor a relative or employee  
18 of any attorney or any party to this action.

19 IN WITNESS WHEREOF, I have this date  
20 subscribed my name.

21 Dated: 10/30/2015

22   
23

24 COREY W. ANDERSON

25 CSR No. 4096



In the Matter of: *Campbell et al. v. Facebook, Inc.*  
Case No. 13-CV-05996-PJH

Date of deposition: October 28, 2015

Witness: Ray He

Reason codes:

1. To clarify the record.
2. To conform to the facts.
3. To correct transcription errors.

Page	Line	Reads	Should Read	Reason Code
5	20	Q. What is it? A. Ray Sunshine He.	Q. What is it? A. Ray Chengchuan He.	3
15	19	A. I would estimate between three and – certainly greater than three, and I would say less, fewer than ten hours in person.	A. I would estimate between three and – certainly greater than three, and I would say less, fewer than ten meetings in person.	1
16	5	A. I met with Nikki, who is in the room, and Gina.	A. I met with Nikki, who is in the room, and Jeana.	3
20	15	A. That would be Nikki, Chris, Priyanka, and Gina.	A. That would be Nikki, Chris, Priyanka, and Jeana.	3
21	14	Mr. Jessen: I just object.	Mr. Jessen: I must object.	3
23	10	Q. List the ones that you know. A. Yes. Java, Python, C++, C, HaskellR.	Q. List the ones that you know. A. Yes. Java, Python, C++, C, Haskell.	3
23	16	A. CSS, if you consider that coding language, which not everyone does. Regular expressions, raw HTML and XML files, shell scripts, batch scripts.	A. CSS, if you consider that coding language, which not everyone does. Regular expressions, raw HTML and XML files, shell scripts, bash scripts.	3
24	1	A. Lisp. I mean, it depends on what you consider Facebook code and depends on the time period in question.	A. I mean, it depends on what you consider Facebook code and depends on the time period in question.	3

25	7, 9, 12	<p>A. In general to find production optionees for Facebook and implement them or build them.</p> <p>Q. What's a product optionee?</p> <p>A. Opportunity.</p> <p>Q. What's an example of a product opportunity, product optionee that you found for Facebook?</p>	<p>A. In general to find product opportunities for Facebook and implement them or build them.</p> <p>Q. What's a product optionee?</p> <p>A. Opportunity.</p> <p>Q. What's an example of a product opportunity that you found for Facebook?</p>	3
25	24	<p>A. For instance, e-comments plug-in used by third party Websites to use Facebook's platform to add comments to their Website.</p>	<p>A. For instance, the comments plug-in used by third party Websites to use Facebook's platform to add comments to their Website.</p>	3
28	14-16	<p>Q. What did you do?</p> <p>A. Typed '_____.'</p> <p>Q. And what did that function perform?</p> <p>A. _____.</p>	<p>Q. What did you do?</p> <p>A. Typed '_____.'</p> <p>Q. And what did that function perform?</p> <p>A. _____.</p>	3
28	17-24	<p>Q. What's a _____?</p> <p>A. _____.</p> <p>Q. And what did the _____?</p> <p>A. _____.</p>	<p>Q. What's a _____?</p> <p>A. _____.</p> <p>Q. And what did the _____?</p> <p>A. _____.</p>	3
28	25	<p>Q. And does a _____ inform you as to the timeframe that this source code relates to?</p> <p>A. Yes.</p>	<p>Q. And does a _____ inform you as to the timeframe that this source code relates to?</p> <p>A. Yes.</p>	3
29	4	<p>Q. Okay. And what did _____ reveal in terms of the source code that's been---</p>	<p>Q. Okay. And what did _____ reveal in terms of the source code that's been---</p>	3
29	9	<p>Q. Okay. Were there any other _____?</p> <p>A. I believe the second _____ was also December of 2012.</p>	<p>Q. Okay. Were there any other _____?</p> <p>A. I believe the second _____ was also December of 2012.</p>	3
30	17	A. _____	A. _____	3
31	24	A. It's likely	A. It's likely	3
32	7	A. _____	A. _____	3
32	10	A. _____	A. _____	3

32	14	A. It --	A. It --	3
36	24	Q. Two lines below that there is code that says	Q. Two lines below that there is code that says	3
37	13	A. Yes.	A. Yes.	3
38	4, 6	A. It would likely be the	A. It would likely be the	3
38	12, 14, 15	A. In the context of the	A. In the context of the	3
39	3	Q. What's the	Q. What's the	3
40	20	A.	A.	3
41	5	THE WITNESS:	THE	3
41	7	A. That is contained within	A.	3
41	12, 14	A.	A.	3
		Q. What's an	Q. What's an	3
				3

41	19	Q. And what sort of data is returned in an [REDACTED]?	Q. And what sort of data is returned in an [REDACTED]?	3
42	7	Q. Is a relevant image something that might be returned with an [REDACTED]?	Q. Is a relevant image something that might be returned with an [REDACTED]?	3
43	10	Q. And is this the source code that says [REDACTED]?	Q. And is this the source code that says [REDACTED]?	3
43	18	A. Yes. A. [REDACTED]	A. Yes. A. [REDACTED]	3
44	22	A. [REDACTED]	A. [REDACTED]	3
46	25	A. This is [REDACTED].	A. This is [REDACTED].	3
48	13	A. Yes. That would be line 989 on [REDACTED] on the right.	A. Yes. That would be line 989 on [REDACTED] on the right.	3
48	21	A. [REDACTED]	A. [REDACTED]	3
49	11-14	A. [REDACTED]	A. [REDACTED]	3
49	15, 16	Q. What is [REDACTED]?	Q. What is [REDACTED]?	3
51	15, 16	A. [REDACTED]	A. [REDACTED]	3
51	15, 16	Q. Where is the [REDACTED] stored?	Q. Where is the [REDACTED] stored?	3
52	16	A. The [REDACTED]?	A. The [REDACTED]?	3
52	16	Q. Are there [REDACTED]?	Q. Are there [REDACTED]?	3
		A. Yes. Not as such, no.	A. No. Not as such, no.	

54	4, 6	A. It's an [REDACTED]. Q. Can you point us to the code that executes the [REDACTED]?	A. It's an [REDACTED]. Q. Can you point us to the code that executes the [REDACTED]?	3
54	9, 11	A. [REDACTED]	A. [REDACTED]	3
54	19	A. [REDACTED]	A. [REDACTED]	3
55	1	I believe our site integrity systems use this infrastructure as well as our use prevention systems.	I believe our site integrity systems use this infrastructure as well as our abuse prevention systems.	3
56	5	There is many factors I haven't listed that could contribute to something not returning a preview.	There are many factors I haven't listed that could contribute to something not returning a preview.	3
56	19	A. This is in [REDACTED]	A. This is in M [REDACTED]	3
58	25	A. The first one on line 153 is [REDACTED] line 826.	A. The first one on line 153 is [REDACTED] line 826.	3
60	22	A. Yes. That would be the same code we previously mentioned in [REDACTED] line 860.	A. Yes. That would be the same code we previously mentioned [REDACTED] line 860.	3
62	10	A. That would be [REDACTED]	A. That would be [REDACTED]	3
62	17	Q. Can you please point us to the source code that buys this functionality? A. The source code which actually handles the cancel action is on the left.	Q. Can you please point us to the source code that performs this functionality? A. The source code which actually handles the cancel action is on the left.	3
62	22	A. It's [REDACTED] line 887.	A. It's [REDACTED] line 887.	3
65	7	A. So if you look on the left, that's the code [REDACTED]	A. So if you look on the left, that's the code which [REDACTED]	3
65	9-10	A. This is a [REDACTED]	A. This is a [REDACTED]	3
65	12	Q. Where is it located?	Q. Where is it located?	3

65		A. In [REDACTED].	A. In [REDACTED].	
	16	A. This is the code that calls the code that [REDACTED].	A. This is the code that [REDACTED].	3
66	18	Q. Is this [REDACTED].	Q. Is this [REDACTED].	3
67	1-4	Q. From 2010 to 2012, I'm sorry, 2009 to 2012, who would have referred to this [REDACTED]?	Q. From 2010 to 2012, I'm sorry, 2009 to 2012, who would have referred to this [REDACTED]?	3
		A. It would have been a subset of engineers after the creation of the [REDACTED].	A. It would have been a subset of engineers after the creation of the [REDACTED].	
68	25	Q. And what is the [REDACTED]?	Q. And what is the [REDACTED]?	3
		I'm not an expert on Facebook's [REDACTED].	I'm not an expert on [REDACTED].	
72	4	A. This [REDACTED].	A. This is [REDACTED].	3
74	7	A. [REDACTED].	A. [REDACTED].	3
75	2	Q. Are you familiar with the term "[REDACTED]"?	Q. Are you familiar with the term "[REDACTED]"?	3
		A. Yes.	A. Yes.	
76	15	[REDACTED].	[REDACTED].	3
78	7	The first is on the left in [REDACTED], line 80.	The first is on the left in [REDACTED], line 80.	3
78	8	And this code is executed [REDACTED].	And this code is executed [REDACTED].	3
78	19	A. [REDACTED].	A. [REDACTED].	3

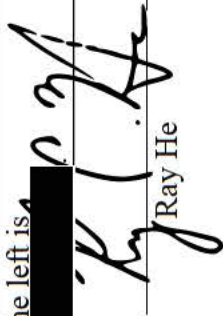
79	15	A. This is [REDACTED], line 121.	A. This is [REDACTED], line 121.	3
79	20	Q. Is the [REDACTED] record referred to as an [REDACTED] sometimes?	Q. Is the [REDACTED] referred to as an [REDACTED] sometimes?	3
80	2	Q. Okay, I think we discussed that in the context of [REDACTED] earlier. A. Yes.	Q. Okay, I think we discussed that in the context of [REDACTED] earlier. A. Yes.	3
80	5	Q. And the same answer applies with respect to the term [REDACTED]?	Q. And the same answer applies with respect to the term [REDACTED]?	3
80	21	The Like button made a [REDACTED] to the server which returned the [REDACTED].	The Like button made an [REDACTED] to the server which returned the [REDACTED].	3
81	19	Q. Are those the [REDACTED] - A. Yes. Q - that we discussed earlier? A. [No response.]	Q. Are those the [REDACTED] - A. Yes. Q - that we discussed earlier? A. Yes.	3
83	5	A. This is [REDACTED].	A. This is [REDACTED].	3
83	10	But in particular where we call in to our rendering code is this [REDACTED].	But in particular where we call in to our rendering code is this [REDACTED].	3
84	5	A. This is [REDACTED].	A. This is [REDACTED] p.	3
85	4-6	Q. Are you familiar within sights dashboard? A. Yes. Q. What's your understand what the insights dashboard is? A. I believe it's used -- well, first of all, it depends on what dashboard we are referring to.	Q. Are you familiar with insights dashboard? A. Yes. Q. What's your understanding of what the insights dashboard is? A. I believe it's used -- well, first of all, it depends on what dashboard we are referring to.	3
86	1	A. I mean, there - within the context of Facebook, there is many things people might refer to as an insights dashboard, and then there is something else that, you know, people are Facebook developers might refer to as the insights dashboard.	A. I mean, there - within the context of Facebook, there are many things people might refer to as an insights dashboard, and then there is something else that, you know, people are Facebook developers might refer to as the insights dashboard.	3
88	20	A. [REDACTED]	A. [REDACTED]	3

90	18	A. [REDACTED]	[REDACTED]	[REDACTED]	3
93	23	Q. And what's the name of this file? A. [REDACTED]	[REDACTED]	[REDACTED]	3
96	4	A. [REDACTED]	[REDACTED]	[REDACTED]	3
96	9	A. But the [REDACTED] line 254.	[REDACTED]	[REDACTED]	3
100	24	A. You can view that as [REDACTED], yes.	[REDACTED]	[REDACTED]	3
102	20	A. This is a -- this is I guess not really a file so much as a [REDACTED]	[REDACTED]	[REDACTED]	3
102	25	A. [REDACTED]	[REDACTED]	[REDACTED]	3
103	14	A. [REDACTED]	[REDACTED]	[REDACTED]	3
106	1	A. Yes. So we spent the last couple of questions talking about the [REDACTED]	[REDACTED]	[REDACTED]	3
106	9	[REDACTED]	[REDACTED]	[REDACTED]	3
107	7	I don't want to guess at what [REDACTED]	[REDACTED]	[REDACTED]	3



107	17	[REDACTED]	that I am not aware of.	[REDACTED]	3
109	5	[REDACTED]	[REDACTED]	[REDACTED]	3
110	7	A. It's called [REDACTED]	[REDACTED]	A. It's called [REDACTED]	3
110	9	A. The file on the left is [REDACTED]	[REDACTED]	A. The file on the left is [REDACTED]	3

Date: November \_\_\_\_, 2015

  
Ray He