

In The Matter Of:
ARISTA RECORDS, LLC, ET AL v.
LIME WIRE, LLC, ET AL

TRIAL
May 6, 2011

SOUTHERN DISTRICT REPORTERS
500 PEARL STREET
NEW YORK, NY 10007
212 805-0330

Original File 1565ariF.txt

Min-U-Script® with Word Index

This Page Intentionally Left Blank

1556ari1 Page 729

1 UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK
2 -----x

3 ARISTA RECORDS, LLC. et al.,
4 Plaintiffs,
5 v. 06 Civ. 5936 (KMW)
6 LIME WIRE, LLC, et al.,
7 Defendants.
8 -----x

9 May 6, 2011
10 Before: 9:55 a.m.

11 HON. KIMBA M. WOOD,
12 District Judge

13 APPEARANCES

14 MUNGER, TOLLES & OLSON, LLP
Attorneys for Plaintiffs
15 BY: GLENN POMERANTZ
KELLY KLAUS
16 JENNIFER PARISER
BLANCA YOUNG
17 HAILYN CHEN
MELINDA E. LeMOINE

18 WILLKIE, FARR & GALLAGHER, LLP
Attorneys for Defendants
19 BY: JOSEPH T. BAIO
TARIQ MUNDIYA
20 JOHN OLLER
KATHARINE N. MONIN
21 TODD COSENZA
22
23
24
25

1556ari1 Page 731

1 MR. KLAUS: And then I will confer with my colleagues
2 on the former point and we can report back to you, probably
3 Monday.
4 THE COURT: Good. Ideally, if you could put together
5 that list if someone perhaps who isn't here in court could put
6 together that list, show it to defense counsel today, that is,
7 the list of everything today that is what plaintiffs did to try
8 to monitor infringement. I know there was the Nielsen-type
9 survey.
10 MR. KLAUS: There is the NPD study which will be the
11 subject of testimony -- it was the subject of Mr. Bainwol's
12 testimony. It will be the subject of Dr. Waterman's testimony
13 next week. And, just so your Honor knows, anything that we
14 found a record of one of these 412 effective works in the data
15 that Dr. Waterman relied on, the NPD data, we have, in
16 accordance with your Honor's order interpreting Section 412,
17 excluded those from our list and excluded those numbers from
18 Dr. Waterman's total count of the minimum number of
19 infringements that he found.
20 THE COURT: I'm sure if I were to go back and look at
21 what you sent me on this I would understand what you just said.
22 I don't understand it yet. If you could put it all in a letter
23 that you then show defense counsel? This would help me.
24 Let me mention one other point. If counsel, any
25 counsel, can provide me with any more decisions where a Court

1556ari1 Page 730

1 (Trial resumed; jury not present)
2 THE COURT: Good morning, please have a seat. I know
3 it is early but it seems like there is enough counsel here for
4 me to mention this.
5 We don't yet have all the jurors.
6 I have been considering the Section 412 issue and I
7 realized as evidence was coming in yesterday that I don't think
8 I have a full list, that is a factual list, of what plaintiffs
9 did to monitor any infringement by Lime Wire. I'm getting bits
10 and pieces but I would like to have a full list of everything
11 you did and then to have you, I mean plaintiffs, once that list
12 has been put together, I would like to have you show it to
13 defense counsel and then have defense counsel tell me what more
14 plaintiffs could have done.
15 I also don't know, and I apologize, this might be in
16 the record somewhere, but I don't know precisely what
17 defendants purportedly did to mask or avoid revelation of
18 information about infringement. I may not have put this very
19 artfully but I know you have all thought about this and I think
20 you know what I'm talking about.
21 MR. KLAUS: I think we do know what you are talking
22 about, your Honor, and I think that certainly with Professor
23 Horowitz today there are some things that we can do on the
24 latter point about defendants.
25 THE COURT: Okay.

1556ari1 Page 732

1 has shifted the burden to a defendant in the context of Section
2 412, it would be helpful for you to give it to me. I suspect
3 you tried to give me everything. My law clerks have
4 independently searched and have found nothing but I would like
5 to see that.
6 And then, last, I would like to mention that I would
7 like to make the decision on burden shifting as soon as
8 possible so that both sides have a chance to deal with it.
9 Actually, last point. I had had in mind trying to
10 decide it Monday morning, so if I don't get your information
11 until Monday morning that would slow me down a bit.
12 MR. KLAUS: We will speed it up, your Honor.
13 THE COURT: Okay.
14 And then the last point: I recognize what a close
15 question the 412 point is. I understand the reasons behind
16 placing burden on plaintiffs, generally, because what you are
17 getting is statutory damages which is something special in the
18 law and I understand that what we are talking about is
19 plaintiffs not having registered as early as they could have.
20 On the other hand, I don't know how the law will look at a
21 defendant's deliberate attempt to make infringing -- the
22 information about infringement unavailable.
23 Given that it is such a close question, if I decide
24 that the burden should be shifted in this case to defendants, I
25 would like to have the issue -- I don't know a better word

1556ari1 Page 733

1 than -- segregated in some way to save the parties money if, on
2 appeal, the Second Circuit reverses me. It would be useful for
3 the jury to have answered a special interrogatory about the 412
4 music because then if I'm the first, they can just cut out that
5 part of any verdict.
6 I don't know. I haven't had a chance to think through
7 what that would mean in terms of whether the trial should be
8 bifurcated or anything along those lines. I wanted to raise it
9 so that counsel could think about it and give me your thoughts.
10 MR. POMERANTZ: Your Honor, we will do that and will
11 report back either over the weekend or Monday on that
12 particular issue.
13 On a related issue, I think that I discussed with
14 Mr. Baio this morning, I think regardless of which way your
15 Honor rules on the 412 issue that we are discussing now we
16 need, before closing, to come up with a definitive list of the
17 recordings that are at issue.
18 THE COURT: Yes.
19 MR. POMERANTZ: And if we need to segregate them into
20 certain categories, we can do that, too. What I don't think we
21 need to do is to burden the trial and witnesses with going
22 through lists and lists of recordings because I think your
23 Honor's rulings to date, and this one more ruling on 412, I
24 think will allow us to work together to come up with a
25 definitive list of which recordings fit into each category and

1556ari1 Page 734

1 not have to put that record on through witnesses. I think
2 Mr. Baio agrees.
3 MR. BAI0: I think so, your Honor.
4 THE COURT: Okay. Very good. That's a good sign.
5 MR. POMERANTZ: Then one other issue not related to
6 412 while we don't have the jury here.
7 THE COURT: We have them.
8 MR. POMERANTZ: It will take 30 seconds.
9 THE COURT: Can the witness come in?
10 MR. POMERANTZ: We have two witnesses this morning.
11 We will break for lunch. There is an issue regarding the
12 contract of EMI and Apple that has a confidentiality provision
13 in it. I need to talk to Mr. Baio over the break.
14 THE COURT: Okay.
15 MR. POMERANTZ: We will probably resolve it during the
16 lunch break. If not, we will come back and discuss it earlier
17 with your Honor.
18 THE COURT: I'm disappointed that something like that
19 wasn't flagged earlier because it may slow the trial down, but
20 I will ask you to work on it during the break.
21 Let's bring the jury in and deal with other matters at
22 the breaks.
23 With respect to special verdicts, generally, have you
24 given me special interrogatories that you propose to have the
25 jury answer?

1556ari1 Page 735

1 MR. POMERANTZ: Not yet, your Honor.
2 THE COURT: I wonder if you can work on that over the
3 weekend so that you have a joint proposal, if possible. Thank
4 you. Bearing in mind that Courts of Appeal favor them so that
5 they can sever issues.
6 (Continued on next page)
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1556ari1 Page 736

1 (Jury present)
2 THE COURT: Please, have a seat.
3 Good morning, ladies and gentlemen. Thank you very
4 much for being on time today.
5 I remind Professor Horowitz that he is under oath.
6 You may.
7 ELLIS HOROWITZ, resumed.
8 DIRECT EXAMINATION (Continued)
9 BY MR. POMERANTZ:
10 Q. Good morning, Professor Horowitz.
11 A. Good morning.
12 Q. Professor Horowitz, I would like to follow up on a couple
13 of issues that came up yesterday during the testimony, one of
14 which was you recall that when Mr. Baio was examining
15 Mr. Bainwol there was some discussion about the fact that there
16 were still Lime Wire clients in operation today.
17 Do you recall that discussion?
18 A. Yes. I think I do.
19 Q. You understand that Lime Wire is under a Court-ordered
20 injunction not to distribute new versions of a client's
21 software?
22 A. That is my understanding.
23 Q. And when do you understand that Lime Wire stopped
24 distributing new versions of the client?
25 A. I think it was October of 2010.

<p>1556ari1 E. Horowitz - direct Page 737</p> <p>1 Q. Are there Lime Wire clients today that are in operation and 2 that are being used to download copyrighted digital music 3 files? 4 A. Yes. Lime Wire has stopped distributing but there are 5 certainly many people who have older versions of Lime Wire that 6 could not be turned off. And I guess in addition you can get 7 old copies of Lime Wire, there are various sites that offer 8 older versions. So, I'm sure that there are older versions of 9 Lime Wire that are still running. 10 Q. Professor Horowitz, yesterday we looked at a document where 11 Lime Wire had estimated that its unique daily user count was 12 about 4 million users. Do you remember that document? 13 A. I think it said 4 million on a day. 14 Q. And there was also testimony and discussion about 15 Lime Wire's total user base being something on the order of 40 16 million to 50 million users. Do you recall that discussion? 17 A. Yes, I recall it. 18 Q. How is it possible that Lime Wire would have 4 million 19 unique daily users and a user base of 40 million to 50 million 20 user? 21 A. Clearly not all 40 or 50 million users are going to start 22 up the program on the same day searching for content, so 23 perhaps roughly 4 million on a given day were actually 24 searching for content, downloading it, and then they probably 25 stopped the program at that point. So, it makes sense.</p>	<p>1556ari1 E. Horowitz - direct Page 739</p> <p>1 Q. And, Professor Horowitz, when you demonstrated the 2 downloading of the four songs including, for example, Flo 3 Rida -- 4 A. Flo Rida's "Low." 5 Q. When you demonstrated the download and there were downloads 6 from multiple hosts, multiple different users, how did the 7 process of viral distribution play into that process of 8 swarming or downloading from multiple users? 9 A. Well, in terms of swarming, swarming was the idea that the 10 program could simultaneously download portions of the file from 11 many people who had copies. I hope -- you may not remember, 12 but at one point Flo Rida was being downloaded from eight 13 different computers so they would get a piece from here and a 14 piece from here and piece from here and put it all together. 15 Basically it just speeds it up so that the download goes a lot 16 faster. 17 Q. And, one of the things that you said yesterday, Professor 18 Horowitz, was that Lime Wire made copies of files that were 19 downloaded, musical files that were downloaded, immediately 20 available for copying by other users and did it by default. 21 Can you explain what you mean by default? 22 A. Well, when you download the program and go to install it on 23 your machine, I'm sure many of you have probably had the 24 experience, you go through a series of steps where you're 25 setting certain parameters of the program and it is not</p>
<p>1556ari1 E. Horowitz - direct Page 738</p> <p>1 Q. If I could ask Mr. Nickels to please bring up your slides 2 where we left off and if you could advance one more, 3 Mr. Nickels? 4 Professor Horowitz, when we broke yesterday afternoon 5 we were talking about the subject of viral distribution of 6 digital music files through Lime Wire. How did this process of 7 viral distribution affect the way that the Lime Wire system 8 worked? 9 A. Well, clearly if there were many copies of the content out 10 there, which I tried to illustrate here, then any time you did 11 a search you would get lots of results. When I ran the video 12 you noticed how the results filled in very quickly and we got 13 several hundred for each of the four songs that I was searching 14 for. 15 So, clearly, the viral distribution is a critical 16 element to make the program work well. 17 Q. Can you explain how viral distribution makes so many of 18 those search results available? 19 A. Well, clearly people are going -- coming on the network and 20 going off the network dynamically so we don't really have a 21 good understanding of who is actually running the program at 22 any given time, so it is essential that we have many copies 23 distributed around so that when someone does a search they very 24 quickly find the content no matter who is actually running the 25 program.</p>	<p>1556ari1 E. Horowitz - direct Page 740</p> <p>1 uncommon to just accept exactly the way the program initially 2 has the settings and that's what I meant by default. The 3 default for downloaded files was to make them shareable. 4 Q. And in your experience in software design and development, 5 are you familiar with the term called a design choice? 6 A. Sure. 7 Q. And what is a design choice? 8 A. Well, it is not even a technical term, it is a design 9 choice. Some decision was made, and I guess in this case you 10 are talking about the fact that Lime Wire decided that as soon 11 as a file is downloaded it immediately can be uploaded to 12 someone else who might be looking for the content. It was just 13 a way of promoting the viral distribution. 14 Q. Professor Horowitz, yesterday you talked about several 15 features and capabilities related to the user interface of the 16 Lime Wire software that related to your conclusion about the 17 software being optimized for copying digital music files. Were 18 there other features or capabilities of Lime Wire that informed 19 your opinion about Lime Wire being optimized for copying those 20 files? 21 A. There are two that I wanted to point out which I will 22 illustrate here with my next slide. I will blow this up a 23 little bit. 24 Q. What is this that you are showing the jury? 25 A. This particular item is called what's new. Let me see if I</p>

1556ari1 E. Horowitz - direct Page 741

1 can move this arrow here. I'm not having a whole lot of
2 luck -- oh, here we go.
3 You see the word "new" there, so there is a button
4 that one could click and what it did was very interesting, it
5 went out and asked a whole bunch of Lime Wire -- people running
6 Lime Wire what was new. What were they sharing -- what had
7 they just added to their share file. And this is very typical
8 of what came back. It just listed maybe about 20 entries, and
9 I guess the thing to notice is of course it is dominated by MP3
10 files so digital music files, at least in this one case, was
11 the thing that people were adding to share. And so, we have
12 songs by Timbaland starting at the top, and The Fray and
13 Beyoncé and Korn, even the Ramones which I think was an older
14 group, Justin Timberlake, etc. All of the times I have run
15 this query I have gotten similar results. People were
16 basically adding digital music files to the network.
17 Q. You said that there were two features, what was the second
18 feature of it?
19 A. The second feature was a thing called browse host and I'm
20 going to illustrate this -- it is going to take three slides to
21 illustrate it.
22 In my first slide I have done a search for Alicia
23 Keys. I don't know if you can make it out but here, down at
24 the bottom I have actually downloaded one of the Alicia Keys
25 songs. You can see the progress bar over here at a hundred

1556ari1 E. Horowitz - direct Page 742

1 percent. And there is this button right over here, it says
2 "browse host" and this is really just an unusual feature and
3 here is what happens when I click on the button. I get a
4 second search and you can see that here is the second tab of
5 this second search right over there. Let me see if I can blow
6 it up for you, you can see a little better. So, what it did
7 was it selected one of the users who had offered me the Alicia
8 Keys file and it is now showing me everything that that person
9 has to copy. And this person has 3,162 files, at least as I
10 scanned it, they're all digital music files, that I can go and
11 copy. So, it is a way of looking at a user's entire
12 collection, if you will, in one step. And if you like what you
13 see, then you can go to this next screen where you see I have
14 actually highlighted in again one or two clicks, a large number
15 of these files. And when I click on the download button, the
16 program will then go and download all of those files.
17 Q. How does this browse host capability that you have just
18 explained, how does that relate to your conclusion about the
19 Lime Wire software being optimized to copy digital music files,
20 Professor Horowitz?
21 A. Well, I couldn't think of a really good example for why I
22 would want to browse host if I was looking for a document or
23 looking for a program, why else I might want to look at the
24 person's share folder. But, clearly, it is an ideal way for
25 looking at someone's entire music collection and if you like

1556ari1 E. Horowitz - direct Page 743

1 what they've downloaded, you can go ahead and copy the whole
2 set.
3 Q. Professor Horowitz, we have looked at the number of
4 features in the capability in the user interface. Can you
5 please summarize which of the features we have looked at you
6 think shows that a Lime Wire client software was optimized for
7 copying digital music files?
8 A. Okay. So, I guess just by way of review there were the
9 audio searching files where we could type the track name and
10 the artist's name and the genre and search for them. There
11 were the results that came back which we can kind of see on
12 this screen over here --
13 Q. Actually, Professor, if I can actually ask Mr. Nickels to
14 bring up slide no. 8 which was the results page that we looked
15 at yesterday?
16 A. Okay. Well, actually we had a results page before, but
17 anyway, in either case you can see that the program is very
18 nicely organized. My audio search across genres and across
19 artists and across album, and then there was the existence of
20 the MP3 player which was down here on the lower right, and of
21 course the ability to create playlists.
22 So, I guess looking at it from the user interface
23 angle, oh yeah, one more was the bit rate, this bit rate column
24 here which is of course specific to music. There you go, bit
25 rate.

1556ari1 E. Horowitz - direct Page 744

1 So what is it, the audio searching, the audio result
2 field, the MP3 player, the playlist, all of these things
3 basically are saying digital music is the thing that I'm going
4 to download with this program.
5 Q. Did what is new and browse host features also --
6 A. They would also support the idea of downloading digital
7 music.
8 Q. All of these elements of the user interface and the
9 capabilities that you have described, Professor Horowitz, were
10 those all design choices?
11 A. Yes. They were all design choices made by the Lime Wire
12 programmers.
13 Q. And what does the fact that they made those choices, what
14 does that tell you about the goals for the way the system would
15 be used?
16 A. Just that they were expecting that people were going to use
17 the tool for downloading digital music files.
18 Q. If, Mr. Nickels, you could return to slide 16.
19 Professor Horowitz, I would like to turn from the
20 discussion of the user interface to the underlying technology
21 behind the Lime Wire software, I think we described yesterday
22 as the part that the user doesn't see. Can you please tell the
23 jury how it was that the searching and downloading functions
24 that you demonstrated worked, as a technical matter?
25 A. Okay. Well, I guess that will require another slide here.

1556ari1 E. Horowitz - direct Page 745

1 So, I have tried to illustrate it by showing you a
 2 bunch of computers, each with their Lime Wire program members,
 3 that's the Lime Wire logo there. The way the process might
 4 start, and this is somewhat simplified admittedly, but computer
 5 A there in the lower left would start a search for Flo Rida.
 6 Now, you saw me do it so they would enter it into the boxes and
 7 click on the search box. Whoops. I went blank.
 8 And then when I clicked on search computer A here,
 9 Lime Wire would send out a message to its neighbors and say,
 10 hey, you guys got Flo Rida? And those guys would send it out.
 11 Do you guys have Flo Rida? Do you guys have Flo Rida? And it
 12 will eventually make its way to one or more computers like
 13 computer B here and computer B would then respond and say, yes,
 14 I've got it.
 15 So, all of these commands that are going on here are
 16 built into the network, the so-called Gnutella network that
 17 Lime Wire is running on.
 18 Q. You just mentioned the Gnutella network. Can you explain
 19 what the Gnutella network is?
 20 A. The Gnutella network is basically a protocol which is
 21 nothing more than a language that the computers speak. The
 22 language includes things like do you have a file with these
 23 names: Flo Rida? Yes, I do. Can I have a copy? Yes you can.
 24 Here it is. Basically.
 25 Q. And where you left off in the slide was that computer B

1556ari1 E. Horowitz - direct Page 746

1 responded: I have the file. What happens next in the process?
 2 A. Well, of course you will recall that's when the search
 3 results flowed in so it will be more than just one computer, it
 4 would be a lot of them, and then computer A, of course, will
 5 select one, maybe it will select the one at computer B, it will
 6 say: Can you please send me the MP3 file? And computer B will
 7 hopefully respond and deliver the file to computer A.
 8 And so, in a somewhat simplified form that is what is
 9 going on.
 10 Q. Now, you said that this was a smaller or simplified version
 11 of what was happening on the network. How many people, how
 12 many computers are actually sending messages back and forth at
 13 any given time across this network?
 14 A. Well, of course it is dynamic but you will recall we had
 15 700 results just on Flo Rida, so that was 700 computers in that
 16 small space that all had copies of Flo Rida but there were
 17 probably many, many more but the computer -- there is no reason
 18 to return even 700 but there is likely many more copies than
 19 700. It stopped at that point.
 20 Q. How many messages are being passed back and forth among all
 21 of the computers that are on the network at any given time?
 22 A. Well, that was one of the issues, I think, for this
 23 particular network, is with all of these computers sending out
 24 messages obviously not only was computer A looking for Flo Rida
 25 but all these other computers might have well been

1556ari1 E. Horowitz - direct Page 747

1 simultaneously doing search which led to what is called
 2 congestion in the network which I think I have a slide here.
 3 So, it is kind of like traffic congestion in New York
 4 during rush hours. You have lots of cars all trying to go to
 5 various places and so there was definitely a potential
 6 bottleneck here for the Lime Wire or the Gnutella users and
 7 they had to come up with some solutions for reducing the
 8 congestion.
 9 Q. And in your analysis of the matters in this case, Professor
 10 Horowitz, what, if anything, did you find that Lime Wire did to
 11 try to reduce congestion on the network?
 12 A. They came up with several suggested improvements which I
 13 guess I would like to explain to you but briefly, if I may.
 14 Let's see if I can go to one.
 15 So, one of the suggestions that was made by Lime Wire,
 16 and this is a very technical thing, but they suggested that
 17 certain computers should play a special role and these
 18 computers would be called ultrapeers. You can see I have
 19 labeled them A and B. And so, when someone starts their
 20 Lime Wire program they would be attached to the special
 21 computers like peer 1 here attached to ultrapeer A. And so, at
 22 that point peer 1 would send a kind of encoded list to the
 23 ultrapeer of what it is willing to share and when peer 1 then
 24 does a search, that search would be sent to the ultrapeer which
 25 it might send to other ultra peers that it is connected to and

1556ari1 E. Horowitz - direct Page 748

1 it is a way of shielding peers 1 through 6 from having to
 2 process a lot of the traffic.
 3 So, this was a scheme, what is called a two-level
 4 hierarchy for reducing congestion and having the more powerful
 5 computers play the major role of processing the query.
 6 And so, just to carry it out, you see peer 5 is sort
 7 of sharing the file with peer 1 but it was really ultrapeer A
 8 and B that was doing all of the work.
 9 Q. How would a computer on the network be selected to play
 10 this special role of an ultrapeer?
 11 A. There was a set of criteria that it had to satisfy,
 12 generally had to be a more powerful machine and had to be on
 13 the network for a somewhat longer period of time which sort of
 14 guaranteed that if it was on for a long time it would continue
 15 to stay on.
 16 Q. Did the person who was running a computer that was selected
 17 to be an ultrapeer and to play this special role, were they
 18 given notice that their computer was going to become an
 19 ultrapeer on this network?
 20 A. No. They would not have known unless they dug around the
 21 program they could have figured it out but it wasn't -- there
 22 was no message delivered to them that they were going to play
 23 the role.
 24 Q. Now, you said that this was something that Lime Wire had
 25 suggested, this ultrapeer peer hierarchy. How did Lime Wire

1556ari1 E. Horowitz - direct Page 749

1 suggest or propose this process?
2 A. Well, since Gnutella is an open standard --
3 Q. What do you mean by open standard?
4 A. Let me just bring this up here. I don't think I'm working.
5 Phil, can you? Thanks very much.
6 An open standard is generally controlled by a
7 committee of interested people. In this case it was a thing
8 called the Gnutella Developers' Forum. So, it was a group of
9 people who had expressed an interest in the way changes are
10 made -- and this is quite common in the computer field in
11 general -- somebody would make a suggestion, they would write
12 it up and it would be circulated and criticized and critiqued
13 and if it seemed like a good idea, eventually the group would
14 adopt it.
15 And so, here I am showing you the original suggestion
16 for ultrapeers which I guess you see clearly was made by two
17 Lime Wire employees at the time back in December of 2001, and
18 in their abstract I think they make it very clear that their
19 proposal has the effect of making the Gnutella network scale by
20 which they mean more people will be able to use the network and
21 get their results efficiently.
22 So, it was a sufficiently good idea that it did get
23 adopted.
24 MR. KLAUS: Your Honor, I have a binder of exhibits,
25 one of which is Plaintiff's Exhibit 612. Defense counsel has

1556ari1 E. Horowitz - direct Page 750

1 no objection to the exhibits. May I pass them to the members
2 of the jury and to the Court?
3 THE COURT: Yes. Are they designated as a group as
4 Exhibit 612?
5 MR. KLAUS: The documents in the binder are not
6 designated as 612. The document that is currently on the
7 screen is 612. I will go through at the end and move the
8 admission of all the documents that are in the binder.
9 THE COURT: That's fine. So, at this point you would
10 like to have the jury open to 612?
11 MR. KLAUS: 612, yes.
12 THE COURT: Plaintiff's Exhibit 612 is received
13 without objection.
14 (Plaintiff's Exhibit 612 received in evidence)
15 A JUROR: Do we open it?
16 THE COURT: Should they open it now?
17 MR. KLAUS: They can, yes. The members of the jury
18 can open it to Exhibit 612 which is this ultrapeers document
19 that Professor Horowitz just described.
20 And Mr. Nickels, if you could bring up full text of
21 Exhibit 612? And I will ask Mr. Nickels if you can highlight
22 the top part that you have and bring that out. And
23 Mr. Nickels, if you can highlight the last line of the first
24 page and the carryover paragraph on the second page which is
25 what I'm going to be asking Professor Horowitz about?

1556ari1 E. Horowitz - direct Page 751

1 BY MR. KLAUS:
2 Q. Professor Horowitz, this carryover paragraph between the
3 first and second pages of Exhibit 612, Mr. Singla and Mr. Rohrs
4 are saying that they want to mention that the concept of
5 ultrapeers is not new. Was this concept new or novel to the
6 two engineers who proposed it for Gnutella?
7 A. Well, no, of course not. They're very nice, they're citing
8 the fact that the idea had been previously used. Most notably
9 if you look a little farther down they said it has -- also it
10 has been applied to recent peer-to-peer applications using
11 FastTrack, which of course refers to Kazaa which you
12 probably -- you may recall hearing in yesterday's testimony.
13 Q. And can you please just describe what Kazaa is and what the
14 relationship is to FastTrack?
15 A. So, FastTrack is a protocol just the way Gnutella is a
16 protocol and Kazaa is a program for downloading files just the
17 way Lime Wire is and the ultrapeer or the idea was incorporated
18 earlier in the FastTrack protocol and the two authors from
19 Lime Wire are saying they recognize that and they would like to
20 do the same thing for Gnutella.
21 Q. And, are you familiar from your prior work and experience
22 with peer-to-peer systems with Kazaa and the FastTrack network?
23 A. Yes. I have had an opportunity to look at Kazaa and run it
24 and study its source code.
25 Q. And, is it your understanding that Kazaa and the FastTrack

1556ari1 E. Horowitz - direct Page 752

1 network, those were parties to the, what has been referred to
2 here as the Grokster case?
3 A. They were one of the companies sued under Grokster.
4 Q. And, the Kazaa software and the FastTrack network, what
5 were those primarily used for uploading and for downloading and
6 copying?
7 A. Yes, digital music files. I think that was the same. That
8 was found by the Court.
9 Q. Mr. Nickels, if you can take down those two portions and
10 leave the document up? I would like to ask you if you would,
11 if you could, about two thirds of the way or three quarters of
12 the way down the page there is a reference in this document to
13 QRP routing being recommended for several reasons. I would
14 like to ask Mr. Nickels, if he would, to highlight -- not that
15 one, the first line above Mr. Nickels, right there.
16 Mr. Singla and Mr. Rohrs of Lime Wire are saying that
17 they recommend QRP routing for several reasons. Do you see
18 that?
19 A. Yes.
20 Q. What is the reference to QRP routing?
21 A. It stands for query routing protocol.
22 Q. What does that mean? What does that translate to?
23 A. It was the mechanism by which the peer told the ultrapeer
24 what files it had to share.
25 Q. And, did that mechanism involve sending the names of

1556ari1 E. Horowitz - direct Page 753

1 individual files that they had to share?
2 A. No. They had a mechanism where instead of sending a name
3 you sent an encoded number which was designed to represent the
4 name.
5 Q. And did this encoded number, did that have a term in
6 computer software terminology?
7 A. It was called a hash value.
8 Q. And do you see that they say one of the recommended reasons
9 down at the bottom of that list is privacy? They say
10 ultrapeers do not actually know what files are shared by leaf
11 nodes, only those files' hashes.
12 Do you see that?
13 A. Yes.
14 Q. What are they referring to there, Professor Horowitz?
15 A. Well, it is not clear. I am not sure entirely what it is
16 they're referring to. They're simply stating the fact that the
17 ultrapeers don't know what the files are, they don't know the
18 file name, they just know the numeric value.
19 Q. So does that mean, for example, if someone had these, the
20 song by the title of "Low" by the artist Flo Rida, that the
21 ultrapeer that was getting that information wouldn't have the
22 name of the artist or the name of the song on its files?
23 A. That's correct. It would not.
24 Q. I think you mentioned that -- you can take that down,
25 Mr. Nickels, and return to where you were in the slide

1556ari1 E. Horowitz - direct Page 754

1 presentation.
2 I think you mentioned, Professor Horowitz, that this
3 proposal for ultrapeers was presented at something called the
4 Gnutella Developers' Forum?
5 A. Yes.
6 Q. What was the Gnutella Developers' Forum?
7 A. It was a group of people who subscribed basically to a
8 mailing list and participated in an ongoing discussion how to
9 improve and enhance the protocol.
10 Q. And was this protocol or this improvement for ultrapeers,
11 and peers, this two-level hierarchy, was that implemented in
12 the Gnutella protocol?
13 A. Yes, it was. There was a new version release and it was
14 adopted.
15 Q. And, did Lime Wire's client software start using the ultra
16 peer-to-peer hierarchy?
17 A. Yes, it did.
18 Q. Were there other client applications that were distributed
19 for use using the Gnutella protocol besides Lime Wire?
20 A. Every client program that used Gnutella would have profited
21 from this improvement.
22 Q. And, in what way would Lime Wire profit from the fact that
23 an improvement to the Gnutella protocol was being used by the
24 client software made by its competitors?
25 A. Well, you know, since Lime Wire was the dominant program on

1556ari1 E. Horowitz - direct Page 755

1 Gnutella, something on the order of 80 to 85 percent of the
2 programs running on Gnutella were Lime Wire programs, therefore
3 any general speed-up would necessarily help Lime Wire the most.
4 Q. Were there any other similar technological improvements
5 that you saw that Lime Wire had proposed to the Gnutella
6 protocol that had the effect of speeding up searches and
7 processing of the results?
8 A. Sure. There was one more which I would like to mention.
9 Maybe Phil, do you want to move it to the next one and
10 one more? Thank you.
11 Q. For the members of the jury, the document that Professor
12 Horowitz has brought up on the screen is Plaintiff's Exhibit
13 7301 which is in the binder.
14 What is this document that you are showing now?
15 A. Okay, it is called the dynamic query protocol. I see these
16 protocols are flying around. The message about what it does is
17 very clear. If we take a look just at the underlying section
18 here, which I will sort of point to and let me just sort of
19 read it off, this is what they're trying to achieve.
20 The author, who by the way is Adam Fisk, a Lime Wire
21 employee as you see down here, the author is saying the
22 traditional Gnutella broadcast search model is the way
23 transmissions would have been handled -- handled all searches
24 identically. A search for MP3 digital music file is broadcast
25 to as many nodes as a search for Gettysburg address. And he

1556ari1 E. Horowitz - direct Page 756

1 doesn't like this idea. He says we can do better. So, he
2 says, as a result searches for MP3 return far more results than
3 they need wasting bandwidth for both query and query hit
4 traffic.
5 Q. Can you explain, first of all, Professor Horowitz, what
6 that means: Searches for MP3 return far more results than they
7 need?
8 A. Well, I think you saw, I got 700-plus results for Flo Rida.
9 I only needed one.
10 A JUROR: Right.
11 A. One good one. What good would 700 do? So, they -- he was
12 observing that there was no need to spend a lot of effort
13 looking for content when there was a lot of content
14 available -- a lot of the identical content available which,
15 naturally, he is citing as MP3 files or digital music files.
16 Q. And he is comparing that to the bandwidth that is needed to
17 do a search for the Gettysburg address?
18 A. Yes.
19 Q. What do you understand that reference to be?
20 A. Well, naturally one would have to look far and wide to find
21 something somebody who might have a copy of the Gettysburg
22 address on their computer. There are obviously going to be far
23 fewer of those.
24 Q. Did the Gnutella Developers' Forum adopt this dynamic query
25 protocol?

1556ari1 E. Horowitz - direct Page 757

1 A. Yes, they did.
2 Q. And, did Lime Wire utilize the dynamic query protocol in
3 its software?
4 A. Yes, they did.
5 Q. And, had Lime Wire implemented the dynamic query protocol
6 by the time of the search that you did yesterday for "Low" by
7 Flo Rida?
8 A. Oh, sure. The date on this is, you know, many years before
9 that.
10 Q. And, how did the dynamic query protocol change that
11 Lime Wire recommended and that was adopted affect the number of
12 results that you got back when you did that search for "Low" by
13 Flo Rida?
14 A. It certainly didn't limit the number of results, I still
15 got plenty. But, I think the main point was that it allowed
16 more and more people to get on the network and use it
17 effectively. So, both of the last two innovations that I
18 showed you were basically ways to make Gnutella more effective
19 so that Lime Wire and other programs could more efficiently
20 download music files.
21 Q. Did Lime Wire do anything else technologically that made it
22 easier or more efficient for people to copy digital music
23 files?
24 A. There was one other thing that I would point to, and here
25 in this diagram you will notice that two of the computers are

1556ari1 E. Horowitz - direct Page 758

1 blank and I have done that to sort of indicate that these blank
2 computers here are sending out what is called spoof files. So,
3 it was known that there were certain computers out there that
4 would send out a file that might say Flo Rida, "Low," but when
5 you played it it might be an advertisement or it might just be
6 white noise. And, clearly, this would be annoying if you were
7 using Lime Wire and thought you had downloaded Flo Rida and you
8 went to play it and you got this thing.
9 So, Lime Wire did incorporate two mechanisms in their
10 program to help it avoid these spoof files.
11 Q. What were those mechanisms?
12 A. One was a thing called hostiles.text, a list of computer
13 addresses which were known to put out spoof files, and
14 Lime Wire looked for this file in a given location. So, if the
15 user -- the Lime Wire user was clever enough to find this file
16 and put it in the right folder, Lime Wire would read the file
17 and avoid speaking to these computers that I have shown with
18 blank screens.
19 Q. And, what was the other mechanism besides incorporating
20 this hostiles.text file?
21 A. Lime Wire had another mechanism for communicating with
22 running copies, a thing they called SMPP for Signed Message
23 Parameter Passing. It was basically a way for Lime Wire to
24 communicate with running copies and as part of that message
25 there was a list of computer addresses that the Lime Wire

1556ari1 E. Horowitz - direct Page 759

1 program should avoid talking to.
2 Q. And, how did this process of implementing technical
3 features to combat spoofs, how did that relate to your
4 conclusion about the Lime Wire software being optimized for
5 copying digital music files?
6 A. It was just another innovation which allowed people to
7 download files and not have spoof files as a result. I mean,
8 it just was another mechanism for improving the quality of what
9 they were getting.
10 Q. Professor Horowitz, I would like to turn to your second
11 main conclusion that you said you were here to testify to which
12 was that you do not find that Lime Wire took any meaningful
13 measures to reduce the amount of copyright infringement that
14 was taking place through its system. Can you please tell the
15 jury what the bases were for your conclusion in that regard?
16 A. So, I think there were a couple of things that one could --
17 I forgot about this one. Sorry.
18 Here was the first thing that Lime Wire did to combat
19 copyright infringement. When returning to their website and
20 you were trying to download the program, right before
21 downloading you would get this screen and it would give you two
22 options, one was: I will not use Lime Wire for copyright
23 infringement, and the other option was: I might use Lime Wire
24 for copyright infringement.
25 Q. Professor Horowitz, if I can just interrupt you for one

1556ari1 E. Horowitz - direct Page 760

1 moment? Just to be clear, when would a Lime Wire user be
2 presented with the choice that you have described on the screen
3 between I will not use Lime Wire for copyright infringement and
4 I might use Lime Wire for copyright infringement?
5 A. So, it was before they obtained the program. They were at
6 the website and attempting to download it.
7 Q. And the program being the Lime Wire client software?
8 A. The Lime Wire program, yes.
9 Q. And, what would happen when presented with this screen if a
10 user clicked on the button that said I will not use Lime Wire
11 for copyright infringement?
12 A. If they clicked I will not use Lime Wire for copyright
13 infringement then the program was downloaded.
14 Q. And, what would happen if the user clicked the button "I
15 might use Lime Wire for copyright infringement?"
16 A. They were directed to this screen which said: Lime Wire
17 does not distribute Lime Wire basic to people who intend to use
18 it for purposes of copyright infringement. Thank you for your
19 interest, but we cannot complete the download.
20 Q. Now, at that point if someone who was trying to download
21 the Lime Wire client software received this message, what could
22 they do if they wanted to try again?
23 A. Well they could, knowing how a browser works, click this
24 back arrow button and be sent right back to that page.
25 Q. And, if someone had clicked the back arrow button and the

1556ari1 E. Horowitz - direct Page 761

1 second time around clicked the button that said I will not use
2 Lime Wire for copyright infringement, what would happen?
3 A. Then the program would be downloaded successfully.
4 Q. Were there other features of the Lime Wire client software
5 that related to your conclusion that you believe Lime Wire did
6 not take meaningful measures to reduce copyright infringement?
7 A. They actually implemented a scheme for content filtering as
8 you can see here, but failed to turn it on.
9 Q. What do you mean by they implemented a scheme or system for
10 content filtering?
11 A. They purported to have implemented a scheme whereby a hash
12 value for a digital music file would be stored at Lime Wire and
13 as someone was trying to download the file, a particular music
14 file, the hash would be computed and sent to Lime Wire to see
15 if it was in their database of copyrighted music.
16 Q. Now, for that process to work, for that process to work for
17 any particular Lime Wire user, what would they have had to do
18 to their software?
19 A. They would have had to have found this option here and
20 clicked on this check box here to enable. You see it says
21 enable content filters. Well, initially or the default setting
22 is to be off, they would have to click that and then come down
23 here, I guess, and click on the apply button.
24 Q. And if the user, him or herself, did not click on that
25 enable content filters button, then what would happen?

1556ari1 E. Horowitz - direct Page 762

1 A. Then content filtering would not be applied.
2 Q. Was the decision to leave this content filtering system
3 off, was that a design choice?
4 A. Yes.
5 Q. Was -- whose design choice was it?
6 A. The Lime Wire people.
7 Q. Were there other features of the Lime Wire client software
8 that informed your conclusion that Lime Wire had not taken
9 meaningful steps to reduce copyright infringement through its
10 software?
11 A. Okay, so there was one last item here. This particular
12 message popped up the first time you went to download a song.
13 So, you remember I went to Flo Rida and I clicked on
14 it and clicked on download and they would bring up this message
15 that says: Lime Wire is unable to find a license for this
16 file. Download it anyway? And of course if you wanted Flo
17 Rida then all you had to do was click the yes button, and if
18 you wanted to get rid of that pesky message all you had to do
19 was check the "always use this answer" over here and you would
20 never see that again.
21 Q. Professor Horowitz, did Lime Wire make changes to its
22 software program over the course of its existence?
23 A. They made quite a few changes and were very nice to post
24 all of the changes on their website. So, here you are looking
25 at just one particular change release. They're releasing

1556ari1 E. Horowitz - direct Page 763

1 version 4.13.11 on July 11, 2007, and there is a bulleted list
2 of items here which represent exactly what made up that new
3 release. So, you can see there are some fixes and there are
4 some changes here to browse host down at the bottom and bit
5 torrent.
6 Q. And, Professor Horowitz, this features history document
7 that appears on the screen, this is Exhibit 282 in the binder
8 of exhibits that you have before you. Would you please
9 describe what this document is?
10 A. Well, this document is the complete feature history as
11 provided by Lime Wire listing all of the changes that they've
12 made over the years to the program.
13 Q. And, where would one find this features history document?
14 A. It was on their website.
15 Q. Have you reviewed the features history document which is
16 Exhibit 282?
17 A. I'm sorry?
18 Q. Have you reviewed the features history document that is
19 Exhibit 282?
20 A. Yes. Yes, I have reviewed it.
21 Q. And, in the course of that review -- first of all, do you
22 have a slide that illustrates the number of changes and
23 improvements that Lime Wire made to the program over the course
24 of this?
25 A. I made a little time line just to kind of give you sort of

1556ari1 E. Horowitz - direct Page 764

1 an overlook of what was going on.
2 So, over the period 2001 to 2007 they literally made
3 167 new releases. Each one of these little lines going down
4 represents a new release and a date. I know you can't possibly
5 see any of that but you can kind of get the idea of how much
6 attention and care was paid to this program. There were
7 several thousand changes across those seven years. Just for
8 your -- so you can see it a little more clearly I blew up 2006.
9 So, you can see in the upper left-hand corner here on
10 January 3rd of 2006 they released version 4.10.1 and then,
11 moving down a bit on January 4th, no less than a day later they
12 introduced another release. So, they were very cavalier about
13 introducing new releases but you can see how many just in a
14 given year.
15 Q. And, again, you reviewed the features history document that
16 is Exhibit 282, is that right?
17 A. Yes.
18 Q. And, in the course of that review did you see any changes
19 that Lime Wire made to the software appeared to have anything
20 to do with reducing copyright infringement on the network?
21 A. Out of the several thousand changes I could only find one
22 that had to do with copyright infringement which was the
23 announcement of the content filtering capability which was
24 initially turned off.
25 Q. Were there -- were there -- strike that.

1556ari1 E. Horowitz - direct Page 765

1 If someone had selected the enable content filters
2 button and didn't turn on the content filtering on, in your
3 opinion, Professor Horowitz, would the content filtering that
4 Lime Wire was utilizing have been an effective way of reducing
5 copyright infringement?
6 A. I think it has been shown that doing content filtering by
7 hashing is a very ineffective way of filtering because for any
8 given song file this may be literally hundreds or thousands of
9 different hash values. So, simply having one or two hash
10 values for the song would make no effect in reducing the
11 copyrighted content that's out there.
12 Q. And, are you aware of any examples, just from the way
13 Lime Wire tried to implement this content hash filtering, that
14 related to your conclusions about its effectiveness?
15 A. I think even Lime Wire reported in their attempt to do it
16 they ran an experiment looking for the hashes for 30 files and
17 found 40,000 different hashes for those 30 files, more or less
18 reinforcing my claim that hashing is ineffectual.
19 Q. Were there effective means that a company like Lime Wire
20 could have used to filter out copyrighted music from the
21 system?
22 A. There were other techniques that various commercial vendors
23 could supply which basically relied on the quality of the song.
24 So, looking at or working with the song they produced digital
25 fingerprints. It is called acoustic filtering. There was

1556ari1 E. Horowitz - direct Page 766

1 several vendors who provided the software. Lime Wire could
2 have made an arrangement to use any one of those vendors and
3 would have had a very effective copyright filter.
4 (Continued on next page)
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

156nari6 E. Horowitz - direct Page 767

1 Q. Do you remember the names of any of those vendors that this
2 technology.
3 A. The leading vendor in the space was a company called
4 Audible Magic.
5 Q. In your review of the materials related to this case,
6 Professor Horowitz, did you see any evidence that LimeWire ever
7 implemented the filtering solution provided by Audible Magic?
8 A. No.
9 Q. Professor Horowitz, I just want to return, if I may --
10 MR. KLAUS: If Mr. Nichols could bring up slide 26,
11 please.
12 The next one.
13 This screen right here. If you could view the blowout
14 again, Mr. Nichols.
15 THE COURT: While that's being done, may I ask the
16 witness one question.
17 MR. KLAUS: Of course.
18 THE COURT: You have just said that LimeWire could
19 have filtered out copyrighted material by relying on acoustic
20 filtering, and you mentioned the quality of the song. Can you
21 explain that?
22 THE WITNESS: Yes. The digital music files can be
23 represented in many different formats, MP3 being just one. So
24 any scheme that relies upon recognizing the content using the
25 encoding is bound to fail. But if you instead look at the

156nari6 E. Horowitz - direct Page 768

1 musical properties, the various sound qualities and compute a
2 fingerprint based on that, you can get a highly reliable set of
3 fingerprints and recognize the song under a variety of
4 circumstances.
5 THE COURT: Thank you.
6 BY MR. KLAUS:
7 Q. Professor Horowitz, if LimeWire had a user base of 40 to 50
8 million users who had active, installed versions of the
9 LimeWire client software, how many of them would have had to
10 have checked the button that I will not use LimeWire for
11 copyright infringement?
12 A. Well, if they had all gotten it here, I guess they would
13 have all had to press the button.
14 MR. KLAUS: Your Honor, at this time I would like to
15 move several exhibits into evidence.
16 THE COURT: Go right ahead.
17 MR. KLAUS: Plaintiff's Exhibit 282.
18 MR. BAIO: No objection, your Honor.
19 MR. KLAUS: Plaintiff's Exhibit 401.
20 MR. BAIO: No objection, your Honor.
21 MR. KLAUS: Plaintiff's Exhibit 425.
22 MR. BAIO: No objection.
23 MR. KLAUS: Plaintiff's Exhibit 431.
24 MR. BAIO: No objection.
25 MR. KLAUS: Plaintiff's Exhibit 612.

156nari6 E. Horowitz - direct Page 769

1 MR. BAIO: No objection.
2 MR. KLAUS: Plaintiff's Exhibit 7301.
3 MR. BAIO: No objection, your Honor.
4 MR. KLAUS: Your Honor, those are all the questions I
5 have for professor Horowitz.
6 THE COURT: All right. The Court receives plaintiffs'
7 Exhibits 282, 401, 425, 431, 612 and 7301 with no objection.
8 (Plaintiffs' Exhibits 282, 401, 425, 431, 612 and 7301
9 received in evidence)
10 MR. KLAUS: Thank you, your Honor.
11 MR. BAIO: Your Honor, is this a good time for our
12 morning break?
13 THE COURT: That would be fine. Let's take a
14 15-minute break.
15 (Continued on next page)
16
17
18
19
20
21
22
23
24
25

156nari6 E. Horowitz - direct Page 770

1 (Jury not present)
2 THE COURT: Professor, you may step down, if you like.
3 THE WITNESS: Thank you.
4 THE COURT: Do counsel wish to raise anything before
5 the break.
6 MR. BAIO: No, your Honor.
7 MR. KLAUS: No, your Honor. Thank you.
8 (Recess)
9 (Continued on next page)
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

156nari6 E. Horowitz - direct Page 771

1 (Jury present)
2 CROSS EXAMINATION
3 BY MR. BAIO:
4 THE COURT: We are ready to resume.
5 MR. BAIO: Thank you, your Honor.
6 Q. Good morning, Professor Horowitz.
7 A. Good morning.
8 Q. My name is Joe Baio. I represent the defendant here. You
9 had mentioned at the beginning of your testimony that you had
10 worked on some 60 to 70 software programs, and you actually
11 sold three, is that correct?
12 A. Yes. That's correct.
13 Q. In ballpark figures, what did you get for the three that
14 you sold?
15 A. I think around a million dollars.
16 Q. What exactly is a software program?
17 A. It is a collection of computer instructions that are
18 designed to accomplish a certain task.
19 Q. Some are very simple and some are very complicated, is that
20 fair?
21 A. Yes, sure.
22 Q. The ones that you sold for a million dollars, where would
23 you put them in that spectrum, simple to complicated?
24 A. Sort of medium. They were business applications.
25 Q. Did you work with other people on preparing them and

156nari6 E. Horowitz - cross Page 772

1 working on them?
2 A. It was a team effort.
3 Q. How big was the team?
4 A. The team varied in size from about three to six people.
5 Q. I see. Did you ever work on software programs with larger
6 teams?
7 A. Usually as a consultant.
8 Q. How big was the biggest team that you worked on?
9 A. I think the biggest team was several hundred.
10 Q. Several hundred to prepare a software program?
11 A. Yes. We have a big defense sector in Los Angeles. They
12 built very large software systems.
13 Q. It took a lot of time and a lot of money and a lot of
14 people to build that I assume.
15 A. Sure. In fact, that's what software engineering is all
16 about, studying that process.
17 Q. It could be millions tens of millions, billions of
18 instructions that are embedded in the program that help it do
19 what it does, is that fair?
20 A. Well, not billions, but there certainly could be millions.
21 Q. Now, you referred to networks, and I would like you to look
22 at, I think you have your report in front of you, paragraph 29.
23 And in that -- I'm sorry. You don't have it in front
24 of you?
25 A. Give me a minute.

156nari6 E. Horowitz - cross Page 773

1 Q. Sure.
2 A. OK. 29.
3 Q. In that paragraph you stated, "Well-known examples of P2P
4 networks are Napster, Gnutella, FastTrack and BitTorrent. Each
5 of these defines a different way of communicating, and
6 computers must have installed the software for these protocols
7 to participate in the P2P network that they define."
8 Do you see that language?
9 A. Yes, I do.
10 Q. Are there other examples of P2P networks that you can think
11 of as you sit here today based on the study you have done?
12 A. You are asking are there any others?
13 Q. Yes.
14 A. Well, eDonkey had a separate network. That was one. These
15 are clearly the leading ones. I guess another one would have
16 been Network News, the Network News Transfer Protocol, NNTP. I
17 would classify that as peer-to-peer.
18 Q. Are there any other that exist today that you can think of?
19 A. None offhand, but I am sure there probably are some more.
20 Q. Peer-to-peer networks, what does that mean when you say a
21 network? I don't know if you were here for my opening. Was
22 the highway close?
23 A. Well, not terribly close. But the Internet is kind of the
24 highway, right. The Internet is the interconnection of
25 computers around the globe. The networks we are talking about

156nari6 E. Horowitz - cross Page 774

1 are really computers communicating using a certain language, a
2 protocol.
3 Q. The people who are using those networks, they have adopted
4 that protocol or they have accepted it, is that correct?
5 A. Probably indirectly. I doubt if many people running
6 LimeWire knew they were running Gnutella protocol, so they
7 adopted it indirectly.
8 Q. And they were running over that particular protocol,
9 correct?
10 A. Yes, they were.
11 Q. And that protocol was part of the Internet, that is, they
12 were going through the Internet, but a particular path?
13 A. Well, I wouldn't say a particular path, but they were using
14 the Internet capabilities to implement the protocol.
15 Q. I see. Other than P2P networks, there are ways that people
16 can share music and acquire music without payment, isn't that
17 correct?
18 A. There are other ways, yes.
19 Q. And the P2P network is just one of the ways, is that
20 correct?
21 A. Yes.
22 Q. And the Gnutella network, do you know how that name came
23 about? I think it's something you eat?
24 A. Yes. I forget the history of it. It was something to do
25 with peanut butter or some sort of butter name, but I forget

156nari6 E. Horowitz - cross Page 775

1 the exact derivation.
2 Q. That was invented by who?
3 A. There were two guys who worked for a company called WinAmp,
4 I forget their names, but it was not invented by LimeWire.
5 Q. When did they invent this? Do you know?
6 A. I think it was right around 1999, 2000; right around the
7 Napster era. They were looking for an alternative to Napster
8 was their motivation.
9 Q. How much money did people have to pay to use the Gnutella
10 network?
11 A. It is an open protocol. It's free. The protocol is just a
12 specification. It is a piece of paper.
13 Q. And it allows you then to go on the Gnutella network,
14 correct, and to use what is available on the Gnutella network?
15 Is that correct?
16 A. If you write a program that conforms to the specification,
17 then you can participate.
18 Q. I see. You also mentioned here BitTorrent as a network.
19 Do you see that?
20 A. Yes.
21 Q. What is BitTorrent?
22 A. This would be another peer-to-peer protocol, another way of
23 sharing files.
24 Q. And that's separate and apart from Gnutella?
25 A. Yes. It is a totally separate protocol.

156nari6 E. Horowitz - cross Page 776

1 Q. Since you have been following this industry, have you
2 noticed whether consumers seem to prefer the BitTorrent as
3 opposed to the Gnutella network?
4 A. I would say the BitTorrent is ideal for copying movies.
5 Gnutella seems to be well suited for copying digital music
6 files.
7 Q. Is BitTorrent also well suited for copying digital music
8 files?
9 A. It's probably overpowered for digital music files. Digital
10 music files are much smaller. BitTorrent actually handles very
11 large files a lot better. Movies are clearly a lot larger than
12 songs.
13 Q. Sure. The Gnutella network, is it shut down?
14 A. No, it's running.
15 Q. People are using it?
16 A. Yes, absolutely.
17 Q. And the BitTorrent network, is that open for business?
18 A. Open for business, yes.
19 Q. On the BitTorrent network, do people who use it and
20 exchange things on it have to pay anything?
21 A. No. Generally they don't.
22 Q. You also made reference to zeros and ones. Do you remember
23 that?
24 A. I think you mentioned them first.
25 Q. Yes, but you mentioned it second and you are more

156nari6 E. Horowitz - cross Page 777

1 important. Explain how this works with zeros and ones?
2 A. Well, computers at the lowest level of their electronic
3 components basically can represent on or off, zero or one. So
4 everything gets encoded in terms of zeros and ones.
5 Now, so you can take the letter A and you can
6 represent it by a sequence of zeros and ones. And, similarly,
7 you can represent all the letters of the alphabet and then you
8 get all the special characters and pretty soon you kind of
9 build up the ability to represent symbolic things like text
10 using just the zeros and ones.
11 Q. And you can use zeros and ones to reflect music, correct?
12 A. Yes, you can. You can sort of sample the music at various
13 states and record, basically translate it into a number and
14 have the software recognize the number as a certain volume, for
15 example.
16 Q. The same thing is true for movies, right, when you transmit
17 them over one of these networks? In fact, it's just a lot more
18 zeros and ones in a particular order, is that correct?
19 A. Yes. I'm sorry.
20 Q. I don't know what that was.
21 A. I didn't know what it was either.
22 Q. Let's hear back on the movies. There's zeros and ones,
23 it's just that there are probably a lot more, correct?
24 A. Right. I was agreeing with you.
25 Q. Those zeros and ones actually reflect the image and the

156nari6 E. Horowitz - cross Page 778

1 sound and everything, and the color? Somehow all of that is
2 reduced to zeros and ones?
3 A. There are various encodings, there's separate encodings for
4 the sound, separate encodings for the movies. Then there's a
5 separate encoding to combine the two things together, so
6 there's lots of layers that get built up, but fortunately
7 computers are very fast so it can kind of unpack everything and
8 play it back to us.
9 Q. And computers are getting faster and faster, aren't they?
10 A. Yes, they are.
11 Q. And the networks are getting more capable to handle the
12 heavy traffic that you were identifying as we go through time?
13 A. They have been, yes.
14 Q. OK. So a DVD, is that something, if it has a movie, does
15 it have zeroes and ones all in it in some order, and the DVD
16 reader is able to convert those zeroes and ones to an image?
17 A. That's correct.
18 Q. The same thing with a CD?
19 A. The same thing with a CD, they have files, digital files
20 that get converted.
21 Q. When the record companies released their CDs, they didn't
22 put in any protection on those CDs for the most part, isn't
23 that correct?
24 A. That's correct.
25 Q. So that once they put out a CD, that CD had the capability

156nari6 E. Horowitz - cross Page 779

1 of being copied either on another CD or on another computer
2 again and again and again and again, correct?
3 A. It had the ability to be copied. That's true.
4 Q. And multiple times, right? There is no higher limit?
5 A. Yes. There was no limit, no technological limit.
6 Q. It's not like a record that might get scratched if you did
7 it over and over again. It's pretty much -- I don't know
8 whether eternal is the right word, but it's very durable?
9 A. It's durable, though not eternal. CDs do get marked up and
10 scratched, as do DVDs.
11 Q. Understood. But if you take a CD and you download it onto
12 your computer and you have the zeroes and ones then, you can
13 send those zeros and ones, that is, the music, pretty much by
14 e-mail or a lot of other ways, correct?
15 A. You could certainly send it by e-mail and you could
16 transfer it. Each act would take a certain amount of time to
17 do it.
18 Q. And what about MP3s? What are MP3s again?
19 A. They are a specific encoding of a digital music file which
20 became very popular precisely because it maintains sound
21 quality and had a relatively small size for the file. So a
22 typical song, I don't know if you looked at my slides, would
23 typically be around three megabytes or four megabytes, four
24 million bits -- or bytes. Sorry, bytes, not bits.
25 Q. And who makes the MP3s, that is, who does the conversion

156nari6 E. Horowitz - cross Page 780

1 from whatever it was in to whatever it becomes?
2 A. Well, first of all, MP3 is like Gnutella, a standard,
3 something written out on paper, and people have built software
4 that would do the conversion.
5 Q. And that is not LimeWire?
6 A. No. That's not LimeWire.
7 Q. That's still existing and people have access to MP3s, is
8 that correct?
9 A. That's correct. It would be a CD ripping program, for
10 example.
11 Q. Have you used CD ripping programs?
12 A. Oh, sure.
13 Q. I think you also worked on the Grokster case to some
14 extent, correct?
15 A. Yes, I did.
16 Q. Did you work on the Grokster case in 2002 at the trial
17 level when Grokster won and its software was validated?
18 A. No. I did not work at the trial level.
19 Q. And you were working for the record companies, correct?
20 A. Correct.
21 Q. Did you work on the Grokster case when it went to the Ninth
22 Circuit in 2004 and the Ninth Circuit affirmed the decision
23 below, validating the company and the software?
24 A. No. I wasn't associated with Grokster at any one of those
25 points.

156nari6 E. Horowitz - cross Page 781

1 Q. How about when it went to the Supreme Court?
2 A. Not, also not the case.
3 Q. When were you involved in the Grokster case?
4 A. Just in the first, I guess the federal court in Los
5 Angeles. I believe I was involved at that point.
6 Q. Back in 2002?
7 A. Back in 2002.
8 Q. I think your list had something for spring of 2007 in your
9 binder?
10 A. For Grokster?
11 Q. Yes. Was anything going on then?
12 A. 2007 would have been after the Supreme Court decision for
13 sure.
14 Q. Right.
15 A. So it might be an error on my résumé. I don't know.
16 Q. So you worked on it at the trial level?
17 A. Early on.
18 Q. Early on.
19 Have you created any of the software programs that the
20 record industry uses to make its music and videos available for
21 free?
22 A. No.
23 Q. Are there other people who do that?
24 A. Yes, I presume so.
25 Q. When you were testifying, you referred to --

156nari6 E. Horowitz - cross Page 782

1 A. Can I have that question back again. I think I answered it
2 too fast. Could you --
3 Q. OK. I can't, but I think --
4 A. What I meant to say was I did not create any software for
5 the record companies under any circumstances.
6 Q. OK.
7 A. That was all.
8 Q. When you were testifying you were referring to your movie.
9 Do you remember that you used the phrase "the movie"? "I'll
10 show you in the movie"?
11 A. Oh, it's a screen capture.
12 Q. What does that mean?
13 In other words, what you had up there wasn't actually
14 live. It was something that you had done earlier, and you were
15 just walking us through it and you called that your movie.
16 A. Well, what I did was I started the recorder, the screen
17 recorder, and then I went ahead and did the search for the four
18 songs and then downloaded the four songs. So had I run --
19 you're right. I refer to it as a movie. I'm not sure how else
20 to refer to it. If I was to run it straight through, you would
21 see it would run in about two and a half minutes, and that's
22 exactly what happened when I was sitting at the desk doing the
23 illustration.
24 MR. BAIO: Can we put up on the screen a document that
25 the plaintiffs just offered into evidence and I have no

156nari6 E. Horowitz - cross Page 783

1 objection to, and that is Plaintiff's Exhibit 431 in your
2 binders.
3 Q. This appears to be an e-mail from Mr. Gorton, Mark Gorton,
4 to someone, Eric Berger, at Time Warner, and it's dated
5 September 23, 2005.
6 If you look at the second full paragraph, it states,
7 in the third sentence, you can read the lead-in as well, "The
8 RIAA wants to try to upgrade LimeWire's current users from the
9 current file-sharing service to a paid subscription service."
10 Do you see that?
11 A. Yes, I see it.
12 Q. Did you play any role in evaluating whether the LimeWire
13 current user base could in fact be moved into a paid
14 subscription service?
15 A. No.
16 Q. Do you know if that was done with any of the other
17 companies like iMesh or some of the others that were sued, that
18 is, they attempted to take their user base and convert it into
19 a subscription service?
20 A. Yes. I have no knowledge of that.
21 Q. You will see in the last sentence in that first full
22 paragraph Mr. Gorton says, "I would love a bidding war, but I
23 am willing to sell at a very low price in order to get the
24 letter from the RIAA."
25 Do you see that?

156nari6 E. Horowitz - cross Page 784

1 A. I see it, yes.
2 Q. This was marked during your deposition and is included in
3 your book. Did that play any role in your evaluations in this
4 case?
5 MR. KLAUS: Objection, your Honor. I don't believe it
6 was marked at his deposition.
7 MR. BAIO: I'm sorry. I misspoke.
8 Q. Marked during your testimony here.
9 A. Ah, I see. No, I don't think I have ever seen this
10 document actually. It played no role in my conclusions for
11 sure.
12 Q. OK. Can we put up the screen shot of the four songs that
13 you downloaded?
14 A. Sure. Oh --
15 Q. I think James has it.
16 A. Yes.
17 Q. These are the four songs that you used as examples for the
18 jury, correct?
19 A. Yes.
20 Q. And are you aware that three of those four songs are not on
21 the list that the jury will evaluate in determining what
22 damages are in this case?
23 A. I believe I was -- I was made aware of it recently, but
24 when I actually did the experiment or whatever you would call
25 it, made up the illustration, I just thought I would go to

156nari6 E. Horowitz - cross Page 785

1 Billboard and take the top four.
2 Q. I see. Now you understand that, for example, the second
3 song Timbaland feat. One Republic, "Apologize," that is not on
4 the list that is to be considered by the jury in identifying a
5 value for independent works, correct?
6 A. I understand that three out of the four were not on the
7 list. I think I was using these just as an illustration for
8 how the LimeWire software worked.
9 Q. So you didn't know that Alicia Keys "No One" and Fergie
10 "Clumsy" also are not on the list?
11 A. Right. I wasn't choosing it for that reason. I had to
12 come up with a couple of songs to illustrate how LimeWire
13 worked and just picked the top four from Billboard.
14 Q. You understand that this case, at least in terms of the
15 damage award, is about something in the neighborhood of 10,000
16 works?
17 A. Yes, I understand that.
18 Q. And not more than that or not a lot more than that,
19 correct?
20 A. Yes.
21 MR. BAIO: I have no further questions.
22 REDIRECT EXAMINATION
23 BY MR. KLAUS:
24 Q. I just have a couple.
25 Professor Horowitz, Mr. Baio asked you some questions

156nari6 E. Horowitz Page 786

1 about the BitTorrent protocol. Do you recall that?
2 A. Yes.
3 Q. Did LimeWire implement functionality for BitTorrent
4 searching?
5 A. Yes. They have added it into their product.
6 Q. The fact that they added that into their product, what
7 would that give their users the capability of using LimeWire to
8 do?
9 A. Well, it means that not only can you share files on
10 Gnutella, you can also share the files that are available on
11 BitTorrent.
12 Q. Mr. Baio also asked you some questions relating to the four
13 songs that you looked at.
14 Do you have any reason to believe, Professor Horowitz,
15 that if you ran similar searches on LimeWire for any of the
16 other of the, as he said, about 10,000 works that are at issue
17 in this case that the results would have been any different
18 than what you illustrated in the screen capture that you did?
19 A. I suspect the results would be the same.
20 MR. KLAUS: I have no further questions, your Honor.
21 MR. BAIO: I have nothing further, your Honor.
22 THE COURT: Thank you, Professor.
23 You may step down.
24 (Witness excused)
25 THE COURT: The jurors should feel free to stand

156nari6 E. Horowitz Page 787

1 stretch and talk while we call the next witness.
2 MR. POMERANTZ: Your Honor, Ms. Chen will be handling
3 the next witness and we will be switching seats here.
4 THE COURT: OK.
5 Has the witness been called in?
6 MS. CHEN: Yes, the witness is here. The plaintiffs
7 would like to call at their next witness, Jill Randell.
8 JILL RANDELL,
9 called as a witness by the Plaintiffs,
10 having been duly sworn, testified as follows:
11 DIRECT EXAMINATION
12 BY MS. CHEN:
13 Q. Good morning, Ms. Randell. Thank you for being here today.
14 MS. CHEN: Your Honor, I have a binder of exhibits
15 that I have shown to defendants' counsel. They have no
16 objections to the exhibits I believe.
17 MR. COSENZA: That's correct.
18 MS. CHEN: I will ask to move the exhibits into
19 evidence at the appropriate time, maybe pass them out to the
20 jury.
21 THE COURT: Yes, of course. I will remind the jurors
22 that you shouldn't turn to a tab unless I tell you to.
23 MS. CHEN: Everybody has a copy.
24 BY MS. CHEN:
25 Q. Ms. Randell, where do you currently work.

156nari6 Randell - direct Page 788

1 A. I currently work at Google.
2 MS. CHEN: Oh, and before we continue, I meant to
3 note, your Honor, I would like to note that Ms. Randell is here
4 with counsel for Google, who is present here in the courtroom.
5 THE COURT: Thank you. OK.
6 Could you pull the mike a little closer to you. Not
7 too close. Thank you.
8 Q. How long have you worked at Google?
9 A. Nine years.
10 Q. So that means you joined Google in what year?
11 A. 2002.
12 Q. What is your current position at Google?
13 A. I am an agency relations manager.
14 Q. Can you explain to the jury what that involves.
15 A. It is essentially a sales position, so I work with some of
16 our large creative and media buying ad agencies and help them
17 understand Google's advertising products available.
18 Q. What are those advertising products that you work with?
19 A. Mainly search and display advertising.
20 Q. Is there a certain term for those products?
21 A. Google AdWords is probably the most well known.
22 Q. Just for background purposes, what is Google?
23 A. Google is a search engine that helps people find the
24 information that they are looking for on the Internet.
25 Q. Can you also explain to the jury what Google AdWords is?

156nari6 Randell - direct Page 789

1 A. Google AdWords is Google's advertising product which will
2 allow businesses to place advertisements next to the Google
3 search results.
4 Q. What was your position at Google prior to being on the
5 Google agency team?
6 A. I have held several roles. Prior to the Google agency
7 team, I worked on Google's print advertising product as a
8 strategic partner manager. Before that I was an account
9 manager working on Google AdWords accounts, and before that an
10 AdWords coordinator.
11 Q. When did you become an account manager with the AdWords
12 team?
13 A. I think it was around 2003.
14 Q. What were your responsibilities as an AdWords account
15 manager?
16 A. I helped manage some of our larger advertising clients with
17 their AdWords accounts.
18 Q. What were your day-to-day responsibilities?
19 A. Day-to-day responsibilities include client phone calls,
20 optimizing their advertising account, troubleshooting issues,
21 working on internal projects.
22 Q. Have you held any other positions at Google?
23 A. Yes. The strategic partner manager position on the print
24 advertising product, working with some of our larger newspaper
25 companies, and then my current position.

156nari6 Randell - direct Page 790

1 Q. Have you been at Google continuously since you started?
2 A. Yes, I have.
3 Q. Is it fair to say you have had a number of years of
4 experience working with Google AdWords?
5 A. Yes, that's fair.
6 Q. Could you please explain to the jury generally how Google
7 AdWords works from a user's point of view.
8 A. From a user's point of view, you go to the google.com
9 search engine and enter in a search term. So it could be, for
10 example, "used cars."
11 In addition to the search results that are free that
12 you would see, you would also see on the right-hand side, or on
13 the top-of-the-page advertisements that are as a result of the
14 keyword or search term entered into the search engine.
15 MS. CHEN: Your Honor, when I met with Ms. Randell
16 yesterday, she indicated she would like to show the jury a
17 Google search, and defense counsel has no objection to this.
18 Would it be possible to pull up google.com and enter
19 in that particular search?
20 THE COURT: If you can do it, it's fine with me.
21 MS. CHEN: OK, your Honor. Mr. Nichols, could you
22 pull up google.com, please. I believe the search that
23 Ms. Randell indicated was for used cars, if we could enter in
24 used cars.
25 Q. Ms. Randell could you explain to the jury what we see here.

156nari6 Randell - direct Page 791

1 A. You will notice at the top of the page the first three
2 text-based advertising results that indicate sponsored links at
3 the top, those are advertisements from Google's AdWords
4 program.
5 Also on the right-hand side you will see where, at the
6 top where it says "sponsored links," these are also
7 advertisements coming from the Google AdWords product.
8 In the middle, these are the, what we refer to as the
9 organic search results.
10 Q. What happens when a user clicks on one of these ads?
11 A. They are brought to the web page that the advertiser
12 indicated they wished to bring the user to.
13 Q. So if we look at the sponsored links that show up directly
14 under the search bar, it looks like the third ad is for used
15 cars at cars.com. Do you see that?
16 A. Yes, I do.
17 Q. So if they clicked on that ad, what would happen?
18 A. They would be directed to the web page somewhere within the
19 domain of cars.com. So it could be cars.com, it could be a
20 page deeper within the website. For example, if they sell both
21 new and used cars, most likely they would want to be brought to
22 the used car web page within cars.com.
23 Q. Is it the same for the sponsored links that appear in the
24 right-hand column?
25 A. That's correct.

156nari6 Randell - direct Page 792

1 Q. So if somebody clicked on that first ad that appears in the
2 right-hand column, where would they be brought to?
3 A. They would be brought to hondaofnanuet.com.
4 Q. Does the particular ad, does whether a particular ad show
5 up, does that depend on what search term the user types in?
6 A. That's correct.
7 Q. So, if you entered a search for a different term,
8 presumably different ads would show up?
9 A. Correct.
10 MS. CHEN: Can we test that out here.
11 Maybe, Mr. Nichols, if you could enter in a search
12 term "running shoes."
13 BY MS. CHEN:
14 Q. So if you could explain to the jury what we see here?
15 A. You will notice on the right-hand side you will see the
16 sponsored links indicating various advertisers running on the
17 search term "running shoes."
18 Q. Again, with these, if you click on the ad, where would you
19 be brought?
20 A. You would be brought to the landing page that the
21 advertiser indicated when setting up the advertisement.
22 So, taking zappos.com, for example, zappos.com would
23 most likely redirect the user to a running shoes page within
24 zappos.com.
25 Q. Who writes the ad that appears in these search results?

<p>156nari6 Randell - direct Page 793</p> <p>1 A. It could be the advertiser. If the advertiser uses an ad 2 agency, it could be someone at the advertising agency, or it's 3 possible it could be someone at google.com, I'm sorry, at 4 Google. 5 Q. Under what circumstances would it be someone at Google? 6 A. Typically we have a team that works with our very large 7 advertising partners. So a lot of times we try and help what 8 we call optimize the account and make sure that ads are 9 effective, and we run tests with the advertiser to make sure 10 that their ad campaign is giving them the results that they 11 desire. 12 Q. Who selects the keywords that pull up certain ads? 13 A. Also could be the advertiser, the business owner. It could 14 be the ad agency, if they're using one, or it could also be 15 someone at Google. 16 Q. Under what circumstances would it be someone at Google? 17 A. Again, if they have a Google team that they are working 18 with, it could also be part of the optimization process. It 19 could also be, sometimes at the beginning of an account when an 20 account is opened, sometimes Google will help build up the 21 keyword list at that point. 22 Q. When you say they have the Google team they're working 23 with, you're referring to the advertiser? 24 A. Yes, correct. 25 MS. CHEN: Mr. Nichols, you can bring that down now.</p>	<p>156nari6 Randell - direct Page 795</p> <p>1 A. No. 2 Q. Would it count as a click after they clicked on the ad and 3 were brought to zappos? 4 A. Yes. 5 Q. We saw up there that the ads appeared in different order, 6 some were higher up and so were lower down. 7 How is that important? 8 A. So, the position of the ads on a page is determined by an 9 auction. So, in general, the two factors that influence the 10 position are how much an advertiser is willing to bid, which is 11 what we refer to as a maximum cost per click, and another 12 factor in the position is what we refer to as quality score, 13 which is typically the ad's performance, or their click-through 14 rate, how many times the ad is actually clicked on. So it is a 15 combination of those two factors. 16 Q. Is it better to be higher up in the list? 17 A. In general, yes. 18 Q. Why is that? 19 A. It tends to generate more traffic because it catches a 20 user's attention first. If it is at the top of the page you 21 tend to see that versus something that is at the bottom of the 22 page. 23 Q. Why would someone want to advertise using Google AdWords? 24 A. The main benefit is to drive traffic to your website and be 25 seen on relevant search queries on google.com.</p>
<p>156nari6 Randell - direct Page 794</p> <p>1 Thank you. 2 Q. Who pays for these ads that appear? 3 A. It would be the business owner of the account. 4 Q. And how would the business owner set up an AdWords account 5 with Google? 6 A. If they set it up themselves, they would normally enter in 7 their credit card information. 8 Q. They do that through the Internet? 9 A. Correct, yes. 10 Q. How does Google determine what amount of money an 11 advertiser pays to advertise on Google? 12 A. So, the budget is determined by the advertiser. If you are 13 referring to the billing process, Google bills the advertiser 14 every 30 days or whenever they hit their credit threshold, 15 which is typically \$500. So their credit card would be charged 16 whenever it hits \$500 or 30 days, whichever comes first. 17 Q. How is a particular amount determined? Is it per number of 18 times an ad shows up? Is it -- 19 A. So, an advertiser is not, an advertiser does not accrue any 20 charges unless the user clicks on their ad. It's what we refer 21 to as a cost per click advertising model. 22 If an ad is never clicked on, the advertiser is not 23 charged. 24 Q. So if a user entered in a search term "running shoes" and 25 pulled up an ad for zappos, would that count as a click?</p>	<p>156nari6 Randell - direct Page 796</p> <p>1 Q. And so are there particular features of AdWords that help 2 someone advertise their product or their service? 3 A. Are there particular features? 4 Q. If you could describe particular sort of qualities of 5 AdWords that help a business to advertise their product or 6 service? 7 A. I mean, it's relatively quick and easy to set up a 8 campaign. Anybody can do it. Our advertisers have seen 9 phenomenal results in driving traffic to their website, 10 ultimately resulting in business and sales leads, whatever the 11 desired goal is. It's been a highly effective form of 12 advertising for businesses that signed up for the program. 13 Q. Did LimeWire or LimeGroup have an AdWords account with 14 Google? 15 A. I believe they did. 16 Q. I would like you to take a look at the document in your 17 binder behind the first tab, which is plaintiff's Exhibit 0471. 18 MS. CHEN: The jury may turn to it. Mr. Nichols, if 19 you could pull it up on the screen. 20 Q. This is the first page of this multipage document. Do you 21 recognize this document? 22 A. Yes. 23 Q. Can you explain to the jury what it is. 24 A. So this is the first page that pulls up in Google's 25 internal system when we want to look at an advertiser's AdWords</p>

156nari6 Randell - direct Page 797

1 account.
2 Q. At the top of the page, next to where it says Google
3 AdWords, we see something that says "marketing@limewire.com."
4 MS. CHEN: Mr. Nichols, if you could highlight that.
5 Q. What is that?
6 A. That's what we refer to as the log-in e-mail, so whenever
7 an advertiser wants to log into their AdWords account, this is
8 the e-mail address they would use to do so.
9 Q. Who is the customer who opened this account?
10 A. What is indicated on the page would be Greg Bildson. Of
11 LimeGroup, but it's possible that other people may have also
12 had access to this account. I would have no way of knowing
13 that.
14 Q. Does the customer choose the e-mail address used as the
15 log-in?
16 A. Yes.
17 Q. When did LimeGroup open this account?
18 A. On the page it says "Advertiser since November 19, 2002."
19 Q. How much money did this advertiser spend on the account
20 between 2002 and 2005?
21 A. So, according to the information on this page, the total
22 expense is \$85,497.30.
23 Q. Let's turn to page 3 of this document. Now, the heading
24 that appears about a third of the way down on the page, it
25 says, "All Campaigns."

156nari6 Randell - direct Page 798

1 Do you see that?
2 A. Yes.
3 Q. Mr. Nichols has highlighted it on the screen. Can you
4 please explain what a campaign is.
5 A. So, a campaign is a structure within an AdWords account
6 that allows an advertiser to group together various keywords to
7 relevant ad text. It also allows them to apply a budget per
8 each campaign. So, for example, if you were selling red shoes
9 and you were selling blue shoes and you had a separate
10 marketing budget for each, you would want to create one
11 campaign targeting red shoes and another campaign targeting
12 blue shoes.
13 (Continued on next page)
14
15
16
17
18
19
20
21
22
23
24
25

1565ari3 Randell - direct Page 799

1 Q. Turn to the last page, page 4 and the heading that we see
2 partway down on the page says campaign: Campaign no. 1 which
3 Mr. Nickels has highlighted. Is this a list of campaign -- I'm
4 sorry, a list of ad groups for campaign no. 1?
5 A. That's correct.
6 Q. What is an ad group?
7 A. An ad group is what we refer to as a structure within a
8 campaign that allows you to group together or pair up key words
9 or search terms to the actual text advertisement that would be
10 displayed on Google.com.
11 Q. Why would a different ad campaign include different ad
12 groups?
13 A. It is a way to structure your advertisements so that
14 they're grouped together with relevant ad texts. So, you
15 wouldn't want -- if you are selling different products you
16 wouldn't want the same ad to show for all the different search
17 terms because it is not relevant. So, it is a way to pair
18 together relevant search terms with relevant ad text.
19 Q. Is there an example that you might be able to give to
20 illustrate that to the jury?
21 A. Going back to the red shoe example, you could have
22 variations of red shoes, say red shoes, red heels, fancy red
23 shoes, a lot of different variations related to red shoes, and
24 then pairing that up with the ad text: Buy red shoes, or: Red
25 shoes on sale. And, again, you want to follow that same

1565ari3 Randell - direct Page 800

1 concept for blue shoes or if you are selling kitchen appliances
2 you would want to break it out by different products is
3 probably the best example I can give.
4 Q. Let's take a look at one of these ad groups. Let's turn to
5 page 37 of this document. Is this a summary of one of the ad
6 groups?
7 A. Yes, it is.
8 Q. Now, if we look at the highlighted text we see that it says
9 ad group number 28. Does this page show a specific ad?
10 A. Yes. It shows the ad is get songs Lime Wire Pro with the
11 header and below that find many different songs and lyrics
12 files through Gnutella.
13 Q. And you see below that is a web address www.Lime Wire.com;
14 would that also show up as part of the ad?
15 A. Yes, it would.
16 Q. And when the user clicked on that ad, where would they be
17 taken?
18 A. They would be taken somewhere within Lime Wire.com.
19 Q. Where on this page would you find the key words that are
20 associated with this ad?
21 A. So, they can be found directly below where it says key word
22 and the key words that are visible are songs, song and MP3s.
23 Q. Let's walk through some of the columns that we see to the
24 right of those key words. Two columns over is the column
25 called current bid. What does current bid mean?

1565ari3 Randell - direct Page 801

1 A. So, that means current bid is the maximum cost per click,
2 maximum CPC indicated here that the advertiser is willing to
3 spend per key word. So, for example, the key word songs the
4 advertiser is willing to spend up to 22 cents.
5 Q. And, how is it determined what they're actually charged per
6 any given click?
7 A. It is determined by the auction process and so it depends
8 on what other advertisers are willing to spend combined with
9 the performance of the ad itself.
10 Q. Can you give an example of what might, how this might work?
11 A. So, for example, if the owner of this account is willing to
12 spend 22 cents for the key word songs and a competitor also
13 running on the key word songs might be willing to spend only 10
14 cents for this particular key word, if the owner of this
15 account wins the auction for the top spot they would only have
16 to pay one penny more than what the advertiser below them was
17 willing to spend. So, in this case they would spend 11 cents.
18 Q. Now, next to the current bid column is a column called
19 clicks. Can you explain to the jury what that means?
20 A. So, that is the number of clicks accrued for these
21 particular key words which means that a user who searched for
22 songs clicked on the ad 230 times.
23 Q. And that means they clicked on this particular ad, the one
24 that says: Get songs Lime Wire Pro?
25 A. This particular ad for that particular key word, correct.

1565ari3 Randell - direct Page 802

1 Q. Next to the clicks column is a column with the abbreviation
2 IMPR. What does that mean?
3 A. That stands for impression, and that is the number of times
4 and ad was actually displayed on Google.com.
5 Q. And so that's a number regardless of whether the user
6 actually clicks on the ad?
7 A. Correct.
8 Q. So, how many times did a Google user who entered the key
9 word "song," how many times did that pull up this get songs ad?
10 A. According to the information on this page it pulled it up
11 23,324 times.
12 Q. And how about for the key word "songs" with an S?
13 A. 30,189 times it was pulled up.
14 Q. Now, let's look at the column in the far right, average
15 position. What does that refer to?
16 A. So, during the time frame displayed here on this page it
17 indicates the position on the Google page where the ad
18 appeared. So, the higher the number the better the position.
19 Q. So, position 1 would refer to the very highest position?
20 A. Correct.
21 Q. And then going down the line they're numbered 1, 2, 3 and
22 so forth?
23 A. Correct.
24 Q. Who selected the key words that go with this particular ad?
25 A. I actually have no way of knowing that. I would assume

1565ari3 Randell - direct Page 803

1 it's the owner of the account but it's possible they had an ad
2 agency. I have no way of knowing that.
3 Q. Let's take a look at another ad group. Let's turn to page
4 41 of the exhibit.
5 Now, the name of this ad group is Kazaa, right?
6 A. Correct.
7 Q. And the ad for this ad group is different than the one we
8 looked at previously, is that correct?
9 A. Yes.
10 Q. Mr. Nickels, would you highlight that, please?
11 Is the text highlighted by Mr. Nickels: Faster than
12 Kazaa. Want downloads that are faster than Kazaa? Get
13 Lime Wire Pro.
14 Is that the ad that is associated with this ad group?
15 A. That's correct.
16 Q. And this ad would also show a link to www.Lime Wire.com?
17 A. Correct.
18 Q. Now this particular ad, if you look through the next few
19 pages, there are a few dozen key words associated with this
20 particular ad, correct?
21 A. Yes.
22 Q. Let's take a look at some of those key words. On that same
23 first page of the ad group, page 41, I think the third key word
24 down is one called: Speed up Kazaa. Do you see that?
25 A. Yes.

1565ari3 Randell - direct Page 804

1 Q. According to this page, how many times did a user use this
2 key word and see the ad faster than Kazaa?
3 A. So, according to the information on this page this ad was
4 displayed 237 times for the key word "speed up Kazaa."
5 Q. And this ad would appear, on average, at what position on
6 the Google search page?
7 A. Somewhere between one and two.
8 Q. Would that mean the ad would probably appear right under
9 the search bar?
10 A. It's possible. Ads that promote are what we call promoted
11 to the top of the page are only done so if they meet a certain
12 quality threshold. So, it is possible that it appeared at the
13 top of the page or it's possible it appeared to the right of
14 the page at the top slot.
15 Q. Can you determine where it appeared by looking at this
16 page?
17 A. No.
18 Q. Let's look at another key word, let's turn to page 42 which
19 is the next page of this document.
20 Now, the third key word down on the page, Kazaa
21 version, do you see that?
22 A. Yes.
23 Q. And how many impressions did that key word get?
24 A. It received 273 impressions.
25 Q. And that means that the user who entered in Kazaa version

1565ari3 Randell - direct Page 805

1 pulled up that particular ad, faster than Kazaa, 273 times?
2 A. Yes.
3 Q. Let's look at the next page, page 43 of the document.
4 There is a key word halfway down this page that says: Kazaa
5 lite download and lite is spelled L-I-T-E.
6 Do you see that?
7 A. Yes.
8 Q. How many impressions did that key word get?
9 A. 4,569.
10 Q. And four key words down from that is Kazaa light, with
11 light spelled L-I-G-H-T. How many impressions did that key
12 word get?
13 A. 2,069.
14 Q. Now, the last key word on this page, page 43 --
15 Mr. Nickels, if you could highlight the very last one -- it is
16 Kazaa en Español. Do you see that?
17 A. Yes.
18 Q. Going on to the next page, page 44, there are also a number
19 of key words that appear in Spanish. Why would an advertiser
20 select key words in Spanish?
21 A. That would be to capture the traffic for those users who
22 are searching on Spanish terms.
23 Q. Now let's turn back to page 8 of this document. Now, am I
24 correct that the ad for this particular group reads: Lime Wire
25 Pro for Mac. Have a mac? Share and search for computer files.

1565ari3 Randell - direct Page 806

1 Only \$18.88.
2 A. Yes.
3 Q. And that ad also displays a link to Lime Wire.com?
4 A. Correct.
5 Q. Let's look at some of the key words on the next page, page
6 9 of the document. The seventh key word down on the page it
7 says MP3 mac.
8 I'm sorry, it should be three down from the one you
9 have highlighted, Mr. Nickels, MP3 without the S. There we go.
10 That key word got how many impressions?
11 A. 511,046.
12 Q. That means that key word pulled up the Lime Wire Pro for
13 Mac ad over 500,000 times?
14 A. Correct.
15 Q. And how many clicks did those key words generate?
16 A. 6,008.
17 Q. So, that means that a user actually clicked through to
18 Lime Wire.com or somewhere on Lime Wire.com over 6,000 times
19 based on this particular key word?
20 A. Correct.
21 Q. And the last key word on this list at the bottom of the
22 major we see: File sharing mac. How many times did that key
23 word pull up the Lime Wire Pro for Mac ad?
24 A. 206,543.
25 Q. And how many clicks did that ad get?

1565ari3 Randell - direct Page 807

1 A. 4,223 clicks.
2 Q. Let's go back to the previous page which is page 8. Just
3 under the headings for the key words we see a row called total
4 which Mr. Nickels has highlighted. Can you explain what the
5 total row shows?
6 A. The total row indicates a summary of all of the key words
7 within that particular ad group.
8 Q. And so, these would be the total numbers of impressions
9 that this particular ad received? Is that right?
10 A. Correct. So, for each column it just totals up the number
11 of clicks, impressions with the click through rate. CTR stands
12 for click through rate. And average CPC or average cost per
13 click cost, and then average position for all of the key words
14 within this particular ad group.
15 Q. So, I believe there were a couple of columns that we
16 haven't yet explained to the jury what they mean so if you
17 could explain to the jury what click through rate means?
18 A. So, the click through rate is just the number of clicks --
19 I'm sorry, the number of impressions divided by the number of
20 clicks. So, it is to give you a percentage to gauge -- it is a
21 way to gauge performance. The more clicks you receive, the
22 higher the click through rate. So, high click through rate is
23 good.
24 Q. And click through rate is abbreviated here CTR?
25 A. Correct.

1565ari3 Randell - direct Page 808

1 Q. And what is the average CPC?
2 A. So, as I mentioned earlier, an advertiser will set what we
3 call a maximum bid amount for that key word. That doesn't
4 necessarily mean that's the cost that they're going to pay so
5 this average cost per click averages the cost of all the clicks
6 together to give an average cost for that particular key word.
7 So, in this particular example the advertiser was
8 willing to spend up to 25 cents per click but the actual
9 average cost per click was much less.
10 Q. And what does the column cost refer to?
11 A. That is the total dollars accumulated within this
12 particular ad group. So, if you take the average cost per
13 click and multiply it by the number of clicks, it should equal
14 the total cost.
15 Q. Let's look at one last ad group in this document. Can we
16 turn to page 31, please?
17 Now, the ad for this particular ad group says:
18 Grokster versus Lime Wire Pro, CNET recommends Lime Wire over
19 Grokster. Give it a try. No spyware.
20 Is that correct?
21 A. Yes.
22 Q. And the ad also links to Lime Wire.com?
23 A. Correct.
24 Q. Now, if you look at the key words associated with this ad
25 they all mention the word Grokster, right?

1565ari3 Randell - direct Page 809

1 A. Yes.
2 Q. Generally speaking, why would an advertiser include in the
3 key words a word used in the ad?
4 A. Generally speaking, including the key word within ad text
5 helps improve the performance because when a user searches for
6 a term on Google.com the key word or search term searched will
7 actually appear bolded in the ad itself which helps attract a
8 user's attention and make it more likely for them to click on
9 the advertisement. So, it tends to help performance because it
10 is relevant to what the user is searching for.
11 Q. Now, this is a fairly thick document, isn't it?
12 A. Yes.
13 Q. It is over a hundred pages?
14 THE COURT: You need to answer.
15 A. Yes. It is fairly large.
16 Q. If we were to sit here and look through the entire document
17 we would see other ad groups?
18 A. I believe so, but I haven't looked through every single
19 page.
20 Q. But there are different ad groups other than the ones we
21 just looked through?
22 A. Yes. Correct.
23 Q. And, generally, each ad group has a particular ad on it for
24 Lime Wire, correct?
25 A. Correct.

1565ari3 Randell - direct Page 810

1 Q. And each particular ad has particular key words associated
2 with them?
3 A. I would assume so, yes.
4 Q. And this document covers Lime Wire's AdWords account from
5 2002 two 2005, is that right?
6 A. That's what the first page indicated, yes.
7 Q. Lime Wire also had a separate AdWords account from 2002 to
8 2003, correct?
9 A. I'm not sure.
10 Q. Let's take a look at the second document in the binder
11 which is Plaintiff's 491.
12 THE COURT: I think it would be helpful instead of my
13 telling the jury what they can look at, you can go ahead and do
14 so.
15 MS. CHEN: Thank you, your Honor.
16 The jury may open to document 491.
17 Q. Do you recognize this as a document produced in this case
18 by Google?
19 A. It appears to be, yes.
20 Q. What is this document?
21 A. This is displaying the first page that someone within
22 Google would pull up to look at an AdWords account, just like
23 what we looked at before.
24 Q. What is the log-in e-mail for this account?
25 A. It is ajutagir@Limepeer.com.

1565ari3 Randell - direct Page 811

1 Q. When was this account opened?
2 A. It appears this account was opened July 29th, 2002.
3 Q. Let's turn to page 7 of this document. For this particular
4 ad group the ad is: Disappointed by Morpheous? Try Lime Wire
5 Pro. Tech support. No ads. No spy ware.
6 Is that correct?
7 A. Yes.
8 Q. And that also links to the Lime Wire.com site or somewhere
9 within that site?
10 A. I would assume so, yes.
11 Q. Now, the key words associated with this ad all include the
12 word Morpheous, is that correct?
13 A. That's correct.
14 Q. Who selected the key words for this ad?
15 A. I would assume the owner of the account selected them but I
16 would have no way of knowing for sure.
17 Q. And, who wrote the ad?
18 A. Also I would assume the owner of the account but I have no
19 way of knowing that for sure.
20 Q. There are other ad groups listed for this account, correct?
21 A. According to the information on the page it looks like 22
22 ad groups were created for this campaign.
23 Q. And if we were to sit here and look through all of them
24 they would appear to have different ads in each ad group,
25 correct?

1565ari3 Randell - direct Page 812

1 A. I would assume so.
2 Q. And they would have different key words associated with
3 those particular ads?
4 A. I would assume so, yes.
5 Q. If you could turn back to the first exhibit in the binder,
6 Plaintiff's Exhibit 471 -- and the jury, I would ask them to do
7 the same as well -- Mr. Nickels, if you could go to page 3 of
8 the document -- we looked at this previously, I believe. This
9 is the page that shows all the campaigns for this account?
10 A. That's what that indicates. Yes. At the bottom it says
11 total, all 6 campaigns.
12 Q. And so, would this total row total all of the data that we
13 have been talking about previously from the previous pages?
14 A. Well, this particular page indicates the marketing at
15 Lime Wire.com account and we were previously looking at the
16 second account.
17 Q. Oh, I'm sorry. Yes. Going back to the ad groups that we
18 looked at when we first looked at this particular document.
19 A. Correct, yes.
20 Q. How many impressions do we see here, total?
21 A. Total impressions for all of the campaigns?
22 Q. Correct.
23 A. Shows 265,932,907.
24 Q. So, what does that mean? If you could explain that to the
25 jury?

1565ari3 Randell - direct Page 813

1 A. So, that totals up all the ad impressions from all six
2 campaigns within the particular date range indicated on the
3 page which I believe shows November 19th, 2002 through December
4 12th, 2005. Oh, I'm sorry, 2006. I was looking at the bottom.
5 Q. So, this shows that Google users saw one of the ads
6 associated with this account over 260 million times?
7 A. Correct.
8 MS. CHEN: I have no further questions, your Honor,
9 and at this point I would like to ask to move plaintiff's
10 exhibits into evidence.
11 THE COURT: The numbers are?
12 MS. CHEN: The numbers are P471 and P491.
13 THE COURT: Okay.
14 MR. COSENZA: No objection, your Honor.
15 THE COURT: Plaintiff's Exhibits 471 and 491 are
16 received without objection.
17 (Plaintiff's Exhibits P471 and 491 received in
18 evidence)
19 CROSS EXAMINATION
20 BY MR. COSENZA:
21 Q. Good afternoon, Ms. Randell.
22 During your time at Google you do not recall having
23 any discussions with anyone at Lime Wire, correct?
24 A. I do not recall, correct.
25 Q. And you also do not recall having any discussions with

1565ari3 Randell - cross Page 814

1 Mr. Mark Gorton sitting here today, correct?
2 A. Correct.
3 Q. And, you don't recall having any discussions at all with
4 anyone or any communications with anyone at Lime Wire, correct?
5 A. Correct.
6 Q. James, could you go back to Google.com that we saw before,
7 search engine?
8 I just want to run one search: Free MP3.
9 Do you see that, Ms. Randell?
10 A. Yes.
11 Q. And do you see that there are 169 million hits running that
12 search?
13 A. Yes.
14 Q. And, do you see that a number of these sites have -- you
15 can obtain access to free MP3 downloads. Do you see that?
16 A. It appears to lead to websites that potentially could
17 download free music, yes.
18 Q. And Google doesn't filter out for searches for terms that
19 are looking for free MP3 user and want access?
20 A. Correct. This is based on the algorithm which we do not
21 filter.
22 MR. COSENZA: No further questions, your Honor.
23 MS. CHEN: No further questions, your Honor.
24 THE COURT: Thank you. You may step down.
25 We are ready for the next witness. The jurors can

1565ari3 Page 815

1 stand and stretch.
2 MR. POMERANTZ: Your Honor, the next witness isn't
3 here yet. We would request the lunch break now. The next
4 witness will be the last witness of the day so we will probably
5 break early today.
6 THE COURT: All right. Then we will be on the lunch
7 break until 1:30.
8 (Continued on next page)

9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1565ari3 Page 816

1 (Jury not present)
2 THE COURT: Counsel, what do we need to get done
3 during the lunch break?
4 MR. BAIO: I think nothing, your Honor.
5 THE COURT: Okay.
6 MR. POMERANTZ: Your Honor, I'm going to discuss with
7 Mr. Baio during the break about that one agreement and maybe if
8 we can reach, get back together in five minutes before?
9 THE COURT: I will come down five minutes before.
10 From now on can you avoid having the jury leave early
11 some days?
12 MR. POMERANTZ: Yes. Definitely. This week went much
13 faster than we thought, as I said yesterday, so we will try to
14 pace things better next week.
15 THE COURT: Okay. Next week I have to leave the bench
16 at about 5:00 each day other than Tuesday, just so you'll know
17 I can't spill over those days but I can start early, if you
18 want, for witness convenience.
19 Have a good lunch.
20 (Luncheon recess)
21 (Continued on next page)

22
23
24
25

1565ari3 Page 817

1 A F T E R N O O N S E S S I O N
2 1:25 p.m.
3 THE COURT: My understanding is that you have raised a
4 question about where to put the easel. What is going to happen
5 on the easel?
6 MR. MUNDIYA: Nothing from us, your Honor.
7 MS. YOUNG: I believe Mr. Pomerantz will be eliciting
8 testimony from the witness and be putting it on the easel.
9 THE COURT: And, how close to the jury would it need
10 to be for the jury to be able to read it?
11 MR. POMERANTZ: Your Honor, I'm not going to put very
12 many numbers on there so I think it could either be, I was
13 thinking of either here or near the corner of the jury box. I
14 want it to be where you could see it, counsel can see it, and
15 the jurors can see it.
16 THE COURT: In criminal cases I often come around and
17 look at it. If you keep it right in front of the jurors I can
18 just come around and look.
19 MR. POMERANTZ: That's fine, your Honor. If that's
20 okay with your Honor. So, put it maybe right over here?
21 THE COURT: Yes.
22 And I don't want to forget to mention that on Monday I
23 have a sentencing at 9:30 and so I will have to ask you to
24 allow other counsel to use the front table between 9:30 and
25 10:00.

1565ari3 Page 818

1 MR. POMERANTZ: That's no problem, your Honor.
2 We have had some discussions about some documents that
3 I think both sides are going to be using during the next
4 examination. They have certain proprietary information in them
5 and we have agreed to try to limit the information we bring out
6 publicly. We probably will not put them on the screen but the
7 jurors will have copies of the documents in front of them. And
8 I think we each agree to try to limit our questioning so that
9 we don't reveal the confidential information, except as
10 necessary, to bring out the evidence.
11 THE COURT: Now, in terms of your record on appeal, if
12 you keep the documents in tact you won't have confidential
13 treatment.
14 MR. POMERANTZ: Right.
15 THE COURT: So I would advise you to submit redacted
16 copies.
17 MR. POMERANTZ: We will do that, your Honor.
18 THE COURT: Okay. And it would be good to try to move
19 documents into evidence before the jurors see them.
20 MR. POMERANTZ: Oh, okay. We only have one, I can do
21 that right now, if your Honor would like.
22 THE COURT: I mean, generally at trial that's the way
23 to do it.
24 MR. POMERANTZ: Okay.
25 MR. BAIO: I apologize, your Honor.

1565ari3 Page 819

1 THE COURT: No. Are we ready? Is the jury ready?
2 THE DEPUTY CLERK: Yes.
3 THE COURT: The jury is ready so the jury will enter.
4 (Continued on next page)
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1565ari3 Page 820

1 (Jury present)
2 THE COURT: Please have a seat and we will continue.
3 The witness should come forward.
4 MR. POMERANTZ: Your Honor, the plaintiffs call
5 Mr. Paul Kahn as our next witness.
6 PAUL KAHN,
7 called as a witness by the Plaintiff,
8 having been duly sworn, testified as follows:
9 DIRECT EXAMINATION
10 BY MR. POMERANTZ:
11 Q. Mr. Kahn, where are you currently employed?
12 A. At EMI Music North America.
13 Q. What is EMI music?
14 A. Music company.
15 Q. What is your current position at EMI?
16 A. Executive Vice President and Chief Financial Officer of
17 North America.
18 Q. What is your educational background?
19 A. Undergraduate. I have an accounting degree from Binghamton
20 University and then I went to graduate school for MBA at
21 Columbia.
22 Q. And what year did you graduate from Columbia?
23 A. 1996.
24 Q. What was your first job in the music industry?
25 A. When I was at business school I was actually an intern at

1565ari3 Kahn - direct Page 821

1 EMI Music and I was asked to work during my second year of
2 business school, and that became a full-time job when I
3 graduated in 1996.
4 Q. And, how long did you stay at EMI?
5 A. Around two years as a full-time employee.
6 Q. That was until about 1998?
7 A. Correct, early 1998.
8 Q. And what did you do next?
9 A. Then I left for a company called Primedia. Primedia was
10 another media company that were magazines, New York Magazine,
11 17 Magazine. A lot of trade publications. They had some video
12 assets and some educational properties as well.
13 Q. And, how long did you stay at Primedia?
14 A. I was there until 2000.
15 Q. And then what was your next job?
16 A. Then I went to a venture capital firm which I helped build
17 up in New York City and I was a general partner there.
18 Q. And what is the name of that firm?
19 A. Himalaya capital.
20 Q. Can you just generally describe the kinds of investments
21 that Himalaya was involved with?
22 A. So, we made investments that where companies were
23 leveraging the internet and technologies to create new business
24 models that wouldn't have existed previously.
25 Q. And then at some point did you return to EMI?

1565ari3 Kahn - direct Page 822

1 A. Correct. In 2005 I came back to EMI.
2 Q. And have you been at EMI ever since?
3 A. Yes.
4 Q. What position did you hold when you rejoined EMI in 2005?
5 A. I was Senior Vice President of Finance and Planning of
6 North America.
7 Q. And, how long did you hold that position for?
8 A. Until 2008, so three years.
9 Q. And then what position did you obtain?
10 A. Then I went into my current position as chief financial
11 officer.
12 Q. And, just in general terms, what are your responsibilities
13 as the chief financial officer of EMI North America?
14 A. So, it's everything from building a budget at the beginning
15 of the year and ensuring that we deliver it in an accurate
16 manner. It is reporting to the parent company in London as to
17 how we are doing against our budget. It's acquisitions, it's
18 artist deals. It's really -- IT, technology, property. It
19 covers the whole gamut of running a business.
20 Q. Your company, EMI, is one of the four plaintiffs in this
21 case, correct?
22 A. Correct.
23 Q. How would you distinguish EMI from the other three record
24 company plaintiffs in this case?
25 A. In North America we are the smallest of the four, we have

1565ari3 Kahn - direct Page 823

1 the lowest market share, and some people call us a large indie
2 almost given our small size.
3 Q. Could you give the jury some examples of the recording
4 artists that EMI currently works with?
5 A. Sure. So, current artists range from Katy Perry, Norah
6 Jones, Lady Antebellum, TobyMac, Keith Urban, and then we have
7 a vast catalog as well.
8 Q. What are some of the more popular recordings that are in
9 EMI's catalog?
10 A. It includes The Beach Boys, Frank Sinatra, The Beatles, Nat
11 King Cole and such.
12 Q. I know you have only been with EMI for the last five years
13 having rejoined it, but do you have some understanding of how
14 long ago EMI started?
15 A. I believe EMI, if it is not one of, it might be the oldest
16 music company out there going back to the 1800s.
17 Q. Let's come back to the current day. Does EMI offer its
18 music through digital download retailers?
19 A. Yes.
20 Q. Can you give us an example of one of those?
21 A. iTunes would be the more dominant player.
22 Q. And, does EMI have a contract with Apple?
23 A. We do.
24 Q. And iTunes is owned by Apple?
25 A. Yes.

1565ari3 Kahn - direct Page 824

1 Q. I would like to present that contract to Mr. Kahn and I
2 have a copy for the jury and I will then admit it into
3 evidence.
4 For the jury, the parties have agreed there is no
5 objection, the jurors can turn to exhibit P7402.
6 THE COURT: The Court receives Exhibit P7402 without
7 objection.
8 (Plaintiff's Exhibit P7402 received in evidence)
9 BY MR. POMERANTZ:
10 Q. Mr. Kahn, is Exhibit 7402 the agreement between your
11 company EMI, and Apple Computers?
12 A. Yes.
13 Q. And is this the contract that governs iTunes' sale of EMI
14 music to consumers?
15 A. Yes.
16 Q. I want to focus on the pricing of the music. This contract
17 was signed in 2003?
18 A. Correct.
19 Q. And that's when the iTunes store opened, correct?
20 A. Yes.
21 Q. Under that original agreement, when Apple sold a download
22 of an EMI track to a consumer for 99 cents, how much did they
23 have to pay EMI?
24 A. The terms of the agreement, you know, are somewhat
25 confidential, but publicly people had knowledge that it is a

1565ari3 Kahn - direct Page 825

1 70/30 split, typically.
2 Q. So, assuming the 70/30 split and rounding 99 cents up to a
3 dollar, that means that EMI would receive approximately 70
4 cents?
5 A. Correct.
6 Q. Now, if you go on to iTunes today you see tracks sometimes
7 priced at prices higher than 99 cents and lower than 99 cents,
8 correct?
9 A. Yes. Correct.
10 Q. When did that type of pricing start on iTunes?
11 A. So, I believe our agreement was late 2008 but it went into
12 effect in early 2009.
13 Q. And how, in general terms, could you describe for the jury
14 how pricing works when you have prices of, let's say, \$1.29 or
15 99 cents or 69 cents for a track?
16 A. So, EMI decides what price they want to sell Apple at as a
17 wholesale price and based on that Apple would determine what
18 they want to sell it to their customer at. There is three
19 different prices: \$1.29, 99 cents and 69 cents. The more
20 popular tracks today tend to sell at \$1.29 retail.
21 Q. Again, in general terms, if Apple were to sell an EMI track
22 for \$1.29, approximately how much would EMI receive?
23 A. We would get around 70 percent of that.
24 Q. That's about 90 cents?
25 A. 99 cents.

1565ari3 Kahn - direct Page 826

1 Q. If it were sold at 99 cents you would get 70 cents?
2 A. Correct.
3 Q. Now, if Apple decided to give EMI's music away for free to
4 its customers, in order to build a large customer base could it
5 do so under your contract?
6 A. It could do so but it would still have to pay us the price
7 that we have agreed to sell it to Apple at.
8 Q. So, if they gave a track away for free they would have to
9 turn around and pay you the 70 cents?
10 A. So long as we had not consented to the track being free.
11 Q. Now, does EMI offer its recordings through online retailers
12 other than iTunes?
13 A. Yes.
14 Q. Did you give us some examples of those?
15 A. Amazon would be another example. Amazon is an example
16 where recently they have launched a number of tracks at 69
17 cents yet they still pay us the price which we requested which
18 is typically higher than that.
19 Q. Again, just in general terms, is your pricing to Amazon,
20 your wholesale price, similar to what the pricing is with
21 iTunes?
22 A. Yes.
23 Q. I now want to turn to EMI's revenues and what has happened
24 to EMI's revenues over the past decade. The jury has seen
25 evidence of other company's revenues when you were not at EMI

1565ari3 Kahn - direct Page 827

1 during the first half the decade, correct?
2 A. Correct.
3 Q. From 2000 to 2005, correct?
4 A. Correct. Yes.
5 Q. Does your current job responsibilities require you, from
6 time to time, to go back and look at the financial performance
7 of the company during that period of time?
8 A. Definitely. Yes.
9 MR. POMERANTZ: Your Honor, I'm going to use this pad
10 up here. If I could approach and move things around?
11 THE COURT: Yes. Certainly.
12 MR. POMERANTZ: Thank you.
13 Q. I want to put this where you can see it and, Mr. Kahn, I
14 will back it up a little bit.
15 A. Perfect. I can see.
16 Q. So, I just want to get your revenues down, if I could.
17 This is EMI -- I apologize in advance -- let's use 2010 dollars
18 that we have, an apples to apples comparison and not worry
19 about inflation.
20 So, let's start in 2000. What were EMI's revenues in
21 North America for recorded music sales in 2000?
22 A. Revenues were \$1.1 billion.
23 Q. \$1.1 billion. Then 2005?
24 A. 2005 were around \$825 million.
25 Q. You said 825?

1565ari3 Kahn - direct Page 828

1 A. Yes.
2 Q. Let's go to 2006.
3 A. 2006 was around \$650 million.
4 Q. 2007?
5 A. Around \$450 million.
6 Q. Do you remember 2008?
7 A. I don't recall off the top of my head.
8 Q. Let's go to 2010.
9 A. 2010 was just over \$350 million.
10 Q. I'm done with this chart, your Honor.
11 Let's focus at the time that you are at the company,
12 Mr. Kahn, 2005 through 2010. You lost \$175 million from 2005
13 to 2006, correct?
14 A. Correct.
15 Q. And then it went down another approximately \$200 million in
16 2007?
17 A. Correct.
18 Q. And you are now down to \$350 million, correct?
19 A. Correct.
20 Q. Do you think that all of this decline, just -- let's just
21 take 2005 so from 825 to 350, we are not going to worry about
22 the first half of the decade; do you think the decline from
23 \$825 million to \$350 million was entirely caused by Lime Wire?
24 A. No.
25 Q. Do you think that Lime Wire caused some of that decline?

1565ari3 Kahn - direct Page 829

1 A. Definitely.
2 Lime Wire is the largest peer-to-peer site out there;
3 people have quoted 70 percent market share and I have heard a
4 statistic of 2 billion downloads a month. So, if you kind of
5 work through that and you say if a portion of that, those
6 people had gone to a legal site like iTunes that was out there
7 since 2003, EMI would have got some money for those tracks, the
8 artist would have got money. So, it had to have had an impact
9 on our business.
10 Q. Now, we have heard testimony in this case that the record
11 industry has lots, tens of billions of dollars over the course
12 of the last decade. Does your company, EMI, ask this jury to
13 award damages in the tens of billions of dollars?
14 A. No.
15 Q. Now, besides this revenue decline, has EMI also lost jobs
16 during the time you have been at the company?
17 A. Yes.
18 Q. Would you tell the jury a little bit about the job loss at
19 EMI?
20 A. So, to kind of run back to the same period, I guess, back
21 in 2000 we had about 2,000 employees and this excludes about
22 500 or 600 that were in our manufacturing and distribution
23 business which we had outsourced subsequently. By around 2005
24 we were down to one and a half million and currently we have
25 half of that, so just over 700,000 employees.

1565ari3 Kahn - direct Page 830

1 Q. 700 --
2 A. 700 employees.
3 Q. Let's go back because I don't think we are General Motors
4 here.
5 A. So, we went from 2,000 employees in 2000 down to 1,500
6 employees in 2005 down to 700 employees today.
7 Q. I just didn't want the jury to think that was the smallest
8 record company out there.
9 Let's go to artists. Does EMI have fewer artists
10 today on its roster than it had when you started at EMI?
11 A. Yes.
12 Q. Can you give the jury some sense of that decline?
13 A. I would say the date of point in my mind was 2003 over 300
14 artists on our roster and today we have just under 150. So,
15 again, it is halved.
16 Q. About half the artists?
17 A. Yes.
18 MR. POMERANTZ: Your Honor, I have no further
19 questions for this witness.
20 THE COURT: Thank you.
21 CROSS EXAMINATION
22 BY MR. BAIO:
23 Q. Good afternoon, Mr. Kahn.
24 A. Good afternoon.
25 Q. Was it your job and has it been your job to evaluate the

1565ari3 Kahn - cross Page 831

1 impact of file sharing and the exchange of music on the
2 business of EMI?
3 A. I have not spent a lot of time looking at the impact of
4 piracy. One could and I could come up with certain ways,
5 possibly, to evaluate it, but it is not something I spent much
6 time on.
7 Q. Did you spend any time on it?
8 A. None that I recall, no.
9 Q. So, in this courtroom your opinion is that it's piracy that
10 did this but you did no, you spent no time, as the CFO, on that
11 subject? That's correct?
12 A. I think if you look at my background and experience it's
13 something that if one sees 2 billion tracks being taken for
14 free and not being paid for, that one could easily deduce that
15 a portion of that would have generated revenue if people had
16 gone to legal sites that were available and therefore it is
17 fair to deduce that it would have impacted the industry.
18 Q. But you didn't do any study as to the extent Kazaa impacted
19 or bit torrent impacts today, or CD burning? In this courtroom
20 you are just talking about Lime Wire, correct?
21 A. Yes. My focus is on building the business back to where it
22 needed to get to and saving it.
23 Q. Well, in connection with building a business to get it back
24 to where you want it, are there agreements between EMI and
25 YouTube and Google?

1565ari3 Kahn - cross Page 832

1 A. There are agreements with parties like that, yes.
2 Q. And isn't it true, sir, that when, pursuant to your
3 arrangement with Google, when a consumer goes on to Google and
4 let's say gets one of your songs or one of your videos, that
5 consumer pays nothing. Is that correct?
6 A. The company still makes money off that event. Google
7 itself will pay us a share of the advertising revenues that's
8 generated when a consumer watches a video on their site
9 YouTube.
10 Q. So, under the YouTube scenario the consumer doesn't pay
11 anything to hear or see the music but you get some compensation
12 from the entity that then gets advertising revenues; that would
13 be Google, correct?
14 A. That would be correct. And in cases like Katy Perry as an
15 example where her recent video Fireworks being seen 172 million
16 times and there would be advertising that would run prior to
17 that.
18 Q. And for those 172 million times the consumer pays nothing,
19 correct?
20 A. The company gets paid, the artist gets paid. The consumer
21 has to watch the ad just like television to watch the program.
22 Q. Are you done? I didn't mean to interrupt you.
23 A. I'm done.
24 Q. So, the consumer's payment, in your view, is he or she has
25 to either press the button to say skip the ad or actually sit

1565ari3 Kahn - cross Page 833

1 there and listen to it. Is that what you are saying, the
2 consumer pays?
3 A. I don't believe there is an option to skip the ad on vivo
4 videos.
5 Q. On Vivo. How about other videos? Have you scanned the
6 universe to see that you can click "skip the ad" and go to the
7 music?
8 A. I have not scanned.
9 Q. And, do you know whether in fact there is software out
10 there today that allows people to go on to YouTube, they hear
11 the music, they see the video and they rip that down to their
12 computer. Do you know about that?
13 A. I do not.
14 Q. Is this the first time you have ever heard of something
15 called stream ripping?
16 A. Yes.
17 Q. So you don't know whether stream ripping, to the extent it
18 exists in the past, had any impact whatsoever on EMI's
19 revenues, correct?
20 A. Correct.
21 Q. And although you pay attention to piracy you don't know
22 whether stream ripping has had any adverse effect on the record
23 industry ever. Is that correct?
24 A. I have not studied it but it probably would have had some
25 impact. Just the same way that piracy would have.

1565ari3 Kahn - cross Page 834

1 Q. I thought you said you didn't even know what that was.
2 A. But now that you have explained it to me I can draw a
3 conclusion.
4 Q. I see.
5 So, and do you know whether Google pays something like
6 a half penny when someone clicks on, let's say, a video or
7 music from one of your artists?
8 A. That sounds reasonable.
9 MR. BAIO: Reasonable at a half penny.
10 I have no further questions.
11 REDIRECT EXAMINATION
12 BY MR. POMERANTZ:
13 Q. Mr. Kahn, I am going to focus for a minute on the YouTube
14 Google questions that Mr. Baio just asked you about.
15 EMI has a contract with Google and YouTube, correct?
16 A. Correct.
17 Q. You've granted permission to Google and YouTube to do
18 certain things with your musical content, correct?
19 A. Correct.
20 Q. Did EMI ever enter into a contract with Lime Wire?
21 A. We did not.
22 Q. Did EMI ever give Lime Wire permission to do anything with
23 its music?
24 A. We did not.
25 Q. Under your contract with YouTube and Google you've given

1565ari3 Kahn - redirect Page 835

1 YouTube and Google permission to let somebody watch a video,
2 correct?
3 A. Correct.
4 Q. Of your music?
5 A. Yes.
6 Q. They do -- you have not given any permission to make a
7 permanent copy of the music, correct?
8 A. That is correct.
9 Q. When someone downloads an EMI track using Lime Wire, they
10 get a permanent copy of the EMI recording that they can keep
11 forever, correct?
12 A. That's correct.
13 MR. POMERANTZ: No further questions, your Honor.
14 RE CROSS EXAMINATION
15 BY MR. BAIO:
16 Q. I just have one follow up on that.
17 The consumer who doesn't pay anything to go on to
18 YouTube, when he clicks and hears it, your testimony is that's
19 not a permanent record, correct? I mean it is not a -- he
20 doesn't own it permanently, correct?
21 A. Correct. When he watches it on YouTube or Vivo?
22 Q. Right.
23 A. It is an instantaneous event.
24 Q. And he can or she can repeat that instantaneous event
25 without a single payment forever?

1565ari3 Kahn - recross Page 836

1 A. If they wish to sit at a computer all day and they only
2 wanted to watch it where a computer device would be, yes.
3 Q. Well, you now understand though, don't you, that things
4 like the iPad and the iPod and the iPhone, they actually let
5 you access all of these things if you're outside the courtroom
6 or if you're at work or if you're anywhere else. We are not
7 really tied to the computer anymore. You understand that,
8 right?
9 A. Correct.
10 Q. So that people can repeat that experience where they pay
11 nothing and you get a half a penny again and again and again.
12 Correct?
13 A. If they so choose, but the artist still gets paid under
14 this example.
15 Q. And that's a piece of that half penny?
16 A. Correct.
17 MR. BAIO: No further questions.
18 MR. POMERANTZ: No further questions, your Honor.
19 THE COURT: Thank you, Mr. Kahn. You may step down.
20 May I see counsel at side bar?
21
22
23
24
25

1565ari3 Kahn - recross Page 837

1 (At side bar)
2 THE COURT: What is the lineup of the next witnesses?
3 MR. POMERANTZ: I believe our fist witness Monday
4 morning will be Mr. Gorton. Then we will probably go to
5 Mr. Rubinstein, although we are still in consultation with his
6 lawyer as to his availability. We will then perhaps go to one
7 other Lime Wire witness and then we will come back to record
8 company witnesses including our expert Professor Waterman.
9 THE COURT: Now, Mr. Gorton is clearly here in the
10 Court. It would be --
11 MR. POMERANTZ: We haven't prepped. We haven't
12 disclosed things to them.
13 THE COURT: I understand. It's --
14 MR. POMERANTZ: We would prefer to put on a record
15 company next. We had one but the timing went way faster than
16 we thought. We will finish by Wednesday or Thursday of next
17 week.
18 THE COURT: Well, let me make it clear that from now
19 on you must fill the day with witnesses.
20 MR. POMERANTZ: I understand, your Honor.
21 THE COURT: There are Judges who would cut you off
22 right now.
23 MR. POMERANTZ: I understand.
24 THE COURT: Many Judges have this rule to make life
25 predictable for the jurors which really matters now. I hear

1565ari3 Kahn - recross Page 838

1 you. I don't know how unprepared you are for Mr. Gorton.
2 MR. POMERANTZ: I don't have an outline with me.
3 THE COURT: Are you the examiner?
4 MR. POMERANTZ: Yes. Your Honor, I disclosed this
5 yesterday. I knew this issue was coming.
6 THE COURT: I know, but I didn't know we were going to
7 end this early. This is three hours of time that is lost.
8 MR. POMERANTZ: Your Honor, I think with re --
9 THE COURT: It matters.
10 MR. POMERANTZ: Your Honor, we are aware and we told
11 the jury.
12 THE COURT: That's great but not how trials work.
13 MR. POMERANTZ: I understand. I understand, your
14 Honor.
15 THE COURT: Okay.
16 MR. POMERANTZ: I understand.
17 THE COURT: The next time you end early on the day you
18 will have finished your case-in-chief.
19 MR. POMERANTZ: I understand.
20 THE COURT: Okay.
21 (Pause)
22 THE COURT: It is becoming more common for judges to
23 answer questions that jurors raise. A juror just raised a
24 question with my law clerk Ms. Stein. If we allow questions
25 from jurors I will ask the juror to put the question in

1565ari3 Kahn - recross Page 839

1 writing.
2 What is the question she had?
3 LAW CLERK: She wanted to know, she had a follow-up
4 question from the blond witness she said, which I assume is
5 Ms. Randell, what constitutes a good versus a bad CTR. She
6 felt she didn't speak to that. CTR, one of the columns, I
7 guess, and she felt that without that knowledge they couldn't
8 put her testimony into context.
9 I just listened.
10 MR. POMERANTZ: Your Honor, because she's a
11 third-party witness and not under our control we can
12 investigate that over the weekend and then we can decide what
13 to do Monday morning. Will report to them what we find but we
14 would have to make some inquiry.
15 THE COURT: You might be able to stipulate or bring
16 her back? Where is she from?
17 MR. POMERANTZ: I think she's from New York but her
18 lawyer is from California and they came all the way out here
19 for the testimony.
20 THE COURT: For this one question.
21 MR. POMERANTZ: I hope so.
22 MR. MUNDIYA: I think we can probably stipulate to
23 something on the CTRs.
24 MR. POMERANTZ: We can probably stipulate to
25 something.

1565ari3 Kahn - recross Page 840

1 THE COURT: Why don't I just have her state her
2 question if she's able to do that and then you will hear it.
3 MR. BAIO: Do you want to ask her to write it, your
4 Honor, so that's way it is not --
5 THE COURT: Do you want to broadcast it to everyone?
6 MR. BAIO: I think that puts her on the spot.
7 THE COURT: I don't think she minds that at all. Take
8 a look.
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1565ari3 Kahn - recross Page 841

1 (In open court)
2 THE COURT: I understand from my law clerk that juror
3 no. 1 has a question. If you could stand and tell us what your
4 question is?
5 A JUROR: Well, looking at Jill Randell, I wanted to
6 know what the term is a high CTR and low CTR rate. Because it
7 is not very clear in the Google sheet. So, it would be like
8 evidentiary P0471, page 3 of 4710003. So, I just wanted to
9 know, have a clarification what CTR meant.
10 THE COURT: Okay. We have noted your question now and
11 the lawyers will work on it over the weekend.
12 A JUROR: Okay.
13 THE COURT: Does any juror want to raise anything
14 before we recess for the evening? We are recessing for the
15 evening.
16 Normally we will sit from 10:00 to 5:00. On Monday,
17 because I have a sentencing at 9:30 that may go -- oh, it has
18 been adjourned. We will start at 10:00, just as usual on
19 Sunday -- Monday. Monday. Good.
20 I hope you all have a wonderful weekend. Please
21 remember not to talk about the case and not to do any research
22 or reading about it.
23 Thank you. And please leave your notebooks here but
24 take your notes with you.
25 (Jury not present; continued on next page)

156nari4 Page 842

1 (Jury not present)
2 THE COURT: Please have a seat.
3 I have a question on 412.
4 I take it that plaintiffs were able to go to the
5 LimeWire site and, upon entering, find out what was available
6 day by day?
7 MR. KLAUS: I think, your Honor, if someone went to
8 the LimeWire site, limewire.com, one would not see what was
9 available. You would have to download the software and do
10 searches on it.
11 THE COURT: Right.
12 MR. KLAUS: Then the searches would return
13 information.
14 THE COURT: Correct.
15 So if the record industry did everything it could,
16 would that be the ultimate everything?
17 MR. KLAUS: I'm sorry, your Honor, I didn't --
18 THE COURT: If the industry did everything it could to
19 monitor infringement of its sound recordings by LimeWire, could
20 it not have logged on, bought the software and monitored?
21 MR. POMERANTZ: Your Honor, I think what your Honor is
22 talking about, I think we are talking about the digital meter
23 that Mr. Bainwol talked about. They hired an outside firm and
24 the outside firm got, I think he said 10 to 12,000 people.
25 THE COURT: I am not talking about that.

156nari4 Page 843

1 MR. POMERANTZ: I don't --
2 MR. KLAUS: If I understand your Honor's question, it
3 is that someone could get the LimeWire client, could start
4 running searches all day, all night, and see what is returned.
5 I think the answer is that it is not possible to see all of the
6 content that is being made available on LimeWire because of
7 what Professor Horowitz was testifying to in terms of some of
8 the dynamic querying protocol and how far out various searches
9 would go for content.
10 That said, I think I understand what you are saying.
11 And the other thing is that the content that is available on
12 the network changed dynamically as various LimeWire users
13 logged on and logged off.
14 If your Honor's question is could someone in theory
15 have sat down and run searches from the start of the day, from
16 midnight to midnight and kept a log, I think that is
17 theoretically a possibility, that that could have been done.
18 THE COURT: If your clients were concerned about
19 copyright infringement, why would they not have done that?
20 MR. KLAUS: Our clients were concerned about copyright
21 infringement, and they did retain various third-party vendors,
22 although the third-party vendors did not sit down at LimeWire
23 and do searches on LimeWire. They oftentimes would search
24 various Internet service providers for content that was being
25 transferred.

156nari4 Page 844

1 If what your Honor's question is going to is whether
2 that is a reasonable precondition for Section 412, we submit
3 that it's not in these circumstances because you are
4 essentially imposing upon the content owner the burden of
5 having to monitor someone else's illegal conduct constantly to
6 avoid later on a 412 argument in the face of that party taking
7 deliberate steps to avoid having its own record of the names of
8 what is being transferred across that network.
9 THE COURT: Given that people in the shoes of your
10 client generally have the burden, how do you satisfy it in the
11 music industry? Is someone constantly listening to the radio,
12 going to roadhouses? How are you finding out about
13 infringement?
14 MR. KLAUS: I think the answer to the question in
15 terms of how infringements are investigated and determined, it
16 depends on what the exact nature of the right is and what
17 resources are available to constantly monitor and police.
18 As, for example, with things like violations of public
19 performance, right, one does have investigators. A copyright
20 owner is not required in terms of various things that trigger
21 obligations for them, I think, to send someone into every bar,
22 every place where music might be publicly performed, for
23 example.
24 THE COURT: So how does it come to your client's
25 attention, or does it never come to your client's attention?

156nari4 Page 845

1 MR. KLAUS: The short answer is, I don't have perfect
2 information on this, your Honor, but I believe that in the case
3 of a number of these rights, there are investigators who will
4 do policing, policing of less than the entirety of the world,
5 and then, when they find violations, to pursue them.
6 THE COURT: Why did your clients not purchase their
7 way into LimeWire to follow these things?
8 MR. KLAUS: I don't think that, if the question is in
9 terms of the 412 burden that your Honor is suggesting --
10 THE COURT: Yes.
11 MR. KLAUS: -- I don't think our clients ever
12 anticipated that there would be the kind of argument about 412
13 that's now been raised in this case.
14 THE COURT: But they knew they needed to register
15 within a certain number of days?
16 MR. KLAUS: As we said in our papers, they needed to
17 register within a certain grace period in order to pursue an
18 infringement action against a particular person. This goes
19 back to the argument that we have raised, the argument that
20 your Honor did not accept, that because the actual direct
21 infringer of the work is different, there is not a
22 hard-and-fast rule that says if one does not register within 90
23 days, one forever loses the right to enforce the copyright.
24 That's not the law.
25 The law has been that if person A is infringing my

156nari4 Page 846

1 copyright and I don't register within the 90-day grace period,
2 I lose my right to bring a claim for statutory damages against
3 infringer A.
4 But if I have registered and then infringer B starts
5 to infringe, I get to go after infringer B for statutory
6 damages, whether or not I registered the work within the 90-day
7 period, regardless. In this case, the direct infringer is not
8 LimeWire, the direct infringers are the individuals who are
9 uploading and downloading copies of those tracks, and they
10 change over time.
11 So the infringements that LimeWire is responsible for
12 in this case could start in this period as infringement A, but
13 many started after the works were registered.
14 THE COURT: OK.
15 MR. KLAUS: I understand that is not an argument that
16 your Honor has accepted in your interpretation of 412, but I
17 think that is why there's not -- there certainly was not
18 advance notice before your Honor's decision that, in the case
19 of a secondary infringer which induced infringement the way
20 that LimeWire did, that one would have to be on notice that
21 effectively what the statute would be providing with respect to
22 that type of defendant would be register within 90 days or lose
23 any right to pursue statutory damages against that defendant.
24 THE COURT: Now it's clear.
25 Thank you. Would counsel like to raise anything?

156nari4 Page 847

1 MR. BAIO: Your Honor, I can't pretend to be a 412
2 expert. Mary Eaton is not here. But just a couple of things.
3 I think, although there were a lot of words, I think the answer
4 was, yes, they could have done what you asked. That is, they
5 could have created a monitor. These things are all done with
6 computers. They did that, when we see Mr. Waterman, who is
7 going to come up with 500 million downloads or some number like
8 that, and they sued LimeWire in 2006, and they're claiming in
9 this courtroom that it is the greatest theft of music in the
10 history of the world and they didn't monitor anything.
11 Now, if there is a burden, I don't know how they could
12 have met it. And the other thing that's completely within
13 their power --
14 THE COURT: If there is a burden, you don't know how
15 plaintiffs could have met it?
16 MR. BAIO: No, how they met it. How they did meet it
17 in this case.
18 The other thing that's completely in their control is
19 registration.
20 I may have misspoken, your Honor. I meant, if they
21 have the burden, they certainly didn't satisfy it, given what
22 was available to them. But they have the power to register
23 immediately. What was it? 10 bucks? I'm not sure. And they
24 didn't. They're in the business.
25 So, without getting into the nuances, because I can't,

156nari4 Page 848

1 I think those two answers have something to do with whether
2 they have satisfied their burden or can do so.
3 THE COURT: Could I have any submissions on 412 by
4 noon on Sunday?
5 MR. KLAUS: Yes, of course, your Honor.
6 MR. BAIO: Yes, your Honor.
7 THE COURT: Thank you. Anything else?
8 Mr. Gorton is your next witness?
9 MR. POMERANTZ: Yes, your Honor.
10 THE COURT: You had wanted a ruling on good faith at
11 this point?
12 MR. POMERANTZ: Yes, your Honor.
13 THE COURT: I think I need to hear more about what
14 will be said. In other words, I don't know how, I don't know
15 whether or not he fits within the protection that Bilzerian
16 would give.
17 MR. POMERANTZ: I think we are now focusing on the FLP
18 portion of the Bilzerian issue?
19 THE COURT: Yes.
20 MR. POMERANTZ: Just because my head isn't around that
21 issue right now, can we submit a letter just limited to that --
22 not restating everything we have said in the past but focusing
23 on that one issue -- sometime over the weekend.
24 THE COURT: That would be fine. Also Sunday by noon
25 from both sides.

156nari4 Page 849

1 MR. POMERANTZ: Yes.
 2 MR. BAIO: Yes, your Honor.
 3 There is another nuance, since Mr. Gorton is going to
 4 be the first witness. I don't know whether plaintiff's counsel
 5 intends to do what occurred during the voir dire with, you
 6 won't allow us to know what your lawyers told you. Invocations
 7 of privilege are permitted or they're not. They're either
 8 successful or not. But I don't know whether the plaintiff
 9 intends to ask questions and then load them up with, You won't
 10 tell us whether your lawyer told you that you are a horrible
 11 person, whatever else. That would be extremely prejudicial.
 12 And I think, however the ruling goes, that that should not be a
 13 show for the jury.
 14 MR. POMERANTZ: Your Honor, I did that for purposes of
 15 the Bilzerian issue and your Honor's education. I would not
 16 expect that I would do that type of questioning in front of the
 17 jury, although I do think it is appropriate to simply let the
 18 jury know that he received legal advice.
 19 I am not going to say you won't tell us what your
 20 lawyer said, but I think, given the way the story has played
 21 out and the fact that there was this, in our view, crystal
 22 clear Supreme Court ruling that came down in the middle of
 23 2005, I think it is at least relevant that he had lawyers
 24 representing him and he got legal advice.
 25 We don't plan on then going a step further and doing

156nari4 Page 850

1 what Mr. Baio is concerned with, which is, and you won't tell
 2 us what they said to you. I won't ask that kind of question.
 3 MR. BAIO: Fair enough, your Honor.
 4 THE COURT: OK. That's fine.
 5 Thank you.
 6 If there's nothing else, have a good weekend.
 7 MR. BAIO: Thank you.
 8 THE COURT: We are adjourned.
 9 (Adjourned to Monday, May 9, 2011, at 10:00 a.m.)
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25

Page 851

1 INDEX OF EXAMINATION

2 Examination of:	Page
3 ELLIS HOROWITZ	
4 Direct By Mr. Pomerantz	736
5 Cross By Mr. Baio	771
6 Redirect By Mr. Klaus	785
7 JILL RANDELL	
8 Direct By Ms. Chen	787
9 Cross By Mr. Cosenza	813
10 PAUL KAHN	
11 Direct By Mr. Pomerantz	820
12 Cross By Mr. Baio	830
13 Redirect By Mr. Pomerantz	834
14 Recross By Mr. Baio	835
15	
	PLAINTIFF EXHIBITS
16 Exhibit No.	Received
17 612	750
18 282, 401, 425, 431, 612 and 7301	769
19 P471 and 491	813
20 P7402	824
21	
22	
23	
24	
25	

This Page Intentionally Left Blank

	169 (1) 814:11	206,543 (1) 806:24	4.10.1 (1) 764:10	829:22
\$	17 (1) 821:11	22 (3) 801:4,12;811:21	4.13.11 (1) 763:1	612 (14) 749:25;750:4,6,7,10, 11,12,14,18,21;751:3; 768:25;769:7,8
\$1.1 (2) 827:22,23	172 (2) 832:15,18	23 (1) 783:5	40 (4) 737:15,19,21;768:7	69 (3) 825:15,19;826:16
\$1.29 (4) 825:14,19,20,22	1800s (1) 823:16	23,324 (1) 802:11	40,000 (1) 765:17	7
\$175 (1) 828:12	19 (1) 797:18	230 (1) 801:22	401 (3) 768:19;769:7,8	
\$18.88 (1) 806:1	1996 (2) 820:23;821:3	237 (1) 804:4	41 (2) 803:4,23	7 (1) 811:3
\$200 (1) 828:15	1998 (2) 821:6,7	25 (1) 808:8	412 (17) 730:6;731:14,16; 732:2,15;733:3,15,23; 734:6;842:3;844:2,6; 845:9,12;846:16;847:1; 848:3	70 (6) 771:10;825:3,23; 826:1,9;829:3
\$350 (3) 828:9,18,23	1999 (1) 775:6	26 (1) 767:10	42 (1) 804:18	70/30 (2) 825:1,2
\$450 (1) 828:5	19th (1) 813:3	260 (1) 813:6	425 (3) 768:21;769:7,8	700 (8) 746:15,15,18,19; 756:11;830:1,2,6
\$500 (2) 794:15,16	2	265,932,907 (1) 812:23	43 (2) 805:3,14	700,000 (1) 829:25
\$650 (1) 828:3	2 (3) 802:21;829:4;831:13	273 (2) 804:24;805:1	431 (4) 768:23;769:7,8;783:1	700-plus (1) 756:8
\$825 (2) 827:24;828:23	2,000 (2) 829:21;830:5	28 (1) 800:9	44 (1) 805:18	7301 (4) 755:13;769:2,7,8
\$85,497.30 (1) 797:22	2,069 (1) 805:13	282 (7) 763:7,16,19;764:16; 768:17;769:7,8	471 (2) 812:6;813:15	7402 (1) 824:10
0	20 (1) 741:8	29 (2) 772:22;773:2	4710003 (1) 841:8	8
0471 (1) 796:17	2000 (7) 775:6;821:14;827:3, 20,21;829:21;830:5	29th (1) 811:2	491 (4) 810:11,16;813:15,17	8 (3) 743:14;805:23;807:2
1	2001 (2) 749:17;764:2	3	4th (1) 764:11	80 (1) 755:1
1 (10) 747:21,22,23;748:1,7; 799:2,4;802:19,21;841:3	2002 (10) 780:16;781:6,7; 788:11;797:18,20;810:5, 7;811:2;813:3	3 (4) 797:23;802:21;812:7; 841:8	5	825 (2) 827:25;828:21
1,500 (1) 830:5	2003 (5) 789:13;810:8;824:17; 829:7;830:13	3,162 (1) 742:9	5 (1) 748:6	85 (1) 755:1
1:25 (1) 817:2	2004 (1) 780:22	30 (5) 734:8;765:16,17; 794:14,16	5:00 (2) 816:16;841:16	9
1:30 (1) 815:7	2005 (15) 783:5;797:20;810:5; 813:4;822:1,4;827:3,23, 24;828:12,12,21;829:23; 830:6;849:23	30,189 (1) 802:13	50 (4) 737:16,19,21;768:7	9 (2) 806:6;850:9
10 (3) 801:13;842:24;847:23	2006 (7) 764:8,10;813:4;828:2, 3,13;847:8	300 (1) 830:13	500 (2) 829:22;847:7	9:30 (3) 817:23,24;841:17
10,000 (2) 785:15;786:16	2007 (6) 763:1;764:2;781:8,12; 828:4,16	31 (1) 808:16	500,000 (1) 806:13	90 (3) 825:24;845:22;846:22
10:00 (4) 817:25;841:16,18; 850:9	2008 (3) 822:8;825:11;828:6	350 (1) 828:21	511,046 (1) 806:11	90-day (2) 846:1,6
11 (2) 763:1;801:17	2009 (1) 825:12	37 (1) 800:5	6	99 (8) 824:22;825:2,7,7,15, 19,25;826:1
12,000 (1) 842:24	2010 (5) 736:25;827:17;828:8, 9,12	3rd (1) 764:10	6 (2) 748:1;812:11	A
12th (1) 813:4	2011 (1) 850:9	4	6,000 (1) 806:18	abbreviated (1) 807:24
150 (1) 830:14		4 (5) 737:12,13,18,23;799:1	6,008 (1) 806:16	abbreviation (1) 802:1
15-minute (1) 769:14		4,223 (1) 807:1	60 (1) 771:10	ability (3) 743:21;777:9;779:3
16 (1) 744:18		4,569 (1) 805:9	600 (1)	able (7)
167 (1) 764:3				

749:20;778:16; 799:19;817:10;839:15; 840:2;842:4 above (1) 752:15 absolutely (1) 776:16 abstract (1) 749:18 accept (2) 740:1;845:20 accepted (2) 774:4;846:16 access (5) 780:7;797:12;814:15, 19;836:5 accomplish (1) 771:18 accordance (1) 731:16 accounting (5) 797:21;802:10;804:1, 3;811:21 account (33) 789:8,11,14,20;793:8, 19,20;794:3,4;796:13; 797:1,7,9,12,17,19; 798:5;801:11,15;803:1; 810:4,7,22,24;811:1,2, 15,18,20;812:9,15,16; 813:6 accounting (1) 820:19 accounts (2) 789:9,17 accrue (1) 794:19 accrued (1) 801:20 accumulated (1) 808:11 accurate (1) 822:15 achieve (1) 755:19 acoustic (2) 765:25;767:19 acquire (1) 774:16 acquisitions (1) 822:17 across (6) 743:18,18,19;746:13; 764:7;844:8 act (1) 779:16 action (1) 845:18 active (1) 768:8 actual (3) 799:9;808:8;845:20 Actually (28)	732:9;737:23;738:21, 24;741:24;742:14; 743:13,13,16;746:12; 753:10;761:7;771:10; 776:10;777:25;782:13; 784:10,24;795:14; 801:5;802:4,6,25; 806:17;809:7;820:25; 832:25;836:4 ad (96) 788:16;791:14,17; 792:1,4,4,18,25;793:1, 10,14;794:18,20,22,25; 795:2,14;798:7;799:4,6, 7,11,11,14,16,18,24; 800:4,5,9,9,10,14,16,20; 801:9,22,23,25;802:4,6, 9,17,24;803:1,3,5,7,7,14, 14,16,18,20,23;804:2,3, 5,8;805:1,24;806:3,13, 23,25;807:7,9,14; 808:12,15,17,17,22,24; 809:3,4,7,17,20,23,23; 810:1;811:4,4,11,14,17, 20,22,24;812:17;813:1; 832:21,25;833:3,6 Adam (1) 755:20 added (3) 741:7;786:5,6 adding (2) 741:11,16 addition (2) 737:6;790:11 address (6) 755:25;756:17,22; 797:8,14;800:13 addresses (2) 758:13,25 adjourned (3) 841:18;850:8,9 admission (1) 750:8 admit (1) 824:2 admittedly (1) 745:4 adopt (2) 749:14;756:24 adopted (5) 749:23;754:14; 757:11;774:3,7 ads (12) 791:10;792:8;793:8, 12;794:2;795:5,8; 804:10;811:5,24;812:3; 813:5 ad's (1) 795:13 advance (3) 738:2;827:17;846:18 adverse (1) 833:22	advertise (4) 794:11;795:23;796:2, 5 advertisement (4) 758:5;792:21;799:9; 809:9 advertisements (5) 789:2;790:13;791:3,7; 799:13 advertiser (25) 791:11;792:21;793:1, 1,9,13,23;794:11,12,13, 19,19,22;795:10;797:7, 18,19;798:6;801:2,4,16; 805:19;808:2,7;809:2 advertisers (3) 792:16;796:8;801:8 advertiser's (1) 796:25 advertising (16) 788:17,18,19;789:1,7, 16,20,24;791:2;793:2,7; 794:21;796:12;832:7,12, 16 advice (2) 849:18,24 advise (1) 818:15 AdWords (24) 788:21,25;789:1,9,10, 11,14,17;790:4,7;791:3, 7;794:4;795:23;796:1,5, 13,25;797:3,7;798:5; 810:4,7,22 affect (2) 738:7;757:11 affirmed (1) 780:22 afternoon (4) 738:4;813:21;830:23, 24 again (21) 742:14;760:22; 762:20;764:15;767:14; 779:2,2,2,2,7,18;782:1; 792:18;793:17;799:25; 825:21;826:19;830:15; 836:11,11,11 against (4) 822:17;845:18;846:2, 23 agencies (1) 788:16 agency (7) 788:13;789:5,6;793:2, 2,14;803:2 ago (1) 823:14 agree (1) 818:8 agreed (3) 818:5;824:4;826:7 agreeing (1)	777:24 agreement (5) 816:7;824:10,21,24; 825:11 agreements (2) 831:24;832:1 agrees (1) 734:2 Ah (1) 784:9 ahead (4) 743:1;768:16;782:17; 810:13 ajutagir@Limepeercom (1) 810:25 album (1) 743:19 algorithm (1) 814:20 Alicia (4) 741:22,24;742:7; 785:9 allow (5) 733:24;789:2;817:24; 838:24;849:6 allowed (2) 757:15;759:6 allows (5) 775:13;798:6,7;799:8; 833:10 almost (1) 823:2 along (1) 733:8 alphabet (1) 777:7 alternative (1) 775:7 although (5) 833:21;837:5;843:22; 847:3;849:17 always (1) 762:19 Amazon (3) 826:15,15,19 America (6) 820:12,17;822:6,13, 25;827:21 among (1) 746:20 amount (5) 759:13;779:16; 794:10,17;808:3 analysis (1) 747:9 Angeles (2) 772:11;781:5 angle (1) 743:23 announcement (1) 764:23 annoying (1) 758:6	answered (2) 733:3;782:1 Antebellum (1) 823:6 anticipated (1) 845:12 anymore (1) 836:7 apart (1) 775:24 apologize (4) 730:15;785:3;818:25; 827:17 appeal (3) 733:2;735:4;818:11 appear (7) 791:23;794:2;804:5,8; 805:19;809:7;811:24 appeared (6) 764:19;795:5;802:18; 804:12,13,15 appears (8) 763:7;783:3;792:1,25; 797:24;810:19;811:2; 814:16 Apple (10) 734:12;823:22,24; 824:11,21;825:16,17,21; 826:3,7 apples (2) 827:18,18 appliances (1) 800:1 applications (3) 751:10;754:18;771:24 applied (2) 751:10;762:1 apply (2) 761:23;798:7 approach (1) 827:10 appropriate (2) 787:19;849:17 approximately (3) 825:3,22;828:15 argument (5) 844:6;845:12,19,19; 846:15 around (21) 738:23;748:20; 755:16;761:1;771:15; 773:25;775:6,6;779:23; 789:13;817:16,18; 821:5;825:23;826:9; 827:10,24;828:3,5; 829:23;848:20 arrangement (2) 766:2;832:3 arrow (3) 741:1;760:24,25 artfully (1) 730:19 artist (6)
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

753:20,22;822:18; 829:8;832:20;836:13 artists (8) 743:19;823:4,5;830:9, 9,14,16;834:7 artist's (1) 743:10 assets (1) 821:12 associated (9) 780:24;800:20; 803:14,19;808:24; 810:1;811:11;812:2; 813:6 assume (9) 772:14;802:25;810:3; 811:10,15,18;812:1,4; 839:4 assuming (1) 825:2 attached (2) 747:20,21 attempt (2) 732:21;765:15 attempted (1) 783:18 attempting (1) 760:6 attention (6) 764:6;795:20;809:8; 833:21;844:25,25 attract (1) 809:7 auction (3) 795:9;801:7,15 Audible (2) 767:4,7 audio (4) 743:9,18;744:1,1 author (2) 755:20,21 authors (1) 751:18 availability (1) 837:6 available (15) 738:18;739:20; 756:14,14;775:14; 781:20;786:10;788:17; 831:16;842:5,9;843:6, 11;844:17;847:22 average (10) 802:14;804:5;807:12, 12,13;808:1,5,6,9,12 averages (1) 808:5 avoid (7) 730:17;758:10,17; 759:1;816:10;844:6,7 award (2) 785:15;829:13 aware (4) 765:12;784:20,23;	838:10 away (2) 826:3,8 B back (38) 731:2,20;733:11; 734:16;741:8;743:11; 746:12,20;749:17; 757:12;760:24,24,25; 777:22;778:8;781:6,7; 782:1;799:21;805:23; 807:2;812:5,17;814:6; 816:8;822:1;823:16,17; 827:6,14;829:20,20; 830:3;831:21,23;837:7; 839:16;845:19 background (3) 788:22;820:18;831:12 bad (1) 839:5 Bainwol (2) 736:15;842:23 Bainwol's (1) 731:11 Baio (39) 733:14;734:2,3,13; 736:14;768:18,20,22,24; 769:1,3,11;770:6;771:3, 5,8;782:24;784:7; 785:21,25;786:12,21; 816:4,7;818:25;830:22; 834:9,14;835:15; 836:17;840:3,6;847:1, 16;848:6;849:2;850:1,3, 7 ballpark (1) 771:13 bandwidth (2) 756:3,16 bar (6) 741:25;791:14;804:9; 836:20;837:1;844:21 base (6) 737:15,19;768:7; 783:13,18;826:4 based (5) 768:2;773:11;806:19; 814:20;825:17 bases (1) 759:15 basic (1) 760:17 Basically (11) 739:15;741:16;744:3; 745:20,24;754:7; 757:18;758:23;765:23; 777:3,13 Beach (1) 823:10 Bearing (1) 735:4	Beatles (1) 823:10 became (2) 779:20;821:2 become (2) 748:18;789:11 becomes (1) 780:1 becoming (1) 838:22 beginning (3) 771:9;793:19;822:14 behind (3) 732:15;744:21;796:17 below (5) 780:23;800:11,13,21; 801:16 bench (1) 816:15 benefit (1) 795:24 Berger (1) 783:4 besides (3) 754:19;758:19;829:15 best (1) 800:3 better (7) 732:25;742:6;756:1; 776:11;795:16;802:18; 816:14 Beyoncé (1) 741:13 bid (6) 795:10;800:25,25; 801:1,18;808:3 bidding (1) 783:22 bifurcated (1) 733:8 big (3) 772:3,8,11 biggest (2) 772:8,9 Bildson (1) 797:10 Billboard (2) 785:1,13 billing (1) 794:13 billion (4) 827:22,23;829:4; 831:13 billions (4) 772:17,20;829:11,13 bills (1) 794:13 Bilzerian (3) 848:15,18;849:15 binder (10) 749:24;750:5,8; 755:13;763:7;781:9; 787:14;796:17;810:10;	812:5 binders (1) 783:2 Binghamton (1) 820:19 bit (10) 732:11;740:23; 743:23,23,24;763:4; 764:11;827:14;829:18; 831:19 bits (3) 730:9;779:24,24 BitTorrent (12) 773:4;775:18,21; 776:2,4,7,10,17,19; 786:1,3,11 blank (4) 745:7;758:1,1,18 blew (1) 764:8 blond (1) 839:4 blow (2) 740:22;742:5 blowout (1) 767:13 blue (3) 798:9,12;800:1 bolded (1) 809:7 book (1) 784:3 both (6) 732:8;756:3;757:17; 791:20;818:3;848:25 bottleneck (1) 747:6 bottom (7) 741:24;753:9;763:4; 795:21;806:21;812:10; 813:4 bought (1) 842:20 bound (1) 767:25 box (3) 745:7;761:20;817:13 boxes (1) 745:6 Boys (1) 823:10 break (13) 734:11,13,16,20; 769:12,14;770:5;800:2; 815:3,5,7;816:3,7 breaks (1) 734:22 briefly (1) 747:13 bring (14) 734:21;738:1;743:14; 749:4;750:20,22; 762:14;767:10;791:12;	793:25;818:5,10; 839:15;846:2 broadcast (3) 755:22,24;840:5 broke (1) 738:4 brought (8) 755:12;791:11,21; 792:2,3,19,20;795:3 browse (6) 741:19;742:2,17,22; 744:5;763:4 browser (1) 760:23 bucks (1) 847:23 budget (5) 794:12;798:7,10; 822:14,17 build (5) 772:14;777:9;793:20; 821:16;826:4 building (3) 822:14;831:21,23 built (4) 745:16;772:12;778:6; 780:3 bulleted (1) 763:1 bunch (2) 741:5;745:2 burden (12) 732:1,7,16,24;733:21; 844:4,10;845:9;847:11, 14,21;848:2 burning (1) 831:19 business (18) 771:24;776:17,18; 793:13;794:3,4;796:5, 10;820:25;821:2,23; 822:19;829:9,23;831:2, 21,23;847:24 businesses (2) 789:2;796:12 butter (2) 774:25,25 button (16) 741:3;742:1,3,15; 760:10,14,24,25;761:1, 23,25;762:17;765:2; 768:10,13;832:25 Buy (1) 799:24 buying (1) 788:16 bytes (2) 779:24,24
		C		
		California (1) 839:18		

<p>call (8) 784:24;787:1,7;793:8; 804:10;808:3;820:4; 823:1</p> <p>called (26) 740:5,25;741:19; 747:1,18;748:3;749:8; 753:7;754:3;755:15; 758:2,12,22;765:25; 767:3;775:3;782:15; 787:5,9;800:25;801:18; 803:24;807:3;820:7; 821:9;833:15</p> <p>calls (1) 789:19</p> <p>came (8) 736:13;741:8;743:11; 747:12;774:22;822:1; 839:18;849:22</p> <p>campaign (14) 793:10;796:8;798:4,5, 8,11,11;799:2,2,3,4,8,11; 811:22</p> <p>Campaigns (5) 797:25;812:9,11,21; 813:2</p> <p>can (116) 730:23;731:2,25; 733:4,20;734:9;735:2,5; 737:6;738:17;739:21; 740:11;741:1,23,25; 742:4,5,6,10,13;743:1,4, 11,13,17;744:22;745:18, 23,23;746:6;747:14,18; 749:5;750:17,18,21,23; 751:13;752:9;753:24; 756:1,5;759:14,25; 761:8;763:3;764:5,8,9, 13;767:20,22;768:2; 773:10,18;774:16; 775:17;777:3,5,5,7,11, 12,12;778:7;779:12; 782:1,24;783:7;784:12; 786:9,10;788:14,25; 790:20;792:10;793:25; 796:8,23;798:3;800:3, 21;801:10,19;804:15; 807:4;808:15;810:13, 13;814:15,25;816:8,10, 17;817:14,15,17;818:20; 821:20;823:20;824:5; 827:13,15;830:12; 833:6;834:2;835:10,24, 24;836:10;839:11,12,22, 24;848:2,21</p> <p>capabilities (4) 740:15,18;744:9; 774:14</p> <p>capability (5) 742:17;743:4;764:23; 778:25;786:7</p> <p>capable (1) 778:11</p>	<p>capital (2) 821:16,19</p> <p>capture (3) 782:11;786:18;805:21</p> <p>car (1) 791:22</p> <p>card (2) 794:7,15</p> <p>care (1) 764:6</p> <p>carry (1) 748:6</p> <p>carryover (2) 750:24;751:2</p> <p>cars (6) 747:4;790:10,23,24; 791:15,21</p> <p>carscom (4) 791:15,19,19,22</p> <p>case (29) 732:24;740:9;741:10; 743:17;747:9;749:7; 752:2;767:5;780:13,16, 21;781:2,3;784:4,22; 785:14;786:17;801:17; 810:17;822:21,24; 829:10;841:21;845:2, 13;846:7,12,18;847:17</p> <p>case-in-chief (1) 838:18</p> <p>cases (2) 817:16;832:14</p> <p>catalog (2) 823:7,9</p> <p>catches (1) 795:19</p> <p>categories (1) 733:20</p> <p>category (1) 733:25</p> <p>caused (2) 828:23,25</p> <p>cavalier (1) 764:12</p> <p>CD (9) 778:18,19,25,25; 779:1,11;780:9,11; 831:19</p> <p>CDs (3) 778:21,22;779:9</p> <p>cents (20) 801:4,12,14,17;808:8; 824:22;825:2,4,7,7,15, 15,19,19,24,25;826:1,1, 9,17</p> <p>certain (16) 733:20;739:25; 747:17;758:3;771:18; 774:1;777:14;779:16; 788:20;793:12;804:11; 818:4;831:4;834:18; 845:15,17</p> <p>certainly (8)</p>	<p>730:22;737:5;757:14; 772:20;779:15;827:11; 846:17;847:21</p> <p>CFO (1) 831:10</p> <p>chance (2) 732:8;733:6</p> <p>change (3) 757:10;762:25;846:10</p> <p>changed (1) 843:12</p> <p>changes (10) 749:9;762:21,23,24; 763:4,11,22;764:7,18,21</p> <p>characters (1) 777:8</p> <p>charged (3) 794:15,23;801:5</p> <p>charges (1) 794:20</p> <p>chart (1) 828:10</p> <p>check (2) 761:20;762:19</p> <p>checked (1) 768:10</p> <p>Chen (19) 787:2,6,12,14,18,23, 24;788:2;790:15,21; 792:10,13;793:25; 796:18;797:4;810:15; 813:8,12;814:23</p> <p>Chief (3) 820:16;822:10,13</p> <p>choice (6) 740:5,7,9;760:2; 762:3,5</p> <p>choices (3) 744:10,11,13</p> <p>choose (2) 797:14;836:13</p> <p>choosing (1) 785:11</p> <p>Circuit (3) 733:2;780:22,22</p> <p>circulated (1) 749:12</p> <p>circumstances (5) 768:4;782:5;793:5,16; 844:3</p> <p>citing (2) 751:7;756:15</p> <p>City (1) 821:17</p> <p>claim (2) 765:18;846:2</p> <p>claiming (1) 847:8</p> <p>clarification (1) 841:9</p> <p>classify (1) 773:17</p> <p>clear (8)</p>	<p>749:18;753:15; 755:17;760:1;837:18; 841:7;846:24;849:22</p> <p>Clearly (11) 737:21;738:9,15,19; 742:24;749:16;758:6; 764:8;773:15;776:11; 837:9</p> <p>CLERK (4) 819:2;838:24;839:3; 841:2</p> <p>clerks (1) 732:3</p> <p>clever (1) 758:15</p> <p>click (30) 741:4;742:3,15;745:7; 760:23;761:22,23,24; 762:17;792:18;794:21, 25;795:2,11;801:1,6, 807:11,12,13,17,18,22, 22,24;808:5,8,9,13; 809:8;833:6</p> <p>clicked (18) 745:8;760:10,12,14, 25;761:1,20;762:13,14; 791:17;792:1;794:22; 795:2,14;800:16;801:22, 23;806:17</p> <p>clicks (18) 742:14;791:10; 794:20;801:19,20;802:1, 6;806:15,25;807:1,11, 18,20,21;808:5,13; 834:6;835:18</p> <p>click-through (1) 795:13</p> <p>client (14) 736:24;743:6;754:15, 18,20,24;760:7,21; 761:4;762:7;768:9; 789:19;843:3;844:10</p> <p>clients (7) 736:16;737:1;789:16; 843:18,20;845:6,11</p> <p>client's (3) 736:20;844:24,25</p> <p>close (6) 732:14,23;773:22,23; 788:7;817:9</p> <p>closer (1) 788:6</p> <p>closing (1) 733:16</p> <p>Clumsy (1) 785:10</p> <p>CNET (1) 808:18</p> <p>code (1) 751:24</p> <p>Cole (1) 823:11</p> <p>colleagues (1)</p>	<p>731:1</p> <p>collection (3) 742:12,25;771:17</p> <p>color (1) 778:1</p> <p>Columbia (2) 820:21,22</p> <p>column (11) 743:23;791:24;792:2; 800:24;801:18,18;802:1, 1,14;807:10;808:10</p> <p>columns (4) 800:23,24;807:15; 839:6</p> <p>combat (2) 759:3,18</p> <p>combination (1) 795:15</p> <p>combine (1) 778:5</p> <p>combined (1) 801:8</p> <p>coming (4) 730:7;738:19;791:7; 838:5</p> <p>commands (1) 745:15</p> <p>commercial (1) 765:22</p> <p>committee (1) 749:7</p> <p>common (2) 749:10;838:22</p> <p>communicate (1) 758:24</p> <p>communicating (3) 758:21;773:5;774:1</p> <p>communications (1) 814:4</p> <p>companies (7) 752:3;778:21;780:19; 782:5;783:17;789:25; 821:22</p> <p>company (21) 765:19;767:3;775:3; 780:23;820:14;821:9, 10;822:16,20,24;823:16; 824:11;827:7;828:11; 829:12,16;830:8;832:6, 20;837:8,15</p> <p>company's (1) 826:25</p> <p>comparing (1) 756:16</p> <p>comparison (1) 827:18</p> <p>compensation (1) 832:11</p> <p>competitor (1) 801:12</p> <p>competitors (1) 754:24</p> <p>complete (2)</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

760:19;763:10 completely (2) 847:12,18 complicated (2) 771:19,23 components (1) 777:3 compute (1) 768:1 computed (1) 761:14 computer (28) 745:4,8,13,13,25; 746:3,4,5,6,7,17,24; 748:9,16,18;749:10; 753:6;756:22;758:12, 25;771:17;779:1,12; 805:25;833:12;836:1,2,7 computers (25) 739:13;745:2,12,21; 746:12,15,21,23,25; 747:17,18,21;748:5; 757:25;758:2,3,17; 773:6,25;774:1;777:2; 778:7,9;824:11;847:6 concept (3) 751:4,5;800:1 concerned (3) 843:18,20;850:1 conclusion (8) 740:16;742:18;759:4, 11,15;761:5;762:8; 834:3 conclusions (2) 765:14;784:10 conduct (1) 844:5 confer (1) 731:1 confidential (3) 818:9,12;824:25 confidentiality (1) 734:12 conforms (1) 775:16 congestion (5) 747:2,3,8,11;748:4 connected (1) 747:25 connection (1) 831:23 consented (1) 826:10 considered (1) 785:4 considering (1) 730:6 constantly (3) 844:5,11,17 constitutes (1) 839:5 consultant (1) 772:7	consultation (1) 837:5 consumer (9) 824:22;832:3,5,8,10, 18,20;833:2;835:17 consumers (2) 776:2;824:14 consumer's (1) 832:24 content (28) 737:22,24;738:9,24; 740:12;756:13,13,14; 761:7,10,21,25;762:1,2; 764:23;765:1,2,3,6,11, 13;767:24;834:18; 843:6,9,11,24;844:4 context (2) 732:1;839:8 continue (3) 748:14;788:2;820:2 Continued (10) 735:6;736:8;766:4; 769:15;770:9;798:13; 815:8;816:21;819:4; 841:25 continuously (1) 790:1 contract (9) 734:12;823:22;824:1, 13,16;826:5;834:15,20, 25 control (2) 839:11;847:18 controlled (1) 749:6 convenience (1) 816:18 conversion (2) 779:25;780:4 convert (2) 778:16;783:18 converted (1) 778:20 coordinator (1) 789:10 copied (2) 779:1,3 copies (12) 737:7;738:9,22; 739:11,18;746:16,18; 758:22,24;818:7,16; 846:9 copy (11) 742:9,11,19;743:1; 745:23;756:21;757:22; 787:23;824:2;835:7,10 copying (9) 739:20;740:17,19; 743:7;752:6;759:5; 776:4,5,7 copyright (23) 759:13,19,22,24; 760:3,4,11,12,15,18;	761:2,6;762:9;764:20, 22;765:5;766:3;768:11; 843:19,20;844:19; 845:23;846:1 copyrighted (5) 737:2;761:15;765:11, 20;767:19 corner (2) 764:9;817:13 COSENZA (4) 787:17;813:14,20; 814:22 cost (13) 794:21;795:11;801:1; 807:12,13;808:4,5,5,6,9, 10,12,14 counsel (19) 730:3,13,13;731:6,23, 24,25;733:9;749:25; 770:4;787:15;788:4; 790:17;816:2;817:14, 24;836:20;846:25;849:4 count (4) 731:18;737:11; 794:25;795:2 couple (6) 736:12;759:16; 785:12,24;807:15;847:2 course (17) 741:9;743:21,24; 746:2,4,14;751:7,11; 762:16,22;763:21,23; 764:18;767:17;787:21; 829:11;848:5 COURT (114) 730:2,25;731:4,5,20, 25;732:13;733:18; 734:4,7,9,14,18;735:2; 736:2;750:2,3,9,12,16; 752:8;767:15,18;768:5, 76;769:6,6,13;770:2,4; 771:4;781:1,4,12; 786:22,25;787:4,21; 788:5;790:20;809:14; 810:12;813:11,13,15; 814:24;815:6;816:2,5,9, 15;817:3,9,16,21; 818:11,15,18,22;819:1, 3;820:2;824:6,6;827:11; 830:20;836:19;837:2,9, 10,13,18,21,24;838:3,6, 9,12,15,17,20,22;839:15, 20;840:1,5,7;841:1,2,10, 13;842:2,11,14,18,25; 843:18;844:9,24;845:6, 10,14;846:14,24;847:14; 848:3,7,10,13,19,24; 849:22;850:4,8 Court-ordered (1) 736:19 courtroom (5) 788:4;831:9,19;836:5; 847:9	Courts (1) 735:4 covers (2) 810:4;822:19 CPC (3) 801:2;807:12;808:1 create (4) 743:21;782:4;798:10; 821:23 created (3) 781:19;811:22;847:5 creative (1) 788:16 credit (3) 794:7,14,15 criminal (1) 817:16 criteria (1) 748:11 critical (1) 738:15 criticized (1) 749:12 critiqued (1) 749:12 CROSS (3) 771:2;813:19;830:21 crystal (1) 849:21 CTR (7) 807:11,24;839:5,6; 841:6,6,9 CTRs (1) 839:23 current (14) 783:8,9,13;788:12; 789:25;800:25,25;801:1, 18;820:15;822:10; 823:5,17;827:5 currently (6) 750:6;787:25;788:1; 820:11;823:4;829:24 customer (4) 797:9,14;825:18; 826:4 customers (1) 826:4 cut (2) 733:4;837:21	date (5) 733:23;757:8;764:4; 813:2;830:13 dated (1) 783:4 day (14) 737:13,22,23;764:11; 815:4;816:16;823:17; 836:1;837:19;838:17; 842:6,6;843:4,15 days (7) 794:14,16;816:11,17; 845:15,23;846:22 day-to-day (2) 789:18,19 deal (2) 732:8;734:21 deals (1) 822:18 decade (4) 826:24;827:1;828:22; 829:12 December (2) 749:17;813:3 decide (3) 732:10,23;839:12 decided (2) 740:10;826:3 decides (1) 825:16 decision (6) 732:7;740:9;762:2; 780:22;781:12;846:18 decisions (1) 731:25 decline (5) 828:20,22,25;829:15; 830:12 deduce (2) 831:14,17 deeper (1) 791:20 default (5) 739:20,21;740:2,3; 761:21 defendant (4) 732:1;771:8;846:22, 23 defendants (3) 730:17,24;732:24 defendant's (1) 732:21 defendants' (1) 787:15 defense (7) 730:13,13;731:6,23; 749:25;772:11;790:17 define (1) 773:7 defines (1) 773:5 definitely (4) 747:5;816:12;827:8;
		D		
		daily (2) 737:11,19 damage (1) 785:15 damages (6) 732:17;784:22; 829:13;846:2,6,23 data (3) 731:14,15;812:12 database (1) 761:15		

<p>829:1 definitive (2) 733:16,25 degree (1) 820:19 deliberate (2) 732:21;844:7 deliver (2) 746:7;822:15 delivered (1) 748:22 demonstrated (3) 739:1,5;744:24 depend (1) 792:5 depends (2) 801:7;844:16 deposition (2) 784:2,6 DEPUTY (1) 819:2 derivation (1) 775:1 describe (5) 751:13;763:9;796:4; 821:20;825:13 described (4) 744:9,21;750:19; 760:2 design (8) 740:4,5,7,8;744:10,11; 762:3,5 designated (2) 750:3,6 designed (2) 753:3;771:18 desire (1) 793:11 desired (1) 796:11 desk (1) 782:22 determine (3) 794:10;804:15;825:17 determined (6) 794:12,17;795:8; 801:5,7;844:15 determining (1) 784:21 Developers' (4) 749:8;754:4,6;756:24 development (1) 740:4 device (1) 836:2 diagram (1) 757:25 different (23) 739:6,13;765:9,17; 767:23;773:5;786:17; 792:7,8;795:5;799:11, 11,15,16,23;800:2,11; 803:7;809:20;811:24;</p>	<p>812:2;825:19;845:21 digital (27) 737:2;738:6;740:17; 741:10,16;742:10,19; 743:7;744:3,6,17;752:7; 755:24;756:15;757:22; 759:5;761:12;765:24; 767:22;776:5,7,9,9; 778:19;779:19;823:18; 842:22 dire (1) 849:5 DIRECT (6) 736:8;787:11;820:9; 845:20;846:7,8 directed (2) 760:16;791:18 directly (2) 791:13;800:21 disappointed (2) 734:18;811:4 disclosed (2) 837:12;838:4 discuss (2) 734:16;816:6 discussed (1) 733:13 discussing (1) 733:15 discussion (6) 736:15,17;737:14,16; 744:20;754:8 discussions (4) 813:23,25;814:3; 818:2 display (1) 788:19 displayed (4) 799:10;802:4,16; 804:4 displaying (1) 810:21 displays (1) 806:3 distinguish (1) 822:23 distribute (2) 736:20;760:17 distributed (2) 738:23;754:18 distributing (2) 736:24;737:4 distribution (7) 738:5,7,15,17;739:7; 740:13;829:22 divided (1) 807:19 document (38) 737:10,12;742:22; 750:6,18;752:10,12; 755:11,14;763:6,9,10, 13,15,18;764:15;782:24; 784:10;796:16,20,21;</p>	<p>797:23;800:5;804:19; 805:3,23;806:6;808:15; 809:11,16;810:4,10,16, 17,20;811:3;812:8,18 documents (6) 750:5,8;818:2,7,12,19 dollar (1) 825:3 dollars (6) 771:15,22;808:11; 827:17;829:11,13 domain (1) 791:19 dominant (2) 754:25;823:21 dominated (1) 741:9 done (16) 730:14;741:22;758:1; 767:15;773:11;782:14; 783:16;804:11;816:2; 828:10;832:22,23; 843:17,19;847:4,5 doubt (1) 774:5 down (41) 732:11;734:19; 741:23;743:20;751:9; 752:9,12;753:9,24; 755:21;761:22;763:4; 764:3,11;770:2;776:13; 786:23;793:25;795:6; 797:24;799:2;802:21; 803:24;804:20;805:4, 10;806:6,8;814:24; 816:9;827:16;828:15, 18;829:24;830:5,6; 833:11;836:19;843:15, 22;849:22 download (24) 737:2;739:5,10,15,22; 742:15,16;744:4; 757:20;759:7,20;760:6, 19,20;761:13;762:12,14, 16;779:11;805:5; 814:17;823:18;824:21; 842:9 downloaded (12) 739:12,19,19;740:3, 11;741:24;743:1;758:7; 760:13;761:3;782:18; 784:13 downloading (10) 737:24;739:2,8;744:6, 17,23;751:16;752:5; 759:21;846:9 downloads (6) 739:5;803:12;814:15; 829:4;835:9;847:7 dozen (1) 803:19 Dr (3) 731:12,15,18</p>	<p>draw (1) 834:2 drive (1) 795:24 driving (1) 796:9 dug (1) 748:20 duly (2) 787:10;820:8 durable (2) 779:8,9 during (16) 734:15,20;736:13; 747:4;784:2,8;802:16; 813:22;816:3,7;818:3; 821:1;827:1,7;829:16; 849:5 DVD (2) 778:14,15 DVDs (1) 779:10 dynamic (7) 746:14;755:15; 756:24;757:2,5,10;843:8 dynamically (2) 738:20;843:12</p>	<p>effectiveness (1) 765:14 efficient (1) 757:22 efficiently (2) 749:21;757:19 effort (2) 756:12;772:2 eight (1) 739:12 either (8) 733:11;743:17; 777:21;779:1;817:12, 13;832:25;849:7 electronic (1) 777:2 element (1) 738:16 elements (1) 744:8 eliciting (1) 817:7 ELLIS (1) 736:7 else (8) 740:12;742:23; 757:21;782:19;836:6; 848:7;849:11;850:6 else's (1) 844:5 e-mail (7) 779:14,15;783:3; 797:6,8,14;810:24 embedded (1) 772:18 EMI (43) 734:12;820:12,13,15; 821:1,4,25;822:1,2,4,13, 20,23;823:4,12,14,15,17, 22;824:11,13,22,23; 825:3,16,21,22;826:11, 25;827:17;829:7,12,15, 19;830:9,10;831:2,24; 834:15,20,22;835:9,10 EMI's (6) 823:9;826:3,23,24; 827:20;833:18 employed (1) 820:11 employee (2) 755:21;821:5 employees (7) 749:17;829:21,25; 830:2,5,6,6 en (1) 805:16 enable (4) 761:20,21,25;765:1 encoded (4) 747:22;753:3,5;777:4 encoding (3) 767:25;778:5;779:19 encodings (3)</p>
E				
			<p>earlier (5) 734:16,19;751:18; 782:14;808:2 early (11) 730:3;732:19;781:17, 18;815:5;816:10,17; 821:7;825:12;838:7,17 easel (3) 817:4,5,8 easier (1) 757:22 easily (1) 831:14 easy (1) 796:7 eat (1) 774:23 Eaton (1) 847:2 eDonkey (1) 773:14 education (1) 849:15 educational (2) 820:18;821:12 effect (5) 749:19;755:6;765:10; 825:12;833:22 effective (7) 731:14;757:18;765:4, 19;766:3;793:9;796:11 effectively (2) 757:17;846:21</p>	

778:3,3,4 end (3) 750:7;838:7,17 enforce (1) 845:23 engine (4) 788:23;790:9,14; 814:7 engineering (1) 772:15 engineers (1) 751:6 enhance (1) 754:9 enough (3) 730:3;758:15;850:3 ensuring (1) 822:15 enter (8) 745:6;790:9,18,23; 792:11;794:6;819:3; 834:20 entered (5) 790:14;792:7;794:24; 802:8;804:25 entering (1) 842:5 entire (3) 742:11,25;809:16 entirely (2) 753:15;828:23 entirety (1) 845:4 entity (1) 832:12 entries (1) 741:8 equal (1) 808:13 era (1) 775:7 Eric (1) 783:4 error (1) 781:15 Español (1) 805:16 essential (1) 738:22 essentially (2) 788:15;844:4 estimated (1) 737:11 etc (1) 741:14 eternal (2) 779:8,9 evaluate (3) 784:21;830:25;831:5 evaluating (1) 783:12 evaluations (1) 784:3	even (5) 740:8;741:13;746:18; 765:15;834:1 evening (2) 841:14,15 event (3) 832:6;835:23,24 eventually (2) 745:12;749:13 Everybody (1) 787:23 everyone (1) 840:5 evidence (14) 730:7;750:14;767:6; 768:15;769:9;782:25; 787:19;813:10,18; 818:10,19;824:3,8; 826:25 evidentiary (1) 841:8 exact (2) 775:1;844:16 exactly (4) 740:1;763:2;771:16; 782:22 EXAMINATION (10) 736:8;771:2;785:22; 787:11;813:19;818:4; 820:9;830:21;834:11; 835:14 examiner (1) 838:3 examining (1) 736:14 example (24) 739:2;742:21;753:19; 777:15;780:10;785:2; 790:10;791:20;792:22; 798:8;799:19,21;800:3; 801:3,10,11;808:7; 823:20;826:15,15; 832:15;836:14;844:18, 23 examples (6) 765:12;773:3,10; 784:17;823:3;826:14 except (1) 818:9 exchange (2) 776:20;831:1 excluded (2) 731:17,17 excludes (1) 829:21 excused (1) 786:24 Executive (1) 820:16 Exhibit (27) 749:25;750:4,12,14, 18,21;751:3;755:12; 763:7,16,19;764:16;	768:17,19,21,23,25; 769:2;783:1;796:17; 803:4;812:5,6;824:5,6,8, 10 exhibits (12) 749:24;750:1;763:8; 768:15;769:7,8;787:14, 16,18;813:10,15,17 exist (1) 773:18 existed (1) 821:24 existence (2) 743:19;762:22 existing (1) 780:7 exists (1) 833:18 expect (1) 849:16 expecting (1) 744:16 expense (1) 797:22 experience (6) 739:24;740:4;751:21; 790:4;831:12;836:10 experiment (2) 765:16;784:24 expert (2) 837:8;847:2 explain (18) 738:17;739:21; 745:18;747:13;756:5; 767:21;777:1;788:14, 25;790:6,25;792:14; 796:23;798:4;801:19; 807:4,17;812:24 explained (3) 742:18;807:16;834:2 expressed (1) 749:9 extent (3) 780:14;831:18;833:17 extremely (1) 849:11	fail (1) 767:25 failed (1) 761:8 fair (6) 771:20;772:19;790:3, 5;831:17;850:3 fairly (2) 809:11,15 faith (1) 848:10 familiar (2) 740:5;751:21 fancy (1) 799:22 far (6) 756:2,6,20,22;802:14; 843:8 farther (1) 751:9 fast (2) 778:7;782:2 faster (9) 739:16;778:9,9; 803:11,12;804:2;805:1; 816:13;837:15 FastTrack (8) 751:11,14,15,18,22, 25;752:4;773:4 favor (1) 735:4 feat (1) 785:3 feature (4) 741:18,19;742:2; 763:10 features (16) 740:15,18;741:17; 743:4,5;744:5;759:3; 761:4;762:7;763:6,13, 15,18;764:15;796:1,3 federal (1) 781:4 feel (1) 786:25 felt (2) 839:6,7 Fergie (1) 785:9 few (3) 762:23;803:18,19 fewer (2) 756:23;830:9 field (2) 744:2;749:10 figured (1) 748:21 figures (1) 771:13 file (25) 739:10;740:11;741:7; 742:8;745:22;746:1,6,7; 748:7;753:18;755:24;	758:4,14,15,16,20; 761:12,13,14;762:16; 765:8;779:19,21; 806:22;831:1 files (50) 737:3;738:6;739:18, 19;740:3,17,20;741:10, 10,16;742:9,10,15,16, 19;743:7,9;744:17; 751:16;752:7,24;753:1, 10,17,22;756:15,15; 757:20,23;758:2,10,13; 759:5,7,7;765:16,17; 767:22;775:23;776:6,8, 9,10,11;778:19,19; 786:9,10;800:12;805:25 files' (1) 753:11 file-sharing (1) 783:9 fill (1) 837:19 filled (1) 738:12 filter (4) 765:20;766:3;814:18, 21 filtered (1) 767:19 filtering (13) 761:7,10;762:1,2; 764:23;765:2,3,6,7,13, 25;767:7,20 filters (3) 761:21,25;765:1 Finance (1) 822:5 Financial (4) 820:16;822:10,13; 827:6 find (14) 738:24;747:10; 756:20;758:15;759:12; 762:15;763:13;764:21; 788:23;800:11,19; 839:13;842:5;845:5 finding (1) 844:12 fine (6) 750:9;769:13;790:20; 817:19;848:24;850:4 fingerprint (1) 768:2 fingerprints (2) 765:25;768:3 finish (1) 837:16 finished (1) 838:18 Fireworks (1) 832:15 firm (4) 821:16,18;842:23,24
		F		
		face (1) 844:6 fact (12) 736:15;740:10; 744:13;751:8;753:16; 754:22;772:15;777:17; 783:13;786:6;833:9; 849:21 factor (1) 795:12 factors (2) 795:9,15 factual (1) 730:8	fail (1) 767:25 failed (1) 761:8 fair (6) 771:20;772:19;790:3, 5;831:17;850:3 fairly (2) 809:11,15 faith (1) 848:10 familiar (2) 740:5;751:21 fancy (1) 799:22 far (6) 756:2,6,20,22;802:14; 843:8 farther (1) 751:9 fast (2) 778:7;782:2 faster (9) 739:16;778:9,9; 803:11,12;804:2;805:1; 816:13;837:15 FastTrack (8) 751:11,14,15,18,22, 25;752:4;773:4 favor (1) 735:4 feat (1) 785:3 feature (4) 741:18,19;742:2; 763:10 features (16) 740:15,18;741:17; 743:4,5;744:5;759:3; 761:4;762:7;763:6,13, 15,18;764:15;796:1,3 federal (1) 781:4 feel (1) 786:25 felt (2) 839:6,7 Fergie (1) 785:9 few (3) 762:23;803:18,19 fewer (2) 756:23;830:9 field (2) 744:2;749:10 figured (1) 748:21 figures (1) 771:13 file (25) 739:10;740:11;741:7; 742:8;745:22;746:1,6,7; 748:7;753:18;755:24;	

<p>first (30) 733:4;741:22;750:23; 751:3;752:15;756:5; 759:18;762:12;763:21; 776:24;780:2;781:4; 783:21;791:1;792:1; 794:16;795:20;796:17, 20,24;803:23;810:6,21; 812:5,18;820:24;827:1; 828:22;833:14;849:4</p> <p>Fisk (1) 755:20</p> <p>fist (1) 837:3</p> <p>fit (1) 733:25</p> <p>fits (1) 848:15</p> <p>five (3) 816:8,9;823:12</p> <p>fixes (1) 763:3</p> <p>flagged (1) 734:19</p> <p>Flo (19) 739:2,4,12;745:5,10, 11,11,23;746:15,16,24; 753:20;756:8;757:7,13; 758:4,7;762:13,16</p> <p>flowed (1) 746:3</p> <p>FLP (1) 848:17</p> <p>flying (1) 755:16</p> <p>focus (4) 824:16;828:11; 831:21;834:13</p> <p>focusing (2) 848:17,22</p> <p>folder (2) 742:24;758:16</p> <p>follow (4) 736:12;799:25; 835:16;845:7</p> <p>following (1) 776:1</p> <p>follows (2) 787:10;820:8</p> <p>follow-up (1) 839:3</p> <p>forever (3) 835:11,25;845:23</p> <p>forget (4) 774:24,25;775:4; 817:22</p> <p>forgot (1) 759:17</p> <p>form (2) 746:8;796:11</p> <p>formats (1) 767:23</p> <p>former (1)</p>	<p>731:2</p> <p>forth (3) 746:12,20;802:22</p> <p>fortunately (1) 778:6</p> <p>Forum (4) 749:8;754:4,6;756:24</p> <p>forward (1) 820:3</p> <p>found (7) 731:14,19;732:4; 752:8;761:19;765:17; 800:21</p> <p>four (16) 738:13;739:2;779:23, 23;782:17,18;784:12,17, 20;785:1,6,13;786:12; 805:10;822:20,25</p> <p>frame (1) 802:16</p> <p>Frank (1) 823:10</p> <p>Fray (1) 741:12</p> <p>free (12) 775:11;781:21; 786:25;790:11;814:8,15, 17,19;826:3,8,10;831:14</p> <p>front (6) 772:22,23;817:17,24; 818:7;849:16</p> <p>full (5) 730:8,10;750:20; 783:6,21</p> <p>full-time (2) 821:2,5</p> <p>functionality (1) 786:3</p> <p>functions (1) 744:23</p> <p>further (12) 785:21;786:20,21; 813:8;814:22,23; 830:18;834:10;835:13; 836:17,18;849:25</p>	<p>generate (2) 795:19;806:15</p> <p>generated (2) 831:15;832:8</p> <p>genre (1) 743:10</p> <p>genres (1) 743:18</p> <p>gentlemen (1) 736:3</p> <p>gets (6) 777:4;832:4,12,20,20; 836:13</p> <p>Gettysburg (3) 755:25;756:17,21</p> <p>Given (17) 732:23;734:24; 737:23;738:22;746:13, 21;748:18;758:14; 764:14;765:8;801:6; 823:2;834:25;835:6; 844:9;847:21;849:20</p> <p>giving (1) 793:10</p> <p>globe (1) 773:25</p> <p>Gnutella (36) 745:16,18,19,20; 747:6;749:2,8,19;751:6, 15,20;754:4,6,12,19,20, 23;755:1,2,5,22;756:24; 757:18;773:4;774:6,22; 775:9,13,14,24;776:3,5, 13;780:2;786:10;800:12</p> <p>goal (1) 796:11</p> <p>goals (1) 744:14</p> <p>goes (4) 739:15;832:3;845:18; 849:12</p> <p>Good (27) 730:2;731:4;734:4,4; 736:3,10,11;738:21; 742:21;749:13,22; 756:11,11;769:11;771:6, 7;787:13;807:23; 813:21;816:19;818:18; 830:23,24;839:5; 841:19;848:10;850:6</p> <p>Google (55) 788:1,4,8,10,12,21,22, 23,25;789:1,2,4,5,6,9,22; 790:1,4,6,17;791:7; 793:4,5,15,16,17,20,22; 794:5,10,11,13;795:23; 796:14;797:2;802:8,17; 804:6;810:18,22;813:5, 22;814:18;831:25; 832:3,3,6,13;834:5,14, 15,17,25;835:1;841:7</p> <p>googlecom (9) 790:8,18,22;793:3;</p>	<p>795:25;799:10;802:4; 809:6;814:6</p> <p>Google's (5) 788:17;789:1,7;791:3; 796:24</p> <p>Gorton (9) 783:3,3,22;814:1; 837:4,9;838:1;848:8; 849:3</p> <p>governs (1) 824:13</p> <p>grace (2) 845:17;846:1</p> <p>graduate (2) 820:20,22</p> <p>graduated (1) 821:3</p> <p>granted (1) 834:17</p> <p>great (1) 838:12</p> <p>greatest (1) 847:9</p> <p>Greg (1) 797:10</p> <p>Grokster (12) 752:2,3;780:13,16,17, 21,24;781:3,10;808:18, 19,25</p> <p>group (24) 741:14;749:8,13; 750:3;754:7;798:6; 799:6,7,8;800:9;803:3,5, 7,14,23;805:24;807:7, 14;808:12,15,17;809:23; 811:4,24</p> <p>grouped (1) 799:14</p> <p>groups (9) 799:4,12;800:4,6; 809:17,20;811:20,22; 812:17</p> <p>guaranteed (1) 748:14</p> <p>guess (14) 737:6;740:9;741:9; 743:8,22;744:25; 747:13;749:16;761:23; 768:12;773:15;781:4; 829:20;839:7</p> <p>guys (5) 745:10,10,11,11;775:3</p>	<p>hand (1) 732:20</p> <p>handle (1) 778:11</p> <p>handled (2) 755:23,23</p> <p>handles (1) 776:10</p> <p>handling (1) 787:2</p> <p>happen (6) 760:9,14;761:2,25; 791:17;817:4</p> <p>happened (2) 782:22;826:23</p> <p>happening (1) 746:11</p> <p>happens (3) 742:3;746:1;791:10</p> <p>hard-and-fast (1) 845:22</p> <p>hash (6) 753:7;761:11,14; 765:9,9,13</p> <p>hashes (3) 753:11;765:16,17</p> <p>hashing (2) 765:7,18</p> <p>head (2) 828:7;848:20</p> <p>header (1) 800:11</p> <p>heading (2) 797:23;799:1</p> <p>headings (1) 807:3</p> <p>hear (6) 777:22;832:11; 833:10;837:25;840:2; 848:13</p> <p>heard (3) 829:3,10;833:14</p> <p>hearing (1) 751:12</p> <p>hears (1) 835:18</p> <p>heavy (1) 778:12</p> <p>heels (1) 799:22</p> <p>held (2) 789:6,22</p> <p>help (10) 731:23;755:3;758:10; 772:18;788:16;793:7, 20;796:1,5;809:9</p> <p>helped (2) 789:16;821:16</p> <p>helpful (2) 732:2;810:12</p> <p>helps (3) 788:23;809:5,7</p> <p>herself (1)</p>
G				
<p>gamut (1) 822:19</p> <p>gauge (2) 807:20,21</p> <p>gave (1) 826:8</p> <p>general (10) 749:11;755:3;795:9, 17;821:17;822:12; 825:13,21;826:19;830:3</p> <p>generally (12) 732:16;734:23; 748:12;749:6;776:21; 790:6;809:2,4,23; 818:22;821:20;844:10</p>				
H				
		<p>half (10) 782:21;827:1;828:22; 829:24,25;830:16;834:6, 9;836:11,15</p> <p>halfway (1) 805:4</p> <p>halved (1) 830:15</p>		

<p>761:24 hey (1) 745:10 hierarchy (4) 748:4,25;754:11,16 high (2) 807:22;841:6 higher (7) 779:4;795:6,16; 802:18;807:22;825:7; 826:18 highest (1) 802:19 highlight (6) 750:21,23;752:14; 797:4;803:10;805:15 highlighted (7) 742:14;798:3;799:3; 800:8;803:11;806:9; 807:4 highly (2) 768:2;796:11 highway (2) 773:22,24 Himalaya (2) 821:19,21 hired (1) 842:23 history (8) 763:6,10,13,15,18; 764:15;774:24;847:10 hit (2) 756:3;794:14 hits (2) 794:16;814:11 hold (2) 822:4,7 hondaofnanuetcom (1) 792:3 Honor (73) 730:22;731:13; 732:12;733:10,15;734:3, 17;735:1;749:24; 768:14,18,20;769:3,4, 10,11;770:6,7;771:5; 784:5;786:20,21;787:2, 14;788:3;790:15,21; 810:15;813:8,14;814:22, 23;815:2;816:4,6;817:6, 11,19,20;818:1,17,21, 25;820:4;827:9;828:10; 830:18;835:13;836:18; 837:20;838:4,8,10,14; 839:10;840:4;842:7,17, 21,21;845:2,9,20; 846:16;847:1,20;848:5, 6,9,12;849:2,14;850:3 Honor's (7) 731:16;733:23;843:2, 14;844:1;846:18;849:15 hope (3) 739:11;839:21;841:20 hopefully (1)</p>	<p>746:7 Horowitz (35) 730:23;736:5,7,10,12; 737:10;738:4;739:1,18; 740:14;742:20;743:3; 744:9,19;747:10;750:19, 25;751:2;753:14;754:2; 755:12;756:5;759:10, 25;762:21;763:6;765:3; 767:6,9;768:7;769:5; 771:6;785:25;786:14; 843:7 horrible (1) 849:10 host (6) 741:19;742:2,17,22; 744:5;763:4 hostiletext (2) 758:12,20 hosts (1) 739:6 hours (2) 747:4;838:7 hundred (5) 738:13;741:25;772:9, 10;809:13 hundreds (1) 765:8</p>	<p>impact (5) 829:8;831:1,3;833:18, 25 impacted (2) 831:17,18 impacts (1) 831:19 implement (3) 765:13;774:14;786:3 implemented (6) 754:11;757:5;761:7,9, 11;767:7 implementing (1) 759:2 important (2) 777:1;795:7 imposing (1) 844:4 IMPR (1) 802:2 impression (1) 802:3 impressions (11) 804:23,24;805:8,11; 806:10;807:8,11,19; 812:20,21;813:1 improve (2) 754:9;809:5 improvement (3) 754:10,21,23 improvements (3) 747:12;755:4;763:23 improving (1) 759:8 include (4) 789:19;799:11;809:2; 811:11 included (1) 784:2 includes (2) 745:22;823:10 including (3) 739:2;809:4;837:8 incorporate (1) 758:9 incorporated (1) 751:17 incorporating (1) 758:19 independent (1) 785:5 independently (1) 732:4 indicate (2) 758:1;791:2 indicated (8) 790:16,23;791:12; 792:21;797:10;801:2; 810:6;813:2 indicates (4) 802:17;807:6;812:10, 14 indicating (1)</p>	<p>792:16 indie (1) 823:1 indirectly (2) 774:5,7 individual (1) 753:1 individuals (1) 846:8 induced (1) 846:19 industry (9) 776:1;781:20;820:24; 829:11;831:17;833:23; 842:15,18;844:11 ineffective (1) 765:7 ineffectual (1) 765:18 inflation (1) 827:19 influence (1) 795:9 information (15) 730:18;732:10,22; 753:21;788:24;794:7; 797:21;802:10;804:3; 811:21;818:4,5,9; 842:13;845:2 informed (2) 740:18;762:8 infringe (1) 846:5 infringement (28) 730:9,18;731:8; 732:22;759:13,19,23,24; 760:3,4,11,13,15,18; 761:2,6;762:9;764:20, 22;765:5;768:11; 842:19;843:19,21; 844:13;845:18;846:12, 19 infringements (3) 731:19;844:15;846:11 infringer (6) 845:21;846:3,4,5,7,19 infringers (1) 846:8 infringing (2) 732:21;845:25 initially (3) 740:1;761:21;764:24 injunction (1) 736:20 innovation (1) 759:6 innovations (1) 757:17 inquiry (1) 839:14 install (1) 739:22 installed (2)</p>	<p>768:8;773:6 instantaneous (2) 835:23,24 instead (3) 753:2;767:25;810:12 instructions (2) 771:17;772:18 intend (1) 760:17 intends (2) 849:5,9 interconnection (1) 773:24 interest (2) 749:9;760:19 interested (1) 749:7 interesting (1) 741:4 interface (5) 740:15;743:4,22; 744:8,20 intern (1) 820:25 internal (2) 789:21;796:25 Internet (9) 773:23,24;774:11,12, 14;788:24;794:8; 821:23;843:24 interpretation (1) 846:16 interpreting (1) 731:16 interrogatories (1) 734:24 interrogatory (1) 733:3 interrupt (2) 759:25;832:22 into (25) 733:19,25;739:7; 745:6,16;768:15; 777:13;782:25;783:13, 18;786:5,6;787:18; 790:14;797:7;813:10; 818:19;822:10;824:2; 825:11;834:20;839:8; 844:21;845:7;847:25 introduced (1) 764:12 introducing (1) 764:13 invent (1) 775:5 invented (2) 775:2,4 investigate (1) 839:12 investigated (1) 844:15 investigators (2) 844:19;845:3</p>
I				
<p>idea (8) 739:9;744:6;749:13, 22;751:8,17;756:1; 764:5 ideal (2) 742:24;776:4 Ideally (1) 731:4 identical (1) 756:14 identically (1) 755:24 identifying (2) 778:12;785:4 illegal (1) 844:5 illustrate (7) 738:10;740:22; 741:20,21;745:1; 785:12;799:20 illustrated (1) 786:18 illustrates (1) 763:22 illustration (3) 782:23;784:25;785:7 image (2) 777:25;778:16 iMesh (1) 783:17 immediately (3) 739:19;740:11;847:23</p>				

<p>investments (2) 821:20,22</p> <p>Invocations (1) 849:6</p> <p>involve (1) 752:25</p> <p>involved (3) 781:3,5;821:21</p> <p>involves (1) 788:14</p> <p>iPad (1) 836:4</p> <p>iPhone (1) 836:4</p> <p>iPod (1) 836:4</p> <p>issue (14) 730:6;732:25;733:12, 13,15,17;734:5,11; 786:16;838:5;848:18,21, 23;849:15</p> <p>issues (4) 735:5;736:13;746:22; 789:20</p> <p>item (2) 740:25;762:11</p> <p>items (1) 763:2</p> <p>ITunes (8) 823:21,24;824:19; 825:6,10;826:12,21; 829:6</p> <p>iTunes' (1) 824:13</p>	<p>jurors (12) 730:5;786:25;787:21; 814:25;817:15,17;818:7, 19;824:5;837:25; 838:23,25</p> <p>jury (59) 730:1;733:3;734:6,21, 25;736:1;740:24; 744:23;750:2,10,17; 755:11;759:15;770:1; 771:1;784:18,21;785:4; 787:20;788:14,25;790:6, 16,25;792:14;796:18,23; 799:20;801:19;807:16, 17;810:13,16;812:6,25; 816:1,10;817:9,10,13; 819:1,3,3;820:1;823:3; 824:2,4;825:13;826:24; 829:12,18;830:7,12; 838:11;841:25;842:1; 849:13,17,18</p> <p>Justin (1) 741:14</p>	<p>777:8;778:7;829:4,20; 845:12;850:2</p> <p>kinds (1) 821:20</p> <p>King (1) 823:11</p> <p>kitchen (1) 800:1</p> <p>KLAUS (37) 730:21;731:1,10; 732:12;749:24;750:5,11, 17;751:1;767:10,17; 768:6,14,17,19,21,23,25; 769:2,4,10;770:7;784:5; 785:23;786:20;842:7,12, 17;843:2,20;844:14; 845:1,8,11,16;846:15; 848:5</p> <p>knew (3) 774:6;838:5;845:14</p> <p>knowing (6) 760:23;797:12; 802:25;803:2;811:16,19</p> <p>knowledge (3) 783:20;824:25;839:7</p> <p>known (4) 748:20;758:3,13; 788:21</p> <p>knows (1) 731:13</p> <p>Korn (1) 741:13</p>	<p>later (2) 764:11;844:6</p> <p>latter (1) 730:24</p> <p>launched (1) 826:16</p> <p>law (8) 732:3,18,20;838:24; 839:3;841:2;845:24,25</p> <p>lawyer (4) 837:6;839:18;849:10, 20</p> <p>lawyers (3) 841:11;849:6,23</p> <p>layers (1) 778:6</p> <p>lead (1) 814:16</p> <p>lead-in (1) 783:7</p> <p>leading (2) 767:3;773:15</p> <p>leads (1) 796:10</p> <p>leaf (1) 753:10</p> <p>least (4) 741:10;742:9;785:14; 849:23</p> <p>leave (5) 752:10;762:2;816:10, 15;841:23</p> <p>led (1) 747:1</p> <p>left (4) 738:2;745:5,25;821:9</p> <p>left-hand (1) 764:9</p> <p>legal (4) 829:6;831:16;849:18, 24</p> <p>less (4) 764:11;765:17;808:9; 845:4</p> <p>letter (4) 731:22;777:5;783:24; 848:21</p> <p>letters (1) 777:7</p> <p>level (4) 777:2;780:17,18; 781:16</p> <p>leveraging (1) 821:23</p> <p>license (1) 762:15</p> <p>life (1) 837:24</p> <p>light (2) 805:10,11</p> <p>L-I-G-H-T (1) 805:11</p> <p>likely (4)</p>	<p>746:18;791:21; 792:23;809:8</p> <p>Lime (124) 730:9;736:16,19,23; 737:1,4,5,7,9,11,15,18; 738:6,7;739:18;740:10, 16,18,19;741:5,6; 742:19;743:6;744:11, 21;745:2,3,9,17;747:6, 10,15,20;748:24,25; 749:17;751:17,19; 752:16;754:15,19,22,25; 755:2,3,5,20;757:2,5,11, 19,21;758:7,9,14,15,16, 21,23,25;759:4,12,18,22, 23;760:1,3,4,7,8,10,12, 15,16,17,21;761:2,4,5, 12,14,17;762:6,7,8,15, 21;763:11,23;764:19; 765:4,13,15,19;766:1; 800:10,18;801:24; 803:13;805:24;806:3,12, 18,18,23;808:18,18,22; 809:24;810:4,7;811:4,8; 812:15;813:23;814:4; 828:23,25;829:2; 831:20;834:20,22; 835:9;837:7</p> <p>LimeGroup (3) 796:13;797:11,17</p> <p>LimeWire (29) 767:6,18;768:7,9,10; 774:6;775:4;780:5,6; 783:12;785:8,12;786:3, 7,15;796:13;842:5,8,19; 843:3,6,12,22,23;845:7; 846:8,11,20;847:8</p> <p>limewirecom (1) 842:8</p> <p>LimeWire's (1) 783:8</p> <p>limit (6) 757:14;779:4,5,5; 818:5,8</p> <p>limited (1) 848:21</p> <p>line (4) 750:23;752:15; 763:25;802:21</p> <p>lines (2) 733:8;764:3</p> <p>lineup (1) 837:2</p> <p>link (2) 803:16;806:3</p> <p>links (7) 791:2,6,13,23;792:16; 808:22;811:8</p> <p>list (26) 730:8,8,10,11;731:5,6, 7,17;733:16,25;747:22; 753:9;754:8;758:12,25; 763:1;781:8;784:21;</p>
J	K	L		
<p>James (2) 784:15;814:6</p> <p>January (2) 764:10,11</p> <p>Jill (3) 787:7,8;841:5</p> <p>job (7) 820:24;821:2,15; 827:5;829:18;830:25,25</p> <p>jobs (1) 829:15</p> <p>Joe (1) 771:8</p> <p>joined (1) 788:10</p> <p>joint (1) 735:3</p> <p>Jones (1) 823:6</p> <p>Judges (3) 837:21,24;838:22</p> <p>July (2) 763:1;811:2</p> <p>JUROR (8) 750:15;756:10; 838:23,25;841:2,5,12,13</p>	<p>Kahn (10) 820:5,6,11;824:1,10; 827:13;828:12;830:23; 834:13;836:19</p> <p>Katy (2) 823:5;832:14</p> <p>Kazaa (20) 751:11,13,16,22,23, 25;752:4;803:5,12,12, 24;804:2,4,20,25;805:1, 4,10,16;831:18</p> <p>keep (3) 817:17;818:12;835:10</p> <p>Keith (1) 823:6</p> <p>kept (1) 843:16</p> <p>key (51) 799:8;800:19,21,22, 24;801:3,3,12,13,14,21, 25;802:8,12,24;803:19, 22,23;804:2,4,18,20,23; 805:4,8,10,11,14,19,20; 806:5,6,10,12,15,19,21, 22;807:3,6,13;808:3,6, 24;809:3,4,6;810:1; 811:11,14;812:2</p> <p>Keys (4) 741:23,24;742:8; 785:9</p> <p>keyword (2) 790:14;793:21</p> <p>keywords (2) 793:12;798:6</p> <p>kind (12) 743:11;747:3,22; 763:25;764:5;773:23;</p>	<p>labeled (1) 747:19</p> <p>ladies (1) 736:3</p> <p>Lady (1) 823:6</p> <p>landing (1) 792:20</p> <p>language (4) 745:21,22;773:8; 774:1</p> <p>large (8) 742:14;772:12; 776:11;788:16;793:6; 809:15;823:1;826:4</p> <p>larger (4) 772:5;776:11;789:16, 24</p> <p>largest (1) 829:2</p> <p>last (15) 732:6,9,14;750:23; 757:17;762:11;783:21; 799:1;805:14,15; 806:21;808:15;815:4; 823:12;829:12</p> <p>late (1) 825:11</p>	<p>labeled (1) 747:19</p> <p>ladies (1) 736:3</p> <p>Lady (1) 823:6</p> <p>landing (1) 792:20</p> <p>language (4) 745:21,22;773:8; 774:1</p> <p>large (8) 742:14;772:12; 776:11;788:16;793:6; 809:15;823:1;826:4</p> <p>larger (4) 772:5;776:11;789:16, 24</p> <p>largest (1) 829:2</p> <p>last (15) 732:6,9,14;750:23; 757:17;762:11;783:21; 799:1;805:14,15; 806:21;808:15;815:4; 823:12;829:12</p> <p>late (1) 825:11</p>	<p>limewirecom (1) 842:8</p> <p>LimeWire's (1) 783:8</p> <p>limit (6) 757:14;779:4,5,5; 818:5,8</p> <p>limited (1) 848:21</p> <p>line (4) 750:23;752:15; 763:25;802:21</p> <p>lines (2) 733:8;764:3</p> <p>lineup (1) 837:2</p> <p>link (2) 803:16;806:3</p> <p>links (7) 791:2,6,13,23;792:16; 808:22;811:8</p> <p>list (26) 730:8,8,10,11;731:5,6, 7,17;733:16,25;747:22; 753:9;754:8;758:12,25; 763:1;781:8;784:21;</p>

785:4,7,10;793:21; 795:16;799:3,4;806:21 listed (2) 741:8;811:20 listen (1) 833:1 listened (1) 839:9 listening (1) 844:11 listing (1) 763:11 lists (2) 733:22,22 lite (2) 805:5,5 L-I-T-E (1) 805:5 literally (2) 764:2;765:8 little (9) 740:23;742:6;751:9; 763:25;764:3,8;788:6; 827:14;829:18 live (1) 782:14 load (1) 849:9 location (1) 758:14 log (2) 797:7;843:16 logged (3) 842:20;843:13,13 log-in (3) 797:6,15;810:24 logo (1) 745:3 London (1) 822:16 long (7) 748:14;788:8;821:4, 13;822:7;823:14;826:10 longer (1) 748:13 look (34) 731:20;732:20; 742:23;751:9,23; 755:17;756:20;767:25; 772:21;783:6;791:13; 796:16,25;800:4,8; 802:14;803:3,18,22; 804:18;805:3;806:5; 808:15,24;809:16; 810:10,13,22;811:23; 817:17,18;827:6; 831:12;840:8 looked (14) 737:10;743:3,5,14; 758:14;779:22;786:13; 803:8;809:18,21; 810:23;812:8,18,18 looking (19)	740:12;742:11,22,23, 25;743:22;746:24; 756:13;762:24;765:16, 24;775:7;788:24; 804:15;812:15;813:4; 814:19;831:3;841:5 looks (2) 791:14;811:21 Los (2) 772:11;781:4 lose (2) 846:2,22 loses (1) 845:23 loss (1) 829:18 lost (3) 828:12;829:15;838:7 lot (21) 739:15;741:1;746:4; 748:2;756:12,13,14; 772:13,13,13;776:11,11; 777:17,23;779:14; 785:18;793:7;799:23; 821:11;831:3;847:3 lots (4) 738:11;747:4;778:6; 829:11 love (1) 783:22 Low (7) 739:4;753:20;757:6, 12;758:4;783:23;841:6 lower (4) 743:20;745:5;795:6; 825:7 lowest (2) 777:2;823:1 luck (1) 741:2 lunch (6) 734:11,16;815:3,6; 816:3,19 Luncheon (1) 816:20 lyrics (1) 800:11	main (3) 757:15;759:11;795:24 Mainly (1) 788:19 maintains (1) 779:20 major (2) 748:5;806:22 makes (4) 737:25;738:17; 779:25;832:6 making (1) 749:19 manage (1) 789:16 manager (6) 788:13;789:8,9,11,15, 23 manner (1) 822:16 manufacturing (1) 829:22 many (34) 737:5;738:9,17,22; 739:11,23;746:11,12,17, 17,18,20;755:25;757:8; 764:13;767:23;768:9; 774:5;795:14;800:11; 802:8,9;804:1,23;805:8, 11;806:10,15,22,25; 812:20;817:12;837:24; 846:13 Mark (2) 783:3;814:1 marked (4) 779:9;784:2,6,8 market (2) 823:1;829:3 marketing (2) 798:10;812:14 marketing@limewirecom (1) 797:3 Mary (1) 847:2 mask (1) 730:17 material (1) 767:19 materials (1) 767:5 matter (2) 738:24;744:24 matters (4) 734:21;747:9;837:25; 838:9 maximum (4) 795:11;801:1,2;808:3 may (21) 730:18;734:19;736:6; 739:11;747:13;750:1; 751:12;765:8;767:9,15; 770:2;786:23;796:18; 797:11;810:16;814:24;	836:19,20;841:17; 847:20;850:9 maybe (7) 741:8;746:5;755:9; 787:19;792:11;816:7; 817:20 MBA (1) 820:20 mean (21) 730:11;733:7;739:21; 749:3,20;752:22; 753:19;759:7;761:9; 773:20;782:12;796:7; 800:25;802:2;804:8; 807:16;808:4;812:24; 818:22;832:22;835:19 meaningful (3) 759:12;761:6;762:9 means (13) 756:6;765:19;786:9; 788:10;801:1,19,21,23; 804:25;806:12,17; 807:17;825:3 meant (5) 740:2;782:4;788:2; 841:9;847:20 measures (2) 759:13;761:6 mechanism (6) 752:23,25;753:2; 758:19,21;759:8 mechanisms (2) 758:9,11 media (2) 788:16;821:10 medium (1) 771:24 meet (2) 804:11;847:16 megabytes (2) 779:23,23 members (4) 745:2;750:1,17; 755:11 mention (7) 730:4;731:24;732:6; 751:4;755:8;808:25; 817:22 mentioned (9) 745:18;753:24;754:2; 767:20;771:9;775:18; 776:24,25;808:2 message (9) 745:9;748:22;755:16; 758:22,24;760:21; 762:12,14,18 messages (3) 746:12,20,24 met (4) 790:15;847:12,15,16 meter (1) 842:22 middle (2)	791:8;849:22 midnight (2) 843:16,16 might (22) 730:15;740:12; 742:23;745:3;746:25; 747:25;756:21;758:4,5, 5;759:23;760:4,15; 779:6;781:15;799:19; 801:10,10,13;823:15; 839:15;844:22 mike (1) 788:6 million (28) 737:12,13,16,16,18, 19,19,21,23;768:8; 771:15,22;779:24; 813:6;814:11;827:24; 828:3,5,9,12,15,18,23, 23;829:24;832:15,18; 847:7 millions (3) 772:17,17,20 mind (3) 732:9;735:4;830:13 minds (1) 840:7 minimum (1) 731:18 minute (2) 772:25;834:13 minutes (3) 782:21;816:8,9 misspoke (1) 784:7 misspoken (1) 847:20 model (2) 755:22;794:21 models (1) 821:24 moment (1) 760:1 Monday (11) 731:3;732:10,11; 733:11;817:22;837:3; 839:13;841:16,19,19; 850:9 money (8) 733:1;772:13;775:9; 794:10;797:19;829:7,8; 832:6 monitor (7) 730:9;731:8;842:19; 844:5,17;847:5,10 monitored (1) 842:20 month (1) 829:4 more (40) 730:13;731:25; 733:23;738:2;743:23; 745:12,21;746:3,17,18;
	M			
	mac (6) 805:25,25;806:7,13, 22,23 machine (2) 739:23;748:12 Magazine (2) 821:10,11 magazines (1) 821:10 Magic (2) 767:4,7 mailing (1) 754:8			

<p>748:4,12;749:20;755:8,10;756:2,6;757:16,16,18,19,22;764:8;765:17;773:19;776:25;777:17,23;778:11;785:18,18;795:19;801:16;807:21;809:8;823:8,21;825:19;838:22;848:13 morning (14) 730:2;732:10,11; 733:14;734:10;736:3,10,11;769:12;771:6,7; 787:13;837:4;839:13 Morpheus (2) 811:4,12 Most (6) 751:8;755:3;778:22; 788:21;791:21;792:23 motivation (1) 775:8 Motors (1) 830:3 move (8) 741:1;750:7;755:9; 768:15;787:18;813:9; 818:18;827:10 moved (1) 783:13 movie (6) 778:14;782:8,9,10,15,19 movies (5) 776:4,11;777:16,22; 778:4 moving (1) 764:11 MP3 (15) 741:9;743:20;744:2; 746:6;755:24;756:2,6,15;767:23;780:2;806:7,9;814:8,15,19 MP3s (5) 779:18,18,25;780:7; 800:22 much (14) 736:4;749:5;764:5; 775:9;776:10;779:7,13; 795:10;797:19;808:9; 816:12;824:22;825:22; 831:5 multipage (1) 796:20 multiple (4) 739:6,6,8;779:4 multiply (1) 808:13 MUNDIYA (2) 817:6;839:22 music (59) 733:4;737:2;738:6; 740:17;741:10,16; 742:10,19,25;743:7,24; 744:3,7,17;752:7;</p>	<p>755:24;756:15;757:20,22;759:5;761:12,13,15; 765:20;767:22;774:16, 16;776:5,7,9,10;777:11, 12;779:13,19;781:20; 814:17;820:12,13,14,24; 821:1;823:16,18;824:14, 16;826:3;827:21;831:1; 832:11;833:7,11;834:7, 23;835:4,7;844:11,22; 847:9 musical (3) 739:19;768:1;834:18 must (2) 773:6;837:19</p>	<p>778:11 new (19) 736:20,24;740:25; 741:3,6;744:5;747:3; 751:5,5;754:13;763:2; 764:3,4,13;791:21; 821:10,17,23;839:17 News (2) 773:16,16 newspaper (1) 789:24 next (41) 731:13;735:6;740:22; 742:13;746:1;755:9; 766:4;767:12;769:15; 770:9;787:1,3,7;789:2; 797:2;798:13;801:18; 802:1;803:18;804:19; 805:3,18;806:5;814:25; 815:2,3,8;816:14,15,21; 818:3;819:4;820:5; 821:8,15;837:2,15,16; 838:17;841:25;848:8 nice (2) 751:7;762:23 nicely (1) 743:18 Nichols (8) 767:10,14;790:21; 792:11;793:25;796:18; 797:4;798:3 Nickels (18) 738:1,3;743:13; 744:18;750:20,21,23; 752:9,14,15;753:25; 799:3;803:10,11; 805:15;806:9;807:4; 812:7 Nielsen-type (1) 731:8 night (1) 843:4 Nine (1) 788:9 Ninth (2) 780:21,22 NNTP (1) 773:16 nodes (2) 753:11;755:25 noise (1) 758:6 None (2) 773:19;831:8 noon (2) 848:4,24 Norah (1) 823:5 normally (2) 794:6;841:16 North (6) 820:12,17;822:6,13, 25;827:21</p>	<p>notably (1) 751:8 note (2) 788:3,3 notebooks (1) 841:23 noted (1) 841:10 notes (1) 841:24 notice (7) 741:9;748:18;757:25; 791:1;792:15;846:18,20 noticed (2) 738:12;776:2 novel (1) 751:5 November (2) 797:18;813:3 NPD (2) 731:10,15 nuance (1) 849:3 nuances (1) 847:25 number (28) 731:18;742:14;743:3; 753:3,5;757:11,14; 763:22;777:13,14; 790:3;794:17;800:9; 801:20;802:3,5,18; 805:18;807:10,18,19,19; 808:13;814:14;826:16; 845:3,15;847:7 numbered (1) 802:21 numbers (5) 731:17;807:8;813:11, 12;817:12 numeric (1) 753:18</p>	<p>occurred (1) 849:5 October (1) 736:25 off (13) 737:6;738:2,20; 745:25;755:19;761:22; 762:3;764:24;777:3; 828:7;832:6;837:21; 843:13 offer (3) 737:7;823:17;826:11 offered (2) 742:7;782:25 offhand (1) 773:19 Officer (3) 820:16;822:11,13 often (1) 817:16 oftentimes (1) 843:23 OK (10) 773:2;778:14;782:3,6; 784:12;787:4;788:5; 790:21;846:14;850:4 old (1) 737:7 older (4) 737:5,8,8;741:13 oldest (1) 823:15 once (2) 730:11;778:25 one (95) 731:14,24;733:23; 734:5;736:13;738:2; 739:12,17;741:4,10,24; 742:7,12,14;743:23; 745:12;746:3,5,5,22; 747:14,15;749:25;752:3, 15;753:8;755:8,9,10; 756:9,11,11,20;757:24; 758:12;759:16,17,22,25; 762:11,25;763:13;764:3, 21;765:9;766:2;767:12, 16,23;773:14,15;774:19; 777:3,17;780:24;785:3, 9;791:10;793:14; 798:10;800:4,5;801:16, 23;803:7,24;804:7; 805:15;806:8;808:15; 813:5;814:8;816:7; 818:20;822:20;823:15, 20;829:24;831:4,13,14; 832:4,4;834:7;835:16; 837:6,15;839:6,20; 842:8;844:19;845:22, 23;846:20;848:23 ones (17) 771:22;773:15; 776:22;777:1,4,6,10,11, 18,22,25;778:2,15,16;</p>
N				
<p>name (12) 743:9,10;753:2,4,18, 22,22;771:8;774:22,25; 803:5;821:18 names (5) 745:23;752:25;767:1; 775:4;844:7 Napster (3) 773:4;775:7,7 Nat (1) 823:10 naturally (2) 756:15,20 nature (1) 844:16 near (1) 817:13 necessarily (2) 755:3;808:4 necessary (1) 818:10 need (11) 733:16,19,21;734:13; 756:3,7,12;809:14; 816:2;817:9;848:13 needed (5) 756:9,16;831:22; 845:14,16 neighborhood (1) 785:15 neighbors (1) 745:9 network (41) 738:19,20;741:16; 745:16,16,18,19,20; 746:11,13,21,23;747:2, 11;748:9,13,19;749:19, 20;751:22;752:1,4; 757:16;764:20;773:7,14, 16,16,21;774:19,22; 775:10,13,14,18;776:3, 13,17,19;843:12;844:8 networks (9) 772:21;773:4,10,20, 25;774:3,15;777:17;</p>		<p>778:11 new (19) 736:20,24;740:25; 741:3,6;744:5;747:3; 751:5,5;754:13;763:2; 764:3,4,13;791:21; 821:10,17,23;839:17 News (2) 773:16,16 newspaper (1) 789:24 next (41) 731:13;735:6;740:22; 742:13;746:1;755:9; 766:4;767:12;769:15; 770:9;787:1,3,7;789:2; 797:2;798:13;801:18; 802:1;803:18;804:19; 805:3,18;806:5;814:25; 815:2,3,8;816:14,15,21; 818:3;819:4;820:5; 821:8,15;837:2,15,16; 838:17;841:25;848:8 nice (2) 751:7;762:23 nicely (1) 743:18 Nichols (8) 767:10,14;790:21; 792:11;793:25;796:18; 797:4;798:3 Nickels (18) 738:1,3;743:13; 744:18;750:20,21,23; 752:9,14,15;753:25; 799:3;803:10,11; 805:15;806:9;807:4; 812:7 Nielsen-type (1) 731:8 night (1) 843:4 Nine (1) 788:9 Ninth (2) 780:21,22 NNTP (1) 773:16 nodes (2) 753:11;755:25 noise (1) 758:6 None (2) 773:19;831:8 noon (2) 848:4,24 Norah (1) 823:5 normally (2) 794:6;841:16 North (6) 820:12,17;822:6,13, 25;827:21</p>	<p>notably (1) 751:8 note (2) 788:3,3 notebooks (1) 841:23 noted (1) 841:10 notes (1) 841:24 notice (7) 741:9;748:18;757:25; 791:1;792:15;846:18,20 noticed (2) 738:12;776:2 novel (1) 751:5 November (2) 797:18;813:3 NPD (2) 731:10,15 nuance (1) 849:3 nuances (1) 847:25 number (28) 731:18;742:14;743:3; 753:3,5;757:11,14; 763:22;777:13,14; 790:3;794:17;800:9; 801:20;802:3,5,18; 805:18;807:10,18,19,19; 808:13;814:14;826:16; 845:3,15;847:7 numbered (1) 802:21 numbers (5) 731:17;807:8;813:11, 12;817:12 numeric (1) 753:18</p>	<p>occurred (1) 849:5 October (1) 736:25 off (13) 737:6;738:2,20; 745:25;755:19;761:22; 762:3;764:24;777:3; 828:7;832:6;837:21; 843:13 offer (3) 737:7;823:17;826:11 offered (2) 742:7;782:25 offhand (1) 773:19 Officer (3) 820:16;822:11,13 often (1) 817:16 oftentimes (1) 843:23 OK (10) 773:2;778:14;782:3,6; 784:12;787:4;788:5; 790:21;846:14;850:4 old (1) 737:7 older (4) 737:5,8,8;741:13 oldest (1) 823:15 once (2) 730:11;778:25 one (95) 731:14,24;733:23; 734:5;736:13;738:2; 739:12,17;741:4,10,24; 742:7,12,14;743:23; 745:12;746:3,5,5,22; 747:14,15;749:25;752:3, 15;753:8;755:8,9,10; 756:9,11,11,20;757:24; 758:12;759:16,17,22,25; 762:11,25;763:13;764:3, 21;765:9;766:2;767:12, 16,23;773:14,15;774:19; 777:3,17;780:24;785:3, 9;791:10;793:14; 798:10;800:4,5;801:16, 23;803:7,24;804:7; 805:15;806:8;808:15; 813:5;814:8;816:7; 818:20;822:20;823:15, 20;829:24;831:4,13,14; 832:4,4;834:7;835:16; 837:6,15;839:6,20; 842:8;844:19;845:22, 23;846:20;848:23 ones (17) 771:22;773:15; 776:22;777:1,4,6,10,11, 18,22,25;778:2,15,16;</p>
O				
<p>oath (1) 736:5 objection (16) 750:1,13;768:18,20, 22,24;769:1,3,7;783:1; 784:5;790:17;813:14, 16;824:5,7 objections (1) 787:16 obligations (1) 844:21 observing (1) 756:12 obtain (2) 814:15;822:9 obtained (1) 760:5 obviously (2) 746:24;756:22</p>				

<p>779:12,13;809:20 ongoing (1) 754:8 online (1) 826:11 only (12) 746:24;753:11;756:9; 764:21;786:9;801:13, 15;804:11;806:1; 818:20;823:12;836:1 onto (1) 779:11 open (13) 749:2,3,6;750:10,15, 16,18;775:11;776:17,18; 797:17;810:16;841:1 opened (5) 793:20;797:9;811:1,2; 824:19 opening (1) 773:21 operation (2) 736:16;737:1 opinion (3) 740:19;765:3;831:9 opportunity (1) 751:23 opposed (1) 776:3 optimization (1) 793:18 optimize (1) 793:8 optimized (5) 740:17,19;742:19; 743:6;759:4 optimizing (1) 789:20 option (3) 759:23;761:19;833:3 options (1) 759:22 order (9) 731:16;737:15;755:1; 777:18;778:15;783:23; 795:5;826:4;845:17 organic (1) 791:9 organized (1) 743:18 original (2) 749:15;824:21 others (2) 773:12;783:17 out (38) 733:4;738:9;740:21; 741:5,23;745:9,10; 746:23;748:6,21; 750:22;758:2,3,4,13; 764:21;765:11,20; 767:19;778:25;780:3; 785:6;787:19;792:10; 800:2;814:18;818:5,10;</p>	<p>823:16;829:2,6;830:8; 833:9;839:18;842:5; 843:8;844:12;849:21 outline (1) 838:2 outside (3) 836:5;842:23,24 outsourced (1) 829:23 over (33) 733:11;734:13;735:2; 741:25;742:1,5;743:12; 762:19,22;763:12,23; 764:2;774:8;777:17; 779:7,7;800:24;806:13, 18;808:18;809:13; 813:6;816:17;817:20; 826:24;828:9;829:11, 25;830:13;839:12; 841:11;846:10;848:23 overlook (1) 764:1 overpowered (1) 776:9 own (2) 835:20;844:7 owned (1) 823:24 owner (10) 793:13;794:3,4; 801:11,14;803:1;811:15, 18;844:4,20</p>	<p>809:19;810:6,21;811:3, 21;812:7,9,14;813:3; 815:8;816:21;819:4; 841:8,25 pages (4) 751:3;803:19;809:13; 812:13 paid (7) 764:6;783:9,13; 831:14;832:20,20; 836:13 pair (2) 799:8,17 pairing (1) 799:24 paper (2) 775:12;780:3 papers (1) 845:16 paragraph (6) 750:24;751:2;772:22; 773:3;783:6,22 Parameter (1) 758:23 parameters (1) 739:25 parent (1) 822:16 part (8) 733:5;744:22;750:22; 758:24;774:11;778:22; 793:18;800:14 participate (2) 773:7;775:17 participated (1) 754:8 particular (45) 733:12;740:25; 746:23;761:13,17; 762:11,25;774:8,12,13; 777:18;790:19;792:4,4; 794:17;796:1,3,4; 801:14,21,23,25,25; 802:24;803:18,20;805:1, 24;806:19;807:7,9,14; 808:6,7,12,17;809:23; 810:1,1;811:3;812:3,14, 18;813:2;845:18 parties (4) 733:1;752:1;824:4; 832:1 partner (3) 789:8,23;821:17 partners (1) 793:7 partway (1) 799:2 party (1) 844:6 pass (2) 750:1;787:19 passed (1) 746:20</p>	<p>Passing (1) 758:23 past (3) 826:24;833:18;848:22 path (2) 774:12,13 Paul (2) 820:5,6 Pause (1) 838:21 pay (13) 775:9;776:20;801:16; 808:4;824:23;826:6,9, 17;832:7,10;833:21; 835:17;836:10 payment (3) 774:16;832:24;835:25 pays (6) 794:2,11;832:5,18; 833:2;834:5 peanut (1) 774:25 peer (7) 747:21,22,23;748:6,7, 25;752:23 peers (3) 747:25;748:1;754:11 peer-to-peer (7) 751:10,22;754:16; 773:17,20;775:22;829:2 penny (5) 801:16;834:6,9; 836:11,15 people (40) 737:5;738:19;739:11; 741:5,11,15;744:16; 746:11;749:7,9,20; 754:7;757:16,22;759:6; 760:17;762:6;771:25; 772:4,14;774:3,5,15; 775:9;776:15,19;780:3, 7;781:23;788:23; 797:11;823:1;824:25; 829:3,6;831:15;833:10; 836:10;842:24;844:9 per (12) 794:17,21;795:11; 798:7;801:1,3,5;807:12; 808:5,8,9,12 percent (4) 742:1;755:1;825:23; 829:3 percentage (1) 807:20 Perfect (2) 827:15;845:1 performance (7) 795:13;801:9;807:21; 809:5,9;827:6;844:19 performed (1) 844:22 perhaps (3) 731:5;737:23;837:6</p>	<p>period (8) 748:13;764:2;827:7; 829:20;845:17;846:1,7, 12 permanent (3) 835:7,10,19 permanently (1) 835:20 permission (4) 834:17,22;835:1,6 permitted (1) 849:7 Perry (2) 823:5;832:14 person (6) 742:8,9;748:16; 845:18,25;849:11 person's (1) 742:24 pesky (1) 762:18 phenomenal (1) 796:9 Phil (2) 749:5;755:9 phone (1) 789:19 phrase (1) 782:9 picked (1) 785:13 piece (5) 739:13,14,14;775:12; 836:15 pieces (1) 730:10 piracy (4) 831:4,9;833:21,25 place (3) 759:14;789:2;844:22 places (1) 747:5 placing (1) 732:16 Plaintiff (2) 820:7;849:8 plaintiffs (14) 730:8,11,14;731:7; 732:16,19;782:25;787:6, 9;820:4;822:20,24; 842:4;847:15 Plaintiff's (19) 749:25;750:12,14; 755:12;768:17,19,21,23, 25;769:2;783:1;796:17; 810:11;812:6;813:9,15, 17;824:8;849:4 plaintiffs' (2) 769:6,8 plan (1) 849:25 Planning (1) 822:5</p>
P				
	<p>P0471 (1) 841:8 P2P (5) 773:3,7,10;774:15,19 P471 (2) 813:12,17 P491 (1) 813:12 P7402 (3) 824:5,6,8 pace (1) 816:14 pad (1) 827:9 page (79) 735:6;743:14,16; 750:24,24;752:12; 760:24;766:4;769:15; 770:9;791:1,11,18,20, 22;792:20,23;795:8,20, 22;796:20,24;797:2,10, 18,21,23,24;798:13; 799:1,1,2;800:5,9,19; 802:10,16,17;803:3,23, 23;804:1,3,6,11,13,14, 16,18,19,20;805:3,3,4, 14,14,18,18,23;806:5,5, 6;807:2,2;808:16;</p>			

<p>play (10) 739:7;747:17;748:5,9, 17,22;758:8;778:8; 783:12;784:3</p> <p>played (3) 758:5;784:10;849:20</p> <p>player (3) 743:20;744:2;823:21</p> <p>playlist (1) 744:2</p> <p>playlists (1) 743:21</p> <p>please (19) 730:2;736:2;738:1; 743:5;744:22;746:6; 751:13;759:14;763:8; 767:11;790:6,22;798:4; 803:10;808:16;820:2; 841:20,23;842:2</p> <p>plenty (1) 757:15</p> <p>pm (1) 817:2</p> <p>point (24) 730:24;731:2,24; 732:9,14,15;737:25; 739:12;740:21;746:19; 747:22;750:9;755:18; 757:15,24;760:20; 781:5;790:7,8;793:21; 813:9;821:25;830:13; 848:11</p> <p>points (1) 780:25</p> <p>police (1) 844:17</p> <p>policing (2) 845:4,4</p> <p>POMERANTZ (53) 733:10,19;734:5,8,10, 15;735:1;736:9;787:2; 815:2;816:6,12;817:7, 11,19;818:1,14,17,20, 24;820:4,10;824:9; 827:9,12;830:18; 834:12;835:13;836:18; 837:3,11,14,20,23; 838:2,4,8,10,13,16,19; 839:10,17,21,24;842:21; 843:1;848:9,12,17,20; 849:1,14</p> <p>popped (1) 762:12</p> <p>popular (3) 779:20;823:8;825:20</p> <p>portion (3) 829:5;831:15;848:18</p> <p>portions (2) 739:10;752:9</p> <p>position (20) 788:12,15;789:4,23, 25;795:8,10,12;802:15, 17,18,19,19;804:5;</p>	<p>807:13;820:15;822:4,7, 9,10</p> <p>positions (1) 789:22</p> <p>possibility (1) 843:17</p> <p>possible (11) 732:8;735:3;737:18; 790:18;793:3;797:11; 803:1;804:10,12,13; 843:5</p> <p>possibly (2) 764:4;831:5</p> <p>post (1) 762:23</p> <p>potential (1) 747:5</p> <p>potentially (1) 814:16</p> <p>power (2) 847:13,22</p> <p>powerful (2) 748:4,12</p> <p>precisely (2) 730:16;779:20</p> <p>precondition (1) 844:2</p> <p>predictable (1) 837:25</p> <p>prefer (2) 776:2;837:14</p> <p>prejudicial (1) 849:11</p> <p>prepare (1) 772:10</p> <p>preparing (1) 771:25</p> <p>prepped (1) 837:11</p> <p>present (10) 730:1;736:1;770:1; 771:1;788:4;816:1; 820:1;824:1;841:25; 842:1</p> <p>presentation (1) 754:1</p> <p>presented (3) 754:3;760:2,9</p> <p>President (2) 820:16;822:5</p> <p>press (2) 768:13;832:25</p> <p>presumably (1) 792:8</p> <p>presume (1) 781:24</p> <p>pretend (1) 847:1</p> <p>pretty (3) 777:8;779:7,13</p> <p>previous (2) 807:2;812:13</p> <p>previously (6)</p>	<p>751:8;803:8;812:8,13, 15;821:24</p> <p>price (6) 783:23;825:16,17; 826:6,17,20</p> <p>priced (1) 825:7</p> <p>prices (3) 825:7,14,19</p> <p>pricing (5) 824:16;825:10,14; 826:19,20</p> <p>primarily (1) 752:5</p> <p>Primedia (3) 821:9,9,13</p> <p>print (2) 789:7,23</p> <p>prior (4) 751:21;789:4,6; 832:16</p> <p>privacy (1) 753:9</p> <p>privilege (1) 849:7</p> <p>Pro (8) 800:10;801:24; 803:13;805:25;806:12, 23;808:18;811:5</p> <p>probably (19) 731:2;734:15;737:24; 739:23;746:17;751:12; 773:19;774:5;776:9; 777:23;788:21;800:3; 804:8;815:4;818:6; 833:24;837:4;839:22,24</p> <p>problem (1) 818:1</p> <p>process (14) 738:6;739:7,7;745:3; 746:1;748:2;749:1; 759:2;761:16,16; 772:16;793:18;794:13; 801:7</p> <p>processing (2) 748:5;755:7</p> <p>produced (2) 765:24;810:17</p> <p>product (8) 786:5,6;789:1,7,24; 791:7;796:2,5</p> <p>products (5) 788:17,18,20;799:15; 800:2</p> <p>Professor (38) 730:22;736:5,10,12; 737:10;738:4;739:1,17; 740:14;742:20;743:3, 13;744:9,19;747:9; 750:19,25;751:2; 753:14;754:2;755:11; 756:5;759:10,25; 762:21;763:6;765:3;</p>	<p>767:6,9;768:7;769:5; 770:2;771:6;785:25; 786:14,22;837:8;843:7</p> <p>profit (1) 754:22</p> <p>profited (1) 754:20</p> <p>program (39) 737:22,25;738:16,21, 25;739:10,22,25;740:1; 742:16,23;743:17; 744:4;745:2;747:20; 748:21;751:16;754:20, 25;758:10;759:1,20; 760:5,7,8,13;761:3; 762:22;763:12,23; 764:6;771:16;772:10, 18;775:16;780:9;791:4; 796:12;832:21</p> <p>programmers (1) 744:12</p> <p>programs (7) 755:2,2;757:19; 771:10;772:5;780:11; 781:19</p> <p>progress (1) 741:25</p> <p>projects (1) 789:21</p> <p>promote (1) 804:10</p> <p>promoted (1) 804:10</p> <p>promoting (1) 740:13</p> <p>properties (2) 768:1;821:12</p> <p>property (1) 822:18</p> <p>proposal (3) 735:3;749:19;754:3</p> <p>propose (2) 734:24;749:1</p> <p>proposed (2) 751:6;755:5</p> <p>proprietary (1) 818:4</p> <p>protection (2) 778:22;848:15</p> <p>protocol (29) 745:20;751:15,16,18; 752:21;754:9,10,12,19, 23;755:6,15;756:25; 757:2,5,10;773:16; 774:2,4,6,8,11,14; 775:11,11,22,25;786:1; 843:8</p> <p>protocols (2) 755:16;773:6</p> <p>provide (1) 731:25</p> <p>provided (3) 763:11;766:1;767:7</p>	<p>providers (1) 843:24</p> <p>providing (1) 846:21</p> <p>provision (1) 734:12</p> <p>public (1) 844:18</p> <p>publications (1) 821:11</p> <p>publicly (3) 818:6;824:25;844:22</p> <p>pull (8) 788:6;790:18,22; 793:12;796:19;802:9; 806:23;810:22</p> <p>pulled (5) 794:25;802:10,13; 805:1;806:12</p> <p>pulls (1) 796:24</p> <p>purchase (1) 845:6</p> <p>purported (1) 761:11</p> <p>purportedly (1) 730:17</p> <p>purposes (3) 760:18;788:22;849:14</p> <p>pursuant (1) 832:2</p> <p>pursue (3) 845:5,17;846:23</p> <p>put (22) 730:12,18;731:4,5,22; 734:1;739:14;758:13, 16;771:23;778:22,25; 782:24;784:12;817:4,11, 20;818:6;827:13; 837:14;838:25;839:8</p> <p>puts (1) 840:6</p> <p>putting (1) 817:8</p> <hr/> <p style="text-align: center;">Q</p> <hr/> <p>QRP (3) 752:13,17,20</p> <p>qualities (2) 768:1;796:4</p> <p>quality (6) 759:8;765:23;767:20; 779:21;795:12;804:12</p> <p>quarters (1) 752:11</p> <p>queries (1) 795:25</p> <p>query (10) 741:15;748:5;752:21; 755:15;756:3,3,24; 757:2,5,10</p> <p>querying (1)</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

843:8 quick (1) 796:7 quickly (2) 738:12,24 quite (2) 749:10;762:23 quoted (1) 829:3	recall (14) 736:14,17;737:16,17; 746:2,14;751:12;786:1; 813:22,24,25;814:3; 828:7;831:8 receive (3) 807:21;825:3,22 received (10) 750:12,14;760:21; 769:9;804:24;807:9; 813:16,17;824:8;849:18 receives (2) 769:6;824:6 recent (2) 751:10;832:15 recently (2) 784:23;826:16 Recess (3) 770:8;816:20;841:14 recessing (1) 841:14 recognize (6) 732:14;751:19;768:3; 777:14;796:21;810:17 recognizing (1) 767:24 recommend (1) 752:17 recommended (3) 752:13;753:8;757:11 recommends (1) 808:18 record (19) 730:16;731:14;734:1; 777:13;778:21;779:6; 780:19;781:20;782:5; 818:11;822:23;829:10; 830:8;833:22;835:19; 837:7,14;842:15;844:7 recorded (1) 827:21 reorder (2) 782:16,17 recording (2) 823:3;835:10 recordings (6) 733:17,22,25;823:8; 826:11;842:19 RECROSS (1) 835:14 red (10) 798:8,11;799:21,22, 22,22,22,23,24,24 redacted (1) 818:15 REDIRECT (3) 785:22;792:23;834:11 reduce (4) 747:11;759:13;761:6; 762:9 reduced (1) 778:2 reducing (5)	747:7;748:4;764:20; 765:4,10 refer (11) 782:19,20;791:8; 794:20;795:11,12; 797:6;799:7;802:15,19; 808:10 reference (4) 752:12,20;756:19; 776:22 referred (3) 752:1;772:21;781:25 referring (5) 753:14,16;782:8; 793:23;794:13 refers (1) 751:11 reflect (2) 777:11,25 regard (1) 759:15 regarding (1) 734:11 regardless (3) 733:14;802:5;846:7 register (6) 845:14,17,22;846:1, 22;847:22 registered (4) 732:19;846:4,6,13 registration (1) 847:19 reinforcing (1) 765:18 rejoined (2) 822:4;823:13 relate (2) 742:18;759:3 related (8) 733:13;734:5;740:15, 16;761:5;765:14;767:5; 799:23 relating (1) 786:12 relations (1) 788:13 relationship (1) 751:14 relatively (2) 779:21;796:7 release (5) 754:13;762:25;763:3; 764:4,12 released (2) 764:10;778:21 releases (2) 764:3,13 releasing (1) 762:25 relevant (8) 795:25;798:7;799:14, 17,18,18;809:10;849:23 reliable (1)	768:2 relied (2) 731:15;765:23 relies (1) 767:24 relying (1) 767:19 remember (8) 737:12;739:11; 762:13;767:1;776:22; 782:9;828:6;841:21 remind (2) 736:5;787:21 repeat (2) 835:24;836:10 report (4) 731:2;733:11;772:22; 839:13 reported (1) 765:15 reporting (1) 822:16 represent (7) 753:3;763:2;771:8; 777:3,6,7,9 represented (1) 767:23 representing (1) 849:24 represents (1) 764:4 Republic (1) 785:3 request (1) 815:3 requested (1) 826:17 require (2) 744:25;827:5 required (1) 844:20 research (1) 841:21 resolve (1) 734:15 resources (1) 844:17 respect (2) 734:23;846:21 respond (2) 745:13;746:7 responded (1) 746:1 responsibilities (5) 789:14,18,19;822:12; 827:5 responsible (1) 846:11 restating (1) 848:22 result (4) 744:1;756:2;759:7; 790:13	resulting (1) 796:10 results (25) 738:11,12,18;741:15; 743:11,14,16;746:3,15; 749:21;755:7;756:2,6,8; 757:12,14;786:17,19; 789:3;790:11;791:2,9; 792:25;793:10;796:9 resume (1) 771:4 résumé (1) 781:15 resumed (2) 730:1;736:7 retail (1) 825:20 retailers (2) 823:18;826:11 retain (1) 843:21 return (8) 744:18;746:18; 753:25;756:2,6;767:9; 821:25;842:12 returned (1) 843:4 returning (1) 759:19 reveal (1) 818:9 revolution (1) 730:17 revenue (2) 829:15;831:15 revenues (9) 826:23,24,25;827:16, 20,22;832:7,12;833:19 reverses (1) 733:2 review (4) 743:8;763:21;764:18; 767:5 reviewed (4) 763:15,18,20;764:15 RIAA (2) 783:8,24 rid (1) 762:18 Rida (18) 739:3,12;745:5,10,11, 11,23;746:15,16,24; 753:20;756:8;757:7,13; 758:4,7;762:13,17 Rida's (1) 739:4 right (45) 742:1,5;743:20; 752:15;756:10;758:16; 759:20;760:24;764:16; 767:13;768:16;769:6; 773:24;775:6,6;777:16, 24;779:4,8;781:14;
R				
radio (1) 844:11 raise (5) 733:8;770:4;838:23; 841:13;846:25 raised (4) 817:3;838:23;845:13, 19 Ramones (1) 741:13 ran (3) 738:11;765:16;786:15 Randell (12) 787:7,8,13,25;788:3; 790:15,23,25;813:21; 814:9;839:5;841:5 range (2) 813:2;823:5 rate (12) 743:23,23,25;795:14; 807:11,12,17,18,22,22, 24;841:6 re (1) 838:8 reach (1) 816:8 read (4) 755:19;758:16;783:7; 817:10 reader (1) 778:16 reading (1) 841:22 reads (1) 805:24 ready (5) 771:4;814:25;819:1,1, 3 realized (1) 730:7 really (8) 738:20;742:2,21; 748:7;774:1;822:18; 836:7;837:25 reason (3) 746:17;785:11;786:14 reasonable (3) 834:8,9;844:2 reasons (4) 732:15;752:13,17; 753:8				

	S			
<p>782:19;785:11;800:24; 802:14;803:5;804:8,13; 807:9;808:25;810:5; 815:6;817:17,20;818:14, 21;835:22;836:8; 837:22;842:11;844:16, 19;845:23;846:2,23; 848:21 right-hand (5) 790:12;791:5,24; 792:2,15 rights (1) 845:3 rip (1) 833:11 ripping (5) 780:9,11;833:15,17,22 roadhouses (1) 844:12 Rohrs (2) 751:3;752:16 role (8) 747:17;748:5,10,17, 23;783:12;784:3,10 roles (1) 789:6 roster (2) 830:10,14 roughly (1) 737:23 rounding (1) 825:2 routing (4) 752:13,17,20,21 row (4) 807:3,5,6;812:12 Rubinstein (1) 837:5 rule (2) 837:24;845:22 rules (1) 733:15 ruling (4) 733:23;848:10; 849:12,22 rulings (1) 733:23 run (10) 741:14;751:23; 782:18,20,21;793:9; 814:8;829:20;832:16; 843:15 running (22) 737:9;738:21,24; 741:5;745:17;748:16; 755:2;758:22,24;774:5, 6,8;776:14;792:12,16, 17,23;794:24;801:13; 814:11;822:19;843:4 rush (1) 747:4</p>	<p>sale (2) 799:25;824:13 sales (3) 788:15;796:10;827:21 same (14) 737:22;751:20;752:7; 777:16;778:18,19; 786:19;791:23;799:16, 25;803:22;812:7; 829:20;833:25 sample (1) 777:12 sat (1) 843:15 satisfied (1) 848:2 satisfy (3) 748:11;844:10;847:21 save (1) 733:1 saving (1) 831:22 saw (6) 745:6;755:5;756:8; 795:5;813:5;814:6 saying (7) 744:3;751:4,19; 752:16;755:21;833:1; 843:10 scale (1) 749:19 scanned (3) 742:10;833:5,8 scenario (1) 832:10 scheme (5) 748:3;761:7,9,11; 767:24 school (3) 820:20,25;821:2 score (1) 795:12 scratched (2) 779:6,10 screen (18) 742:13;743:12;750:7; 755:12;759:21;760:2,9, 16;763:7;767:13; 782:11,16,24;784:12; 786:18;796:19;798:3; 818:6 screens (1) 758:18 search (53) 738:11,18,23;741:22; 742:4,5;743:10,18; 745:5,7,8;746:2;747:1, 24,24;755:22,24,25; 756:17;757:6,12; 782:17;788:19,23;</p>	<p>789:3;790:9,9,11,14,14, 17,19,22;791:9,14; 792:5,7,11,17,25; 794:24;795:25;799:9,16, 18;804:6,9;805:25; 809:6;814:7,8,12;843:23 searched (3) 732:4;801:21;809:6 searches (13) 755:6,23;756:2,6; 786:15;809:5;814:18; 842:10,12;843:4,8,15,23 searching (9) 737:22,24;738:13; 743:9;744:1,23;786:4; 805:22;809:10 seat (4) 730:2;736:2;820:2; 842:2 seats (1) 787:3 Second (16) 733:2;741:17,19; 742:4,4,5;750:24;751:3; 759:10;761:1;776:25; 783:6;785:2;810:10; 812:16;821:1 secondary (1) 846:19 seconds (1) 734:8 Section (5) 730:6;731:16;732:1; 755:17;844:2 sector (1) 772:11 seem (1) 776:2 seemed (1) 749:13 seems (2) 730:3;776:5 sees (1) 831:13 segregate (1) 733:19 segregated (1) 733:1 select (3) 746:5,5;805:20 selected (7) 742:7;748:9,16;765:1; 802:24;811:14,15 selects (1) 793:12 sell (7) 783:23;791:20; 825:16,18,20,21;826:7 selling (4) 798:8,9;799:15;800:1 send (9) 745:9,10;746:6; 747:22,25;758:4;779:13,</p>	<p>15;844:21 sending (5) 746:12,23;752:25; 753:2;758:2 Senior (1) 822:5 sense (2) 737:25;830:12 sent (5) 731:21;747:24;753:3; 760:24;761:14 sentence (2) 783:7,21 sentencing (2) 817:23;841:17 separate (8) 773:14;775:24,25; 778:3,4,5;798:9;810:7 September (1) 783:5 sequence (1) 777:6 series (1) 739:24 service (7) 783:9,9,14,19;796:2,6; 843:24 set (7) 743:2;748:11;768:2; 794:4,6;796:7;808:2 setting (3) 739:25;761:21;792:21 settings (1) 740:2 seven (1) 764:7 seventh (1) 806:6 sever (1) 735:5 several (12) 738:13;740:14; 747:12;752:13,17;764:7, 21;766:1;768:15;772:9, 10;789:6 share (13) 741:7,11;742:24; 747:23;752:24;753:1; 774:16;786:9,10; 805:25;823:1;829:3; 832:7 shareable (1) 740:3 shared (1) 753:10 sharing (5) 741:6;748:7;775:23; 806:22;831:1 sheet (1) 841:7 shielding (1) 748:1 shifted (2)</p>	<p>732:1,24 shifting (1) 732:7 shoe (1) 799:21 shoes (16) 792:12,17,23;794:24; 798:8,9,11,12;799:22, 22,23,23,24,25;800:1; 844:9 short (1) 845:1 shot (1) 784:12 show (13) 730:12;731:6,23; 782:10;790:16;791:13; 792:4,8;799:16;800:9, 14;803:16;849:13 showed (1) 757:18 showing (5) 740:24;742:8;745:1; 749:15;755:14 shown (3) 758:17;765:6;787:15 shows (8) 743:6;794:18;800:10; 807:5;812:9,23;813:3,5 shut (1) 776:13 side (5) 790:12;791:5;792:15; 836:20;837:1 sides (3) 732:8;818:3;848:25 sign (1) 734:4 Signed (3) 758:22;796:12;824:17 similar (2) 741:15;755:4;786:15; 826:20 similarly (1) 777:6 simple (2) 771:19,23 simplified (3) 745:4;746:8,10 simply (3) 753:16;765:9;849:17 simultaneously (2) 739:10;747:1 Sinatra (1) 823:10 Singla (2) 751:3;752:16 single (2) 809:18;835:25 sit (7) 773:11;809:16; 811:23;832:25;836:1; 841:16;843:22</p>

<p>site (7) 811:8,9;829:2,6; 832:8;842:5,8</p> <p>sites (3) 737:7;814:14;831:16</p> <p>sitting (2) 782:22;814:1</p> <p>six (2) 772:4;813:1</p> <p>size (3) 772:4;779:21;823:2</p> <p>skip (3) 832:25;833:3,6</p> <p>slide (10) 740:22;741:22; 743:14;744:18,25; 745:25;747:2;753:25; 763:22;767:10</p> <p>slides (3) 738:1;741:20;779:22</p> <p>slot (1) 804:14</p> <p>slow (2) 732:11;734:19</p> <p>small (3) 746:16;779:21;823:2</p> <p>smaller (2) 746:10;776:10</p> <p>smallest (2) 822:25;830:7</p> <p>SMPP (1) 758:22</p> <p>so-called (1) 745:16</p> <p>software (40) 736:21;740:4,16,17; 742:19;743:6;744:21; 752:4;753:6;754:15,24; 757:3;759:4;760:7,21; 761:4,18;762:7,10,22; 764:19;766:1;768:9; 771:10,16;772:5,10,12, 15;773:6;777:14;780:3, 17,23;781:19;782:4; 785:8;833:9;842:9,20</p> <p>sold (5) 771:11,14,22;824:21; 826:1</p> <p>solution (1) 767:7</p> <p>solutions (1) 747:7</p> <p>somebody (4) 749:11;756:21;792:1; 835:1</p> <p>Somehow (1) 778:1</p> <p>someone (26) 731:5;738:23;740:12; 747:19;753:19;760:20, 25;761:13;765:1;783:4; 793:2,3,5,15,16;795:23; 796:2;810:21;834:6;</p>	<p>835:9;842:7;843:3,14; 844:5,11,21</p> <p>someone's (1) 742:25</p> <p>sometime (1) 848:23</p> <p>sometimes (3) 793:19,20;825:6</p> <p>somewhat (4) 745:4;746:8;748:13; 824:24</p> <p>somewhere (6) 730:16;791:18; 800:18;804:7;806:18; 811:8</p> <p>song (13) 753:20,22;762:12; 765:8,10,23,24;767:20; 768:3;779:22;785:3; 800:22;802:9</p> <p>songs (23) 738:13;739:2;741:12, 25;776:12;782:18,18; 784:12,17,20;785:12; 786:13;800:10,11,22; 801:3,12,13,22,24; 802:9,12;832:4</p> <p>soon (3) 732:7;740:10;777:8</p> <p>Sorry (13) 759:17;763:17; 772:23;777:19;779:24; 784:7;793:3;799:4; 806:8;807:19;812:17; 813:4;842:17</p> <p>sort (10) 748:6,13;755:18,18; 758:1;763:25;771:24; 774:25;777:12;796:4</p> <p>sound (5) 768:1;778:1,4;779:20; 842:19</p> <p>sounds (1) 834:8</p> <p>source (1) 751:24</p> <p>space (2) 746:16;767:3</p> <p>Spanish (3) 805:19,20,22</p> <p>speak (2) 745:21;839:6</p> <p>speaking (3) 758:17;809:2,4</p> <p>special (9) 732:17;733:3;734:23, 24;747:17,20;748:10,17; 777:8</p> <p>specific (3) 743:24;779:19;800:9</p> <p>specification (2) 775:12,16</p> <p>spectrum (1)</p>	<p>771:23</p> <p>speed (3) 732:12;803:24;804:4</p> <p>speeding (1) 755:6</p> <p>speeds (1) 739:15</p> <p>speed-up (1) 755:3</p> <p>spelled (2) 805:5,11</p> <p>spend (11) 756:12;797:19;801:3, 4,8,12,13,17,17;808:8; 831:7</p> <p>spent (3) 831:3,5,10</p> <p>spill (1) 816:17</p> <p>split (2) 825:1,2</p> <p>sponsored (5) 791:2,6,13,23;792:16</p> <p>spoof (4) 758:2,10,13;759:7</p> <p>spoofs (1) 759:3</p> <p>spot (2) 801:15;840:6</p> <p>spring (1) 781:8</p> <p>spy (1) 811:5</p> <p>spyware (1) 808:19</p> <p>stand (3) 786:25;815:1;841:3</p> <p>standard (4) 749:2,3,6;780:2</p> <p>stands (3) 752:21;802:3;807:11</p> <p>start (11) 737:21;745:4,5; 754:15;816:17;825:10; 827:20;841:18;843:3, 15;846:12</p> <p>started (5) 782:16;790:1;823:14; 830:10;846:13</p> <p>starting (1) 741:12</p> <p>starts (2) 747:19;846:4</p> <p>state (1) 840:1</p> <p>stated (1) 773:3</p> <p>states (2) 777:13;783:6</p> <p>stating (1) 753:16</p> <p>statistic (1) 829:4</p>	<p>statute (1) 846:21</p> <p>statutory (4) 732:17;846:2,5,23</p> <p>stay (3) 748:15;821:4,13</p> <p>Stein (1) 838:24</p> <p>step (6) 742:12;770:2;786:23; 814:24;836:19;849:25</p> <p>steps (3) 739:24;762:9;844:7</p> <p>still (9) 736:16;737:9;757:14; 780:7;826:6,17;832:6; 836:13;837:5</p> <p>stipulate (3) 839:15,22,24</p> <p>stopped (4) 736:23;737:4,25; 746:19</p> <p>store (1) 824:19</p> <p>stored (1) 761:12</p> <p>story (1) 849:20</p> <p>straight (1) 782:20</p> <p>strategic (2) 789:8,23</p> <p>stream (3) 833:15,17,22</p> <p>stretch (2) 787:1;815:1</p> <p>strike (1) 764:25</p> <p>structure (3) 798:5;799:7,13</p> <p>studied (1) 833:24</p> <p>study (4) 731:10;751:24; 773:11;831:18</p> <p>studying (1) 772:16</p> <p>subject (5) 731:11,11,12;738:5; 831:11</p> <p>submissions (1) 848:3</p> <p>submit (3) 818:15;844:2;848:21</p> <p>subscribed (1) 754:7</p> <p>subscription (3) 783:9,14,19</p> <p>subsequently (1) 829:23</p> <p>successful (1) 849:8</p> <p>successfully (1)</p>	<p>761:3</p> <p>sued (3) 752:3;783:17;847:8</p> <p>sufficiently (1) 749:22</p> <p>suggest (1) 749:1</p> <p>suggested (3) 747:12,16;748:25</p> <p>suggesting (1) 845:9</p> <p>suggestion (2) 749:11,15</p> <p>suggestions (1) 747:15</p> <p>suited (2) 776:5,7</p> <p>summarize (1) 743:5</p> <p>summary (2) 800:5;807:6</p> <p>Sunday (3) 841:19;848:4,24</p> <p>supply (1) 765:23</p> <p>support (2) 744:6;811:5</p> <p>Supreme (3) 781:1,12;849:22</p> <p>sure (24) 731:20;737:8;739:23; 740:6;753:15;755:8; 757:8;771:21;772:15; 773:1,19;776:13; 780:12;781:13;782:19; 784:11,14;793:8,9; 810:9;811:16,19;823:5; 847:23</p> <p>survey (1) 731:9</p> <p>suspect (2) 732:2;786:19</p> <p>swarming (3) 739:8,9,9</p> <p>switching (1) 787:3</p> <p>sworn (2) 787:10;820:8</p> <p>symbolic (1) 777:9</p> <p>system (7) 738:7;744:14;759:14; 761:9;762:2;765:21; 796:25</p> <p>systems (2) 751:22;772:12</p>
T				
			<p>tab (3) 742:4;787:22;796:17</p> <p>table (1) 817:24</p>	

tact (1) 818:12	787:10;820:8	741:14	Transfer (2) 773:16;779:16	typically (6) 779:23;793:6;794:15; 795:13;825:1;826:18
talk (3) 734:13;787:1;841:21	testify (1) 759:11	times (20) 741:14;779:4;793:7; 794:18;795:14;801:22; 802:3,8,9,11,13;804:1,4; 805:1;806:13,18,22; 813:6;832:16,18	transferred (2) 843:25;844:8	U
talked (2) 740:14;842:23	testifying (3) 781:25;782:8;843:7	timing (1) 837:15	translate (2) 752:22;777:13	
talking (12) 730:20,21;732:18; 738:5;740:10;759:1; 773:25;812:13;831:20; 842:22,22,25	testimony (13) 731:11,12,12;736:13; 737:14;751:12;771:9; 784:8;817:8;829:10; 835:18;839:8,19	title (1) 753:20	transmissions (1) 755:23	ultimate (1) 842:16
targeting (2) 798:11,11	tests (1) 793:9	TobyMac (1) 823:6	transmit (1) 777:16	ultimately (1) 796:10
task (1) 771:18	text-based (1) 791:2	today (18) 730:23;731:6,7;736:4, 16;737:1;773:11,18; 787:13;814:1;815:5; 825:6,20;830:6,10,14; 831:19;833:10	treatment (1) 818:13	ultra (2) 747:25;754:15
team (11) 772:2,3,4,8,9;789:5,7, 12;793:6,17,22	texts (1) 799:14	together (12) 730:12;731:4,6; 733:24;739:14;778:5; 798:6;799:8,14,18; 808:6;816:8	Trial (8) 730:1;733:7,21; 734:19;780:16,18; 781:16;818:22	ultrapeer (11) 747:21,23,24;748:7, 10,17,19,25;751:17; 752:23;753:21
teams (1) 772:6	Thanks (1) 749:5	told (4) 752:23;838:10;849:6, 10	trials (1) 838:12	ultrapeers (8) 747:18;749:16; 750:18;751:5;753:10, 17;754:3,10
Tech (1) 811:5	theft (1) 847:9	took (2) 759:12;772:13	tried (4) 732:3;738:10;745:1; 765:13	unable (1) 762:15
technical (4) 740:8;744:24;747:16; 759:2	theoretically (1) 843:17	tool (1) 744:17	trigger (1) 844:20	unavailable (1) 732:22
techniques (1) 765:22	theory (1) 843:14	top (14) 741:12;750:22;785:1, 13;791:1,3,6;795:20; 797:2;801:15;804:11,13, 14;828:7	troubleshooting (1) 789:20	uncommon (1) 740:1
technological (2) 755:4;779:5	therefore (2) 755:2;831:16	top-of-the-page (1) 790:13	true (3) 777:16;779:3;832:2	under (17) 736:5,19;752:3;768:3; 782:5;791:14;793:5,16; 804:8;807:3;824:21; 826:5;830:14;832:10; 834:25;836:13;839:11
technologically (1) 757:21	thick (1) 809:11	torrent (2) 763:5;831:19	try (11) 731:7;747:11;760:22; 783:8;793:7;808:19; 811:4;816:13;818:5,8,18	Undergraduate (1) 820:19
technologies (1) 821:23	thinking (1) 817:13	total (14) 731:18;737:15; 797:21;807:3,5,6,8; 808:11,14;812:11,12,12, 20,21	trying (6) 732:9;747:4;755:19; 759:20;760:20;761:13	underlying (2) 744:20;755:17
technology (3) 744:20;767:2;822:18	third (5) 783:7;791:14;797:24; 803:23;804:20	totally (1) 775:25	Tuesday (1) 816:16	Understood (1) 779:11
television (1) 832:21	third-party (3) 839:11;843:21,22	totals (2) 807:10;813:1	turn (18) 744:19;759:10;761:8; 765:2;787:22;796:18; 797:23;799:1;800:4; 803:3;804:18;805:23; 808:16;811:3;812:5; 824:5;826:9,23	unique (2) 737:11,19
telling (1) 810:13	thirds (1) 752:11	tracks (6) 825:6,20;826:16; 829:7;831:13;846:9	turned (2) 737:6;764:24	universe (1) 833:6
tell (2) 795:21;825:20	though (2) 779:9;836:3	trade (1) 821:11	two (24) 734:10;740:21; 741:17;742:14;749:16; 751:6,18;752:9,11; 757:17,25;758:9; 759:21;765:9;775:3; 778:5;782:21;795:9,15; 800:24;804:7;810:5; 821:5;848:1	University (1) 820:20
tends (2) 795:19;809:9	thought (6) 730:19;758:7;784:25; 816:13;834:1;837:16	traditional (1) 755:22	two-level (2) 748:3;754:11	unless (3) 748:20;787:22;794:20
tens (3) 772:17;829:11,13	thoughts (1) 733:9	traffic (8) 747:3;748:2;756:4; 778:12;795:19,24; 796:9;805:21	type (4) 743:9;825:10;846:22; 849:16	unpack (1) 778:7
term (14) 740:5,8;753:5;788:20; 790:9,14;792:5,7,12,17; 794:24;809:6,6;841:6	thousand (2) 764:7,21		types (1) 792:5	unprepared (1) 838:1
terminology (1) 753:6	thousands (1) 765:8		typical (2) 741:7;779:22	unusual (1) 742:2
terms (19) 733:7;739:9;777:4; 785:14;799:9,17,18; 805:22;814:18;818:11; 822:12;824:24;825:13, 21;826:19;843:7; 844:15,20;845:9	three (14) 741:20;752:11; 771:11,13;772:4; 779:23;784:20;785:6; 791:1;806:8;822:8,23; 825:18;838:7			up (75) 732:12;733:16,24; 736:12,13;737:22; 738:1;739:15;740:22; 742:6;743:14;747:7,12; 749:4,12;750:20; 752:10;755:6,12;762:12, 14;763:2;764:8;767:10; 777:9;778:6;779:9; 782:13,24;784:12,25; 785:12;790:18,22;
terribly (1) 773:23	threshold (2) 794:14;804:12			
test (1) 792:10	Thursday (1) 837:16			
testified (2)	tied (1) 836:7			
	Timbaland (2) 741:12;785:3			
	Timberlake (1)			

791:13;792:5,8,21; 793:12,20;794:4,6,18, 25;795:5,6,16;796:7,12, 19,24;799:8,24;800:14; 801:4;802:9,10,13; 803:24;804:4;805:1; 806:12,23;807:10; 808:8;810:22;813:1; 821:17;825:2;827:10, 14;831:4;835:16;847:7; 849:9	13;776:15;777:10; 785:7;786:7;793:14; 795:23;818:3;835:9	767:13;790:7,8; 832:24;849:21	websites (1) 814:16	810:7;811:4;813:23; 814:4;828:23,25;829:2; 831:20;834:20,22; 835:9;837:7	
usual (1) 841:18	usually (1) 772:7	violations (2) 844:18;845:5	Wednesday (1) 837:16	Wirecom (9) 800:13,18;803:16; 806:3,18,18;808:22; 811:8;812:15	
utilize (1) 757:2	utilizing (1) 765:4	viral (6) 738:5,7,15,17;739:7; 740:13	week (5) 731:13;816:12,14,15; 837:17	Wire's (3) 737:15;754:15;810:4	
upgrade (1) 783:8	V	visible (1) 800:22	weekend (7) 733:11;735:3;839:12; 841:11,20;848:23;850:6	wish (2) 770:4;836:1	
uploaded (1) 740:11	validated (1) 780:17	vivo (3) 833:3,5;835:21	Well-known (1) 773:3	wished (1) 791:12	
uploading (2) 752:5;846:9	validating (1) 780:23	voir (1) 849:5	what's (1) 740:25	within (22) 791:18,20,22;792:23; 798:5;799:7;800:18; 807:7,14;808:11;809:4; 810:21;811:9;813:2; 845:15,17,22;846:1,6, 22;847:12;848:15	
upon (3) 767:24;842:5;844:4	value (4) 753:7,18;761:12; 785:5	volume (1) 777:14	whatsoever (1) 833:18	without (8) 750:13;774:16;806:9; 813:16;824:6;835:25; 839:7;847:25	
upper (1) 764:9	values (2) 765:9,10	W	whenever (3) 794:14,16;797:6	witness (27) 734:9;767:16,22; 770:3;786:24;787:1,3,5, 6,7,9;814:25;815:2,4,4; 816:18;817:8;820:3,5,7; 830:19;837:3,7;839:4, 11;848:8;849:4	
Urban (1) 823:6	variations (2) 799:22,23	walk (1) 800:23	whereby (1) 761:11	witnesses (6) 733:21;734:1,10; 837:2,8,19	
use (25) 744:16;749:20; 754:19;757:16;759:22, 23;760:3,4,10,12,15,17; 761:1;762:19;766:2; 768:10;775:9,14; 776:19;777:11;797:8; 804:1;817:24;827:9,17	varied (1) 772:4	walking (1) 782:15	white (1) 758:6	won (1) 780:17	
used (18) 737:2;744:15;751:8; 752:5;754:20,23; 765:20;780:11;782:9; 784:17;790:10,23,24; 791:14,21,22;797:14; 809:3	variety (1) 768:3	wants (2) 783:8;797:7	whole (4) 741:1,5;743:1;822:19	wonder (1) 735:2	
useful (1) 733:2	various (13) 737:7;747:5;765:22; 768:1;777:12;778:3; 792:16;798:6;843:8,12, 21,24;844:20	war (1) 783:22	wholesale (2) 825:17;826:20	wonderful (1) 841:20	
user (36) 737:11,15,19,20; 740:15;743:4,22;744:8, 20,22;758:15,15;760:1, 10,14;761:17,24;768:7; 783:13,18;791:10,12; 792:5,23;794:20,24; 800:16;801:21;802:5,8; 804:1,25;806:17;809:5, 10;814:19	vendor (1) 767:3	ware (1) 811:5	Whoops (1) 745:7	word (35) 732:25;741:3;779:8; 800:21;801:3,3,12,13, 14,25;802:9,12;803:23; 804:2,4,18,20,23;805:4, 8,12,14;806:6,10,12,19, 21,23;808:3,6,25;809:3, 4,6;811:12	
users (15) 737:12,16,19,21; 739:6,8,20;742:7;747:6; 768:8;783:8;786:7; 805:21;813:5;843:12	vendors (6) 765:22;766:1,2;767:1; 843:21,22	Warner (1) 783:4	whose (1) 762:5	words (25) 782:13;799:8;800:19, 22,24;801:21;802:24; 803:19,22;805:10,19,20; 806:5,15;807:3,6,13; 808:24;809:3;810:1; 811:11,14;812:2;847:3; 848:14	
user's (5) 742:11;790:7,8; 795:20;809:8	venture (1) 821:16	wasting (1) 756:3	wide (1) 756:20	work (25) 733:24;734:20;735:2; 738:16;748:8;751:21; 761:16,16;771:25; 772:5;780:16,18,21; 787:25;788:1,15,18;	
uses (2) 781:20;793:1	verdict (1) 733:5	watch (4) 832:21,21;835:1; 836:2	willing (10) 747:23;783:23; 795:10;801:2,4,8,11,13, 17;808:8		
using (16) 751:10;754:15,19; 758:7;767:24;774:1,3,	verdicts (1) 734:23	watches (2) 832:8;835:21	WinAmp (1) 775:3		
	version (6) 746:10;754:13;763:1; 764:10;804:21,25	Waterman (3) 731:15;837:8;847:6	wins (1) 801:15		
	versions (6) 736:20,24;737:5,8,8; 768:8	Waterman's (2) 731:12,18	Wire (114) 730:9;736:16,19,23; 737:1,4,5,7,9,11,18; 738:6,7;739:18;740:10, 16,18,19;741:5,6; 742:19;743:6;744:11, 21;745:2,3,9,17;747:6, 10,15,20;748:24,25; 749:17;751:17,19; 752:16;754:19,22,25; 755:2,3,5,20;757:2,5,11, 19,21;758:7,9,14,15,16, 21,23,25;759:4,12,18,22, 23;760:1,3,4,7,8,10,12, 15,16,17,21;761:2,4,5, 12,14,17;762:6,7,8,15, 21;763:11,23;764:19; 765:4,13,15,19;766:1; 800:10;801:24;803:13; 805:24;806:12,23; 808:18,18;809:24;		
	versus (3) 795:21;808:18;839:5	way (43) 733:1,14;738:7;740:1, 13;742:11,24;743:8; 744:14;745:3,12;748:1; 749:9;751:15,17;752:11, 12;754:22;755:20,22; 758:23;765:4,7,12; 773:5;775:22;797:12, 24;799:13,17;802:25; 803:2;807:21;811:16, 19;818:22;833:25; 837:15;839:18;840:4; 845:7;846:19;849:20			
	Vice (2) 820:16;822:5	ways (6) 757:18;774:15,18,19; 779:14;831:4			
	video (7) 738:11;821:11;832:8, 15;833:11;834:6;835:1	web (4) 791:11,18,22;800:13			
	videos (4) 781:20;832:4;833:4,5	website (7) 759:19;760:6;762:24; 763:14;791:20;795:24; 796:9			
	view (5)				

801:10;821:1;829:5;
836:6;838:12;841:11;
845:21;846:6
worked (11)
738:8;744:24;771:10;
772:8;775:3;780:13;
781:16;785:8,13;788:8;
789:7
working (10)
749:4;765:24;772:1;
780:19;789:9,21,24;
790:4;793:17,22
works (11)
731:14;760:23;777:1;
785:5,16;786:16;790:7;
793:6;823:4;825:14;
846:13
world (2)
845:4;847:10
worry (2)
827:18;828:21
write (3)
749:11;775:16;840:3
writes (1)
792:25
writing (1)
839:1
written (1)
780:3
wrote (1)
811:17
wwwLime (2)
800:13;803:16

794:25;795:3
zapposcom (3)
792:22,22,24
zero (1)
777:3
zeroes (3)
778:15,16;779:12
zeros (11)
776:22;777:1,4,6,10,
11,18,22,25;778:2;
779:13

Y

year (5)
764:14;788:10;
820:22;821:1;822:15
years (8)
757:8;763:12;764:7;
788:9;790:3;821:5;
822:8;823:12
yesterday (12)
730:7;736:13;737:10;
738:4;739:17;740:14;
743:15;744:21;757:6;
790:16;816:13;838:5
yesterday's (1)
751:12
York (4)
747:3;821:10,17;
839:17
YOUNG (1)
817:7
YouTube (11)
831:25;832:9,10;
833:10;834:13,15,17,25;
835:1,18,21

Z

zappos (2)