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UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

SNAP INC.,

Petitioner

-v-

IPR2019-00714

Patent No. 8,825,084

BLACKBERRY LIMITED,

IPR2019-00714

Patent Owner

Patent No. 8,326,327

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Pursuant to Notice, the deposition of SAMRAT BHATTACHARJEE, Ph.D., was taken remotely on Friday, April 10, 2020, commencing at 10:37 a.m., via Zoom, in Silver Spring, Maryland, before Jacqueline Kimball, a Registered Professional Reporter and Notary Public.

Veritext Legal Solutions

Mid-Atlantic Region

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INDEX

WITNESS NAME: SAMRAT BHATTACHARJEE, PhD

EXAMINATION BY MR. STEPHENS

4

EXHIBITS:

(NONE)

1 SAMRAT BHATTACHARJEE, PHD,  
2 Called for examination, having been duly sworn to  
3 tell the truth, the whole truth and nothing but the  
4 truth, testified remotely as follows:

5 PROCEEDINGS

6 MR. STEPHENS: Thank you for being here  
7 today, Dr. Bhattacharjee. We met as you recall  
8 back in November for your deposition in DC, so  
9 good to see you again. I'd like to pause for a  
10 moment, and ask Chad on the line to say your  
11 name for the record so we have the record of  
12 who's on the deposition.

13 MR. PETERMAN: Chad Peterman from Paul  
14 Hastings on behalf Snap, Inc. and the witness.

15 MR. STEPHENS: Okay, thank you. We are  
16 doing this deposition virtually remotely due to  
17 the COVID 19 situation. The parties have  
18 agreed to this. Does that sound good to you,  
19 Mr. Peterman?

20 MR. PETERMAN: Yes.

21 EXAMINATION

22 BY MR. STEPHENS:

23 Q. If you're unable to hear me,  
24 Dr. Bhattacharjee, or if there's any technical issues,  
25 please just let me know, I'll try and correct it. And

1 I'll do the same, okay?

2 A. Yes.

3 Q. Also if you need to take a break don't  
4 hesitate to let me know, we'll do so.

5 A. Thank you.

6 Q. Let's get started. Do you understand that  
7 the parties have stipulated this deposition will be  
8 applicable to IPR2019-00714, that's the IPR of the 084  
9 patents and IPR2019-00715, that's the IPR on the 327  
10 patent?

11 A. Yes, I believe those are the numbers. Yes,  
12 I understand that.

13 Q. Okay. Do you understand that you are under  
14 oath?

15 A. Yes.

16 Q. Is there any reason you cannot give truthful  
17 and accurate testimony today?

18 A. No.

19 Q. For clarity I'd like to define some of the  
20 terms that we'll be using during the questioning.  
21 When I use the terms patent owner or BlackBerry I'm  
22 referring to BlackBerry, Limited, you understand?

23 A. Yes.

24 Q. When I use the terms petitioner or Snap I'm  
25 referring to Snap, Inc., okay?

1 A. Yeah.

2 Q. When I use the term 084 patent I'm referring  
3 to U.S. patent 8825084 which is marked Exhibit 1001 in  
4 the 084 IPR, okay?

5 A. Yeah, I don't know the full number myself  
6 but okay.

7 Q. Yeah, when I use the term 327 patent we'll  
8 be referring to U.S. patent 8326327, okay?

9 A. Yes.

10 Q. When we use the term Winkler I'll be  
11 referring U.S. patent 8750906 which is marked as  
12 Exhibit 1004 in both IPRs, you understand?

13 A. Yes.

14 Q. When I use the term Lemmela, I'll be  
15 referring to U.S. patent application of 20080250337  
16 which is marked as Exhibit 1005 in both IPRs, do you  
17 understand?

18 A. Yeah.

19 Q. When I use the term Crowley we'll be  
20 referring to U.S. patent number 7593740 which is  
21 marked Exhibit 1008 in both IPRs, do you understand?

22 A. Yes.

23 Q. When I use the term Altman I'll be referring  
24 to U.S. patent application publication 20070281716  
25 which is marked Exhibit 1006 in both IPRs, you

1 understand?

2 A. Yes.

3 Q. Just a few more here. When I refer to your  
4 first 084 declaration or the February 2019 084  
5 declaration that's the declaration that was submitted  
6 at Exhibit 1002 in the 084 IPR, okay?

7 A. Yeah, the initial 084 declaration, that's  
8 fine.

9 Q. Correct.

10 A. I don't have the exhibit numbers but that's  
11 fine.

12 Q. Sure. This will be, that will be the first,  
13 your initial 084 declaration?

14 A. That's fine. If you would like me to call  
15 it those I can, but I'm not looking at anything but  
16 your video right now.

17 Q. Okay. When I refer to your first 327  
18 declaration that's the initial declaration that you  
19 submitted in February 2019 with the 327 IPR, okay?

20 A. Yes.

21 Q. And conversely your second 084 declaration,  
22 that's Exhibit 1011 in the 084 IPR, okay? That's the  
23 one you just submitted a month ago?

24 A. That's right, it's also called the rebuttal  
25 of the fly declaration or something.

1 Q. That's right, we can refer to it as the  
2 rebuttal declaration.

3 A. That's fine. Either way I think we're fine.

4 Q. The same with 327 rebuttal declaration I'll  
5 be referring to that as -- which is Exhibit 1020 in  
6 the 327 IPR, okay?

7 A. Okay, yeah.

8 Q. I think we may use the acronym POSITA, and  
9 if I use that, I'll be referring to a person of  
10 ordinary skill in the art at the time of the  
11 invention, okay?

12 A. That's fine.

13 Q. Can you describe how you prepared for  
14 today's deposition?

15 A. I read the materials in the IPR and I had a  
16 few calls with attorneys from Snap.

17 Q. Okay. As part of your preparation  
18 approximately how much time did you spend preparing  
19 for the deposition?

20 A. I don't know, eight to 10 hours.

21 Q. Was there any documents that you consulted  
22 that were, in your preparation for the deposition  
23 which are not already at record in the IPR?

24 A. I don't know that -- I looked at the  
25 documents for the IPR.



1 Q. Okay. Your review mostly focused on the  
2 record?

3 A. That's correct.

4 Q. Are you aware of any errors that exist in  
5 either the 084 rebuttal declaration or the 327  
6 rebuttal declaration?

7 A. Not off the top of my head, no, sorry.

8 Q. For the next set of questions I plan to  
9 refer to your rebuttal declaration from the 084 IPR,  
10 okay?

11 A. Okay.

12 Q. Do you have an electronic version or a  
13 physical copy available to access?

14 A. I have the files that were sent from  
15 BlackBerry for this deposition, I can refer to them.

16 Q. Sure. This would be Exhibit 1011 in the 084  
17 IPR.

18 A. Okay, would you like for me to open that?

19 Q. Yes, go ahead.

20 A. Okay.

21 Q. I'm doing the same.

22 A. I have a relatively small screen, so while  
23 I'm looking at the document I probably won't be able  
24 to see you, so if I miss something please restate it.

25 Q. Okay, understood. I'll be asking questions

1 referring to the 084 rebuttal declaration but just for  
2 the record unless we indicate otherwise the questions  
3 will apply for both the 084 and 327 proceedings. I  
4 believe these issues overlap between the two IPRs,  
5 okay?

6 A. Okay. If I am either confused or -- I'll  
7 clarify with you if I think that they do not.

8 Q. Perfect, thank you. Referring to paragraph  
9 16 of the 084 rebuttal declaration, you state, this  
10 starts at the last line on that page, page 7 paragraph  
11 16, I agree with the board's institution's decisions  
12 determination that the claims action spot refers to a  
13 location or event in which the activity is occurring  
14 or has occurred, right?

15 A. I see that line, yeah.

16 Q. Okay. In paragraph 14 just above that in  
17 the 084 rebuttal declaration you acknowledge that any  
18 related district court proceeding involving the 084  
19 and 327 patents, The parties agree to a construction  
20 for the term action spot as a location or event where  
21 at least one activity is occurring relative to the  
22 current location of another mobile device. Do you see  
23 that?

24 A. Oh, in paragraph 14?

25 Q. Paragraph 14.

1 A. Yes, I do see that.

2 Q. Does the agreed-upon construction or the  
3 term action spot as you quoted in paragraph 14  
4 actually use the two-word phrase has occurred?

5 A. The construction is there, I can read it out  
6 to you if you wish.

7 Q. Sure, yeah, can you read that out?

8 A. The agreed, the construction for action spot  
9 was a location or event where at least one activity is  
10 occurring relative to the current location of another  
11 mobile device.

12 Q. Does that construction include the phrase  
13 has occurred?

14 A. No, I mean I just read it out to you, I  
15 don't believe it does.

16 Q. In your view would it be impossible to use  
17 data from other mobile devices that have engaged in  
18 documenting actions to reach a determination that some  
19 type of activity is occurring at a location or event?

20 MR. PETERMAN: Object to the form.

21 A. Yeah, could you repeat that question? I'm  
22 sorry.

23 Q. Sure, would it be impossible for a system to  
24 be designed that would use data from other mobile  
25 devices that have engaged in documenting actions to

1 reach a determination that some type of activity is  
2 occurring at a location or event?

3 MR. PETERMAN: Objection.

4 THE WITNESS: Go ahead, apologize.

5 MR. PETERMAN: I just made the same  
6 objection to form.

7 A. Yeah, I think that's a very vague question  
8 in the sense that I don't know when, if, if we relate  
9 it back to the actual claim elements then I believe  
10 that's impossible. But it just depends on how or what  
11 the context is.

12 Q. Sure. Let's construct a hypothetical. If  
13 you were leading a team of engineers and you were  
14 trying to build a predictive model, for example, would  
15 it be possible for those engineers in say the 2010  
16 time frame to make a prediction about whether activity  
17 is occurring based on indications of documenting the  
18 actions that have occurred?

19 MR. PETERMAN: Object to form.

20 A. It depends on the context but usually no. I  
21 don't think a predictive model to do 100 percent  
22 correct -- I don't believe the predictive model would  
23 be 100 percent correct.

24 Q. Is it a criteria of predictive models in  
25 your experience to be 100 percent correct?

1           A.    It is -- it depends upon what your baud is,  
2 you know. I could predict that lots of people are  
3 doing Zoom right now but would I swear to it, no.  
4 But, again, it all depends upon the definition of  
5 activity occurring and so on. I don't believe that  
6 based upon past information one can assert that  
7 something is occurring.

8           Q.    If I received a text message from you that  
9 said, or that included a video clip of a baseball  
10 game, could a system reasonably infer that a baseball  
11 game is occurring based on analysis of that message?

12          A.    No, I mean it could be a video from a past  
13 baseball game, baseball game could be over, I don't  
14 think you could necessarily assert that.

15          Q.    Not necessarily, I'm asking if it's a  
16 possibility. If there were metadata, for example,  
17 that indicated the current date and time would it be  
18 possible?

19               MR. PETERMAN: Object to form.

20          A.    Again, it entirely depends on what the  
21 criteria is or is occurring and the activity. It  
22 could have been the last pitch of the game, so I don't  
23 know that I can say that you cannot -- you can assert  
24 that something is occurring.

25          Q.    Okay. Let's go to paragraph 12 of your 084

1 rebuttal declaration. There you indicated that you  
2 reviewed a pair of documents from, related to the  
3 district court proceeding, one being a corrected final  
4 ruling on claim construction which is the marked in  
5 order, marked Exhibit 2002 and the second document  
6 being a final ruling on Defendant Snap's Motion for  
7 Summary Judgment of Invalidity under section 101 which  
8 is Exhibit 1012, do you see that?

9 A. Yes, I do.

10 Q. Do you understand that the summary judgment  
11 order which is Exhibit 1012 in contrast to  
12 Exhibit 2002 was not a Markman order that decided  
13 claim construction issues?

14 A. I do, I think so, yeah. I'd have to take a  
15 look at those just to make sure there wasn't any claim  
16 construction in that order, but in its place I believe  
17 that's correct.

18 Q. Is it your opinion that the portion of the  
19 summary judgment order that you cited in paragraph 17  
20 of the 084 rebuttal declaration altered the district  
21 court's formal construction for actions brought from  
22 the Markman order?

23 MR. PETERMAN: Object to form.

24 A. I need to take a look at paragraph 17 for  
25 anything specific that you're asking me.

1 Q. Yeah, do you believe that the summary  
2 judgment order altered the construction of the action  
3 spot that was set forth in the Markman order?

4 MR. PETERMAN: Object to form.

5 A. I frankly don't recall the details  
6 sufficient enough to give you a reasonable answer to  
7 that.

8 Q. I'm going to refer to paragraph 21 of your  
9 084 rebuttal declaration, and there you stated that,  
10 you interpreted the claim phrase, determine at least  
11 one action spot within a predetermined distance from  
12 the current location of the first mobile device to  
13 mean determine each action spot within a specific  
14 distance from the current location of the first mobile  
15 device, the specific distance being set prior to the  
16 determining spot, do you see that?

17 A. Yes.

18 Q. I want to turn, go to your first 084  
19 declaration, that's Exhibit 1002 in paragraph 35.  
20 Just let me know when you're able to see that.

21 A. I see it.

22 Q. Okay. So in paragraph 35 you quoted the 084  
23 patent and provided several examples of specific  
24 distances such as five blocks, 10 blocks, 10 yards,  
25 100 feet and other distances. Do you see that?

1 A. Yeah.

2 Q. Is it fair to say that you used the phrase  
3 "specific distance from" as relating to some radius  
4 that extends from the current location of the first  
5 mobile device?

6 MR. PETERMAN: Object to form.

7 A. I wouldn't necessarily say radius. I think  
8 the distances are, you know, 10 yards may be a radius  
9 but 10 blocks may not be. You may not have a 10-block  
10 radius if, you now, one side of it is in the ocean.

11 Q. Okay. A 10-block distance may not  
12 necessarily be a radius but it's some distance that  
13 extends from the current location of that first mobile  
14 device?

15 A. That's correct, so I mean radius refers to a  
16 circular measure which I don't think it necessarily  
17 implies in what I quoted. Radius I believe is a  
18 circular measure and I don't believe a circular  
19 measure is necessarily implied in what I quoted.

20 Q. Let's turn to the Lemmela reference which is  
21 Exhibit 1005.

22 A. Okay.

23 Q. The first thing I'd like to discuss is how  
24 Lemmela's system attributes a location to messages  
25 that are posted by mobile devices. This is described



1 around paragraph 33. So if you need to refresh and  
2 take a look at paragraph 33 please do so. Then I'd  
3 like to ask, can you explain how Lemmela's system  
4 associates a location with a post?

5 MR. PETERMAN: Counsel, which exhibit in  
6 paragraph 33 were you referring to?

7 MR. STEPHENS: Lemmela Exhibit 1005.

8 A. Okay.

9 Q. How does, based on paragraph 33 can you  
10 explain how Lemmela's system associates a location  
11 with a post from a mobile device?

12 A. I think, I mean I can read out paragraph 33  
13 but Lemmela is pretty agnostic and very broad as to  
14 how a location can be determined. As it says in  
15 paragraph 33, Such location postings include an  
16 indication of a location for the posting. In some  
17 cases the user may manually enter the location using  
18 coordinates, map sectors, street names, et cetera.  
19 However, when the posting is created by a mobile  
20 terminal the location posting may automatically  
21 include the location of the mobile terminal at the  
22 time the posting was created or posted. Such location  
23 data can be obtained from GPS, Global Positioning  
24 System device, although other means of automatically  
25 determining location such as inertial centers,

1 LORAN --

2 MR. PETERMAN: Can you slow down a little  
3 bit, Doctor.

4 A. Such location data would be obtained from a  
5 GPS, (Global Positioning System) device, although  
6 other means of automatically determining location such  
7 as inertial centers, LORAN, L-O-R-A-N systems,  
8 proximity detectors, et cetera, are also possible.  
9 Let me just leave it at that, yeah.

10 Q. Last line of paragraph 33 refers to location  
11 coordinates, are you familiar with how GPS formats  
12 location coordinates?

13 A. It depends upon at what level you're asking  
14 whether the GPS protocol itself, no. Commonly the  
15 output of GPS is given in latitude/longitude -- and  
16 also altitude. But internally I don't believe that's  
17 necessarily how it is processed.

18 Q. The output of a GPS module or chip is  
19 plotted in latitude/longitude coordinates?

20 A. That is my understanding. Now, there could  
21 be software that's running between the GPS chip and  
22 the user interface call that is translating the raw  
23 output of the GPS, and making it into latitude,  
24 longitude, altitude, which off the top of my head I  
25 don't recall the GPS protocol sufficiently to give you

1 much more detail.

2 Q. Okay. So regardless of how the location  
3 coordinates are determined or how they're formatted,  
4 Lemmela's system associates the location coordinates  
5 with posts made by user devices, is that right?

6 A. Location postings include an indication of  
7 the location for the posting, correct.

8 Q. In paragraph 35 of Lemmela they describe a  
9 clustering algorithm, and one example is the K-means  
10 clustering algorithm. Can you describe how the  
11 clustering algorithm works?

12 A. In general or the K-means?

13 Q. K-means would be fine.

14 A. Okay, so the easiest way to think about this  
15 is suppose we have some form of a metric space where  
16 metric space just means we have some notion of a  
17 distance. I'm not being particularly technical here.  
18 Then, and so what that means is if I have a set of  
19 items then we can define a notion of distance or  
20 similarity between those items over the space. And  
21 you can think of the mean as the, outside of the  
22 center of the space or the center of the item that  
23 would be in a way represent the mean or average item  
24 given all of the additions. And K-means will try to  
25 output K of the items that are the K most, not quite

1 central but in terms of the distance measure, one way  
2 to look at it would be these are the items such that  
3 the maximum distance from any other item in the space  
4 is minimized if I were to use these K items. I think  
5 that's a reasonable high-level description.

6 Q. That was good, thank you. What is the  
7 similarity measure or the distance measure that is  
8 used among Lemmela's algorithm?

9 A. The, Lemmela I think is relatively broad in  
10 terms of the measure that is being used. If we take a  
11 look at paragraph 35 Lemmela says that we can use the  
12 suitably defined similarity measure taking into  
13 account both the similarity between the postings by  
14 salient words or some other measure and the geographic  
15 distance. Then it says and other embodiments, other  
16 methods may utilize ontologies, common-sense knowledge  
17 sources, calculating semantic distances between words  
18 and phrases, or given sufficient amounts of data  
19 unsupervised learning methods like self-organizing  
20 maps. So Lemmela is pretty broad. It's talking about  
21 semantic distance. There are very well known ways of  
22 trying to find salient words in documents or something  
23 like that. An early example which would have been  
24 known at that time would be something called PFIDF,  
25 something like that could be used. Ways of finding

1 salient words was known in that time frame. One  
2 example might be something called PFIDF.

3 Q. In Lemmela's system a cluster of postings is  
4 a set of postings that are related semantically and  
5 geographically, for example?

6 A. Some embodiment, that would be correct.

7 Q. Okay, let's, I'd like to look at paragraphs  
8 39 and 40 of Lemmela. Do you see that paragraph 39  
9 identifies the Nokia 770 Internet tablet as one type  
10 of mobile terminal that can be used in Lemmela's  
11 system?

12 A. Yes.

13 Q. And then paragraph 40 identifies a number of  
14 other devices besides the Nokia 770 tablet that could  
15 alternatively be used in the system, right?

16 A. Among other things, yeah.

17 Q. Okay. Such as a cellular phone, a laptop  
18 computer, PDA, GPS receiver or car navigation device?

19 A. I don't think you read them, maybe you  
20 did --

21 Q. I may not have the right order --

22 A. -- in order, but I have found cellular  
23 phone, a laptop computer or combination thereof, car  
24 navigation device. Yeah, I see, I believe I see all  
25 the examples you pointed to.

1           Q.    The second to last sentence in paragraph 40  
2 describes how Lemmela's mobile device can communicate  
3 with a web server using either a wired connection or a  
4 wireless connection, do you see that?

5           A.    Yes, I see that it says, Mobile device 50  
6 may also communicate with a web server one or more  
7 ports not shown on the mobile device that may allow a  
8 wired connection to the Internet, such as universal  
9 serial bus, USB, connection and/or via the short-range  
10 wireless connection not shown, such as the Bluetooth  
11 link or a wireless connection to WLAN access point.  
12 And I think we should keep in mind that that was not  
13 the only way that Lemmela's mobile device could  
14 communicate with a web server because in the very  
15 previous line it talks about cellular communication as  
16 other types of network that could be used.

17          Q.    Sure. Paragraph 40 describes a number of  
18 different examples that could each be used to  
19 implement Lemmela's techniques, right?

20          A.    That's correct.

21          Q.    Were broadband Internet connections  
22 available in the late 2000s via a wired connection to  
23 a computing device?

24          A.    You're asking me in the late 2000s could one  
25 connect to the Internet using a broadband wired

1 connection?

2 Q. That's correct.

3 A. Yeah.

4 Q. (Inaudible) how would you connect to a  
5 broadband wired connection?

6 MR. PETERMAN: Could you repeat the  
7 question? I actually missed it. You were  
8 talking over.

9 Q. Thank you. What were some examples of how a  
10 user could connect his computing device with a wired  
11 connection to obtain broadband Internet?

12 A. Okay, so this is a question which is  
13 somewhat interesting because the term broadband itself  
14 is not particularly well defined. But if we go with  
15 the colloquial, let's say, definition then one might  
16 have a cable modem connection or a DSL which may or  
17 may not be broadband, or by the late 2000s I believe  
18 we also have fiber connections to the home. Now, if  
19 it was to a place of work then you could suddenly have  
20 fiber or Ethernet or other types of connection that  
21 would eventually be connected to a service provider  
22 that was connected to the greater Internet. And then  
23 within the premises you might run your own network  
24 such as Ethernet. I don't know that anything that  
25 was, that much was being used as a wired connection by

1 then. And one could connect using Ethernet, and in  
2 some cases maybe Ethernet connected to USB or  
3 something. Then back to the access connection you had  
4 which would be cable modem, fiber, DSL and so on.

5 Q. So it would have been possible for Lemmela's  
6 mobile device to use an Ethernet or fiberoptic  
7 connection to obtain broadband Internet?

8 A. I actually have one of the Nokias except for  
9 one after the 770. So I don't believe you can connect  
10 an Ethernet to that. But some laptops had Ethernet  
11 jacks at that time period so they could use a wired  
12 connection.

13 Q. Look at figure 6 in Lemmela.

14 A. Okay.

15 Q. This is a block diagram of the mobile device  
16 at the right?

17 A. That's correct.

18 Q. Shown in figure 6 there's a memory 56 where  
19 map information 66 and posting information 68 and  
20 processing instruction 70 is stored, do you see that?

21 A. I believe that's just the memory of the  
22 device. And yeah, that information would be stored  
23 there.

24 Q. Do the types of memory that are described in  
25 paragraph 45 of Lemmela, are those the type of memory



1 that could used as memory 56?

2 A. Yeah, it's pretty comprehensive, so I think  
3 56 would include RAM, probably not EEPROM or ROM,  
4 maybe, maybe if the processing instructions were on  
5 EEPROM or ROM --

6 MR. PETERMAN: He said EPROM, E-P-R-O-M,  
7 all caps. And ROM, R-O-M, all caps.

8 THE WITNESS: I said EEPROM, E-E-P-R-O-M  
9 and ROM. And I also said RAM, R-A-M.

10 Q. A CD-ROM and a DVD are two of the types of  
11 memories listed in paragraph 45, correct?

12 A. That's correct. But the types of, at least  
13 some of the types of mobile devices that have been  
14 identified in the previous paragraph and in our prior  
15 conversation don't easily connect to CD-ROM or DVD,  
16 they don't have onboard CD-ROM or DVD.

17 Q. Do you know what the typical memory capacity  
18 of a CD-ROM was in the late 2000s?

19 A. 700 megabytes give or take.

20 Q. Can you say that again? I didn't quite  
21 catch it.

22 A. 700 megabytes give or take.

23 Q. For like an audio CD?

24 A. I mean all CDs I believe it's around 700  
25 megabytes, six to 700 megabytes.

1 Q. Do you know what the typical memory capacity  
2 of a DVD was?

3 A. 4.3 gigabytes. Again, off the top of my  
4 head, I believe it's around 4.3 gigabytes.

5 Q. Okay. Let's look at paragraph 43 of Lemmela  
6 which states, Memory 56 may also include posting  
7 information 68 which may include raw location posting  
8 information received from a network or any type of  
9 processed information, correct?

10 A. Yeah, that's one of the lines in paragraph  
11 43, correct.

12 Q. Would it have been impossible for Lemmela's  
13 mobile device to predownload posting information 68  
14 before the information was needed to be displayed?

15 A. To implement all of what Lemmela is talking  
16 about it would have been impossible.

17 Q. What are some of the portions of Lemmela  
18 that lead you to believe it would be impossible?

19 A. Well, Lemmela talks about dynamically  
20 updating the location posting based upon the user  
21 location and also time period, and there is nothing in  
22 Lemmela that can change the time period to be in the  
23 past. I think a Lemmela-contemplated system where  
24 postings are downloaded as they are posted or as the  
25 user queries for them based upon their location, and

1 that could not be done using an offline storage  
2 system.

3 Q. Let's turn to figure 5 in Lemmela.

4 A. After we're done with the Lemmela line of  
5 questioning if we could take a break that would be  
6 helpful.

7 Q. No problem, that would be fine. Figure 5  
8 shows a timeline 46?

9 A. That's correct.

10 Q. What does the timeline 46 allow the user to  
11 do?

12 A. It allows the user to constrain the location  
13 posting view using that timeline.

14 Q. Can you give an example of how a user might  
15 interact with the user interface in figure 5 to change  
16 the timing view?

17 A. Given that Nokia was a touch screen, though  
18 it had a little stylus, I believe you could either  
19 click on particular days or, you know, that's just a  
20 sample interface, one could presumably get finer than  
21 the days and weeks view shown there. You might have  
22 been able to drag over that hand and presumably in a  
23 path from now until whenever or even in the past.

24 Q. In the view in figure 5 do you see that at  
25 the left-hand side of the timeline there's a label

1 that says week five?

2 A. Yes, I do see it.

3 Q. Goes all the way to 13 on the right-hand  
4 side?

5 A. That's correct.

6 Q. Is there a way that a user could access  
7 earlier postings from say weeks one through four?

8 A. Presumably there are little arrows there on  
9 the two edges of the time line. My understanding is  
10 if one were to click on those arrows it would go back  
11 to the past.

12 Q. If you clicked on left arrows you could go  
13 back in the past?

14 A. That is my understanding.

15 Q. Then on, I guess conversely on the  
16 right-hand side you could maybe go forward to week 14  
17 or 15?

18 A. Well, that's kind of interesting because I  
19 believe this view is contemporaneous. Lemmela was,  
20 Lemmela was filed on April 6, 2007, and if we take a  
21 look at that view it in fact includes the present  
22 which is I guess week 14, beginning of April 2007, I'm  
23 not sure it could go very much farther to the right  
24 including the present in there. But of course that's  
25 a, it's a mockup, but it's kind of interesting that it

1 actually is including the date on which it was posted  
2 or filed.

3 Q. Is the Nokia device that you personally have  
4 a Nokia 770, is that what you said?

5 A. No, I have an 810. I can show it to you if  
6 you like.

7 Q. You have it on your desk right now?

8 A. I'll get it for you. Here is the Nokia, and  
9 over here is the stylus. One of these things pop out.  
10 It's really cool, has a little keyboard that comes  
11 out. Well, I haven't used this for years, decades,  
12 but here is the little stylus. Oh, yeah, it has a  
13 little slide-out keyboard. The 770 was very similar  
14 if I remember. But I thought I had one but I had this  
15 one instead, which was I guess one revision later.

16 Q. Okay, great. That's all the Lemmela  
17 questions. I just have this one left, two questions  
18 here. In your first declaration from the 084 IPR,  
19 Exhibit 1002?

20 A. Yes.

21 Q. On pages 59 to 60 of the declaration there's  
22 a cell where you analyze claim element 1B?

23 A. Yeah.

24 Q. One moment, I'm just turning to it myself.  
25 In that cell for element 1B you cite paragraphs 38 and

1 42 of Lemmela, correct?

2 A. The specific citations are to 42 and 38,  
3 that's correct.

4 Q. Are there any citations to Crowley in the  
5 cell for element 1B?

6 A. The element 1B does not cite to Crowley.

7 MR. STEPHENS: That's all I have for  
8 Lemmela, so if you'd like to take a 10-minute  
9 break.

10 (Brief pause in the proceedings.)

11 BY MR. STEPHENS:

12 Q. Let's turn to the Winkler reference,  
13 Exhibit 1004. Looking at figure 6A to 6C, can you  
14 just describe what's shown here in this progression  
15 from figure 6A to figure 6B to figure 6C? There's  
16 some description in the text in column 11.

17 A. Right. As column 11 says, figure 6A depicts  
18 a screen presenting a map element 610. Before the  
19 occurrence of an event the map element may be a  
20 certain color, size and/or design. After an event is  
21 detected the system in figure 6B modifies the map  
22 element. It indicates the occurrence of the event.  
23 For example, the system may change the color of the  
24 map element as shown in the figure when a friend  
25 arrives at the location or adds a comment to the map

1 element. The system may also modify the map element  
2 based on events that occur with the user's mobile  
3 device. Figure 6C depicts the screen presenting a  
4 different map element 620 sun when the system detects  
5 the user's mobile device be approximate or at the  
6 location of the map element.

7 Q. So in figure 6C when the user's mobile  
8 device is proximate to or at the location of,  
9 indicated by map element 610, then element 610 changes  
10 appearance to the sun 620?

11 A. That's right. And as Winkler describes map  
12 elements and the dynamic and that's one of the  
13 examples of it changing, and can also be the location  
14 of another user or another device.

15 Q. I'd like to turn to paragraph 75 of the 084  
16 rebuttal declaration. Just let me know when you're  
17 there.

18 A. Yes.

19 Q. And toward the middle of that paragraph,  
20 paragraph 75, you cited Winkler's disclosure at  
21 figure 5 in column 10, line 17 to 19 to support the  
22 contention that Winkler discloses map elements that  
23 correspond to the current location of the mobile  
24 device, correct?

25 A. That's correct.

1 Q. Paragraph 75 includes no other citations for  
2 the assertion that Winkler discloses map elements  
3 corresponding to the current location of the mobile  
4 device, correct?

5 A. I'd have to, it's a long paragraph but there  
6 is certainly that disclosure in Winkler.

7 MR. STEPHENS: Okay. No further  
8 questions.

9 MR. PETERMAN: Okay the deposition is  
10 over. We would like to read the transcript.  
11 Snap would like a copy of the deposition on the  
12 same time frame as BlackBerry, although I don't  
13 think we need a rough. We can just take the  
14 final on Tuesday.

15 MADAM REPORTER: Rough on Monday and final  
16 on Tuesday?

17 MR. STEPHENS: That's right.

18 (The deposition was concluded at 11:45 a.m.)  
19  
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25



1 STATE OF MARYLAND

2 ANNE ARUNDEL COUNTY

3 I, Jacqueline Kimball, a Notary Public in  
4 and for the State of Maryland, County of Anne Arundel,  
5 do hereby certify that foregoing transcript is a true  
6 and correct record of the testimony given; that said  
7 testimony was taken by me stenographically and then  
8 transcribed from my stenographic notes to the within  
9 printed matter by means of computer-assisted  
10 transcription in a true and accurate manner.

11 I further certify that I am not of counsel  
12 to any of the parties, not an employee of counsel, nor  
13 related to any of the parties, nor in any way  
14 interested in the outcome of this action.

15 AS WITNESS my hand and Notarial Seal this  
16 13th day of April, 2020, at Annapolis, Maryland.

17 

18 Jacqueline Kimball, Notary Public

19 My commission expires May 1, 2023.  
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April 14, 2020

To: Chad J. Peterman, Esq.

Case Name: Snap Inc. v. Blackberry Limited

Veritext Reference Number: 4047296

Witness: Samrat Bhattacharjee, Ph.D.      Deposition Date: 4/10/2020

Dear Sir/Madam:

Enclosed please find a deposition transcript. Please have the witness review the transcript and note any changes or corrections on the included errata sheet, indicating the page, line number, change, and the reason for the change. Have the witness' signature notarized and forward the completed page(s) back to us at the Production address shown above, or email to [production-midwest@veritext.com](mailto:production-midwest@veritext.com).

If the errata is not returned within thirty days of your receipt of this letter, the reading and signing will be deemed waived.

Sincerely,  
Production Department

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DEPOSITION REVIEW  
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 4047296  
CASE NAME: Snap Inc. v. Blackberry Limited  
DATE OF DEPOSITION: 4/10/2020  
WITNESS' NAME: Samrat Bhattacharjee, Ph.D.

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have made no changes to the testimony as transcribed by the court reporter.

\_\_\_\_\_ Date \_\_\_\_\_ Samrat Bhattacharjee, Ph.D.

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;  
They signed the foregoing Sworn Statement; and  
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal  
this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

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Notary Public

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Commission Expiration Date

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DEPOSITION REVIEW  
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 4047296  
CASE NAME: Snap Inc. v. Blackberry Limited  
DATE OF DEPOSITION: 4/10/2020  
WITNESS' NAME: Samrat Bhattacharjee, Ph.D.

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have listed my changes on the attached Errata Sheet, listing page and line numbers as well as the reason(s) for the change(s).

I request that these changes be entered as part of the record of my testimony.

I have executed the Errata Sheet, as well as this Certificate, and request and authorize that both be appended to the transcript of my testimony and be incorporated therein.

\_\_\_\_\_ Date \_\_\_\_\_ Samrat Bhattacharjee, Ph.D.

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

- They have read the transcript;
- They have listed all of their corrections in the appended Errata Sheet;
- They signed the foregoing Sworn Statement; and
- Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

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Notary Public

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ERRATA SHEET  
VERITEXT LEGAL SOLUTIONS MIDWEST  
ASSIGNMENT NO: 4047296

PAGE/LINE(S) /	CHANGE	/REASON

\_\_\_\_\_ Date \_\_\_\_\_ Samrat Bhattacharjee, Ph.D.

SUBSCRIBED AND SWORN TO BEFORE ME THIS \_\_\_\_\_  
DAY OF \_\_\_\_\_, 20\_\_\_\_ .

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Commission Expiration Date

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.



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