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UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF NEW YORK

PAUL D. CEGLIA,  
Plaintiff,

vs.

No. 1:10-CV-00569  
(RJA)

MARK ELLIOTT ZUCKERBERG,  
Individually, and FACEBOOK,  
INC.,  
Defendants.

\_\_\_\_\_ /

Videotaped deposition of HANY FARID, PH.D., taken at  
the University of California Berkeley, Dwinelle  
Hall, Room 43, Berkeley, California, commencing at  
11:13 a.m., on Monday, August 13, 2012, before  
Leslie Rockwood, RPR, CSR No. 3462.

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MONDAY, AUGUST 13, 2012

WITNESS

EXAMINATION

HANY FARID, PH.D.

BY MR. BENJAMIN

7

QUESTIONS WITNESS INSTRUCTED NOT TO ANSWER:

(NONE)

## DEPOSITION EXHIBITS

HANY FARID, PH.D.

NUMBER	DESCRIPTION	IDENTIFIED
Exhibit 52	Letter to Dean Boland from Hany Farid, Ph.D., 6/28/12	12
Exhibit 53	Hany Farid, curriculum vitae	13
Exhibit 54	Street Fax document	34
Exhibit 55	Screen shot, page 1 of 2 for Streetfax contract w Mark	37
Exhibit 58	United States of America v Rudy Frabizio, 8/11/06	84
Exhibit 59	State of Ohio v David L. Harrison, 12/28/07	89
Exhibit 60	State of Ohio v. David L. Harrison, merit brief of Appellant David L. Harrison	90

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1 Monday, August 13, 2012; Berkeley, California

2 11:13 a.m.

3 ---oOo---

4 THE VIDEOGRAPHER: Good morning. We're on the  
5 record at 11:13 a.m. on August 13, 2012. This is the  
6 video recorded deposition of Dr. Hany Farid.

7 My name is Soseh Kevorkian, here with our court  
8 reporter, Leslie Rockwood. We're here from Veritext  
9 National Deposition and Litigation Services at the  
10 request of counsel for defendant.

11 This deposition is being held at Room 43,  
12 Dwinelle Hall in Berkeley, California. The caption of  
13 this case is Paul D. Ceglia vs. Mark Elliott Zuckerberg,  
14 et al., case number 110-CV-00569 (RJA).

15 Please note that audio and video recording will  
16 take place unless all parties agree to go off the record.  
17 Microphones are sensitive. They pick up the whispers,  
18 private conversations, and all cellular interference.

19 At this time would counsel and all present  
20 please identify themselves for the record.

21 MR. BENJAMIN: Matthew Benjamin of Gibson Dunn  
22 for the defendants. And with me is Alex Southwell, also  
23 of Gibson Dunn. And Nick Muscolino is present in  
24 California.

25 MR. ARGENTIERI: Paul Argentieri for the

1 plaintiff, Paul Ceglia.

2 MR. BOLAND: Dean Boland for the plaintiff,  
3 Paul Ceglia.

4 MR. BENJAMIN: Thank you.

5 Good morning, Dr. Farid --

6 THE REPORTER: Excuse me, Counsel. I'll swear  
7 in the witness first.

8 MR. BENJAMIN: Go ahead.

9 THE REPORTER: If you raise your right hand,  
10 please.

11 You do solemnly state that the evidence you  
12 shall give in this matter shall be the truth, the whole  
13 truth and nothing but the truth, so help you God.

14 THE WITNESS: Yes.

15 THE REPORTER: Thank you.

16 Proceed, Counsel. Thank you.

17 MR. BENJAMIN: Thank you.

18

19 EXAMINATION

20 BY MR. BENJAMIN:

21 Q. Good morning, Dr. Farid.

22 A. Good morning.

23 Q. My name is Matt Benjamin. I'm an attorney here  
24 at Gibson Dunn, and I'll be taking your deposition today.

25 A. Okay.

1 Q. Before we begin, I just want to confirm that the  
2 video technology is working properly and you can hear and  
3 see me well. Can you?

4 A. Yes, I can.

5 Q. If that changes at any point during the  
6 deposition, please let me know.

7 A. Whoever is shuffling papers are interfering with  
8 the sound. So just move away from the mic or knock it  
9 off.

10 Q. I think you're chastising Mr. Argentieri. So  
11 he's going to mute his microphone.

12 A. Okay.

13 You muted you. I can't hear you, Matt. No,  
14 nothing. I mean, your lips are moving, but -- there you  
15 go.

16 Q. How about now?

17 A. That's better.

18 Q. Great. We're stuck in a Verizon commercial.

19 A. It's going to be a great deposition, I can tell.

20 Q. Mr. Argentieri is going to keep the paper  
21 shuffling to a minimum. If you can't hear me or see me  
22 at any point during the deposition, please just let me  
23 know.

24 A. Sure.

25 Q. Dr. Farid, have you ever been deposed before?



1 A. Yes, I have.

2 Q. Approximately how many times?

3 A. Maybe half a dozen or so.

4 Q. And when most recently?

5 A. I don't recall, but probably within the year.

6 Q. Having been deposed before, you understand that  
7 in a deposition, I will ask questions to which you should  
8 provide full and complete answers.

9 A. Yes.

10 Q. Is that correct?

11 A. Yes.

12 Q. Now, on occasion I may ask a question that I  
13 don't state very well or for some reason that you don't  
14 understand. If you don't understand my question for any  
15 reason, please don't answer it. It's my job to ask  
16 understandable questions. So if you say you don't  
17 understand, I'll try to ask a better question.

18 A. Okay.

19 Q. Does that make sense?

20 If you need a break at any point, please tell  
21 me, we'll finish your answer if we're in the middle of  
22 it, and then we'll see what we can do about a break.

23 Okay?

24 A. Sure.

25 Q. Is there any reason you can think of why you

1 will not be able to answer my questions fully and  
2 accurately today?

3 A. No.

4 Q. Now, the Judge presiding in this case has some  
5 particular rules that I need to tell you about. First,  
6 if you need clarification or an explanation of any words,  
7 questions or documents during the deposition, you're to  
8 ask me as opposing counsel rather than the plaintiff's  
9 counsel.

10 Do you understand?

11 A. Yes.

12 Q. Second, you and plaintiff's counsel may not  
13 engage in private conversations during the deposition or  
14 any breaks except to determine whether to assert a  
15 privilege.

16 Do you understand?

17 A. Yes.

18 Q. And lastly, particularly given the possible  
19 delay attributable to the video technology, I would just  
20 ask that we try not to talk over each other. It will  
21 make things easier for our court reporter as well.

22 Sound good?

23 A. Yes. Sure.

24 Q. Thank you. Dr. Farid, thank you for  
25 accommodating us and agreeing to be deposed by videotape.

1           You are a visiting scholar at UC Berkeley; is  
2 that right?

3           A. Yes.

4           Q. And you've been out in California all summer?

5           A. Yes.

6           Q. Did you have an opportunity to meet with anyone  
7 to prepare for today's deposition?

8           A. No.

9           Q. Did you have an opportunity to speak with anyone  
10 by telephone?

11          A. I spoke with counsel at -- I'm sorry, do you  
12 mind if I open my laptop and just check the -- who I  
13 spoke with?

14          Q. Of course. Yeah. Are you --

15          A. I just -- I just forgot her name. I spoke with  
16 Jennifer Young at Milberg when I first received the --  
17 the letter from you asking for me to be deposed, and I  
18 simply was asking her what this was about. But we didn't  
19 prepare anything for the deposition.

20          Q. And was Ms. Young your primary contact from  
21 plaintiff's counsel during this case?

22          A. Yes.

23          Q. So you did not speak to Mr. Boland or  
24 Mr. Argentieri to prepare for today's deposition; is that  
25 correct?

1 A. That's correct.

2 Q. Have you ever spoken to Paul Ceglia?

3 A. No.

4 MR. BENJAMIN: I'd ask the court reporter to  
5 mark a June 28, 2012 letter that you sent to Mr. Boland  
6 as Defendants' Exhibit 52. I have a copy here for  
7 Mr. Argentieri, which I'm handing to him.

8 (Exhibit 52, Letter to Dean Boland from Hany  
9 Farid, Ph.D., 6/28/12, marked for  
10 identification.)

11 Q. BY MR. BENJAMIN: Dr. Farid, you've been handed  
12 a copy of Defendants' Exhibit 52. Do you recognize this  
13 as an accurate copy of the letter that you sent to  
14 Mr. Boland, dated June 28th, 2012?

15 A. I'm sorry, did you say June or July?

16 Q. I said -- I meant to say June.

17 A. Yes, that's correct. Yes, I do recognize it.

18 Q. Thank you. So Defendants' Exhibit 52 is a  
19 June 28, 2012 letter that you sent to Mr. Boland?

20 A. Yes.

21 Q. You have not submitted any other documents to  
22 counsel; is that right?

23 A. That's correct.

24 Q. And you've not prepared any reports; is that  
25 correct?

1           A. That's correct.

2           Q. And this letter, Defendants' Exhibit 52,  
3 contains all of the findings and opinions that you have  
4 reached in this case; right?

5           A. Yes.

6           Q. Okay. I'm interested to hear more about your  
7 background. What's your title?

8           A. I am a professor of computer science at  
9 Dartmouth College.

10          Q. Is it accurate to describe one of your  
11 specialties as digital image forensics?

12          A. Yes.

13                 MR. BENJAMIN: So I went onto your Dartmouth web  
14 page and printed a copy of your CV. I'd ask the court  
15 reporter to mark that printout as Defendants' Exhibit 53.

16                         (Exhibit 53, Hany Farid, curriculum vitae,  
17                         marked for identification.)

18          Q. BY MR. BENJAMIN: Dr. Farid, you've been handed  
19 a copy of Defendants' Exhibit 53. Take your time to read  
20 through it.

21                         Do you recognize this as your current CV?

22          A. Yes, it is.

23          Q. And all the information contained in that  
24 document is accurate?

25          A. As accurate as can be with 15 pages, yes.

1 Q. Well, take your time to read through it.

2 A. Okay. By "accurate," I just mean there may be  
3 typos, but it is my CV, yes.

4 Q. Understood, typos aside.

5 Now, I've read that the first publications in  
6 the field of digital image forensics date back a decade  
7 or so. Would you agree with that estimate?

8 A. Yeah, that's about right. And sometimes it's  
9 hard to quantify these things, but about a decade is when  
10 the field of image forensics started to emerge in a  
11 serious way.

12 Q. And in addition to your team at Dartmouth, who  
13 are some of the other respected experts in the field of  
14 digital image forensics?

15 A. I would say there are a handful of groups  
16 worldwide. The ones that immediately come to mind are  
17 Jessica Fridrich. It's spelled F-R-I-D-R-I-C-H at SUNY  
18 Binghamton. Nasir, N-A-S-I-R, Memon, M-E-M-O-N, at -- I  
19 don't know what the university is called anymore. It's  
20 Poly Tech/NYU. Those two universities merged recently.

21 So those are the two that pop to mind  
22 immediately. There are, of course, a number of people  
23 worldwide working on this problem. Those are the ones I  
24 happen to be most familiar with.

25 Q. And you've collaborated with Professor Fridrich;

1 is that right?

2 A. We have not published any papers together, no.

3 Q. Oh, I thought you had. My mistake.

4 In addition to your academic appointments, your  
5 CV identifies you as the chief technology officer and  
6 co-founder of Fourandsix Technologies, Inc.; is that  
7 right?

8 A. That's correct.

9 Q. And what is Fourandsix Technologies?

10 A. It is a software startup -- startup based here  
11 in the Silicon Valley, and we are commercializing the  
12 forensic technology that I've developed over the last ten  
13 years into a commercial product.

14 Q. By "forensic technology," are you referring to a  
15 series of products used to help detect altered digital  
16 images?

17 A. That's correct.

18 Q. One article I read indicated that your first  
19 detection product is scheduled to be released later this  
20 year; is that right?

21 A. That's correct.

22 Q. Which product is that?

23 A. I'm not sure I understand the question. Are you  
24 asking for the name of the product or what the product  
25 does?

1 Q. Both.

2 A. We don't have a formal name for the product yet,  
3 but I can describe what it does. So the product is a  
4 piece of software that determines if a digital image was  
5 altered in any way from the time of recording. So an  
6 image is recorded at the camera, and we want to know has  
7 anything changed from that moment in time, whether it was  
8 uploaded to an online service, whether it was edited in  
9 Photoshop, whether it was put into iPhoto, we have a  
10 mechanism for determining if the actual file has changed  
11 in any way from the time of recording. And that's the  
12 first product.

13 Q. And does that product incorporate more than one  
14 of the forensic tools that you and your team have  
15 developed?

16 A. Yes. It's probably a combination of two or  
17 three core ideas.

18 Q. Does it have a specific release date?

19 A. We are shooting for early September, but it's  
20 not a firm date the way these things go.

21 Q. Understood. Dr. Farid, in your June 28th  
22 letter, Defendants' 52, you indicate that you were  
23 retained by Milberg LLP, and as you previously testified,  
24 you contacted Ms. Young after receiving our deposition  
25 notice.



1           When were you first contacted regarding  
2 potential involvement in this matter?

3           A. I -- I believe it was early April or late May.  
4 I checked my email this morning, but I think the first  
5 contact was by phone. So I don't have an exact date.

6           Q. You're referring to early April --

7           A. Sorry, of 2012.

8           Q. Okay. And that's late April -- I'm sorry, late  
9 April, early May?

10          A. Sorry. Late May, early April of 2012 -- oh,  
11 sorry. I got it backwards. Sorry.

12          Q. I thought it might be a Continental  
13 misunderstanding.

14          A. No, it's brain fart. Hold on, let me just  
15 check, just make sure I get this right.

16                 Sorry. Late March, early April.

17          Q. And that's late March, early April, 2012; is  
18 that right?

19          A. That's correct.

20          Q. And what are you reviewing to refresh your  
21 recollection?

22          A. Sorry, I was just checking my email to see when  
23 the first email from Jennifer Young was, and it was --  
24 the first email I have from her was April 2nd, 2012.

25          Q. Thank you. And you have all of the email that

1 you received related to this case organized on your  
2 computer?

3 A. I believe I have all of them. Sometimes one or  
4 two slips through, but I have -- there's only maybe 14 or  
5 15 emails. Sorry, that's not right. Maybe 20 emails.

6 Q. And were the majority of those emails exchanged  
7 with Ms. Young at Milberg?

8 A. Let's see. Yes, I think that's fair to say.

9 Q. And what's the most recent email that you  
10 exchanged in relation to this case?

11 A. I had an email exchange with -- well -- I had a  
12 number of exchanges with your office regarding the  
13 deposition. So pushing back from that, I had an email  
14 from Jennifer Young on July 17th simply informing me that  
15 they were no longer representing Paul Ceglia. This was  
16 after I talked with her about the deposition, and I think  
17 she just wanted to make it clear that they were not going  
18 to be representing me in the deposition. So that was  
19 July 17th of 2012.

20 Q. So you understand that Milberg has withdrawn as  
21 counsel for Mr. Ceglia?

22 A. Yes, I do.

23 Q. Is that right?

24 A. Yes.

25 Q. And when you were contacted on April 2nd, 2012,

1 by Ms. Young, what did she -- in what way did she suggest  
2 you could be involved in this case?

3 A. So Jennifer, or Ms. Young, told me that they  
4 were representing Paul Ceglia in the case. I'd actually  
5 read about it in the press, of course. And there was  
6 some debate about specific printed documents, and they  
7 were looking for an expert in forensic analysis to  
8 determine if they were original or not and asked if I  
9 would be able to help in the matter.

10 Q. Now, when you say "printed documents," are you  
11 referring to the electronic documents that you received  
12 or to hard copy paper documents?

13 A. Sorry, I'm distinguishing -- I use the term  
14 "printed documents" to distinguish from images or video.  
15 When I say "printed documents," I mean documents largely  
16 containing text as opposed to photographs, videos.

17 So I remain agnostic as to the underlying  
18 medium, whether they're actual physical pieces of paper  
19 or electronic scanned copies of those papers.

20 Sorry, we can't hear the objection, just for the  
21 reporter.

22 MR. ARGENTIERI: Objection. Attorney-client  
23 work product.

24 MR. BENJAMIN: What specific attorney-client  
25 work product?

1 MR. ARGENTIERI: Well, you're asking him about  
2 what Jennifer's Young's --

3 MR. BENJAMIN: Let me finish my question.

4 MR. ARGENTIERI: Yeah, I can finish.

5 MR. BENJAMIN: What specific attorney-client  
6 work product -- with that question?

7 MR. ARGENTIERI: Your two questions and his  
8 answers. So let's move on.

9 Q. BY MR. BENJAMIN: So Dr. Farid, you were  
10 distinguishing between hard copy physical documents and  
11 electronic documents; is that right?

12 A. Well, I was trying not to, in fact, distinguish  
13 between them. So when I -- I'm just sort of clarifying  
14 what I mean by printed documents. I just mean documents  
15 that contain text. And the reason I made that  
16 distinction is that the forensic techniques used to  
17 analyze text-based documents are typically different than  
18 the forensic techniques that are used to analyze images.

19 Q. But to be clear, you were not retained to  
20 examine any physical hard copy documents in this case; is  
21 that right?

22 A. I don't -- we never got that far. There was  
23 never a -- sorry, scratch that.

24 I was asked to analyze digital scans of a  
25 printed document.

1 Q. And is that the only analysis that you discussed  
2 possibly conducting with counsel?

3 A. No.

4 Q. With respect to the other analysis that you  
5 discussed conducting with counsel, did that pertain to  
6 the same digital scans that you received and analyzed in  
7 this case?

8 A. Sorry, the paper shuffling is interfering again.  
9 So can I just ask you to repeat the question?

10 Q. Of course.

11 The other potential analysis that you just  
12 acknowledged having discussed with counsel, that you  
13 might conduct in this case, did that pertain to the same  
14 digital scans that you received or to other electronic or  
15 hard copy documents?

16 MR. ARGENTIERI: Okay. I've got to object,  
17 attorney-client -- I mean, his report here indicated that  
18 he was hired on this digital image. Now you're getting  
19 into a conversation with Jennifer Young. So I've got to  
20 object as attorney-client work product.

21 MR. BENJAMIN: Are you directing him --

22 MR. ARGENTIERI: I think I have to.

23 Doctor, I don't think you should answer the  
24 question.

25 THE WITNESS: So can I ask a question?

1 Q. BY MR. BENJAMIN: Of course.

2 A. In my experience in depositions, counsel can  
3 object, but there's nothing that can be done. There's no  
4 judge in the room. So -- and --

5 MR. ARGENTIERI: It is when it's attorney-client  
6 work product, Doctor.

7 THE WITNESS: Hold on. Let me -- ask one person  
8 a question at a time. So there's an objection, and so  
9 counsel for plaintiff is asking me not to respond? And  
10 what is my obligation?

11 MR. ARGENTIERI: I'm asking you to not respond  
12 because it's attorney-client work -- it's attorney work  
13 product with you. So I understand what you're saying.

14 THE WITNESS: But I don't have a problem with  
15 responding so...

16 MR. ARGENTIERI: Well, that's not up to you,  
17 with all due respect.

18 THE WITNESS: Well, that's my question.

19 MR. ARGENTIERI: Oh, okay. I'm sorry, yeah.  
20 No, that's up to me, not up to you.

21 MR. BENJAMIN: So I'd like the record to be  
22 clear on this point. Mr. Argentieri, are you directing  
23 the witness not to answer a question?

24 MR. ARGENTIERI: That question, yeah.

25 Q. BY MR. BENJAMIN: Okay. So Doctor --

1           A.    Sorry, can I ask a question?

2           MR. ARGENTIERI:   Go ahead.

3           THE WITNESS:   The question I have is that I'm  
4   not being retained by you so I'm not clear as to how this  
5   relationship is working.   Right?   I was retained by  
6   Milberg, not by you.   I'm not currently retained by you.  
7   I'm not sure how it is that you're directing -- I mean, I  
8   don't have a problem with not answering.   Don't get me  
9   wrong.   I just want to understand what the protocol is or  
10   what the legal protocol is.

11          MR. ARGENTIERI:   All right.   First things first.  
12   One is I am one of plaintiff's counsel, and it's true you  
13   did interact with the attorneys at Milberg.   So even  
14   though they're not in the case, they did retain you, I  
15   guess.   This is a deposition by defense counsel, but  
16   because you were retained by the plaintiff's side, I  
17   should say, then I have the authority to I guess tell you  
18   not to answer a question if it's attorney-client work  
19   product.   And just to be clear about that, you've got to  
20   give me a chance to answer, plus I've got Mr. --

21          Dean, can you hear me?

22          MR. BOLAND:   Yes, I can hear you.

23          MR. ARGENTIERI:   If you've got any objections,  
24   put them on the record now.

25          MR. BOLAND:   No, I think you covered it.   The

1 only thing that we're directing the witness not to answer  
2 is what he told plaintiff's counsel or what plaintiff's  
3 counsel told him, that's work product. Any other answers  
4 he wants to give, he can give, except those two things.

5 MR. ARGENTIERI: Did you hear that, Dr. Farid?

6 THE WITNESS: I did.

7 MR. ARGENTIERI: Okay. And not to sound smart,  
8 but did you comprehend that, then? Tell me --

9 THE WITNESS: Yes.

10 MR. ARGENTIERI: I mean, the --

11 THE WITNESS: I understood --

12 MR. ARGENTIERI: Comprehend.

13 THE WITNESS: I understood the words coming -- I  
14 understood. Let me just ask a question.

15 So when you direct me not to answer a question,  
16 I have to listen to you. Let's just be very clear about  
17 what my question is.

18 Is that true?

19 MR. ARGENTIERI: That's true or Mr. Boland,  
20 unless they call the Court and I get overruled.

21 THE WITNESS: And Matt, can I ask you if that's  
22 true, if you don't mind?

23 MR. BENJAMIN: Of course. It's actually not  
24 true, Dr. Farid. The only -- the only basis on which  
25 Mr. Argentieri or Mr. Boland can direct you not to answer



1 a question is on the basis of attorney-client privilege.  
2 That is the privilege that Mr. Argentieri is asserting  
3 applies right now. He's asserting that incorrectly, but  
4 less we get bogged down in the deposition, I'll proceed  
5 and ask you some other questions.

6 MR. ARGENTIERI: Have you got any comment, Dean,  
7 on that?

8 MR. BOLAND: No, that's fine. We're asserting a  
9 work-product privilege, which both sides have asserted  
10 throughout the deposition. So we're perfectly in line  
11 with that.

12 MR. BENJAMIN: Yes. And just to make the record  
13 clear, work-product privilege objections are appropriate  
14 when they're based in fact or they're legitimate.  
15 Mr. Argentieri's isn't in this case, but I wanted to be  
16 respectful of your time.

17 MR. ARGENTIERI: You have to understand, I don't  
18 have to accept his opinion, all right, Dr. Farid? I  
19 mean, just because Mr. Benjamin wants to express his  
20 opinion, I don't have to, you know, observe it. Okay?  
21 So go ahead.

22 Q. BY MR. BENJAMIN: Dr. Farid, when you were  
23 contacted by Ms. Young in early April 2012, did you sign  
24 an engagement letter formalizing your retention?

25 A. You know, I don't recall. If you'd like, I can

1 check my --

2 Q. Do you recall whether --

3 A. Sorry. I can check my email records to see if  
4 there is an engagement letter.

5 Q. That would be fine. And less you think I'm  
6 asking a more specific question than I mean to, I'm  
7 asking whether you signed an engagement letter at any  
8 point during the matter, not necessarily only in  
9 April 2012.

10 A. I understand what you're asking. Let me just  
11 check my records, if you don't mind.

12 I don't see an engagement letter. That doesn't  
13 mean it doesn't exist. I just don't see it.

14 Q. So as far as you know, you may not in fact have  
15 been retained as an expert for Paul Ceglia in this case;  
16 is that right?

17 A. If by retained you mean having signed a document  
18 of retention, I'm not sure. Sorry, let me clarify that.  
19 I do not recall signing one, but I am not positive of  
20 that.

21 Q. Okay. Have you been compensated for your work  
22 in this case?

23 A. I have.

24 Q. And what is your fee arrangement with Milberg?

25 A. My fee with Milberg is that I charge 500 an hour

1 for my time, and I bill accordingly.

2 Q. So you're paid on an hourly basis; is that  
3 right?

4 A. Correct.

5 Q. Did you have any discussions concerning the  
6 possibility of being compensated on a contingency basis?

7 A. I don't know what you mean by that.

8 Q. By "contingency basis," I mean that you would  
9 receive a percentage of some sum.

10 A. No, I was not. We did not have that discussion,  
11 rather.

12 Q. And who's responsible for your compensation?

13 A. Milberg was.

14 Q. And is payment current with your invoices?

15 A. I've been paid. I submitted one invoice, and it  
16 was paid by Milberg, yes.

17 Q. Did you spend any time on this case after  
18 Milberg withdrew?

19 A. The only time I spent on it was to draft a  
20 letter which I sent to Mr. Boland, which is Exhibit 52.

21 Q. And did you not bill for that time?

22 A. I did not bill for that.

23 Q. Dr. Farid, in that letter, Defendants' 52, you  
24 write: I was provided with digital scanned copies of a  
25 purported contract in an uncompressed TIFF file format.

1 I was asked to determine if these scanned copies showed  
2 signed of manipulation."

3 Did I read that correctly?

4 A. Correct, yes.

5 Q. So I'd like to take those two sentences in two  
6 parts. First, how many digital files did you receive?

7 A. If you don't mind, I'm going to just check my  
8 records again.

9 Q. Not at all.

10 A. I received two files.

11 Q. What are the names of those two files?

12 A. I knew you were going to ask me that. Hold on  
13 one second.

14 Q. While you're looking -- sure. While you're  
15 looking, if you want to tell me who provided them.

16 A. I can do that.

17 Q. And possibly when.

18 A. I can do that. So let me just give you the  
19 names of the files first. Okay, they were called Scan,  
20 S-C-A-N, 0001.tiff. Everything is lower case except for  
21 the "S" in scan.

22 And the second file was Scan0002.tiff with the  
23 same upper and lowercase letters.

24 I was provided these files by -- I'll give you  
25 the person's name and then their company name. The name

1 is Katya, K-A-T-Y-A, Koons, K-O-O-N-S. And I believe  
2 that the company name that she works for is Sylint,  
3 S-Y-L-I-N-T, which is a forensics and e-discovery  
4 company.

5 Q. And when did Ms. Koons send those files?

6 A. On April 12th of 2012.

7 Q. How were those files provided to you?

8 A. They were provided through Dropbox.

9 Q. And those files were provided in an uncompressed  
10 TIFF format; is that right?

11 A. That's correct.

12 Q. Did you receive any other electronic materials  
13 in connection with this case?

14 A. Yes.

15 Q. And what are those materials?

16 A. I received a copy of defense's expert report, I  
17 believe it was, by Stroz, S-T-R-O-Z, Friedberg,  
18 F-R-I-E-D-B-E-R-G. And I received -- it looks like an  
19 electronic copy of the original Complaint. Sorry, this  
20 is the Amended Complaint.

21 And I received an electronic copy of -- I'll  
22 give you the title. It says "Facebook Declaration of  
23 Southwell," S-O-U-T-H-W-E-L-L. And I believe that's it.

24 Q. Dr. Farid, Mr. Southwell is one of the attorneys  
25 for --

1           A.   Oh.  Hi.

2           Q.   -- the defendants sitting to my right.  He's  
3   filed a lot of declarations in this case.

4           A.   Yeah, okay.

5           Q.   Do you happen to know, does the version that you  
6   have, is that file stamped?

7           A.   Tell me what you mean by "file stamped."  Oh,  
8   yes, it is.

9           Q.   By file stamped I mean --

10          A.   It has a date on it.  Sorry to interrupt you.  
11   It's 3/26/12.  And I can tell you the other document says  
12   Facebook Ceglia ECF039 Amended Complaint.

13          Q.   And did you review those materials as well?

14          A.   Not exhaustively, but I did review them, yes.

15          Q.   Did you request the opportunity to receive or  
16   analyze any other electronic materials?

17          A.   When I received the two images, the Scan001 and  
18   002, I asked higher resolution versions, because as I  
19   said in the letter, those were of sufficient resolution  
20   to be able to perform a forensic examination.

21          Q.   Do you have any understanding of where the  
22   specific two scans that you received come from?

23          A.   No.

24          Q.   And what's your understanding of why you were  
25   not provided with different versions of those scans?

1           A. I have no understanding of why I was not  
2 provided.

3           Q. Did you -- when you asked for them, did you not  
4 receive a response?

5           A. Oh, sorry. I did receive a response. I was  
6 told that they were trying to get them, but they  
7 weren't -- I don't know why I was not -- they were not  
8 able to obtain them. And then Milberg dropped out of the  
9 case, and the whole thing went away, as far as I knew.

10          Q. To be clear, your testimony is that you were  
11 told that plaintiff's counsel was trying to get higher  
12 resolution versions of the two documents that you  
13 received; is that right?

14          A. That's correct.

15          Q. So the only digital materials that you reviewed  
16 in connection with this case were the two scans that you  
17 received, the Stroz Friedberg report, the Amended  
18 Complaint as filed, and Mr. Southwell's March 26, 2012  
19 declaration; is that correct?

20          A. I believe that's correct.

21          Q. Dr. Farid, what is your understanding of what  
22 the two scans that you received are?

23          A. So let me preface this by saying I have fairly  
24 limited understanding of what they are. My understanding  
25 was that they were a contract between Paul Ceglia and

1 Mike -- Mark Zuckerberg.

2 Q. Okay. And taking a step back, given that you  
3 have a fairly limited understanding, what's your  
4 understanding of the claim that Mr. Ceglia has asserted  
5 against Mr. Zuckerberg in this case?

6 A. So my understanding from talking with Jennifer  
7 Young, from reading some of the documents I was provided,  
8 and also from just press coverage of it, is that Paul  
9 Ceglia is claiming 50 percent ownership of the company  
10 Facebook.

11 Q. Out of curiosity, do you recall any of the  
12 specific press coverage that you were familiar with  
13 before you were contacted by Ms. Young?

14 A. Not specific, no.

15 Q. So you understand that Mr. Ceglia has filed a  
16 lawsuit claiming a significant ownership interest in  
17 Facebook based on a purported contract with  
18 Mr. Zuckerberg; is that right?

19 A. That's my understanding, yes.

20 Q. And have you seen the purported contract on  
21 which Mr. Ceglia bases that claim?

22 A. So my understanding was that the two scanned  
23 documents that I got, the two TIFF files, were the  
24 purported contract. But they were of such low resolution  
25 that not only could you not perform a forensic analysis,



1 I couldn't even read it.

2 So I guess strictly speaking, the answer is yes,  
3 but more precisely, I have not actually seen the document  
4 in a form that I can read or analyze.

5 Q. So your understanding is that the two scans that  
6 you examined were of the purported contract that  
7 Mr. Ceglia has based his lawsuit on; is that correct?

8 MR. ARGENTIERI: Objection.

9 You can answer, Doctor.

10 THE WITNESS: I'm sorry, I missed the -- I heard  
11 the objection, but I didn't hear what you said  
12 afterwards.

13 MR. ARGENTIERI: You may answer, Doctor.

14 THE WITNESS: Okay, that is my understanding,  
15 yes.

16 Q. BY MR. BENJAMIN: Dr. Farid, are you aware that  
17 the defendants in this case have moved to dismiss it as a  
18 fraud in the Federal court?

19 A. I believe that I read something to that effect,  
20 yes.

21 Q. Has anyone provided you -- I think the answer to  
22 this is "no," but has anyone provided you with a copy of  
23 that motion to dismiss this case as a fraud?

24 A. I don't think so, no.

25 Q. Now, are you aware of defendants' position that

1 the purported contract on which Ceglia has sued our  
2 clients is a forgery?

3 A. I am aware of that claim, yes.

4 Q. Are you aware more specifically that defendants'  
5 position is that Mr. Ceglia, acting alone or in concert  
6 with others, forged that document within the last two  
7 years?

8 A. Yeah, I believe at least parts of that claim are  
9 covered in the Stroz Friedberg -- sorry, I think I'm  
10 mispronouncing that -- in the Stroz Friedberg report.  
11 Yes, I'm aware of the claim.

12 MR. BENJAMIN: I'd ask the court reporter to  
13 mark as Defense Exhibit 54 printouts of the contract, a  
14 copy of which has been handed to Mr. Argentieri.

15 (Exhibit 54, Street Fax document, marked for  
16 identification.)

17 Q. BY MR. BENJAMIN: So Dr. Farid, you've been  
18 handed a copy of Defendants' 54. These particular  
19 printouts are of the scans as filed in this case, which  
20 explains the file stamp across the top of each page.

21 A. Yes.

22 Q. Since the title on the first page of the  
23 contract is Street Fax, we refer to it as the Street Fax  
24 contract, and I will refer to it that way in the  
25 deposition.

1 Do you understand?

2 A. Yes.

3 Q. And for the record the file stamp on the copy on  
4 Defendants' Exhibit 54 is the case caption  
5 "Document 111-1," filed August 15, 2011.

6 A. That's correct.

7 Q. Dr. Farid, do you recognize the Street Fax  
8 contract, Defendants' Exhibit 54, as printouts of the two  
9 digital scans that you received?

10 MR. ARGENTIERI: Objection.

11 You may answer, Doctor.

12 THE WITNESS: They -- they -- I can't say  
13 they're exactly the same, but yes, they do appear to be  
14 the same.

15 Q. BY MR. BENJAMIN: With the exception of the file  
16 stamp at the top of the document, in what way are they  
17 different?

18 A. I don't know they're different. It just -- I  
19 haven't looked at those documents in a long time, but  
20 they appear to be the same documents.

21 Q. So this is the, quote, purported contract to  
22 which you referred in your June 28th letter; is that  
23 right?

24 A. Yes.

25 Q. Now, returning to the Amended Complaint that you

1 received that was among the electronic documents that you  
2 mentioned a few moments ago.

3 A. Yes.

4 Q. Are you aware -- are you aware that there's a  
5 different contract attached to that Complaint than  
6 Defendants' Exhibit 54?

7 A. I don't believe I was aware of that.

8 Q. Now, you received the Stroz Friedberg report; is  
9 that correct?

10 A. Yes.

11 Q. Are you aware that Defendants' motion to dismiss  
12 for fraud was supported by numerous expert reports?

13 MR. ARGENTIERI: Objection.

14 You may answer, Doctor.

15 THE WITNESS: I was not aware -- I was provided  
16 with a report. I had heard that there was a motion to  
17 dismiss, but I don't know what the grounds for the  
18 dismissal were.

19 Q. BY MR. BENJAMIN: Having reviewed the Stroz  
20 Friedberg report, at least generally, do you recall that  
21 Stroz Friedberg described its discovery of the Street Fax  
22 contract in that report?

23 A. I do recall that, yes.

24 Q. You reviewed that section of the report?

25 A. Yes, I did.

1 Q. So you're aware that the Street Fax contract,  
2 Defendants' Exhibit 54, the two TIFF files that you  
3 received, were discovered as attachments to two emails;  
4 is that correct?

5 A. That's my --

6 MR. ARGENTIERI: Objection to form.

7 You may answer.

8 Doctor, if you could hesitate a little bit just  
9 for me to get --

10 THE WITNESS: I understand, sorry.

11 Yes, that's my understanding.

12 MR. ARGENTIERI: That's okay.

13 MR. BENJAMIN: So I'd ask the court reporter to  
14 mark as Defendants' 55 printouts of those two emails,  
15 copies of which are being handed to Mr. Argentieri.

16 (Exhibit 55, Screen shot, page 1 of 2 for  
17 Streetfax contract w Mark, marked for  
18 identification.)

19 MR. ARGENTIERI: Yeah, I just want to note for  
20 the record that Exhibit 54, the reported Street Fax  
21 contract, is a larger version than the TIFF or electronic  
22 version for the record. Thanks.

23 MR. BENJAMIN: Mr. Argentieri, in what way is it  
24 larger than the electronic version?

25 MR. ARGENTIERI: Well, the image from the TIFF

1 is not an eight-and-a-half by 11 document, is it? I  
2 don't think so.

3 Is it, Doctor?

4 MR. BENJAMIN: Sorry. Dr. Farid, you can --  
5 thank you.

6 MR. ARGENTIERI: Oh, I'm sorry.

7 MR. BENJAMIN: Just to be clear, Defendants'  
8 Exhibit 54 is a printout of the Street Fax contract,  
9 document 111-1, the file stamp at the top as filed.

10 Q. Dr. Farid, Defendants' Exhibit 55, have you been  
11 handed those documents?

12 A. I have.

13 Q. Now, these are the particular -- again, these  
14 particular printouts are of the emails as filed in this  
15 case, which explains the file stamp at the top.

16 Are you aware, Dr. Farid, that these two emails,  
17 Defendants' 55, were sent on March 3, 2004, to Jim Cole?

18 MR. ARGENTIERI: Objection.

19 Doctor, you can answer.

20 THE WITNESS: I'm sorry, can you just repeat the  
21 question.

22 Q. BY MR. BENJAMIN: Sure. Dr. Farid, are you  
23 aware that these two emails, Defendants' Exhibit 55, were  
24 sent on March 3, 2004 --

25 MR. ARGENTIERI: Objection.

1 MR. BENJAMIN: I'm sorry, Dr. Farid, before you  
2 answer my question, Mr. Argentieri, can you let me finish  
3 my question?

4 MR. ARGENTIERI: Yeah, I can. Go ahead. I'm  
5 sorry. I thought you were finished.

6 MR. BENJAMIN: Please let me finish my question.

7 MR. ARGENTIERI: Then, Doctor, give me just a  
8 second. Okay, sorry. I didn't mean to interrupt again.

9 MR. BENJAMIN: Go ahead, Doctor.

10 THE REPORTER: We need the full question,  
11 please.

12 Q. BY MR. BENJAMIN: Dr. Farid, are you aware that  
13 Defendants' Exhibit 55, that those two emails were sent  
14 on March 3rd, 2004, to a man named Jim Cole?

15 MR. ARGENTIERI: Okay. Objection.

16 You may answer, Doctor.

17 THE WITNESS: Okay. It's like a little dance  
18 here. I like it.

19 I was not aware before you handed this to me,  
20 but I do see that the date is March 3rd, 2004. So I am  
21 aware that that's when the email was purportedly sent.

22 Q. BY MR. BENJAMIN: And the two attachments to the  
23 two emails at Defendants' Exhibit 55 appear to be the  
24 same -- have the same -- strike that. S.

25 The attachments to Defendants' Exhibit 55

1 have the same file names as the two files that you  
2 received; is that correct?

3 A. That's correct.

4 Q. Are you aware, Dr. Farid, that Jim Cole, an  
5 attorney at the law firm of Sidley Austin, was Paul  
6 Ceglia's lawyer?

7 MR. ARGENTIERI: Objection.

8 Doctor, you may answer.

9 THE WITNESS: I believe I recall that from one  
10 of the documents that I reviewed, yes.

11 Q. BY MR. BENJAMIN: And Dr. Farid, you can see on  
12 the first page of Defendants' Exhibit 55 that in the body  
13 text of the email, that email is signed "Paul." Right?

14 A. Correct.

15 Q. Are you aware that these two emails, Defendants'  
16 55, were located by Stroz Friedberg in a PBX file  
17 contained on a hard drive produced by Paul Ceglia in this  
18 case?

19 MR. ARGENTIERI: Objection.

20 Doctor, you can answer.

21 THE WITNESS: That is my recollection from the  
22 report, yes.

23 Q. BY MR. BENJAMIN: And are you aware that these  
24 two emails were also located on the servers of Sidley  
25 Austin, the law firm for which Mr. Cole worked when he



1 received the emails?

2 MR. ARGENTIERI: Objection.

3 Doctor, you may answer.

4 THE WITNESS: That's also my recollection, yes.

5 Q. BY MR. BENJAMIN: Now, in Defendants' 52, your  
6 June 28th letter, you write: "I was asked to determine  
7 if these scanned copies showed signs of manipulation";  
8 right?

9 MR. ARGENTIERI: Objection.

10 You may answer, Doctor.

11 THE WITNESS: Correct.

12 MR. BENJAMIN: I'm sorry, Dr. Farid, before you  
13 answer, what's your basis for that objection?

14 MR. ARGENTIERI: I don't have to recite it.

15 MR. BENJAMIN: You have to have one.

16 MR. ARGENTIERI: I don't have to give it to you.  
17 If you want to call the Judge, let's go. I can put an  
18 objection. You're introducing facts not in the record,  
19 but let's go ahead.

20 MR. BENJAMIN: I'm sorry, can the court reporter  
21 read back my question, please.

22 (The record was read by the reporter  
23 as follows:

24 "QUESTION: Now, in Defendants' 52, your

25 June 28th letter, you write: "I was asked to

1           determine if these scanned copies showed signs  
2           of manipulation"; right?")

3           MR. ARGENTIERI:  Objection.

4           You may answer, Doctor.

5           MR. BENJAMIN:  So what's your basis for that  
6           objection?

7           MR. ARGENTIERI:  I don't have to give a basis.  
8           Do you have some authority why I have to give you the  
9           basis?

10          MR. BENJAMIN:  No, I have authority.

11          MR. ARGENTIERI:  Then call the Judge if you  
12          don't like the answer I'm giving you.  Honestly, I don't  
13          have to give you a basis.

14          MR. BENJAMIN:  You have to have a basis.

15          MR. ARGENTIERI:  Do you want to jump in here?  I  
16          mean, you know --

17          MR. BOLAND:  No, I think it's fine.  You  
18          objected and that's it.  If he wants something more, I  
19          think he'd have to depose you.

20          MR. ARGENTIERI:  I mean, if you want to  
21          overrule, Dean, if you think I'm doing something wrong,  
22          go ahead.

23          MR. BENJAMIN:  Just as long as Mr. Boland agrees  
24          that we all need to have an actual basis for stating  
25          objections on the record, we can proceed.

1 MR. ARGENTIERI: Did you hear that?

2 Q. BY MR. BENJAMIN: So Doctor --

3 MR. BOLAND: Yeah, I'm not agreeing with  
4 anything Mr. Benjamin has to say. I'm just -- we're  
5 noting objections, and Mr. Benjamin, you're doing the  
6 deposition.

7 Q. BY MR. BENJAMIN: Dr. Farid, sorry about that.

8 A. That's okay.

9 Q. So I was asking you about text contained in your  
10 letter, Defendants' Exhibit 52. So you write: "I was  
11 asked to determine if these scanned copies showed signs  
12 of manipulation."

13 So that was your charge, so to speak; right?

14 A. That's correct.

15 Q. You were not asked to examine the native files,  
16 emails to which those two TIFF files were attached; is  
17 that right?

18 A. That's correct.

19 Q. And you were not asked to analyze any other  
20 digital materials in this case; right?

21 A. That's correct.

22 Q. Now, Dr. Farid, is it your understanding that  
23 Mr. Ceglia is contending that the two scans you were  
24 provided have been, quote, manipulated in some way?

25 MR. ARGENTIERI: Objection as to form.

1           You can answer that.

2           THE WITNESS: I'm not -- I'm not aware of what  
3 Mr. Ceglia has said about the scanned documents, no.

4           Q. BY MR. BENJAMIN: Let's take it in smaller  
5 chunks. So you write that you were asked to determine if  
6 the scanned copies showed, quote, signs of manipulation.

7           A. Correct.

8           Q. So is it your understanding that anyone is  
9 claiming that the files you were provided had been  
10 manipulated?

11          MR. ARGENTIERI: Objection as to form.

12          You may answer, Doctor.

13          THE WITNESS: I'm not sure. I mean, I was  
14 simply asked by Milberg to determine the authenticity or  
15 the possible manipulation of the documents. I don't  
16 recall having specific knowledge of what the claims were  
17 from either defense or from plaintiff.

18          Q. BY MR. BENJAMIN: Now, when you say  
19 "manipulation," what do you mean?

20          A. Right. So there's a number of ways that a  
21 scanned document can be manipulated, and some of those  
22 things fall under the type of analysis that I can do and  
23 some of them don't. So let's just talk about the things  
24 that I can do because that's sort of the relevant piece  
25 here.

1           What we have the ability to do is to determine  
2 if different parts of a printed document -- and again,  
3 when I say "printed document," I'm referring to something  
4 that largely contains text. So we have the ability to  
5 determine whether the various parts of that document, so  
6 for example, the first paragraph, the first sentence, the  
7 middle paragraph, whether all of those parts were printed  
8 on the same device.

9           And so what I spoke -- when I spoke with  
10 Jennifer Young at Milberg, I told her that this is one of  
11 the main forensic techniques that we have for analyzing  
12 printed documents. We can determine if the various  
13 pieces -- the words, the sentences, the paragraphs -- all  
14 were created from the same device at approximately the  
15 same moment in time.

16           So, for example, to get back to your specific  
17 question, when I say "manipulated," I mean, for example,  
18 was one paragraph digitally inserted into the document  
19 and so that there would be some inconsistency in the text  
20 between the document and that one paragraph.

21           Q. Now, Dr. Farid, I think you used the phrase  
22 "printed on the same device." Is it your understanding  
23 that the two TIFF files that you examined are scans of a  
24 physical piece of paper that was printed?

25           A. That is my understanding, yes.

1 Q. Now, are all quote/unquote signs of manipulation  
2 evidence of fraud?

3 MR. ARGENTIERI: Objection as to form.  
4 You may answer, Doctor.

5 THE WITNESS: I mean, that's a hard question for  
6 me to answer. I'm not -- I'm not -- it seems to me  
7 you're mixing a scientific question with a legal  
8 question, and the scientific question is, is something  
9 manipulated, and the legal question is, is that fraud.

10 I am not qualified to answer the latter part of  
11 that question. I can only answer the first part, and  
12 then it's up to the lawyers to determine what the  
13 implication of that is.

14 Q. BY MR. BENJAMIN: Fair enough. And I'm just  
15 trying to better understand the contours of what, quote,  
16 manipulation might mean --

17 A. Right.

18 Q. -- in the context of your analysis.

19 A. Right.

20 Q. So I'll give you a couple of specific examples,  
21 and we'll go from there.

22 Would evidence that a file has been resized  
23 necessarily constitute a sign of manipulation?

24 A. Okay, so let's define what we mean by  
25 manipulation. Okay? So there are different ways to

1 manipulate a file, an image, a scanned document, any  
2 file. So there are -- and the answer to this question  
3 depends on what do you mean by an original. Okay?

4 So it could be argued, for example, that any  
5 electronic digital alteration of a file from the time  
6 that it was produced, whether it was photographed or  
7 scanned, is a manipulation.

8 Now, that manipulation may alter the underlying  
9 truth of the document. So, for example, splicing in one  
10 paragraph over another, and it may not alter the  
11 underlying truth, for example, resizing. They are all  
12 some form of a digital manipulation.

13 So again, we're -- you're -- this is a question  
14 of what are the implications of the manipulation, which  
15 is a second question after what a manipulation is.

16 Q. That's a very helpful -- it's a very helpful  
17 distinction. So let's ask both of those questions.

18 Would evidence that a file -- would you consider  
19 evidence that a file has been resized a sign of  
20 manipulation?

21 A. Yes, in the strictest definition of the term  
22 "manipulation," yes.

23 Q. But if I understand you correctly, that wouldn't  
24 necessarily constitute evidence of fraud or an intent to  
25 change the underlying meaning of the document.

1 MR. ARGENTIERI: Objection as to form.

2 You can answer, Doctor.

3 THE WITNESS: Right. So it depends. So, for  
4 example, if we are talking about an image and only part  
5 of the image was resized, then that could very well be a  
6 fraud. So, for example, I caught a fish this big, and  
7 you resized the fish, you are changing the underlying  
8 truth.

9 If you, of course, change the size of the entire  
10 image as one entity, that's less likely to rise to the  
11 level of something that could be considered fraudulent.

12 I'm sorry, I'm sorry, can I interrupt? We're  
13 still getting some feedback from the shuffling of the  
14 papers and the sighing.

15 MR. BENJAMIN: Mr. Argentieri has muted his  
16 microphone. So hopefully that will take care of the  
17 problems.

18 MR. BOLAND: Understood.

19 Q. BY MR. BENJAMIN: So Dr. Farid, if I understand  
20 you correctly, evidence that the contrast in an image has  
21 been adjusted would also constitute a sign of  
22 manipulation; is that right?

23 A. That's correct.

24 MR. ARGENTIERI: Objection.

25 You can answer, Doctor.



1 THE WITNESS: Sorry. Sorry.

2 Yes, that's correct.

3 Q. BY MR. BENJAMIN: Similarly, evidence that the  
4 brightness in an image had been adjusted would constitute  
5 a sign of manipulation; is that right?

6 A. That's correct. Let me just state, however,  
7 that determining whether the contrast or the brightness  
8 in an image had been altered is incredibly difficult  
9 because that tends to happen in the imaging device  
10 itself.

11 You didn't ask the question, but I just want to  
12 be clear. Those things are very hard to determine after  
13 the fact.

14 Q. And would evidence that a file has been  
15 compressed necessarily constitute a sign of manipulation?

16 A. It depends what you mean by "compressed." So  
17 there are two basic forms of compression. There are  
18 lossless and lossy, L-O-S-S-Y.

19 So lossless compression is, for example, what  
20 happens when you just take a file and you can reduce the  
21 underlying file size, but there's absolutely no loss of  
22 information. That is, you can go back and forth from the  
23 compressed to the uncompressed, and you can do it for a  
24 million times, and the file will remain the same, bit for  
25 bit.

1           Lossy compression, for example, the JPEG image  
2 standard, that is not true. When you compress an image,  
3 you literally throw away some information, and repeated  
4 compressions continually degrade the underlying medium.  
5 So we have to be a little careful on what you mean by  
6 "compression."

7           Q. I think so if I understand you correctly,  
8 several of the adjustments that we have discussed may  
9 constitute signs of manipulation, but those quote/unquote  
10 manipulations don't necessarily constitute evidence of an  
11 intention to misleadingly present the content of the  
12 file?

13           MR. ARGENTIERI: Objection.

14           You may answer, Doctor.

15           THE WITNESS: Okay.

16           So that's a tough question to answer. And let  
17 me just give you an example of why that's a hard question  
18 to answer.

19           If you remember many years ago, when O.J.  
20 Simpson was arrested, his image was put on the cover of  
21 Time Magazine, and it was deeply contrast-enhanced to  
22 make him look much darker. And it was claimed that that  
23 was an editorializing of the photograph, to make him look  
24 more menacing and, if you will, blacker. And that was a  
25 fairly simple color and contrast adjustment.

1           So adjusting things as simple as contrast can  
2 have very significant consequences that one could argue  
3 is a form of deception.

4           So in general, I would say the answer is no.  
5 But we have seen evidence that even very simple  
6 manipulations -- look, cropping an image can change the  
7 underlying meaning.

8           An Israeli newspaper was -- sorry, a Palestinian  
9 newspaper was accused of editorializing when they cropped  
10 a photograph to show a weapon that had been removed.

11           So, you know, really simple manipulations that  
12 don't seem to be dangerous can sometimes still be a  
13 little tricky. So we just have to be a little careful.  
14 And as a forensic scientist, I don't want to be in the  
15 business of making -- of determining what the intention  
16 was or whether it's a fraud or not. I'm simply in the  
17 business at that front end of determining what has  
18 happened.

19           Q. Yeah, that's helpful. I think -- and you  
20 answered -- you answered the opposite question that I was  
21 trying to ask, which may have been my fault.

22           If I understand you correctly, signs of  
23 manipulation do not necessarily equate to an intention to  
24 deceive about the content of the image. Would you agree?

25           MR. ARGENTIERI: You may answer that.

1 THE WITNESS: I apologize, and yes, I agree.

2 Q. BY MR. BENJAMIN: So when you were asked to  
3 determine if the scanned copies showed, quote, signs of  
4 manipulation, was it your understanding that you could  
5 consider all evidence relevant to the files'  
6 authenticity?

7 MR. ARGENTIERI: Objection as to form.

8 You may answer, Doctor.

9 THE WITNESS: That was my understanding.

10 Q. BY MR. BENJAMIN: Would that include something  
11 as basic as the file system metadata associated with the  
12 scans?

13 A. Yes.

14 Q. Do you recall reviewing the section of the Stroz  
15 Friedberg report in which they discussed the file system  
16 metadata associated with those two files?

17 A. Yes, but I don't remember the details of it.

18 Q. And it's possible that we can analyze that very  
19 simple metadata and assess whether it's consistent with  
20 those files being authentic or inauthentic; right?

21 MR. ARGENTIERI: Objection.

22 You may answer, Doctor.

23 THE WITNESS: Yeah, image metadata can be  
24 helpful in determining authenticity, absolutely.

25 Q. BY MR. BENJAMIN: I'm just really trying to

1 understand here, Dr. Farid, the scope of your charge,  
2 whether you were restricted to signs of manipulation,  
3 understanding that that's a fairly broad definition, or  
4 whether you were permitted and considered it within your  
5 analysis to consider all electronic evidence pertaining  
6 to the files authenticity.

7 MR. ARGENTIERI: Objection to form.

8 You may answer, Doctor.

9 Q. BY MR. BENJAMIN: So did you -- when you  
10 received the two -- when you received the two scans, did  
11 you analyze the file system metadata?

12 MR. ARGENTIERI: Objection.

13 You may answer.

14 THE WITNESS: I did not. When I received the  
15 images, the first thing I said is these are simply of too  
16 low quality for me to do a sufficient analysis, and I  
17 requested a higher resolution copy, and I did no actual  
18 analysis of the images at all.

19 Q. BY MR. BENJAMIN: And when you -- I'm just  
20 taking you literally at your word. You opened the files,  
21 clicked on them, looked at them, and said, I need higher  
22 resolution copies to do anything else?

23 A. That's correct.

24 Q. Thank you.

25 How much time elapsed from when you received the

1 files from the technician at Syllint, Ms. Koons, and your  
2 communication of that opinion to anyone?

3 A. I don't recall offhand, but I don't imagine it  
4 was more than a few days. I don't know if I looked at  
5 them right when I got them, but it was probably within a  
6 few days I opened them up and realized that it was going  
7 to be very hard to do anything.

8 Q. Did you -- did you discuss with anyone the  
9 possibility that your analysis might result in an expert  
10 report?

11 A. I don't recall. I think it's possible that  
12 Ms. Young asked that if I did do an analysis, whether I  
13 would be able to provide a report. I mean, I'm saying  
14 that mainly because most attorneys ask me that question.  
15 So I think it's possible, but I just don't recall  
16 offhand.

17 Q. You obviously didn't provide a report in this  
18 case.

19 A. Except with the letter Exhibit 52, that's  
20 correct.

21 Q. And when you opened those files and clicked  
22 through them when you initially received them,  
23 approximately how long did you take eyeballing them?

24 A. Let's call it less than half an hour. I'm only  
25 saying that because I just want to be safe, but very

1 little time.

2 Q. That's a generous estimate.

3 A. Yeah, I think that's correct.

4 Q. It could have been a few minutes; is that right?

5 A. Yeah.

6 Q. So the -- so the fourth sentence in Defendants'  
7 Exhibit 52 reads: "The digital copies are, in my  
8 opinion, of too low quality to perform a reliable  
9 forensic examination."

10 Did I read that correctly?

11 A. Yes, you did.

12 Q. And as you previously testified, you arrived at  
13 that opinion within a few days of having received the  
14 files and after having spent no more than 30 minutes  
15 eyeballing them; is that right?

16 A. That's correct.

17 Q. And I just want to be clear about this, when you  
18 received the files, between the time that you received  
19 the files and arrived at that opinion, you opened them up  
20 on your computer, looked at them, and that was it?

21 A. That's correct.

22 Q. Right?

23 A. That's correct.

24 Q. So after taking a quick look at the two files,  
25 you determined that you could not, quote, perform a

1 reliable forensic examination; is that right?

2 A. That's correct.

3 Q. And to be clear, the, quote, examination that  
4 you were asked to perform, as reflected in the third  
5 sentence of your letter, was to determine if the TIFF  
6 files showed signs of manipulation; is that right?

7 A. That's correct.

8 Q. So this letter explains that you could not  
9 perform an examination to determine if the TIFF files  
10 showed signs of manipulation; is that right?

11 A. That's correct. And I'm sorry, just let me just  
12 add one thing just to be clear. As you said, one can  
13 analyze the metadata, which is independent of the  
14 underlying resolution. I was particularly interested in  
15 actually being able to see what the document said in  
16 order to do an examination.

17 I may very well have gotten around to looking at  
18 the metadata afterwards, but it just seemed to me to do a  
19 full examination of a document, you need to at least be  
20 able to read the document. And since I wasn't, it just  
21 feels like, you know, it's not a safe bet.

22 Q. Having reviewed some of your scholarship in  
23 publications, it seems like you and your team have  
24 developed a series of forensic tools to detect  
25 manipulation or tampering of digital images.



1           Is that a fair characterization?

2           A.   We've -- it's mostly fair, yes.  We've also  
3 developed techniques to analyze video, audio, and printed  
4 documents, yes.

5           Q.   It was under-inclusive?

6           A.   Yes.

7           Q.   But yet you have developed several techniques to  
8 detect tampering of digital images?

9           A.   Absolutely.

10          Q.   If I understand the general approach correctly,  
11 those tools are designed to detect disturbances of the  
12 underlying statistical properties that result when  
13 natural or raw images are manipulated; is that right?

14          MR. ARGENTIERI:  Objection.

15          You may answer, Doctor.

16          THE WITNESS:  It's partially right, and I'm  
17 saying partially because you used the word "statistical."  
18 So we do look for statistical disturbances, but we also  
19 look for both physical and geometric disturbances as well  
20 in an image.  I'm just being a little nitpicky on the  
21 language.  Those are technically slightly different  
22 things.

23          Q.   BY MR. BENJAMIN:  By considering those  
24 properties, your analysis is obviously not restricted to  
25 the plain text or appearance of a digital image; right?

1           A. Sorry, I didn't understand the question.

2           Q. You've mentioned a couple times your reaction to  
3 the fact that some of the text in these scans was  
4 difficult to read.

5                       What I'm trying to establish is I think an  
6 undisputed point that your analysis is not limited to  
7 what you can read on a document. You actually focus on  
8 the underlying statistical or mathematical or geometric  
9 properties of that electronic image; is that right?

10           MR. ARGENTIERI: Objection.

11                       You may answer, Doctor. Sorry.

12           THE WITNESS: I think the answer to your  
13 question is "yes." I'm still a little unclear about it.  
14 So let me ask a clarifying question.

15                       So are you asking whether we can perform certain  
16 forensic analysis even when there are things in the image  
17 that are not actually clearly visible?

18           Q. BY MR. BENJAMIN: I'd be interested in knowing  
19 your answer to that question.

20           A. This is great. I get to ask the question and  
21 answer the question. It's a professor's dream.

22           MR. BENJAMIN: That's every lawyer's dream.  
23 Apparently, it's every academic's dream, too.

24           THE WITNESS: Let's face it. It's everybody's  
25 dream.

1 Q. BY MR. BENJAMIN: Go ahead.

2 A. Yes, the answer to the question is "yes," is  
3 that there are things that we can analyze that are simply  
4 not available to the visual system. And that can be  
5 either because the quality of the image is poor, but also  
6 because it sort of falls under the radar screen of what  
7 the visual system is able to see.

8 Q. Obviously you're not offering the opinion that  
9 the TIFF files in fact show signs of manipulation; right?

10 MR. ARGENTIERI: Objection as to form.

11 You may answer, Doctor.

12 THE WITNESS: I have no opinion about those TIFF  
13 files whatsoever except that they're very low resolution.

14 Q. BY MR. BENJAMIN: And you're not offering the  
15 opinion that the resolution of those scans suggest that  
16 they've been manipulated in any way; right?

17 MR. ARGENTIERI: Objection as to form.

18 Doctor, go ahead.

19 THE WITNESS: I am not -- I am not claiming  
20 that, no.

21 Q. BY MR. BENJAMIN: And you're not offering the  
22 opinion that the scans can't be accurately examined;  
23 right?

24 MR. ARGENTIERI: Objection.

25 You may answer, Doctor.

1 THE WITNESS: It depends on what the examination  
2 is. So I think strictly speaking, the answer to your  
3 question is no. I would claim -- sorry, strike that.

4 It depends on what you mean by "examined."

5 Q. BY MR. BENJAMIN: There is some information  
6 about the files that can be accurately determined and  
7 analyzed. Would you agree?

8 MR. ARGENTIERI: Objection.

9 You may answer, Doctor.

10 THE WITNESS: I'll agree with that, yes, there  
11 are some aspects to the image -- to the files that can be  
12 analyzed accurately.

13 MR. BENJAMIN: Just ask the videographer, since  
14 we're not in the same room, approximately how much time  
15 is left on the tape?

16 THE VIDEOGRAPHER: 45 minutes.

17 MR. BENJAMIN: Oh, you guys use longer tapes in  
18 California than we use in New York. Thank you.

19 THE WITNESS: Or we record slower.

20 MR. BENJAMIN: I hope not.

21 Q. BY MR. BENJAMIN: So Dr. Farid, when you suggest  
22 that the scans are, quote, of too low quality for you to  
23 perform the examination that you were asked to do, are  
24 there specific tests that you were unable to conduct  
25 because of that purported quality?

1           A. Yes.

2           Q. And what are those tests?

3           A. I was particularly interested in trying to  
4 determine if the various parts of the document originated  
5 with the same underlying device or printer in this case.  
6 And that -- mainly that's one of our most powerful  
7 forensic tools for determining if the -- if the text  
8 document is a composite of multiple splicing, copying and  
9 splicing.

10                       So that was the first analysis that I wanted to  
11 perform. There may have been subsequent analysis. This  
12 thing is typically you work in stages. But there was  
13 really nothing else that I could do at that point, given  
14 the resolution. So that was the first analysis I wanted  
15 to do and simply was not able to.

16           Q. Were there any other tests that you wanted to  
17 perform that you were unable to?

18           A. There was nothing specific in mind. Usually  
19 what drives a forensic examination is you do -- you  
20 figure out what you want to do first, you take the  
21 results of that, and that drives what you're going to do  
22 next. And so it's hard for me to answer that question  
23 because it would have depended on what the results of the  
24 first analysis would have been.

25                       And with the exception of the metadata, there

1 was essentially -- none of my forensic techniques would  
2 have been applicable in this case to actually analyze the  
3 underlying document.

4 Q. And understanding the objective of that initial  
5 test, which was to determine whether the text originated  
6 from the same device, were there specific tests that you  
7 felt you were unable to perform to conduct the  
8 examination that you had been tasked to perform?

9 A. Yes.

10 Q. And what were those specific tests?

11 A. There's a technique that we developed that  
12 allows us to isolate, for example, all of the letter A's  
13 in a document, or the letter E, or actually any letter,  
14 just a commonly occurring letter, and to do an analysis  
15 of those isolated letters to determine if the -- how do I  
16 describe this? To determine if the slight errors in the  
17 way the letter is printed is consistent throughout the  
18 document.

19 So, for example, if you print a document and  
20 scan it and then put it into a photo editing software and  
21 just zoom in quite a bit, you'll see that the letters  
22 aren't these perfect, clear-cut around like they are on  
23 your screen. There's imperfections. And those  
24 imperfections result from the underlying physical device  
25 of a printer. It's the way that the laser printer or the

1 ink jet operates. They create imperfections.

2 And those imperfections turn out to be fairly  
3 distinct to different printers. So an HP printer will  
4 introduce different imperfections than, for example, an  
5 Epson printer. And even the same printer over its  
6 lifetime will produce different imperfections, both in  
7 terms of how the drum starts to degrade, how the toner  
8 level starts to change.

9 And so if a document, for example, two pages was  
10 printed at one instance in time -- sorry, we're getting  
11 some noise again from something.

12 If it was -- if it was printed at one instance  
13 in time, those imperfections should be consistent  
14 throughout the document. And inconsistencies, specific  
15 types of inconsistencies can be used to show that it's  
16 not emerging from a single device.

17 And sorry, that was a long-winded answer to say  
18 that is the analysis I wanted to perform.

19 Q. And that analysis would focus on whether certain  
20 characters appearing in the two scans appear at different  
21 places inconsistently; is that right?

22 MR. ARGENTIERI: Objection.

23 You may answer, Doctor.

24 THE WITNESS: Correct.

25 Q. BY MR. BENJAMIN: Now, before providing the

1 June 28th letter, Defendants' 52, to Mr. Boland, did you  
2 inform plaintiff or any of his attorneys about the  
3 opinion you had reached in this matter?

4 A. I believe that I spoke -- well, sorry, I'm sure  
5 I spoke with Jennifer Young of Milberg. I don't remember  
6 if there was somebody else on the call at that time,  
7 including Mr. Boland, but I did inform at least Jennifer  
8 Young and possibly others.

9 Q. And was that the same conversation in which you  
10 requested higher resolution scans of those two documents?

11 A. Yes.

12 Q. And before being asked to provide the June 28th  
13 letter to Mr. Boland, did you have any subsequent  
14 communications with plaintiff or plaintiff's counsel?

15 A. I believe that Ms. Young of Milberg contacted me  
16 once or twice just saying that they were trying to get  
17 the scans, just to sort of update me, but that there was  
18 no news. I believe that was the only correspondence.

19 Q. So it's your understanding that in a subsequent  
20 communication, plaintiff's counsel updated you that they  
21 were trying to get higher resolution versions of those  
22 scans; is that right?

23 MR. ARGENTIERI: Objection as to form.

24 You may answer, Doctor.

25 THE WITNESS: That's correct.



1 MR. BENJAMIN: Again, Mr. Argentieri, I'd just  
2 ask please if you'd let me finish my question before  
3 stating your objection.

4 MR. ARGENTIERI: I apologize. I have to time  
5 the end of your question. You tend to add something,  
6 say, kind of get the rhythm down a bit.

7 Q. BY MR. BENJAMIN: Dr. Farid, do you understand  
8 why you provided -- what is your understanding of why  
9 Mr. Boland requested this letter?

10 A. I don't know.

11 Q. When did he ask you to provide it?

12 A. Sorry, I'm just going to look through my record  
13 to see if I can give you a precise date. Okay. Okay. I  
14 received an email from Mr. Boland on June 26th requesting  
15 the letter. Sorry, June 26th of 2011.

16 Q. And in any of the conversations that you had  
17 with plaintiff's counsel regarding your opinion, did you  
18 discuss how that opinion would be presented or  
19 characterized?

20 A. No.

21 MR. BENJAMIN: Okay. Dr. Farid, I'd like to  
22 take a short break here.

23 THE WITNESS: Okay.

24 MR. BENJAMIN: Thanks.

25 THE WITNESS: Thank you.

1 THE VIDEOGRAPHER: We're going off the record at  
2 12:36 p.m. This is the end of tape 1.

3 (Recess.)

4 THE VIDEOGRAPHER: We're on the record at  
5 12:57 p.m. This is the beginning of tape 2 in the  
6 deposition of Dr. Hany Farid.

7 MR. SOUTHWELL: Dr. Farid, before we start, this  
8 is Alex Southwell. I just want to put on the record that  
9 I am handing to Mr. Argentieri something that was from a  
10 deposition in this case earlier in the day, which is a CD  
11 of materials provided by John Paul Osborne, who is the --  
12 that scans images of the SLFs and the one-page of notes.

13 MR. ARGENTIERI: Thank you. I acknowledge  
14 receipt of the exhibits.

15 MR. BENJAMIN: Thank you, both.

16 Q. Dr. Farid in order to better understand your  
17 opinion, I'd like to get a better sense of what you have  
18 been able to determine with respect to the two scans you  
19 have received.

20 So you previously testified the two files were  
21 provided in an uncompressed TIFF file format; is that  
22 right?

23 A. That's correct.

24 Q. And in addition, you agree that the resolution  
25 of both files is 200 DPI?

1 MR. ARGENTIERI: Objection as to form.

2 THE WITNESS: I'm sorry, your mic just skipped  
3 out for a second in the question. So can I ask you to  
4 repeat it?

5 Q. BY MR. BENJAMIN: Of course.

6 Do you agree that the resolution of both files  
7 is 200 DPI?

8 A. I don't recall what the resolution was. That  
9 seems high to me. I don't think it's actually that high.

10 Q. And as you previously testified, you examined  
11 the files by opening them, and that's it; right?

12 A. That's correct.

13 Q. So your estimate of the resolution of the files  
14 would be based on that visual inspection; right?

15 A. That's correct.

16 Q. So do you know what the bit depth of the files  
17 is?

18 A. I -- they were either -- I don't remember if  
19 they were color or not. So they're either 8 or 24-bit  
20 depth. They weren't grayscale, for example, 1 bit. So  
21 they had -- they had sort of full range of gray value.  
22 They're either eight, if it's a grayscale image, or 24,  
23 if it's a color. I just don't recall.

24 Q. And do you recall whether both scans have  
25 approximately the same dimensions?

1           A. I think that's correct, yes.

2           Q. That they do have approximately the same  
3 dimensions?

4           A. Yes, yes.

5           Q. So Dr. Farid, let's return to Defendants' 54,  
6 the printouts of the Street Fax contract that we  
7 discussed earlier.

8                   Do you have those handy?

9           A. I do.

10          Q. On the second page of Defendants' 54, do you see  
11 the top -- the two columns of text that span from the top  
12 to the bottom of the page?

13          A. I'm sorry, the -- at the top, the first page  
14 says page 2 of 3. So I just want to be clear which page  
15 we're talking about.

16          Q. Yes. Thank you for the clarification. We're  
17 talking about the piece of paper that says page 3 of 3 on  
18 it.

19          A. (Witness nods head.)

20          Q. The second page of Defendants' 54.

21          A. Got it.

22          Q. Now, on that piece of paper, do you see the two  
23 columns of text that span from the top to the bottom of  
24 the page?

25          A. I do.

1 Q. At the top of the first page of Defendants' 54,  
2 so that's page 2 of 3, the other piece of paper, do you  
3 see the words "general conditions of purchase and Street  
4 Fax"?

5 A. Yes.

6 Q. Now, looking still looking at page 2 of 3,  
7 underneath those words "general conditions of purchase  
8 and Street Fax," do you see what appears to be very faint  
9 text that appears to be text from page 2 that is bleeding  
10 through to page 1?

11 MR. ARGENTIERI: Objection as to form.

12 You may answer, Doctor.

13 THE WITNESS: Yes.

14 Q. BY MR. BENJAMIN: That appears to be text from  
15 page 2 that's bled through to page 1 as page 1 was  
16 scanned; right?

17 MR. ARGENTIERI: Objection as to form.

18 You may answer, Doctor.

19 THE WITNESS: I don't -- so let me, if I can  
20 rephrase the question and then answer it, as I'm prone to  
21 do, it does appear to be text bleeding over. It's not  
22 immediately obvious that it's actually the text from  
23 page 3 of 3. I'm not saying it's not; it's just not  
24 immediately obvious.

25 Q. BY MR. BENJAMIN: Right. It does appear to be

1 some text -- you agree that it appears to be text that's  
2 bled through from a different page to the first page of  
3 the scan; right?

4 MR. ARGENTIERI: Objection.

5 You can answer, Doctor.

6 THE WITNESS: That is what it appears to be.

7 Q. BY MR. BENJAMIN: Let's look back at the second  
8 page, which is labeled page 3 of 3 at the top.

9 A. Yes.

10 Q. Do you see the very faint text in the gutter  
11 between the two columns approximately 1 to 2 inches from  
12 the top of the printed page?

13 A. Yeah. It looks like I see the "E" and the "T"  
14 and maybe part of the "F."

15 Q. When you say the "E" and the "T" and part of the  
16 "F," what are you referring to?

17 A. Pardon me. From the first page, the big bold  
18 letter -- the big typed-faced letter "Street Fax," it  
19 appears to be that part of that is bleeding over into the  
20 middle of the column.

21 Q. It appears that the title "Street Fax" from  
22 page 1 of Defendants' 54 is bleeding through to the  
23 second page of Defendants' 54; is that right?

24 MR. ARGENTIERI: Objection.

25 You may answer that.

1 THE WITNESS: That's correct.

2 Q. BY MR. BENJAMIN: So I'm going to refer to that  
3 text that's bleeding through from the other pages on the  
4 images as ghost text. Does that make -- do you  
5 understand?

6 A. I do.

7 Q. The presence of that ghost text in each page of  
8 the scan suggests that the scans were created when both  
9 pieces of paper were on top of each other; right?

10 MR. ARGENTIERI: Objection.

11 You may answer, Doctor.

12 THE WITNESS: Let me rephrase a little bit.  
13 I'll agree that it is consistent with that, yes.

14 Q. BY MR. BENJAMIN: And my question was whether it  
15 suggests that the two pages were on top of each other  
16 when they were scanned?

17 MR. ARGENTIERI: Objection.

18 You may answer.

19 Q. BY MR. BENJAMIN: Do you agree with that?

20 A. I'm hesitating because it could be argued that  
21 there are several reasons why you could get what you're  
22 calling ghost text, and that is one of the reasons. Is  
23 that the only explanation? No. And so does it suggest  
24 it? I'm not sure. I'm just -- sorry, I'm being a little  
25 finicky with the words. I am just saying it is

1 consistent, but I don't know if it suggests that's what  
2 it is.

3 Q. No, your job is to be finicky with the words.

4 A. Okay.

5 Q. It's your answer. That's fine.

6 A. Okay.

7 Q. But I just want to be clear. You do agree that  
8 it appears that portions of three of the letters in the  
9 title on page 1 appear to have bled through to the second  
10 page of the document in a similar position on each page.

11 Would you agree?

12 MR. ARGENTIERI: Objection.

13 You may answer.

14 THE WITNESS: I agree.

15 Q. BY MR. BENJAMIN: Now, you said earlier that  
16 your analysis in this case basically consisted of a few  
17 minutes of visual observation, but I'm going to ask you a  
18 couple of questions about some other forms of  
19 examination.

20 So I know that you didn't perform a histogram  
21 equalization, but are you familiar with the concept?

22 A. Sure.

23 Q. So what's a histogram equalization?

24 A. So let's -- well, yeah, so let me describe it by  
25 just giving a little background. Let's just define what



1 we mean by "histogram."

2 So the -- a digital image is made up of a bunch  
3 of pixels, P-I-X-E-L. Those pixels in an eight-bit image  
4 have a value between zero and 255. Zero is black, 255 is  
5 white, 128 is mid-level gray.

6 Okay? So every pixel with the building block of  
7 the image has some value. So if I asked you to create a  
8 histogram of an image, what you will tell me are how many  
9 pixels have a value of zero, how many pixels will have a  
10 value of one, up to 255. Okay?

11 You could do the same thing with a color image,  
12 but let's just keep it simple. Let's say it's a  
13 grayscale image, one channel. Okay?

14 So now I have a histogram, which is a  
15 distribution of the pixel values from black, zero, to  
16 white, 255. Now, typically what those histograms look  
17 like is that there will be a few things that are black, a  
18 few things that are white, but the majority of the sort  
19 of energy, if you will, in the histogram is somewhere in  
20 the middle, like a bell curve. That's typically what  
21 things look like. It can -- it can vary.

22 So what histogram equalization is, it says take  
23 the image and modify each pixel value so that when you  
24 compute a histogram, it's completely flat or almost flat.  
25 That is, that the number of black pixels is exactly or

1 very similar to the number of gray and white pixels.

2 Okay?

3 So that's -- and there's a sort of standard  
4 mathematical way that you do that which probably is not  
5 very interesting right now.

6 Now, why do you do a histogram equalization?  
7 You do it typically as a form of contrast enhancement.  
8 It's a way of -- so when I say that there's not a lot of  
9 values that are black and white, it means that those  
10 values tend to be sort of underrepresented and are hard  
11 to see. When you do histogram equalization, it sort of  
12 increases the contrast.

13 You can achieve the same basic effect using  
14 other manipulations that are sort of similar in nature.  
15 But what histogram equalization does is it levels the  
16 histogram, and then it creates a contrast-enhanced  
17 version of the image.

18 Is that clear?

19 Q. Yes. It's a method of global contrast  
20 adjustment; is that right?

21 A. It can be applied both locally or globally.  
22 Depends on how you do it. You can select a part of the  
23 image and only histogram equalize that part. So you can  
24 define the histogram on either the entire image or just a  
25 part of the image.

1 Q. It's a method of contrast adjustment; is that  
2 right?

3 A. Correct.

4 Q. And contrast adjustment can be performed on  
5 grayscale images as well as color images; right?

6 A. Yeah. There's a few extra details in color  
7 images that you have to worry about how you handle the  
8 color channels separately, but yes, you can do them in  
9 either color or grayscale.

10 Q. Is it possible to perform a histogram  
11 equalization on the two files that you received?

12 A. Yes.

13 Q. Is it possible that that method of contrast  
14 adjustment could reveal the surface and texture of the  
15 scanned paper?

16 A. Can I ask you to define what you mean by the  
17 surface texture and -- I forgot what the second word was.

18 Q. Sure. I believe you previously testified that  
19 the two scans you received are digital scans of two  
20 pieces of paper; is that right?

21 A. Correct.

22 Q. And those pieces of paper were three-dimensional  
23 objects when they were scanned; is that right?

24 A. Well, it depends if you're a mathematician or a  
25 physicist, the answer to that question. So if you're a

1 mathematician --

2 Q. You can answer as you.

3 A. The answer from a mathematical point of view is  
4 that there are two-dimensional. The answer from a  
5 physicist's point of view is that they're  
6 three-dimensional. And the distinction I'm -- so there  
7 are clearly at least two dimensions. Let's agree on  
8 that, this part, the height and the width.

9 The question is, is the text -- the height of  
10 the text rising to a third dimension in and of itself.  
11 And that depends on, again, sort of the precision in  
12 which you're -- God, this is such an annoying answer.

13 Did you get that on the record?

14 Q. Dr. Farid's own opinion in a deposition is  
15 annoying.

16 A. It would not be the first time. Sorry, I'm  
17 finicky about the definition of dimensions because I'm a  
18 mathematician.

19 So, I mean, so let's agree that the cup is  
20 three-dimensional. The paper is two-dimensional. There  
21 is a third dimension, which is the lifting of the text.  
22 And the only reason this is relevant is that I think that  
23 may be what you're getting at is the sort of the bumps  
24 and the grooves on the surface of the paper.

25 Q. Well, paper has a thickness as well; right?

1           A. It absolutely has a thickness, but when you scan  
2 it, you are -- sorry, let me ask the question. So when  
3 you say the third dimension, are you talking about the  
4 thickness of the paper?

5           Q. I am.

6           A. Then I will agree it's three-dimensional.

7           Q. Thank you.

8           A. God, that was a long way to get there, wasn't  
9 it?

10          Q. Better that we understand each other.

11                 So I think the question was, is it possible that  
12 histogram equalization could clarify the surface and  
13 texture of the physical paper that was scanned?

14          A. I swear to you I'm not trying to be difficult.  
15 So tell me what you mean by the surface and the texture,  
16 please.

17          Q. Sure. So paper can be -- a piece of paper can  
18 be smooth or it can be wrinkled; right?

19          A. Yes.

20          Q. So when I say the texture of the paper, if a  
21 piece of paper is wrinkled, that's what I think of as the  
22 texture.

23          A. Okay.

24          Q. So let's just be more specific. So can a  
25 histogram equalization reveal wrinkling in the physical

1 piece of paper that was scanned to create an image?

2 A. Yes, it is possible that it could do that.

3 Q. Now, generally speaking, is it possible to test  
4 the effects of copying and pasting new text into digital  
5 images?

6 A. What do you mean by "new text"? Do you mean  
7 text from a different document?

8 Q. I think we discussed earlier the fact that your  
9 analysis considers whether new text, text that did not  
10 originate with the image, has been sliced or subsequently  
11 added to a digital image.

12 So when I say "new text," I'm referring to text  
13 that does not originate with the image. Is it possible,  
14 generally speaking, to test the effects of splicing new  
15 text into a digital image?

16 A. Under certain circumstances, yes.

17 Q. What are the circumstances under which that  
18 would be possible?

19 A. It depends on -- okay, so when you splice two  
20 images together or two documents together, there are  
21 several different types of traces that you could  
22 potentially leave behind. Okay? So one of them is at  
23 the border of the splice; the other is, as we talked  
24 about earlier, the actual text was printed on a different  
25 device, it leaves some artifacts behind.

1           So the answer to the question -- so those are  
2 two very different types of perturbations in the image  
3 that you could look for, and whether you're able to find  
4 them or not, again depends on the resolution and the  
5 quality and the compression.

6           So if they were saved as JPEG versus TIFF. So  
7 there's a number of things that sort of depend on what  
8 specific forensic analysis you can apply.

9           Q. Is it possible -- you mentioned two effects that  
10 splicing new text into a digital image might have. Is it  
11 possible that a third effect would be perturbations in  
12 the surface texture of the paper that we just discussed?

13          A. It depends. So if I'm understanding your  
14 question, I think what you're asking is could you use the  
15 fact that the surface texture is different in one part of  
16 the document -- sorry.

17          Can you use the fact that the surface texture is  
18 different on one part of the document from another as  
19 evidence of splicing. Is that the question?

20          Q. It's another way of asking the question. Yeah,  
21 from the same, from the same point, you've testified that  
22 it's possible to test the effects of splicing new text  
23 into a digital image; right? So I'm asking you if one of  
24 the effects of splicing new text into a digital image  
25 could be inconsistencies in the surface texture of the

1 paper that's revealed in the scan.

2 A. Right. So here's why I'm hedging the answer.  
3 So let me just describe my concern with saying "yes" to  
4 that.

5 There are a number of things that can create  
6 differences across a document. Right? So, for example,  
7 a document can be darker on one side and lighter on the  
8 other. That can be because of the way the scanner works.  
9 That can be because there are toner imperfections in the  
10 printer, or it can be because the image was manipulated.

11 So there are perfectly valid explanations for  
12 differences across a document that have nothing to do  
13 with manipulation. And so one simply has to be careful  
14 when you do find a difference that you can pinpoint it to  
15 a manipulation and not to some other underlying physical  
16 effect.

17 So, for example, when I say that the  
18 imperfections in the letter "A" vary across a document,  
19 as far as we know, there is no explanation for how that  
20 can happen other than a manipulation.

21 Q. I'm going to ask a more specific question  
22 because I think we might be talking slightly past each  
23 other in terms of the type of testing that I'm asking you  
24 about.

25 A. Okay. I apologize.



1 Q. No, no, that's okay. The Street Fax contract,  
2 Defendants' 54, do you have it in front of you?

3 A. Yes.

4 Q. Okay. So this is a digital image that we could  
5 manipulate using Photoshop; right, you could open this on  
6 Photoshop and test the effects of splicing new text into  
7 it; right?

8 A. Correct.

9 Q. Now, let's say that you replaced the word  
10 "Street Fax" in a digital image that you were testing  
11 with the word "elephant." Is it possible that replacing  
12 the word "Street Fax" with the word "elephant" would have  
13 effects that you could observe on the surface texture of  
14 the image?

15 A. The answer to that -- I do think I understand  
16 your question. The answer to the question is "yes," that  
17 you can detect it, differences, but there's another step  
18 which you are wanting to take, which is can you  
19 conclusively then say that the only way that could have  
20 happened is the result of digital splicing? That's a  
21 different question; right?

22 So I'll answer the first question that you can  
23 detect under certain circumstances that --  
24 inconsistencies in the underlying texture.

25 Q. So I just want to be clear. I know that the

1 amount of information that you have about the underlying  
2 documents in the case is limited, and I just want you to  
3 understand I'm not asking these questions with -- from  
4 the perspective of someone who's arguing that this  
5 document is manipulated or unmanipulated.

6 A. I understand.

7 Q. Let's even forget about this document, frankly.  
8 So we've discussed the fact that you can test the effects  
9 of copying and pasting new text into a digital image;  
10 right?

11 A. (Witness nods head.)

12 Q. There would be effects of that modification;  
13 right?

14 A. Correct.

15 Q. I'm just asking if among those effects, it's  
16 possible -- is it possible that among those effects would  
17 be changes that you would observe in the surface features  
18 of the document?

19 A. Yes. Sorry. That took a long time to get  
20 there, didn't it?

21 Q. However long it takes.

22 And you did not test the effects of splicing new  
23 text into these digital images; is that right?

24 A. I did not.

25 Q. And you didn't check the saturation of the two

1 scans; is that right?

2 A. I did not.

3 Q. And you didn't perform any adjustments to the  
4 contrast or brightness of the two scans; right?

5 A. I may have contrast enhanced it at one point,  
6 but it certainly was not a -- sort of a detailed  
7 analysis.

8 Q. And you didn't find any signatures resulting  
9 from the use of any digital imaging editors; right?

10 A. I did not and I did not look.

11 MR. BENJAMIN: Just one moment.

12 THE WITNESS: Sure.

13 Q. BY MR. BENJAMIN: Dr. Farid, I want to ask you a  
14 few questions about a Federal case in which you were  
15 involved, United States vs. Frabizio in the District of  
16 Massachusetts.

17 Do you recall that case?

18 A. Yeah, I think it was -- what was it, '90 --  
19 let's see, it was about eight years ago, maybe; is that  
20 right? Does that sound about right?

21 Q. I think more or less, yeah.

22 A. 2004 or so? Yeah.

23 Q. Yeah. The Frabizio case was criminal  
24 prosecution for illegal possession of child pornography;  
25 right?

1           A. I think that's right, yes.

2           Q. Initially the Government identified you as a  
3 possible trial witness; is that right?

4           A. That's correct.

5           Q. And your testimony was to concern the issue of  
6 whether images were real or computer generated; is that  
7 right?

8           A. That's correct.

9           Q. Ultimately the Government decided not to offer  
10 you as a trial witness; right?

11          A. That's correct.

12          Q. Instead, the Government sought to introduce the  
13 testimony of a man named Thomas Musheno, an FBI examiner  
14 of photographic evidence; is that right?

15          A. I honestly don't know what happened after I  
16 stopped working on the case. So I'm not sure.

17               MR. BENJAMIN: Fair enough. I'd ask the court  
18 reporter to mark a Memorandum and Order as Defendants'  
19 Exhibit 58, a copy of which is being handed to  
20 Mr. Argentieri.

21               (Exhibit 58, United States of America v Rudy  
22 Frabizio, 8/11/06, marked for identification.)

23               THE WITNESS: Did you say 58?

24               MR. BENJAMIN: I did.

25          Q. Dr. Farid, you're being handed a copy of

1 Defendants' 58, the District Court's Memorandum and Order  
2 excluding Mr. Musheno's testimony?

3 A. I'm sorry, did you say excluding?

4 Q. Mr. Musheno's testimony?

5 A. Yes.

6 Q. If you could turn to page 4 of the printout,  
7 using the numbers in the upper right-hand corner.

8 A. Yes.

9 Q. Do you see at the bottom left -- at the bottom  
10 of the left-hand column, where it says footnote 2?

11 A. Yes.

12 Q. Do you see that?

13 A. (Witness nods head.) Yes.

14 Q. In that footnote, the District Court wrote:  
15 "Musheno offers testimony that is the polar opposite of  
16 the type of expert testimony the Government first  
17 proposed. The Government initially offered Professor  
18 Hany Farid, a Dartmouth College professor of computer  
19 science and neuroscience. Professor Farid sought to  
20 distinguish real and computer-generated images through a  
21 computer rather than using a visual inspection."

22 Did I read that correctly?

23 A. Yes.

24 Q. And is the trial court's description of the  
25 difference between your approach and Mr. Mucheno's

1 approach accurate, so far as you know?

2 A. No, it is not accurate. But with a footnote,  
3 first of all, I don't know what Musheno testified as to  
4 so I can't state what the difference between what he  
5 testified and what I did.

6 What is inaccurate here is that we -- it is  
7 accurate to say that we had developed software to  
8 distinguish real from computer generated. It is  
9 inaccurate to say that that was the only way in which we  
10 rely on distinguishing computer generated from real.

11 We absolutely use visual inspection with an  
12 understanding of what the current limits of computer  
13 graphics technology are in order to assess realism.

14 So those -- the software and the visual  
15 inspection absolutely come in pairs. And in fact, we've  
16 written a number of papers on both the human performance  
17 of distinguishing as well as the computer performance.

18 So it's what they wrote about what I did is  
19 accurate but incomplete, and I don't -- I don't know what  
20 Musheno testified to so I can't state about the  
21 differences.

22 Q. Okay. So the record is clear, I think that  
23 Defendants' 57 is a motion.

24 A. 58?

25 Q. I'm sorry, Defendants' 58, yes, is a motion

1 granting the defense -- it's an order granting the  
2 defense motion to exclude Mr. Musheno's testimony. So  
3 Mr. Musheno didn't actually end up giving testimony in  
4 that case. I think the District Court's footnote  
5 describes differences in approach rather than testimony.

6 Does that make sense?

7 A. Sure.

8 Q. Now, when the U.S. Attorney's Office decided not  
9 to have you testify at trial, they didn't renounce your  
10 approach; right?

11 A. Not to my knowledge, no.

12 Q. And they didn't indicate in any way that your  
13 methodology was unreliable; right?

14 A. So, sorry, I'm trying to think of how to answer  
15 the question. I don't know what they said -- are you  
16 saying -- sort of publicly or to the Court or to me or,  
17 I'm not sure what specifically --

18 Q. Let me ask -- let me ask a clearer question.

19 A. Yeah.

20 Q. When the Government decided not to have you  
21 testify at trial, did they reject you as discredited?

22 A. No.

23 Q. Is it your understanding that they made a  
24 tactical decision and took a different approach to  
25 proving that the images were of real children?

1           A. That was my understanding. So, look, this is  
2 eight years ago so it's a pretty fuzzy remembering, but  
3 my understanding was that we were trying to introduce at  
4 the time a very new technology, and the thinking was that  
5 it was more complicated than was going to be -- than  
6 effective, and that there was simply a better way of  
7 dealing with the prosecution of this particular case.

8           Q. It was a tactical decision based on the limits  
9 of the technology?

10          A. That was my understanding, yes.

11          Q. It would not be accurate to say that the  
12 Government rejected you as discredited; right?

13          A. It would not. I've testified in a number of  
14 State and Federal cases since that time and have been  
15 qualified as an expert in Federal and State courts.

16          Q. One of those cases was a criminal prosecution in  
17 Ohio called State vs. Harrison.

18                 Do you recall that case?

19          A. Sorry, I'm getting some noise again from the  
20 papers, and I'm having trouble hearing you. Sorry, can  
21 you -- we can't hear you.

22          Q. One of those cases -- one of those cases was  
23 called State vs. Harrison. It was a criminal prosecution  
24 in Ohio.

25                 Do you recall that case?



1           A. I believe so. I did a couple of cases in Ohio.  
2 Was this the police chief?

3           Q. Yeah, I think you wrote about this case in a  
4 couple of different -- a couple of different news  
5 articles, the town in Ohio where the police chief was  
6 running a video recorder.

7           Do you recall that case?

8           A. I think I remember the case, yes.

9           Q. Now, and the defendant in Harrison was convicted  
10 at trial; right?

11          A. I believe so, yes.

12          Q. In fact, you testified at trial as an expert  
13 witness for the Government; right?

14          A. Correct.

15          Q. Do you recall whether that conviction was  
16 appealed?

17          A. I don't have any knowledge about that.

18                 MR. BENJAMIN: Can I ask the court reporter to  
19 mark this Decision of the Court of Appeals in Ohio as  
20 Defendants' 59, a copy of which is being handed to  
21 Mr. Argentieri.

22                         (Exhibit 59, State of Ohio v David L. Harrison,  
23 12/28/07, marked for identification.)

24          Q. BY MR. BENJAMIN: So Dr. Farid, you've been  
25 handed a copy of Defendants' 59, the intermediate

1     appellate court's decision affirming Mr. Harrison's  
2     conviction?

3             A.    Yes.

4             Q.    And on the first page of Defendants' 59,  
5     Mr. Boland is listed as appellate counsel for the  
6     defendant; right?

7             A.    Yes.

8             Q.    So there appears to have been an appeal of  
9     Mr. Harrison's trial conviction; right?

10            A.    Yes, I'll take your word for it since I don't  
11     know what -- I have a hard time reading these documents,  
12     to be honest with you.

13            MR. BENJAMIN:   Understood.

14            I'd ask the court reporter to mark as  
15     Defendants' Exhibit 60 a brief that was filed in that  
16     case, a copy of which is also being handed to  
17     Mr. Argentieri.

18            (Exhibit 60, State of Ohio v. David L. Harrison,  
19     merit brief of Appellant David L. Harrison,  
20     marked for identification.)

21            Q.    BY MR. BENJAMIN:   Dr. Farid, have you been  
22     handed that document, Defendants' Exhibit 60?

23            A.    I have.

24            Q.    So Dr. Farid, Defendants' Exhibit 60 is the  
25     appellate brief that Mr. Boland filed with the Supreme

1 Court of Ohio after the intermediate Appellate Court in  
2 Ohio affirmed Mr. Harrison's conviction.

3 A. Okay.

4 Q. Do you see where it says the Supreme Court of  
5 Ohio at the top of the page?

6 A. I do.

7 Q. That's the highest State Court in Ohio.

8 Please turn to page 8. You'll see the numbers  
9 at the bottom of Defendants' Exhibit 60.

10 A. Yes.

11 Q. And do you see the proposition of law 5V at the  
12 top concerns the purportedly ineffective assistance of  
13 counsel that Mr. Harrison received at trial?

14 A. Yes.

15 Q. Please turn to page 9 of Defendants' 60, the  
16 brief that Mr. Boland filed with the Supreme Court of  
17 Ohio in Harrison.

18 A. Yes.

19 Q. Subsection A reads: "Failure to seek Farid's  
20 exclusion or challenge his unscientific methodology."  
21 Right?

22 A. Yes.

23 Q. If you could read aloud for the record the first  
24 sentence of that subsection, please.

25 A. Sure.

1           "Effective counsel in child pornography cases  
2 knows that the State's digital imaging expert in the  
3 trial of this matter, Hany Farid, has been exposed as a  
4 fraud in prior cases."

5           Q. The final sentence of that paragraph reads:  
6 "The Government expert whom replaced the defunct  
7 Government expert Farid in a notable Federal case  
8 conceded that Farid's visual examination methodology is  
9 unreliable."

10           Did I read that correctly?

11           A. Yes, you did.

12           Q. And that sentence is followed with a citation to  
13 United States vs. Frabizio, 2006 WESTLAW 2385236, August  
14 11, 2006, District of Massachusetts. Is that right?

15           A. That's correct.

16           Q. Dr. Farid, I ask you to return to Defendants'  
17 Exhibit 58, the District Court's Memorandum and Order in  
18 Frabizio, please.

19           A. Yes.

20           Q. The date of that Memorandum and Order is  
21 August 11, 2006; right?

22           A. Yes.

23           Q. So it would appear that the citation to Frabizio  
24 in Mr. Boland's Harrison brief, Defendants' Exhibit 60,  
25 refers to this same Memorandum and Order; right?

1           A. I don't know how you guys do citations in the  
2 legal world, but it certainly seems that way.

3           Q. The two dates are the same; right?

4           A. Yes.

5           Q. And I'll represent to you on the record that  
6 they're the same decisions.

7           A. I'll take your word for it.

8           Q. Thank you. Now, in his Harrison brief,  
9 Defendants' Exhibit 60, Mr. Boland proceeds to discuss  
10 your role in the Frabizio case. In the second full  
11 paragraph on page 9 of Defendants' 60, Mr. Boland writes:  
12 "The Frabizio court characterized Farid's approach and  
13 that of other Government experts as 'eyeballing the  
14 evidence,' a technique that has never been tested. It's  
15 error rate is unknown and therefore does not support a  
16 finding of reliability. His technique is not generally  
17 accepted."

18                   Do you see that?

19           A. I do.

20           Q. Now, as we previously discussed, the Government  
21 decided to replace you as an expert witness with  
22 Mr. Musheno; right?

23           A. Correct.

24           Q. And Mr. Musheno's approach to image  
25 authentication was different from yours; right?

1           A. I honestly don't know what his approach was. So  
2 it's hard for me to actually say. I believe that to be  
3 the case, but I don't know for sure.

4           Q. Okay. In Defendants' Exhibit 58, the District  
5 Court's order in Frabizio, Judge Gertner characterized  
6 Mr. Musheno's approach as, quote, the polar opposite of  
7 the type of expert testimony that you offered; right?

8           A. Yes.

9           Q. If you could just read the first page. So the  
10 first page of the opinion, page 4 of the printout, and  
11 then let me know when you're done.

12          A. I'm sorry --

13          Q. I'm now on Defendants' Exhibit 58.

14          A. Oh, 58. Page 4?

15          Q. Right underneath Memorandum in Order Re: Motion  
16 to Exclude Expert Testimony.

17          A. Yes.

18          Q. Right through the bottom of the page. And just  
19 let me know when you're finished.

20          A. Both columns?

21          Q. Yep.

22          A. Yes. I'm done. Thank you.

23          Q. So it appears that the District Court's  
24 Memorandum in Order on this defense motion to exclude  
25 expert testimony concerned Mr. Musheno's expert

1 testimony, not yours; right?

2 A. That's correct.

3 Q. So this is very important. So let's deal with  
4 it step-by-step.

5 In his Harrison brief, Defendants' Exhibit 60,  
6 Mr. Boland wrote: "The Frabizio court characterized  
7 Farid's approach and that of other Government experts as  
8 eyeballing the evidence."

9 Right?

10 A. Correct.

11 Q. I'm sorry for all the page shuffling here, but  
12 let's turn to page 9 using the numbers at the top of that  
13 Frabizio order.

14 A. I'm sorry, can you give me the exhibit number?

15 Q. 58.

16 A. Yes. Yes, I'm there.

17 Q. Do you see the paragraph in the right-hand  
18 column near the bottom of the page right before  
19 Section A?

20 A. "Even if the Government"?

21 Q. Yes.

22 A. Yes.

23 Q. You anticipated my next question. Would you  
24 mind reading it aloud for the record.

25 A. Sure. "Even if the Government established that

1 the images here were not wholly virtual, Musheno's  
2 methodology does not meet the Daubert standard. His  
3 technology amounts to little more than eyeballing the  
4 evidence and recording his conclusions on a checklist.  
5 Indeed, the Daubert discussion below underscores the  
6 limitation of Musheno's" -- then there's an asterisk --  
7 "approach, especially with respect to sophisticated  
8 downloaded computer graphics."

9 Q. So when the District Court in Frabizio talked  
10 about, quote, "eyeballing the evidence," it was referring  
11 to Mr. Musheno; right?

12 A. Yes.

13 Q. Again, Mr. Musheno's methodology was  
14 characterized by the District Court in that same opinion  
15 as the polar opposite of yours; right?

16 A. Correct.

17 Q. And yet in his Harrison brief, Mr. Boland said  
18 that the Frabizio court characterized your approach as  
19 eyeballing the evidence; right?

20 A. Correct.

21 Q. And that is inaccurate; right?

22 A. That is inaccurate, yes.

23 Q. Next in his Harrison brief, Mr. Boland wrote:  
24 "The Frabizio court characterized Farid's approach and  
25 that of other Government experts as, quote, 'a technique



1 that has never been tested. It's error rate is unknown  
2 and therefore does not support a finding of reliability."

3 Right?

4 A. Yes.

5 Q. Now, let's turn to page 16 at the top of  
6 Defendants; 58, the District Court's Memorandum in Order  
7 in Frabizio?

8 A. Yes.

9 Q. Do you see the sentence in the left-hand column  
10 right before footnote 30?

11 A. Yes.

12 Q. Please read that sentence aloud for the record.

13 A. "Because Musheno's technique has never been  
14 tested, its error rate is unknown and therefore does not  
15 support a finding of reliability."

16 Q. So when the District Court in Frabizio talked  
17 about a technique that had, quote, never been tested and  
18 whose unknown error rate did not, quote, support a  
19 finding of reliability, it was referring to -- explicitly  
20 referring to Mr. Musheno's methodology and not yours;  
21 right?

22 A. That's correct.

23 Q. And yet in his Harrison brief, Mr. Boland said  
24 that the Court characterized your approach that way;  
25 right?

1 A. That's correct.

2 Q. And again, that's a complete falsehood; right?

3 A. Yes.

4 Q. Finally in his Harrison brief, Mr. Boland wrote  
5 that the Frabizio court characterized your approach and  
6 that of other Government experts as, quote, a technique  
7 that is not generally accepted.

8 Right?

9 A. Yes.

10 Q. Let's turn to page 18 of Defendants' Exhibit 58,  
11 the District Court's Memorandum in Order of Frabizio.

12 A. I'm sorry, what page was it?

13 Q. 18 at the top.

14 A. Yes.

15 Q. Do you see the two sentences in the left-hand  
16 column, right before footnote 36?

17 A. Yes.

18 Q. Starting with the word "it"?

19 A. Yes. Should I read it into the record?

20 Q. Will you please read -- please.

21 A. Sorry. "It is clear, then, that Musheno's  
22 technique cannot claim a history of general acceptance.  
23 Rather this technique is apparently the product of a  
24 group of FBI employees who endorse one another's work."

25 Q. So when the District Court in Frabizio talked

1 about a technique that was not generally accepted, it was  
2 referring again to Mr. Musheno's methodology, not yours;  
3 right?

4 A. Yes.

5 Q. Let's return one final time, I promise, to  
6 page 9 of Mr. Boland's Harrison brief, Defendants'  
7 Exhibit 60?

8 A. Yes.

9 Q. Mr. Boland wrote: "His technique is not  
10 generally accepted." Right?

11 A. Sorry. Yes.

12 Q. Again, Mr. Boland wrote: "His technique is not  
13 generally accepted." Right?

14 A. Yes.

15 Q. And that is, again, another complete falsehood;  
16 right?

17 A. Yes.

18 Q. So Dr. Farid, your scholarship has been  
19 characterized as restoring trust in photojournalism, and  
20 in an interview you stressed the importance of  
21 journalistic ethics and a zero tolerance policy for  
22 photographic fakes. Your work frequently discusses the  
23 integrity of images and the trust we have in them.

24 Would you agree your work has a strong ethical  
25 dimension?

1           A. Yes, I would.

2           Q. What's your reaction to Mr. Boland's  
3 characterization in his Harrison brief of your role in  
4 the Frabizio case?

5           MR. ARGENTIERI: I have to put an objection on  
6 the record.

7           Go ahead, Doctor.

8           THE WITNESS: Sorry. I was just waiting for the  
9 objection.

10           What's my reaction? Is the question what's my  
11 reaction?

12           Q. BY MR. BENJAMIN: Yes.

13           A. I think it's inaccurate.

14           Q. Thank you. That's your only reaction to being  
15 called a fraud?

16           MR. ARGENTIERI: I object. Doctor, you don't  
17 have to answer that. You're being coached right now.

18           THE WITNESS: Look --

19           MR. BENJAMIN: Dr. Farid, I'm sorry, just for  
20 the sake of the record, Mr. Argentieri --

21           MR. ARGENTIERI: What's for the record? Go  
22 ahead.

23           MR. BENJAMIN: My question isn't trying to coach  
24 the witness. My question --

25           MR. ARGENTIERI: Oh, it isn't? Okay.

1 MR. BENJAMIN: My question is to ask the witness  
2 for his reaction to being called a fraud by plaintiff's  
3 counsel, who is offering him as an expert in this case.

4 MR. ARGENTIERI: There weren't even in the same  
5 techniques used in that case and our case. So who's  
6 frauding who?

7 MR. BENJAMIN: Okay.

8 MR. ARGENTIERI: So okay, what?

9 THE WITNESS: Can I answer the question? Okay.  
10 So first of all, I don't take these things  
11 personally. I've been an academic for a long time, and  
12 we're in the business of being criticized. And that is  
13 the nature of science, and I think it's good.

14 You guys are lawyers, and you have a job to do,  
15 and your job is to defend your client. Right? And I  
16 understand that job, and I don't take criticism of my  
17 work and what I do personally.

18 I think it's inaccurate. It's surprisingly  
19 inaccurate, given that the record clearly states what the  
20 technology was and what we were able and not able to do.  
21 So it's surprisingly inaccurate.

22 It's one thing to say I'm not reliable or I'm  
23 not smart or something like that. That's fine. I don't  
24 care. Right? But these are simply factually incorrect  
25 statements.

1           So beyond the fact that they're factually  
2 incorrect, I don't -- I honestly don't have an emotional  
3 response to it. It's not personal. I understand he was  
4 doing his job. It's fine.

5           MR. BENJAMIN: Nothing further at this time.

6           MR. ARGENTIERI: I have to take a short break to  
7 see if they want some questions asked.

8           MR. BENJAMIN: So we'll just go off the record  
9 for a short break.

10          THE WITNESS: Okay.

11          THE VIDEOGRAPHER: Going off the record at  
12 1:46 p.m.

13          (Recess.)

14          THE VIDEOGRAPHER: We're going back on the  
15 record at 1:54 p.m.

16          MR. ARGENTIERI: We have no questions for  
17 Dr. Farid. And thank you, Dr. Farid, for being judicious  
18 in your comments.

19          THE WITNESS: Thank you.

20          MR. BENJAMIN: I'm sure plaintiff's counsel  
21 appreciates your judiciousness. Dr. Farid, we appreciate  
22 your time. And we have nothing further at this time.  
23 Thank you.

24          THE WITNESS: Thank you.

25          THE VIDEOGRAPHER: We're off the record at

1 1:54 p.m., and this concludes today's testimony given by  
2 Dr. Hany Farid. The total number of media used was three  
3 and will be retained by Veritext, LLC.

4 (Time noted: 1:55 p.m.)

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ACKNOWLEDGMENT OF DEPONENT

I, HANY FARID, PH.D., do hereby certify that I have read the foregoing transcript of my testimony, and further certify that it is a true and accurate record of my testimony (with the exception of the corrections listed below):

Page	Line	Correction
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\_\_\_\_\_  
HANY FARID, PH.D.

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

\_\_\_\_\_  
(NOTARY PUBLIC) MY COMMISSION EXPIRES:



1 STATE OF CALIFORNIA ) ss:  
2 COUNTY OF MARIN )

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I, LESLIE ROCKWOOD, CSR NO. 3452, do hereby  
certify:

That the foregoing deposition testimony was  
taken before me at the time and place therein set forth  
and at which time the witness was administered the oath;

That testimony of the witness and all objections  
made by counsel at the time of the examination were  
recorded stenographically by me, and were thereafter  
transcribed under my direction and supervision, and that  
the foregoing pages contain a full, true and accurate  
record of all proceedings and testimony to the best of my  
skill and ability.

I further certify that I am neither counsel for  
any party to said action, nor am I related to any party  
to said action, nor am I in any way interested in the  
outcome thereof.

IN WITNESS WHEREOF, I have subscribed my name  
this 15th day of August, 2012.

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LESLIE ROCKWOOD, RPR, CSR NO. 3462

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