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SIXTH TRIENNIAL 1201 RULEMAKING HEARINGS

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Reported by: Christine Allen Capital Reporting Company

1 PARTICIPANTS United States Copyright Office: 2 Jacqueline C. Charlesworth 3 Michelle Choe Sy Damle 4 John Riley Steve Ruwe 5 Regan Smith 6 National Telecommunication and Information 7 Administration: 8 Stacy Cheney 9 Participants: 10 Aaron Benmark Bobette Buster 11 Patrick Carey Jack Lerner 12 Molly Priya McClurg 13 Blake Reid Sherwin Siy 14 David Jonathan Taylor Bruce Turnbull 15 Michael Weinberg J. Matthew Williams 16 Michael Wolfe 17 18 19 20 21 22 23 24 25

1 PROCEEDINGS 2 Proposed Class 5: Audiovisual Works-- Derivative 3 Uses--Multimedia E-Books 4 5 MS. CHARLESWORTH: Good morning, everyone, and welcome to the Sixth Triennial 1201 6 7 Rulemaking Proceeding. We are going to be considering a couple of classes today, including 8 9 Proposed Class 5, which is up next, which is 10 titled, "Audiovisual Works--Derivative Uses--Multimedia E-Books." 11 And I want to introduce myself. I'm 12 13 Jacqueline Charlesworth, General Counsel of the 14 U.S. Copyright Office, and I, along with my 15 colleagues up here, will be presiding over this hearing today. I'm going to ask them each to 16 17 introduce themselves. 18 MS. CHOE: Michelle Choe, Ringer Fellow. 19 MS. SMITH: Regan Smith, Assistant 20 General Counsel. 21 MR. DAMLE: I'm Sy Damle. I'm Deputy 22 General Counsel. 23 MR. RUWE: Steve Ruwe, Assistant General 24 Counsel. 25 MR. RILEY: John Riley, Attorney

1 Adviser.

2 MR. CHENEY: And Stacy Cheney, Senior Attorney at NTIA, U.S. Department of Commerce. 3 MS. CHARLESWORTH: And as I've said in 4 some of the earlier sessions, the point of these 5 6 hearings is really to explore areas of the record that we feel are underdeveloped or where there may 7 8 be a disagreement in terms of the law or the 9 facts. We will be giving you each an opportunity to speak, probably more than one. 10 And we really 11 appreciate if you can focus in on those areas that may be in dispute or that you think we may not 12 13 understand fully rather than kind of retreading 14 the ground in your written submissions, which 15 we've read. So we appreciate that. 16 The format we've been following, which 17 seems to be working pretty well, is we let 18 everyone have what we call an opening statement 19 and then batter them with questions. Now, you can 20 start speaking and then sometimes we interject 21 questions along the way as you mention things that 22 are of concern or raise an issue for us. 23 Before we get to that, though, I would 24 love for each of you to just quickly for the 25 record introduce yourself, and then if you can

1 explain who it is or what it is you represent for 2 the record, that would be helpful. We'll start with you, yes, Ms. Buster. 3 Hi. I'm Bobette Buster. MS. BUSTER: 4 I'm an adjunct professor at the USC Peter Stark 5 6 program, and I am here representing multimedia e-7 books. 8 MR. WOLFE: Hi. My name is Michael Wolfe, and you should probably disregard the blurb 9 10 on my tag here. I'm actually on behalf of Authors 11 Alliance, the organization for which I am the executive director. 12 13 MS. CHARLESWORTH: Okay, one thing I 14 forgot to mention, which is a technical concern, 15 is we're only allowed to have four mikes on at a 16 time. So, yes, thank you for when you're not speaking, if you could turn your mike off, that 17 18 would be great. 19 MR. REID: Good morning. Blake Reid, 20 from the Samuelson-Glushko Tech, Law and Policy 21 Clinic. We're co-counsel to Authors Alliance. And 22 I won't be giving an opening statement this 23 morning, I'm just here for support. 24 MS. CHARLESWORTH: Okay. 25 MR. LERNER: I'm Jack Lerner from the

1 University of California Irvine Intellectual Property, Arts, and Technology Clinic, and like 2 Blake, I'm here to answer questions or provide 3 support and won't be giving an opening statement 4 5 or anything. People have scared 6 MS. CHARLESWORTH: people off. Okay. (Laughing.) 7 8 Ms. McClurq? 9 MS. MCCLURG: I'm Molly McClurg. I'm a student at the University of Colorado Law School 10 11 and the Samuelson-Glushko Technology, Law, and 12 Policy Clinic. And I am representing Authors 13 Alliance and hopefully will defer to my support. 14 MS. CHARLESWORTH: So is any -- who --15 okay, so, Mr. Wolfe, you're going to be speaking, 16 giving the opening for Authors Alliance? 17 MR. WOLFE: That's correct. 18 MS. CHARLESWORTH: Okay. Just so I --19 okay. 20 MS. MCCLURG: I'll be giving testimony 21 as well. 22 MS. CHARLESWORTH: Okay. 23 MR. BENMARK: My name is Aaron Benmark. 24 I'm here on the UCI Intellectual Property, Arts, 25 and Technology Clinic's behalf. We're

1 representing Authors Alliance and Bobette Buster, and I'll also be presenting testimony. 2 MS. CHARLESWORTH: Could you just rotate 3 your sign a little bit for me? Oh, and speaking 4 of signs, if you have something to add to the 5 6 conversation, if you tilt it up, we will call on 7 you. Mr. Turnbull? 8 9 MR. TURNBULL: Yes. I'm Bruce Turnbull. I'm here representing the Advanced Access Content 10 11 System Licensing Administrator, LLC. 12 MR. TAYLOR: I'm David Taylor. Ι represent DVD Copy Control Association. 13 14 MR. WILLIAMS: Matt Williams for MPAA, 15 ESA, and RIAA. 16 MS. CHARLESWORTH: Okay. Well, let's hear about e-books. Ms. Buster, would you like to 17 18 qo first? And I see that you're approaching the 19 podium. Is this a previously admitted exhibit or 20 it is part of the -- what happened? Excuse me 21 just a moment. 22 MR. RILEY: Exhibit 22. 23 MS. CHARLESWORTH: Okay, so this is 24 going to be I believe a presentation of Exhibit 25 22, Ms. Buster? Is that what's it been marked as?

1 MS. BUSTER: Yes. Is that the number for it? We have submitted --2 Yes. 3 MS. CHARLESWORTH: Okay, so for the record, we're going to be viewing and hearing 4 Exhibit Number 22. 5 6 7 MS. BUSTER: All right. So, yes, I'm Bobette Buster, Adjunct Professor at the USC Peter 8 9 Stark Program. I am also on the guest faculty at 10 Pixar, Disney, Sony, and I lecture in programs all 11 around the world regularly at Catholic University 12 of Milan, La Fémis in Paris, Irish Film Board, et 13 cetera. 14 Now, I have always worked within the 15 ivory tower in exclusive settings. On June 2nd 16 next week, I am finally doing a sold-out event at 17 20th Century Fox Studios, and I've been labeled 18 and hailed as Hollywood's best kept secret. 19 Basically, I have been in the last 3 years 20 publishing. I've done this book which is now in 21 its sixth printing and it's been sold all over the 22 world, and professors are now ordering it for 23 their books, and it's growing in its popularity, 24 but insofar as the enhanced book, e-book, which 25 I've been working on for the last 3 years, I have

| already commissioned a major award-winning graphic |
|--|
| designer because in e-publishing the book really |
| defines the cover, I mean is defined by the cover. |
| And also I've been working with Jack Lerner, his |
| clinic, Michael Donaldson on fair use. |
| My lectures are typically about 6 hours |
| long when I deconstruct a major film, such as The |
| Godfather, Shawshank Redemption, the Pixar films. |
| I have over 50 lectures, but for the e-book, I've |
| reduced it down to 16 clips for the first one that |
| total no more than 13 minutes. I would have to |
| I've already commissioned and found the right |
| agency to embed this in iBooks Author, and, in |
| fact, for the last 3 years it's been a roiling |
| environment with many different concerns, with the |
| gig size of documents, now iBooks Author is up to |
| |

17 2 gigs, easy, downloadable ability.

18 And iBooks Author dominates the roil, there is no other platform like it. Of course, 19 20 iTunes has this huge market, iPad is the leader, 21 but what we found is, and they promise -- and they 22 have a EULA, End-User Agreement, which has been 23 very threatening in its language that, yes, you 24 have to put it in their format, submit it to them, 25 and then they actually promise you that it will

1 take -- may take longer for them to accept it because it has to be checked by quality control. 2 And the word on the street is they're 3 simply not accepting standard def whatsoever, 4 because why would they? Apple is in the business 5 of creating extraordinary technological wonder in 6 their products, and everything gets better and 7 better every year with Retina, now Retina HD, now 8 their iMacs are 5K. They're simply wanting their 9 10 consumer to see everything in the best possible 11 environment. 12 MS. CHARLESWORTH: Okay, excuse me, I'm 13 You say word on the street is that they're sorry. 14 accepting everything, but --15 MS. BUSTER: Well, if you --16 MS. CHARLESWORTH: Can I just -- I'm sorry, we have to talk one at a time or the court 17 18 reporter will be very sad. 19 But you're saying that the word on the 20 street is that Apple doesn't accept anything but 21 I take it you've never seen any such high def. 22 policy in writing from them? 23 MS. BUSTER: No, they're not going to 24 say that --25 MS. CHARLESWORTH: I understand that.

1 I'm just trying to make sure that there is no written policy. And have they ever actually said 2 that to you in the course of the conversation? 3 MS. BUSTER: Well, here's the issue: 4 I've already commissioned a team, and we would 5 have to pay E&O insurance as well. It's a 6 7 daunting prospect for me to put my own money, which will cost thousands of dollars and 6 to 9 8 9 months, into a project which could be backwatered. 10 MS. CHARLESWORTH: Yeah, but that's not 11 answering -- my question is just very specific. 12 Have you ever --13 MS. BUSTER: No, I have not presented 14 this to them yet, but I have put all the players 15 in place. 16 MS. CHARLESWORTH: So you put all the players in place, but, I mean, I'm just wondering 17 if you've ever had a specific conversation with 18 19 Apple which is clearly --20 MS. BUSTER: With Apple --21 MS. CHARLESWORTH: I'm sorry. 22 MS. BUSTER: I'm sorry. 23 MS. CHARLESWORTH: Can I just get the 24 question out for the record? With Apple about 25 whether or not they accept other than -- something

1 other than HD material? MS. BUSTER: They hide behind their 2 agreement and proposal and they say you have to 3 read what their -- the proposal -- what they say, 4 these are the standards by which they accept 5 things for submission, and they'll only say, 6 "You 7 have to read that and we will decide once we see your fully embedded document." 8 9 MS. CHARLESWORTH: Okay, but the standards -- and the standards just don't 10 11 particularly address this issue. 12 MS. BUSTER: No. 13 MS. CHARLESWORTH: Okay. Thank you. So I want to show 14 MS. BUSTER: Okay. 15 you a couple of the problems at hand. Now, I 16 showed you the last time I was here 3 years ago 17 clips from Schindler's List, The Godfather, and 18 Toy Story 2. Right now I'm showing you a clip from 19 Shawshank Redemption, one of the most beloved 20 films of all time. You will see in this scene -and this is very important for what I do in 21 22 cinematic storytelling where we talk about the 23 We see a maggot being pulled out of seven arts. 24 breakfast, Andy Dufresne's first day in prison. 25 It's disgusting and we go, "Ew," and then this old

1 man said, "Are you going to eat that? Ooh, nice and ripe." And we're further disgusted, when 2 suddenly he feeds it to a bird. 3 Now, the bird is the universal symbol of 4 freedom, and Jake (sic) says, "Oh, I'm going to 5 6 raise Jake until he's ready to fly." Well, in the next scene -- this is like 5, 6 years later in the 7 8 story -- Andy comes to visit Brooks in the prison basement, and all of a sudden what do we see? 9 10 He's been living in the walls of the Jake. 11 prison. 12 Now, the point here is in cinema you 13 have to create a visual metaphor for an abstract 14 idea, and this is an abstract idea known as 15 institutionalization. Brooks is free within the 16 walls of the prison. But, now, in the rule of 17 threes, Brooks has just been granted parole, and 18 you cannot see Jake, he is letting Jake go. You 19 can see it in HD, you can see it in broadcast, and 20 you can see it in the theater. This is very 21 important for the storytelling power of this 22 scene. You shouldn't have to be going, "Hey, 23 what's that? Oh, oh, I get it." You should be 24 immersed in the feeling state of that --25 MS. CHARLESWORTH: I'm sorry. So you're

1 saying in this version, which is SD --2 MS. BUSTER: Yes. MS. CHARLESWORTH: -- that we're 3 currently watching? 4 5 MS. BUSTER: Yes. 6 MS. CHARLESWORTH: You -- I mean, you're 7 suggesting you can't see Jake. I was able to see something there, but do you have the comparison 8 9 that you're going to show us to HD? 10 MS. BUSTER: No, I do not. I don't have I can promise you that it does --11 the comparison. 12 it has total clarity in the HD -- well, first of 13 all, I can't show that on my computer, I have an 14 older Mac, so I have a -- this is an SD --15 MS. CHARLESWORTH: I was just asking 16 whether you had it -- whether you had it with you. 17 No, I do not. MS. BUSTER: 18 MS. CHARLESWORTH: Okay. 19 MS. BUSTER: So the point being is that 20 we are setting up the dynamic of the audience's 21 immersive experience in the story, and there are 22 seven arts at play. So it's not just a second-23 degree experience where you're kind of getting the 24 story. That's not what storytelling is about, and 25 this is the major cultural art form of our times.

1 Now, The King's Speech is another great example, made for \$15 million, went on to make 2 \$400 million worldwide and won the top Oscars. 3 This opening scene, Duke of York is stammering, 4 5 terribly embarrassed, his first time on live 6 radio, everything is soft muted colors. Okay? Now, Tom Hooper has taken a play and expanded it 7 with the seven arts of cinema in different ways so 8 9 that you feel the Duke, who becomes the King, his 10 embarrassment. In this scene, for whatever 11 reason, he chose to put the Duke in the Australian 12 speech therapist's office against stripped 13 wallpaper so that you feel his agony and his 14 He's been stripped raw on the embarrassment. 15 world's stage. He stammers, it's humiliating, he 16 has no hope. 17 In fact, this gold line around him is 18 stripped bare. Now, this is a cinematic choice by 19 the art department production design, and what 20 you're about to see is one of my key problems with 21 SD. This is the climax of the film. It's 22 September 3rd, 1939. He has been working, the King 23 -- he is now King -- he has been working with 24 Lionel Logue for 7 years, and on this day, of all 25 days, he's been given the job of delivering a 9-

| 1 | minute speech live to the British empire, and what |
|----|--|
| 2 | you should see here and we're in Buckingham |
| 3 | Palace, in this scene, as the camera dollies in, |
| 4 | you should experience the 3D aha experience and |
| 5 | basically right above the King's head is a gold |
| 6 | line going straight through his skull. It's very |
| 7 | impressive in HD, and, no, I do not have an |
| 8 | example of it here, so I have to tell you this, |
| 9 | but frankly I have to do a lot of description of |
| 10 | what you should see when I'm talking in SD. You |
| 11 | should be seeing in ideal viewing conditions this |
| 12 | idea. |
| 13 | MS. CHARLESWORTH: Can you would you |
| 14 | be able to rewind that so we can look at that |
| 15 | dolly-in scene again since you mentioned what it |
| 16 | is we should be looking for there? |
| 17 | MS. BUSTER: Uh-huh. Okay. This gray |
| 18 | tapestry in Buckingham Palace is basically framed |
| 19 | in gold, and as the camera dollies in, you should |
| 20 | see a gold line going through his head, and you |
| 21 | are given this incredible sense of expansion like, |
| 22 | can he do this 9-minute speech? And then for the |
| 23 | rest of this sequence, you will see the King |
| 24 | framed in gold in various settings, which is also |
| 25 | a metaphor for His Majesty. And will he be able |

| 1 | to do this? Because we saw him in the opening |
|----|--|
| 2 | scene fail so miserably. And in the final shot, |
| 3 | it is Lionel Logue, and he is framed in gold and |
| 4 | white. I promise you in Blu-Ray in HD setting |
| 5 | this is crystal clear and quite beautiful, and in |
| 6 | this setting it's all fuzzed out a bit. You still |
| 7 | get the sense of it, and he's a bit off center |
| 8 | because he's been off center in the King's life, |
| 9 | but he is the one who has enabled him to discover |
| 10 | the courage to become transformed. And the |
| 11 | audience is transformed by this because any story |
| 12 | that reflects the struggle to discover the courage |
| 13 | to be your best person is what wins worldwide. |
| 14 | Now, what I have found in doing this |
| 15 | series is I have been in the last 3 years |
| 16 | producing a major documentary, it will be finished |
| 17 | this year, and we were going to distribute it next |
| 18 | year, and it's about innovations in storytelling |
| 19 | vis-a-vis sound design, and there was a quantum |
| 20 | leap in this in 1976 with George Lucas, whom we |
| 21 | just interviewed at his Skywalker Ranch in which |
| 22 | he says art is technology. And he said that when |
| 23 | he started to do Star Wars there was no technology |
| 24 | for special effects and nothing for sound design, |
| 25 | and he had to invent that, he had to figure it |

| 1 | out, and he said, in fact, all art is moved by the |
|----|--|
| 2 | fact that you have to push the limits and |
| 3 | boundaries of technology in order to move the |
| 4 | culture forward. He did this and has created and |
| 5 | invested in and created the industry we're in now, |
| 6 | and many patents are owned by him, and he's had |
| 7 | the financial resources to create the very school |
| 8 | where I am an adjunct professor. |
| 9 | He also initially financed Pixar, which |
| 10 | Steve Jobs bought. |
| 11 | And we also interviewed John Lasseter, |
| 12 | who said art inspires technology, and technology |
| 13 | inspires art, but it all comes down to story, |
| 14 | story, story. And I am asked by the major studios |
| 15 | to constantly refresh and embolden them in the |
| 16 | principles of storytelling from all the seven arts |
| 17 | because every frame is advanced by storytelling. |
| 18 | And what I feel is being backwatered by the use of |
| 19 | SD, the entire industry is now set up on |
| 20 | technological wonder with HD, Blu-ray, and |
| 21 | progressing to 4K, all these other technologies, |
| 22 | but I am being held back, along with the other |
| 23 | people, to do this, and we're like the 8-track of |
| 24 | the industry. |
| 25 | And, besides, this is what I do in |
| | |

| 1 | inspiring the very creators of the content that |
|----|--|
| 2 | drive you know, Hollywood is the second largest |
| 3 | export in the world. And this is strange to me |
| 4 | that I am already being made archival material, |
| 5 | and it will not sell as well because people have |
| 6 | technology in their hands, whatever smartbook, |
| 7 | iPad, smartphone, or whatever, that will make it |
| 8 | look decrepit. |
| 9 | And, finally, the argument has been |
| 10 | said, well, what about up-ressing? Well, up- |
| 11 | ressing is a specious argument. People can see on |
| 12 | their Retina displays up-ressing. It is just |
| 13 | filler, like fattening steers for the market. |
| 14 | Your audience wants to see what they saw in the |
| 15 | theater, what they can see in broadcast, and |
| 16 | broadcast no longer will accept anything under SD. |
| 17 | So I'm appealing for the right with fair |
| 18 | use, which I'm working with Jack Lerner and |
| 19 | Michael Donaldson on, to do this with the highest |
| 20 | technology available now. |
| 21 | MS. CHARLESWORTH: Okay. Thank you very |
| 22 | much. |
| 23 | Did you have any questions here? |
| 24 | MR. CHENEY: I had one just for |
| 25 | clarification. You mentioned that you had 13 |
| | |

minutes of clips. Was that a total length or was 1 that a --2 3 MS. BUSTER: No, there are 16 clips, a total of like 12 minutes, 53 seconds. 4 5 MR. CHENEY: Okay, in this e-book. 6 MS. BUSTER: Yeah. 7 MR. CHENEY: Were the clips that we were 8 seeing today, are they going to be in this e-book? 9 MS. BUSTER: Yes. Yes. And the clips 10 that you saw 3 years ago are going to be in the e-11 book, so --12 MR. CHENEY: Okay. Thank you. 13 I have a couple questions. MS. SMITH: 14 MS. BUSTER: Yes. 15 MS. SMITH: Do you know if the Kindle 16 requires high def as well or has a requirement or has guidelines on image guality? 17 18 MS. BUSTER: I didn't hear. 19 MS. SMITH: The Kindle, you said Apple--20 MS. BUSTER: Kindle is a much more 21 unstable platform and it can't really -- everyone 22 is very concerned with easy, downloadable, and gig 23 size, and so actually when I'm working with the 24 teams that I've talked to, they all say in unison, 25 the only thing that's stable right now and the

1 best is iBook Author. MS. SMITH: So you would not make your 2 book available for Kindle? 3 MS. BUSTER: Not right now, it's not 4 possible. I mean, there are possibilities with 5 apps out there, like Atavist, and there are web 6 7 streaming, but it's hard to do that with the fair use issues we have now. 8 9 MS. SMITH: Okay. Are you aware of anyone else who has been told by Apple that their 10 11 image quality is insufficient for their standards? MS. BUSTER: Well, I've talked to a 12 13 Digital Collective in Berkeley who said, you know 14 -- and initially they were very interested in 15 working with me on a project, but when they saw the level of embedding, they said, "We're not 16 17 ready to actually put this out on our platform because of the downloadable issue, the speed of 18 19 downloading," and so they said, "We really just 20 suggest you go to iBook Author for this project." MS. CHARLESWORTH: So in that case, the 21 platform really couldn't support the HD? Is that 22 23 what you're saying? 24 MS. BUSTER: Yes. Well, no, I've been 25 asking in SD all along.

| 1 | MS. CHARLESWORTH: No, wait, I'm sorry. |
|----|--|
| 2 | Oh, so it couldn't even support SD. |
| 3 | MS. BUSTER: Their platform at that |
| 4 | time. Well, the number of clips. The fear is that |
| 5 | it takes too long to download, you know, and I've |
| 6 | tried to reduce this down to the least number of |
| 7 | clips. You're actually getting a lot more in my |
| 8 | overview than I would be able to do in the clips |
| 9 | that you see in my book. I would be writing that |
| 10 | and describing that in my book. |
| 11 | MS. CHARLESWORTH: And that's a download |
| 12 | issue. That's a download issue. |
| 13 | MS. BUSTER: Yes. |
| 14 | MS. CHARLESWORTH: And isn't it the case |
| 15 | that HD, you're transferring more you need more |
| 16 | bandwidth than you would for SD? |
| 17 | MS. BUSTER: Well, apparently iBook |
| 18 | Author has now moved up to 2 gigs, and it would be |
| 19 | something we would have to experiment with. We |
| 20 | would have to see. Is 13 minutes too much or |
| 21 | could I move it further? Could I put in more and |
| 22 | just use up the 2 gigs? And we would have to then |
| 23 | be in the position of, "Oh, how can we expand |
| 24 | this? What more can we do?" I mean, I would like |
| 25 | to do a series because I have so much material, |
| | |

| 1 | and I would like to continue expanding this. |
|----|--|
| 2 | MS. CHARLESWORTH: So is it fair to say |
| | |
| 3 | there is sort of a tradeoff between the level of |
| 4 | definition and sort of the amount of content you |
| 5 | can show in the e-book or include in the e-book? |
| 6 | In other words, if you have could you have more |
| 7 | SD clips, more minutes of SD clips, than HD clips |
| 8 | if you are limited by the amount of the download, |
| 9 | the full size of the download? |
| 10 | MS. BUSTER: Well, my issue is I would |
| 11 | like to present the highest quality as was |
| 12 | intended by the filmmaker and in which the |
| 13 | audience expects to see because I talk about all |
| 14 | the elements and whether that's the color, the art |
| 15 | direction, the cinematography, the lighting, also |
| 16 | the acting and directing and costumes, they all |
| 17 | have to be as the filmmaker intended them and as |
| 18 | the studio released them. The audience has seen |
| 19 | that. |
| 20 | And what I also say in e-book, I give |
| 21 | direct links where people can buy the full film, |
| 22 | and I always say, "See the full film," because I |
| 23 | would like to see it within context. So to me, I |
| 24 | want people to see the clip as it was best |
| 25 | intended at this time. |
| | |

1 MS. CHARLESWORTH: Okay. So you would 2 rather have maybe potentially fewer clips in HD 3 than more clips in SD.

MS. BUSTER: Yes. Right. 4 There is an e-book out there that is a black-and-white book 5 that is students enacting film scenes like from 6 7 Blade Runner, and that's the only way I guess the people who created this book could see a way of 8 describing how the cinematography works. 9 I just 10 found it a totally inadequate experience, to read 11 the book, watch the clips, because you would much rather just go see Blade Runner and then read a 12 13 commentary about it.

14 So I think there is a lot of 15 experimentation out there with, how best can we 16 embed clips and engage the audience? And right 17 now there is an engagement problem because the 18 audience expects the highest quality that they 19 know the clips to be in.

20 MS. CHARLESWORTH: Okay. Ms. Smith? 21 MS. SMITH: I just want to make sure I'm 22 understanding. Do you know examples of Apple 23 accepting HD clips?

24 MS. BUSTER: For iBooks Author, I do 25 not. I do know that, you know, in Al Gore's app

1 "Our Choice" there are some excellent clips, and that was a proprietary technology created by 2 Melcher Media, but that is not data that is not 3 owned by the studios, it is --4 5 MS. SMITH: Right. Let's assume something is fully licensed. Is there a platform 6 7 for you to distribute --8 MS. BUSTER: You can. You could on an 9 app, and there are apps out there that do it, but 10 I have not seen anything that successfully takes 11 clips from movies and does this. 12 MS. SMITH: So it may not even be possible to take the high def distributed in 13 14 iBooks or -- and it sounds like it is --15 MS. BUSTER: Well, it's certainly 16 possible for me to create an iBooks Author and it looks good and it plays well and it reads well, 17 18 it's certainly possible, and if I stay within 2 19 gigs, it would be a very handsome document. For 20 me, it's a 6- to 9-month project I am personally 21 financing, and I found the team to do it and asked 22 all the right questions, but it's a daunting 23 prospect to do it with -- and also it's not up to 24 my standards. You know, I have to explain that 25 you're not seeing this as you should see it.

1 MS. CHARLESWORTH: So you can create it in iBook, but the question is whether Apple will 2 distribute it; is that correct? 3 MS. BUSTER: Yes. Yes. 4 And the question is whether if I did it and they rejected 5 6 it, would I be legally allowed to truly do this in 7 another platform? Right now, because of all the contention around there, end-user agreement, 8 they're saying, "Yeah, sure," but then, you know, 9 10 you read Macworld and you read all these other 11 commentaries, like on CNET, and they say there is 12 no assurance that Apple won't come after you, like 13 if I had a bestselling iBook on another platform, 14 they could go back to their -- and their legalese 15 is incredibly dense. 16 MS. CHARLESWORTH: I've seen some of it. I mean, this is a point of curiosity. So you've 17 18 embarked on an expensive project. 19 MS. BUSTER: Yeah. 20 MS. CHARLESWORTH: And obviously one 21 that requires a lot of care and work. Did it --22 and you have lawyers working with you. I mean, 23 did it occur to you to kind of have a conversation 24 with Apple? You're a high profile author in this 25 field, in this particular area, and I'm just

1 wondering, you didn't have any conversations with them about whether they would accept --2 MS. BUSTER: Well, I do know --3 MS. CHARLESWORTH: -- I'm sorry, if I 4 can just finish the question just so the record is 5 clear --6 7 MS. BUSTER: Sorry. MS. CHARLESWORTH: -- whether they would 8 accept and distribute a book with HD clips? 9 10 They are very formal in any MS. BUSTER: 11 prospect that is presented to them, they simply 12 say, "You have to read our specifications and we 13 will decide." Now, I do know one of the designers 14 of the iPad personally and I asked him about it, 15 and he simply said, you know, it's a closed-door 16 policy that cannot be opened to every individual question on this. They decide behind closed doors 17 18 what has the quality and the level they want to 19 distribute on iTunes. 20 MS. CHARLESWORTH: Okay. So you 21 attempted to approach them, but you didn't get an 22 answer. 23 MS. BUSTER: Yes. 24 MS. CHARLESWORTH: Okay. 25 MS. SMITH: And have you approached

1 publishers? From your submission, it sounded like you were planning on self-publishing the book. 2 Am I understanding that? 3 MS. BUSTER: Well, yes. There is a 4 platform called AirBook Maker. They were 5 6 initially very excited about this. There is another platform called Atavist, which probably is 7 the most promising for me to work on, but then 8 we're in the issues of fair use on those 9 10 There is also the possibility of platforms. 11 Vimeo Plus, which I create a private channel, but 12 then frankly I deconstruct major films, and they 13 take 6 hours or more. I go frame-by-frame, but I 14 don't have the ability through fair use to do a 15 full-length film. 16 MS. CHARLESWORTH: Now, I'm -- why would the fair use issues differ platform-to-platform, 17 18 as between Apple, for example, and an alternative 19 platform? 20 MS. BUSTER: Um, well, we -- Jack, do 21 you want to talk about that? 22 MR. LERNER: Go ahead and answer. 23 MS. BUSTER: Well --24 MS. CHARLESWORTH: We can also ask 25 Professor Lerner when we go down the road, or if

1 you're uncomfortable, you can pass. MS. BUSTER: The thing that's been 2 daunting to me about that with the other platforms 3 is they have nowhere near the marketability of 4 5 So, yeah, I could put something out iTunes. 6 there, and then how do I let the audience know It would have to build by word-of-7 about it? mouth, and I have a fair number of people who know 8 9 about me, and I am building my profile around the 10 world, but as far as the expense of uploading it, 11 putting it up there, you know, I would be in a 12 different market universe doing it on my own, and 13 basically I would be advertising it from my own 14 website. 15 MS. CHARLESWORTH: Right. I quess my 16 question went to -- you had sort of suggested that 17 there was some fair use distinction as between 18 Apple and --19 MS. BUSTER: No, I --20 MS. CHARLESWORTH: -- other platforms, 21 and I just wanted to make sure I understood, or 22 maybe I misunderstood, what you were saying. I 23 mean, are you claiming that there's a difference 24 in the way you would analyze the fair use question 25 if you're distributing through Apple versus an

alternative Apple-based platform? 1 2 MS. BUSTER: Jack, do you want to answer 3 that? MR. LERNER: I think what Bobette is 4 saying is that the exemption only permits short 5 6 portions. So if she had to scrap the e-book idea and do essentially a documentary film on Vimeo, 7 the current exemption would only allow her to use 8 short portions, and so she wouldn't be able to do 9 as extensive of a presentation as she would like 10 11 is what her fear is. 12 MS. CHARLESWORTH: Okay. And so then that leads, of course, to the question of whether 13 14 the longer portions would be fair use. 15 MR. LERNER: Well, I mean, I don't --16 MS. CHARLESWORTH: I mean, it raises a more significant fair use issue because she would 17 18 be using longer portions that may -- are less 19 likely to be fair use. Would you agree with that? 20 MR. LERNER: I see what you're saying 21 and, of course, the amount and substantiality 22 taken is one of the four fair use factors, but I 23 think there is a very reasonable scenario in which 24 she could discuss a huge portion of a film if she 25 is analyzing it clip-by- clip and presenting a

| 1 | commentary and analysis of that clip that would |
|----|--|
| 2 | easily pass muster as transformative use and would |
| | |
| 3 | outweigh the amount and substantiality factor. So |
| 4 | I think that given the extensive analysis that she |
| 5 | does frame-by-frame, even if she used a large |
| 6 | portion of the work, it would very likely still be |
| 7 | frankly a slam-dunk fair use. So that's what I'm |
| 8 | saying. |
| 9 | MS. CHARLESWORTH: Okay. So but |
| 10 | there would still be she would still be using |
| 11 | short clips, you're just saying she would be using |
| 12 | a lot of short clips. Is that correct? |
| 13 | MS. BUSTER: Well, actually, I can take |
| 14 | a film like The Godfather, which is over $2-1/2$ |
| 15 | hours, and as I said, take about 6 hours, and I'm |
| 16 | going literally image-by-image, sequence-by- |
| 17 | sequence. So I could argue that I'm doing it all |
| 18 | in fair use, but Jack Lerner and his team have |
| 19 | seen several of my lectures, and that's why he's |
| 20 | saying it's a slam-dunk use of fair use, but right |
| 21 | now the exemption only allows for short clips. |
| 22 | Now, maybe I would create a lecture that is sort |
| 23 | of sequences from The Godfather in order to |
| 24 | comply. |
| 25 | MS. CHARLESWORTH: Are you saying you |

1 would put 6 hours of The Godfather into an e-book and --2 3 This is -- we're MS. BUSTER: No, no. off the e-book thing. We're talking about 4 5 something like -- because there is nothing right 6 now that could support that anyway in gig and downloadability. I'm talking about something like 7 Vimeo Plus. That's a whole separate issue, and 8 that would be a logical place for me to go and do 9 10 my lectures for -- see, I'm in the ivory tower 11 right now. At most, maybe 500 people a year get 12 my lectures. What I'm trying to do is democratize 13 this so more people get access to it. 14 MS. CHARLESWORTH: Okay. But we're 15 focused here -- I guess we're trying to focus on 16 the e-book question --17 MS. BUSTER: Right. 18 MS. CHARLESWORTH: -- and your proposed exemption. So I'm trying to understand what the 19 20 uses would be in an e-book, and in an e-book, 21 would you be using individual clips, even if they 22 were from the same movie, would you be using 23 individual clips that you would not consider to be 24 short clips? 25 MS. BUSTER: I would use them as it's

| 1 | determined by the four uses of fair use by Jack |
|----|--|
| 2 | Lerner and the IDA and Michael Donaldson and that |
| 3 | agreement, and I have examples I've shown before |
| 4 | and now where I will take from a movie, say, three |
| 5 | or four moments from a movie, like Schindler's |
| 6 | List, and some of those clips are like 8 seconds |
| 7 | or 17 seconds, one of them is $1-1/2$ minutes, and |
| 8 | I'm framing it because it all pays off to the same |
| 9 | overarching idea in terms of cinema language. |
| 10 | They all relate to a teachable moment that is |
| 11 | important in understanding the dimensions and uses |
| 12 | of cinematic enchantment. |
| 13 | MS. CHARLESWORTH: Okay. So in that |
| 14 | example, you said I think an 8-second clip, a 17- |
| 15 | second clip, and a minute-and-a-half long clip |
| 16 | MS. BUSTER: For |
| 17 | MS. CHARLESWORTH: those are examples |
| 18 | that you might use in an e-book? |
| 19 | MS. BUSTER: Yes, for one film. And, in |
| 20 | fact, in the 16 clips that I have for my beta |
| 21 | book, I have a clip as short as 3 to 5 seconds, |
| 22 | and I think in The Godfather there are several |
| 23 | clips that are just under 10 seconds, and then it |
| 24 | pays off to a $2-1/2$ minute clip at the climax, |
| 25 | because what those other small clips have done has |
| | |

| 1 | set up the climax, and then you see the cord of |
|----|---|
| 2 | all the threads of the plots playing off in that |
| 3 | moment. What I do when I'm teaching live is I'm |
| 4 | showing how that is that's a process called |
| 5 | setup and payoff, and I'm showing how it's been |
| 6 | set up by the filmmaker to pay off in this climax. |
| 7 | MS. CHARLESWORTH: Okay. And so in |
| 8 | that, what you were just discussing there, the |
| 9 | longest clip was 2-1/2 minutes from The Godfather? |
| 10 | MS. BUSTER: Yeah, for the e-book, yeah. |
| 11 | MS. CHARLESWORTH: Okay. And then in |
| 12 | the one where you have the one that you planned |
| 13 | for Apple, the 16 clips totaling 13 minutes, what's |
| 14 | the longest of those clips? |
| 15 | MS. BUSTER: Well, it would be The |
| 16 | Godfather one. |
| 17 | MS. CHARLESWORTH: The 2-1/2-minute one? |
| 18 | MS. BUSTER: Yeah. |
| 19 | MS. CHARLESWORTH: Okay. Thank you. |
| 20 | MS. SMITH: I just want to make sure my |
| 21 | question earlier was answered. For the book that |
| 22 | you're planning that would be distributed on |
| 23 | iBooks, it sounds like using a publisher to get |
| 24 | onto iBooks is something that you're no longer |
| 25 | pursuing because of the expressed concerns about |
| | |

| 1 | the fair use nature of your book? Is that right? |
|----|--|
| 2 | MS. BUSTER: The publishers are simply |
| 3 | not interested. They see it as a very financially |
| 4 | daunting thing to create the e-book in and of |
| 5 | itself, and there is no assurance that Apple will |
| 6 | allow it to be done. So it's a self-financed |
| 7 | proposition, or I guess I could go and kick-start |
| 8 | it and |
| 9 | MS. SMITH: Right. So those concerns |
| 10 | are based on whether or not the project is fair |
| 11 | use, not whether or not there is a DMCA issue? |
| 12 | MS. BUSTER: I'm not sure I understand. |
| 13 | The subject they would everybody would |
| 14 | require me to prove fair use for all my clips, and |
| 15 | I would have to have E&O insurance. That's a done |
| 16 | deal. But the issue then is the expense of |
| 17 | creating the iBook and then the possibility of it |
| 18 | being turned down because the technology is |
| 19 | inferior. |
| 20 | MS. SMITH: Okay. On a different topic, |
| 21 | I had a question about the sound quality of high |
| 22 | definition. And we've heard a lot about |
| 23 | specifically the image quality and the different |
| 24 | levels of resolution, and I know we have the |
| 25 | affidavit from Mark Berger, but is there any type |
| | |

1 of specific metrics we can put on the level of 2 sound quality of HD versus SD that we might see in 3 an e-book?

MS. BUSTER: 4 Yes. I mean, basically what you're dealing with SD is an inferior product 5 6 to what the audience is used to now, what they're absolutely used to. First of all, these films 7 have been mixed with either 5.1, 7.1, or, at most, 8 surround sound. HD promises the right levels of 9 10 mixture of that, and what I see with SD is that 11 it's sort of generically mixed and some levels are 12 too high, some are too low, and, yes, of course, 13 I'm talking about sound design. I'm doing a major 14 documentary about it, and I've interviewed all the 15 major sound designers, including Mark Berger and 16 Ben Burtt, who created Star Wars with George 17 Lucas, and they all lament the fact that the older 18 technology has nowhere near the levels, and 19 they've gone back in to remaster the films so that 20 they are the best sound quality possible. 21 So I'm essentially an expert on sound 22 design, and I want people to hear the levels, and 23 I'm often -- for example, in The Godfather, it has 24 incredibly -- it was the groundbreaker in sound 25 design -- I'm often saying what you should hear

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| 1 | here and go see it on the film are children |
|----|--|
| 2 | laughing in the background. This is a very |
| 3 | critical emotive device in the scene that we're |
| 4 | seeing, there are children laughing, but you often |
| 5 | see a murder in the next scene. So I have to |
| 6 | describe what the sound design is. |
| 7 | MS. SMITH: Okay, because you can hear |
| 8 | the children laughing in HD but not SD? |
| 9 | MS. BUSTER: Yes. Mm-hmm. |
| 10 | MS. SMITH: Okay. Thank you. |
| 11 | MS. CHARLESWORTH: Excuse me on that |
| 12 | last one, is there anything in the record that |
| 13 | illustrates that, anything you've submitted to |
| 14 | illustrate that point? |
| 15 | MS. BUSTER: With sound design? |
| 16 | MS. CHARLESWORTH: With the children |
| 17 | laughing or sound that |
| 18 | MS. BUSTER: No, I mean, I have a clip |
| 19 | on my I could show you a clip, but I can also |
| 20 | show you, um |
| 21 | MS. CHARLESWORTH: Well, that |
| 22 | illustrates sort of the loss of sound quality as |
| 23 | between HD and SD. |
| 24 | |
| 25 | MS. BUSTER: Well, I don't have before |
| | |

1 and after. I'm sorry. 2 MS. CHARLESWORTH: Okay. All right. Ms. Buster, were you -- had you completed your 3 opening remarks? 4 5 MS. BUSTER: I have. Anything else? 6 MS. CHARLESWORTH: Thank you very much. 7 Very interesting. 8 Mr. Wolfe, I think we're going to turn 9 to you. 10 MR. WOLFE: Thank you. Great. I am 11 going to try to be relatively brief. I think much of what Authors Alliance's interest is in the 12 13 exemption has been well represented by our 14 attorneys in the comment. 15 I wanted to do three things very quickly 16 here today. First, I want to provide a little bit 17 more of an introduction and background into our 18 organization, who we are and what we are about. Ι 19 want to talk a little bit about why we are 20 invested in this exemption and why we think it's 21 significant. And, finally, I want to talk a little 22 bit about a couple of changes in the publishing 23 landscape that we think are relevant to the 24 consideration of the exemption. 25 So first about us. Authors Alliance is

| 1 | a relatively new membership-supported nonprofit. |
|----|--|
| 2 | We launched a year ago, actually yesterday to the |
| 3 | date. We're composed of authors, who are members, |
| 4 | who and we work to further their interests and |
| 5 | seeing their works widely disseminated and |
| 6 | preserved, and with those goals, the public |
| 7 | interest in having broad, enduring access whether |
| 8 | or not the access is open or paid to knowledge and |
| 9 | culture. |
| 10 | So to highlight what our membership is |
| 11 | about, the authors that we think are going to be |
| 12 | taking advantage of this exemption, we currently |
| 13 | have about 600 members who are all authors of |
| 14 | creative works, they're creators, they're |
| 15 | copyright holders. And of those, the overwhelming |
| 16 | majority are academics. So we are primarily |
| 17 | composed of academic authors who are interested |
| 18 | primarily in communicating knowledge and advancing |
| 19 | their fields. And these are not slouches. Our |
| 20 | advisory board has two Nobel laureates, a poet |
| 21 | laureate of the United States, leaders in their |
| 22 | fields. |
| 23 | Now, most of what our work is on a day- |
| 24 | to- day basis is providing information and |
| 25 | resources that assist these authors. Often what |
| | |

| 1 | this means is helping authors take advantage of |
|----|--|
| 2 | new opportunities enabled by technological |
| 3 | advance. We're here today because we think |
| 4 | multimedia e-books present a significant |
| 5 | opportunity to enable our community to do the |
| 6 | valuable work they're already doing on a day-to- |
| 7 | day basis to advance knowledge. We want to be |
| 8 | sure the new medium can fulfill its potential by |
| 9 | making sure that any circumvention measures allow |
| 10 | room for the fair use that is essential and has |
| 11 | always been essential to their creative endeavors. |
| 12 | So obviously the majority of our members |
| 13 | are academics. |
| 14 | I'm going to move on to my second point, |
| 15 | which is talking about the significance of this |
| 16 | exemption for them. |
| 17 | Scholars of all sorts have cause |
| 18 | regularly to make fair or to comment on, to |
| 19 | criticize, and to educate about information that's |
| 20 | represented and communicated in film. So this is |
| 21 | not just a film studies exemption. Sociologists, |
| 22 | historians, legal scholars, as our comment noted, |
| 23 | Pamela Samuelson, who is actually a director of |
| 24 | our organization and a founder of it, as well as, |
| 25 | you probably know, a leading copyright scholar, |
| | |

| 1 | provides the example of something she would like |
|----|--|
| 2 | to do with regards to copyright education. One of |
| 3 | continuing tricky subject in copyright law is |
| 4 | where a copyright rests in characters and how the |
| 5 | idea/expression dichotomy breaks down with |
| 6 | regard specifically to characters in creative |
| 7 | works. |
| 8 | MS. CHARLESWORTH: Can I just ask you, I |
| 9 | think I recall from the submissions that she was |
| 10 | looking to analyze questions relating to James |
| 11 | Bond, the character James Bond? |
| 12 | MR. WOLFE: That's correct. Yes. |
| 13 | MS. CHARLESWORTH: So she would be |
| 14 | that would involve looking at film clips, I |
| 15 | assume. Is that correct? |
| 16 | MR. WOLFE: That's correct. Yes. |
| 17 | MS. CHARLESWORTH: Okay. Thank you. |
| 18 | MR. WOLFE: So with regard to the |
| 19 | specific James Bond example, there are a number of |
| 20 | things about the character that are represented |
| 21 | well, obviously film is an audiovisual medium. |
| 22 | Anytime that's being transposed into text, |
| 23 | something is being lost. In order to capture the |
| 24 | to try to go after the essence of what the idea |
| 25 | of James Bond is and what the protectable |
| 1 | |

| 1 | expression is, the best way of communicating that, |
|----|--|
| 2 | from her perspective as an author and as an |
| 3 | educator, is to provide visual examples of the |
| 4 | specific things she is talking about. |
| 5 | Now, this is not a unique use case. |
| 6 | Academics are very used to specifically |
| 7 | referencing things to the best of their ability. |
| 8 | When it comes to text, it's not overly difficult. |
| 9 | They work primarily in text and have been doing so |
| 10 | for a very long time. When it |
| 11 | MS. CHARLESWORTH: So I'm sorry, I just |
| 12 | want to make sure. So her project would be to |
| 13 | analyze the character James Bond as James Bond |
| 14 | appears in film clips. |
| 15 | MR. WOLFE: Well, I think her project |
| 16 | would probably also incorporate Ian Fleming's |
| 17 | novels as they are relevant to the copyright in |
| 18 | question or the copyrights in question |
| 19 | MS. CHARLESWORTH: Okay. And then |
| 20 | MR. WOLFE: but specifically here |
| 21 | film. |
| 22 | MS. CHARLESWORTH: I'm sorry. And then |
| 23 | she would but the ultimate goal would be to |
| 24 | publish those as an e-book? |
| 25 | MR. WOLFE: Indeed, yes. |
| | |

1 MS. CHARLESWORTH: Okay. Pardon me for one second, as 2 MR. WOLFE: 3 I lost my train of thought. MS. CHARLESWORTH: 4 I'm sorry. 5 MR. WOLFE: Oh, no, it's really no 6 problem. 7 Oh, when making use of -- the academic endeavor is necessarily cumulative, it builds on 8 what's come before, oftentimes it's dealing with 9 10 or analyzing something -- another resource. In 11 the process of that, inevitably other works are 12 cited. It might be a historian examining the 13 historical significance of a film or the 14 representation of history in a film, or it might 15 be a scholar in any field engaging with a 16 documentary of relevance to his or her work. When 17 doing so, accuracy and integrity are of the utmost 18 importance to the academic project. 19 Generally, citations, references, 20 paraphrase can suffice, but not always, when an 21 argument is most specific or often the most 22 damaging to present, to maintain the integrity of 23 the argument, oftentimes specific examples, 24 quotations, excerpts have to be used. Asking for 25 the right to do the same thing with copyrighted

1 film is really not so extraordinary.

| 2 | Now, I would like to point out that |
|----|--|
| 3 | there is another part of our mission, which is to |
| 4 | see works preserved so that they can continue to |
| 5 | teach for more than just the moment at which |
| 6 | they're made. People write not just to be read |
| 7 | this year or next year, but for a very long time. |
| 8 | Now, embedding film when it is an important aspect |
| 9 | of a work, as for the very uses described in the |
| 10 | comment, ensures that when the work is archived, |
| 11 | preserved, and stored, later generations who |
| 12 | access it will be able to make full use of the |
| 13 | knowledge contained within the text. Moreover, |
| 14 | that same feature, the preservation, ties directly |
| 15 | into the quality issues that we were just recently |
| 16 | discussing. |
| 17 | MS. CHARLESWORTH: Okay, but we have now |
| 18 | seemed to have strayed a little bit outside the |
| 19 | proposed exemption here. This is unless is |
| 20 | this tying back to the e-book question |
| 21 | MR. WOLFE: This is directly relevant to |
| 22 | the e-book question. |
| 23 | MS. CHARLESWORTH: Okay. |
| 24 | MR. WOLFE: When you write an e-book, |
| 25 | part of our interest in seeing these things made, |
| | |

| 1 | part of the reason it's so important that the fair |
|----|--|
| 2 | uses are enabled for using audiovisual works in e- |
| 3 | books, is that it can continue to teach, and for |
| 4 | that, quality has to be future proved, it can't be |
| 5 | what is mediocre today. To use an analogy, it |
| 6 | would be as if an archival sound recording would |
| 7 | have to be done on an inferior technology in order |
| 8 | to be used in the future. It doesn't well |
| 9 | MS. CHARLESWORTH: Well, actually, I |
| 10 | mean, that's I don't want to get too far afield |
| 11 | here, but that's a significant issue, is digital |
| 12 | preservation because the platforms may disappear, |
| 13 | and how to maintain things for the future, but I |
| 14 | think that is very, very beyond anything we can |
| 15 | figure out today. |
| 16 | MR. WOLFE: I do agree. |
| 17 | MS. CHARLESWORTH: But I appreciate your |
| 18 | point that you want to have the high quality, |
| 19 | you're saying, in the e-books, for as long as that |
| 20 | would be available. |
| 21 | MR. WOLFE: Thank you. And, finally, I |
| 22 | just want to flag a few salient features in |
| 23 | contemporary publishing, as I think has been made |
| 24 | clear from the discussions of all of the |
| 25 | platforms, from Kindle to iBooks Author to others. |
| | |

| 1 | Things are different now than they were 10 years |
|----|--|
| 2 | ago by a significant margin. Self-publishing is |
| 3 | larger than it has ever been before. In 2013, |
| 4 | there were more than 450,000 titles self- |
| 5 | published, as judged by the registration of ISBNs, |
| 6 | which, in truth, likely underestimates the total |
| 7 | number, as not all self-published texts have |
| 8 | ISBNs. This is an increasingly disintermediated |
| 9 | and independent publishing economy. |
| 10 | When it comes to making putting |
| 11 | together works of the sort that rely on third |
| 12 | party copyrighted content, the idea of being able |
| 13 | to even engage in, say, a licensing discussion as |
| 14 | an individual in a disintermediated economy is |
| 15 | overwhelming and threatens the project right from |
| 16 | the outset. |
| 17 | MR. CHENEY: Can you tell us, Mr. Wolfe, |
| 18 | how many of those 450,000 were e-books? Were |
| 19 | those all primarily just regular texts? I assume. |
| 20 | And then was there a certain percentage of those |
| 21 | that were e-books? Are you aware of that? |
| 22 | MR. WOLFE: I wish I had the figures on |
| 23 | the percentages. I do know that the |
| 24 | overwhelming majority were electronic, not |
| 25 | necessarily exclusively electronic. Print on |
| | |

| 1 | demand enables books that are not digital first |
|----|--|
| 2 | and digital only, but increasingly particularly |
| 3 | when we're dealing with books that are made to be |
| 4 | multimedia e-books where the multimedia book may |
| 5 | in fact be the definitive edition, the canonical |
| 6 | edition, those have a higher chance of being only |
| 7 | available digitally or at the very least we can |
| 8 | say about them that they're the ones that, say, |
| 9 | Authors Alliance members would want to see |
| 10 | preserved. |
| 11 | MR. CHENEY: I think part of the |
| 12 | interest here is to find out how much this |
| 13 | exemption has been used already, and are folks |
| 14 | taking advantage of the exemption as it exists and |
| 15 | has there been some success in using it to date? |
| 16 | MR. WOLFE: Now, our contention as |
| 17 | and I will lean on my counsel with regard to the |
| 18 | prior exemption a large portion of Authors |
| 19 | Alliance's interest in this rulemaking cycle is |
| 20 | seeing the exemption opened up to authors who fall |
| 21 | outside the relatively narrow band of film |
| 22 | criticism and film scholars. |
| 23 | MS. CHARLESWORTH: How do you in what |
| 24 | |
| 21 | ways do you want to expand the exemption |

1 MR. WOLFE: Well, in particular, we're looking to have it be available for all kinds of 2 authors who make a fair use that relies on third 3 party copyrighted multimedia content. Now, to be 4 pragmatic about it --5 6 MS. CHARLESWORTH: When you say all 7 kinds of authors, do you mean -- what do you mean 8 by -- any author who wants to, say, use a motion picture as part of an e-book regardless of what 9 10 their purpose or what --MR. WOLFE: Well, not --11 MS. CHARLESWORTH: It's not limited 12 13 today to any particular author other than authors of e-books. 14 15 MR. WOLFE: That's not right is it? UNIDENTIFIED FEMALE SPEAKER: (Off 16 microphone.) 17 MS. CHARLESWORTH: Well, that's not a 18 19 limitation. 20 MR. WOLFE: Fair use. Well, (off 21 microphone). What about the (off microphone). 22 Not limited to any kind of (off microphone) that's 23 prior rule? Because the prior rule is limited to 24 -- sorry, we're just --25 Well, in any case, the purpose is not

any purpose, the purpose is for fair use. 1 2 MS. CHARLESWORTH: Right. I mean, that's what -- so you want to expand it beyond the 3 current exemption, which says for purposes of film 4 5 analysis. That's what the current one says? 6 MR. WOLFE: Is that language verbatim? 7 MS. CHARLESWORTH: We can give you the 8 verbatim language. 9 MR. WOLFE: I'm going to defer to Jack. MR. DAMLE: So the language now talks 10 11 about -- it says in nonfiction, it has the sort of chapeau which talks about what you can circumvent, 12 13 and it says in nonfiction multimedia e-books 14 offering film analysis. 15 MR. WOLFE: So is it the film analysis 16 part that is constraining you? So --17 MS. CHARLESWORTH: Professor Lerner, 18 would you like to comment on this particular 19 issue? 20 MR. LERNER: Sure, yeah. So the film analysis limitation has we think definitely 21 22 affected how many people can use this work. Now, 23 our understanding is that a number of film 24 scholars have been working on e-books, and we have 25 some material on the record about that. Frankly,

a lot of folks are not really finding the 1 exemption very useful because they feel that they 2 need HD and they don't feel they have a way of 3 getting that under the current exemption. 4 So this 5 is in response to Mr. Cheney's question. 6 In response to the question about film 7 analysis, that are many other types of uses besides, quote/unquote, offering film analysis 8 that could and would be -- we think would be --9 10 used if the exemption didn't have that limitation. 11 So for --12 MS. CHARLESWORTH: Okay. Can -- oh, 13 yeah, that's what I was going to ask. 14 So, for example, Professor MR. LERNER: 15 Samuelson is using film clips to explore copyright 16 law. It's not quite the same as what Ms. Buster 17 is doing. If you consider that film analysis, then that's fine. 18 19 MS. CHARLESWORTH: So a clarification 20 that like examining films to comment or criticize 21 them might be helpful in this area? Is that what 22 you're saying? 23 MR. LERNER: Sure. Use of audiovisual 24 clips for purposes of fair use or if you wanted to 25 do criticism and commentary -- we had a

| 1 | conversation last week about that we think fair |
|----|--|
| 2 | use would be more appropriate and would actually |
| 3 | fit folks' needs better, but that's another story. |
| 4 | But, you know, there are museums that |
| 5 | are creating catalogs that have multimedia |
| 6 | content, people are analyzing things like gaming, |
| 7 | which wouldn't be film analysis, and we talked |
| 8 | about Professor Steve Anderson of USC who is doing |
| 9 | that. So there are a number of uses out there |
| 10 | that probably wouldn't qualify as offering film |
| 11 | analysis that folks might want to use. |
| 12 | MS. CHARLESWORTH: Okay. On the gaming |
| 13 | issue, tell me more about that concern. How would |
| 14 | that be incorporated into an e-book? |
| 15 | MR. LERNER: Well, so, for example, you |
| 16 | might have a scholar who says, "Let's look at how |
| 17 | gaming is affecting youth and how youth use games |
| 18 | and what kinds of messages games are sending," and |
| 19 | there is actually a huge controversy about that |
| 20 | right now in terms of how games, videogames, |
| 21 | portray women and about criticism of game culture. |
| 22 | Right? And so you could have a scholar doing an |
| 23 | e-book about that where the scholar wished to |
| 24 | embed clips that would of a game that would |
| 25 | sort of elucidate or explore that type of |
| i | |

1 analysis. Our concern is that that would not qualify as offering film analysis. 2 Okay. 3 MS. CHARLESWORTH: But are there specific examples of scholars who have sought to 4 do that or is that just sort of a potential 5 example you're offering? 6 7 MR. LERNER: I do know that one person we discussed, my former colleague Steve Anderson 8 at USC, has done extensive scholarship that 9 10 involves media but also involves gaming. I can't 11 speak specifically to what he has done, but I'm 12 happy to follow up with specific examples if you 13 wish. 14 MS. CHARLESWORTH: We'll take that under 15 advisement. Thank you. 16 So with the film analysis, the concern sounds like people think it needs to be something 17 like what's Ms. Buster is doing where you're really 18 19 just looking at, for example, Hollywood films and 20 talking about how they're put together as opposed 21 to the Samuelson example, where you're looking at 22 Hollywood films to examine some of the ways -- you 23 know, the cultural references or how they are 24 socially constructed or whatever she would be 25 saying. So in both cases, though, you're using

the film as a focal point of discussion. 1 Is that correct? 2 MR. LERNER: I would say that's correct, 3 and if it said something like offering analysis 4 that involved films as the focus of discussion or 5 6 something along those lines, that would probably be clearer, but, you know, again I think this goes 7 to the question of whether the exemption should 8 say something like "for the purposes of fair use 9 10 in the creation of multimedia e-books" because 11 then we don't have to worry about interpreting 12 what offering film analysis means and we can rely 13 on 30 years of judicial decisions to give us 14 guidance. 15 MS. CHARLESWORTH: Which is very clear. 16 Fair use is very easy to understand from judicial 17 decisions. MR. LERNER: Well --18 19 MS. CHARLESWORTH: I'm being a little --20 but, I mean, we've had this conversation many 21 times in the past --22 MR. LERNER: Correct. 23 MS. CHARLESWORTH: -- week, which is we 24 are tasked with creating, you know, sort of 25 targeted and narrower exemptions. I mean, the

| 1 | DMCA, the language and legislative history talks |
|----|--|
| 2 | about specificity and things of that nature, and |
| 3 | simply saying something is a fair use doesn't |
| 4 | really give a lot of guidance. So that's why in |
| 5 | the history of this proceeding and based on our |
| 6 | interpretation of what Congress was after here, we |
| 7 | try to build in some guideposts so that people |
| 8 | understand really what's intended or what the |
| 9 | general case is. That's not to say there is never |
| 10 | a case where you can use a full-length picture in |
| 11 | any context, but we're looking for substantial |
| 12 | adverse effects where there are a lot of uses that |
| 13 | are being sort of undermined by the prohibition on |
| 14 | circumvention, which is why we try to, as I said, |
| 15 | sort of put some guidance into the exemption. |
| 16 | So it sounds like I mean, obviously |
| 17 | there's an existing exemption for this, so that's |
| 18 | why it's very helpful to explore kind of what the |
| 19 | actual you know, what the use case is and how |
| 20 | if we're going to refine it, how we might refine |
| 21 | it in a way that doesn't simply say for fair use, |
| 22 | and so anything you can add on that, to that |
| 23 | discussion, any of you, would be helpful. |
| 24 | MR. LERNER: I appreciate your |
| 25 | explanation, and thank you for that. The only |

1 response I would have is that I actually don't 2 agree that -- you said that fair use is easy to figure out from the judicial decisions? 3 MS. CHARLESWORTH: I was being --4 5 MR. LERNER: Facetious? 6 MS. CHARLESWORTH: Yes. 7 MR. LERNER: Facetious or making a joke. 8 And I understand that in the past it has appeared 9 very indeterminate, but at this point, for 10 nonfiction authors, it's actually not that 11 difficult at all, it's actually quite clear, and 12 if you look at the article "Refuge from the Storm" 13 by Michael Donaldson, and if you look at the 14 "Documentary Filmmakers' Statement of Best 15 Practices in Fair Use" and other best practices, 16 we think it's actually quite clear, and that's why 17 you have insurers who routinely and frankly often 18 blithely issue policies that cover this because 19 it's actually quite determinate in the context of 20 this type of scholarship. So I think that it is 21 easy to rely on fair use, and that's all I would 22 like to say in response to that. 23 And I know Mike wanted to say something 24 as well. 25 MR. CHENEY: And I had another question,

| 1 | I'm sorry, just to clarify. You said something |
|----|--|
| 2 | about nonfiction in the last statement you made, |
| 3 | but there was a little bit of disconnect here |
| 4 | because there was some suggestion that it was all |
| 5 | authors. But are you looking for nonfiction |
| 6 | authors primarily? |
| 7 | MR. LERNER: I did say nonfiction |
| 8 | because that was what Michael Donaldson's article |
| 9 | referred to. |
| 10 | MR. CHENEY: Right. |
| 11 | MR. LERNER: But I think in the context |
| 12 | of authorship at this point, it's actually fairly |
| 13 | clear. I think it's much clearer with nonfiction, |
| 14 | but I think it's clear with fictional authors, |
| 15 | too, and we think that there would be zero |
| 16 | problems, zero harm, zero adverse effects, if an |
| 17 | exemption simply said multimedia e-book authorship |
| 18 | fair use and if that included fictional authors. |
| 19 | So we think that it would have zero effect, as |
| 20 | none of these exemptions have had, on piracy, |
| 21 | copyright infringement or really any harm. So |
| 22 | that's my answer to that question. |
| 23 | MR. CHENEY: Right. Let me counter you |
| 24 | just a little bit. If it's not being used, then |
| 25 | there is not going to be much abuse of it, I would |
| | |

| 1 | assume. So an incremental expansion seems easier |
|----|--|
| 2 | to understand. If you sort of draw a line in the |
| 3 | sand and say perhaps nonfiction, it's more likely |
| 4 | to be a fair use if it's a nonfiction author than |
| 5 | all authors, and I haven't seen in the record |
| 6 | other authors other than nonfiction being |
| 7 | demonstrated here, so perhaps we need to talk more |
| 8 | about what you are thinking about with other |
| 9 | authors other than nonfiction. But at this point, |
| 10 | it seems like that you've put more on the record |
| 11 | regarding nonfiction authors, and that seems to be |
| 12 | an easier line to draw in the sand to be more |
| 13 | likely to be fair use. |

14 So what do you think about that approach and that thought? Or do you have more examples of 15 fictional authors that would be using this other 16 17 than perhaps the examples you've given already? 18 MR. LERNER: We don't have any examples 19 offhand that can speak directly to that, but -- or 20 on hand to speak directly to that, but I think 21 that I'm not sure it makes sense to have an 22 incremental approach when there has been no 23 evidence of any harm that has come from any of 24 these exemptions. You said, well, that's because 25 it hasn't been used, but many of the exemptions

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have been used extensively, including the 1 documentary filmmakers exemption, and that hasn't 2 led to even an allegation, much less evidence, of 3 any harm. 4 5 So I would say we have presented quite a bit of evidence that people want to do this, that 6 they want to be able to access Blu-ray, that it's 7 causing them an adverse effect, and as I 8 9 understand from notice of inquiry, the burden now 10 shifts to any opponent of the comment. I'm not 11 aware of any allegation that this would actually 12 lead to any harm or much less evidence of that. 13 So my thinking is that it doesn't need 14 to -- we don't have to take an incremental 15 approach if there is no evidence or allegation of 16 any harm based on what we're asking for. 17 MS. CHARLESWORTH: Okay. Thank you. 18 Mr. Wolfe, did you have something you wish to add before we move on to I think Ms. 19 20 McClurq? 21 MR. WOLFE: Very, very briefly two quick 22 things to tack on. One is about the current state 23 of using this exemption, and while -- and it's 24 great to hear that it sounds like a clarification 25 of the film criticism might be a possibility.

| 1 | In the broader sense, there is quite a |
|----|---|
| 2 | significant amount of use of multimedia writing of |
| 3 | serious rigorous and academic multimedia writing |
| 4 | that relies on the inclusion of third party |
| 5 | copyrighted content, and this takes place largely |
| 6 | in the more informal sphere of blogging. And, |
| 7 | now, academic blogs in the last 10 years have |
| 8 | become incredibly important. Some universities |
| 9 | have started to consider them as published |
| 10 | material in tenure committees, but it's a |
| 11 | different sphere of writing, and it doesn't have |
| 12 | the sense of either completeness nor the sense of |
| 13 | legacy building in the way of writing a book does. |
| 14 | Now, this tool that's proven useful time |
| 15 | and time again on academic blogs would be something |
| 16 | that doubtless people would take advantage of when |
| 17 | writing more formal books, if only they had the |
| 18 | opportunity to do so. It's Section 512 and third |
| 19 | party video hosts who enable current embedded uses |
| 20 | of media in most writing. So somebody else takes |
| 21 | the risk essentially and it's embedded on a |
| 22 | website. Bringing that possibility to the medium |
| 23 | of books rather than blogs would be a tremendous |
| | |

25 in their writing.

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One final thing, regarding the state of 1 publishing, which is that we talked in the 2 previous inquiry with Bobette, we talked -- you 3 discussed a little bit about the current state of 4 availability of multimedia e-book services. I 5 6 wanted to point out that 3 years really is an 7 eternity when it comes to these technologies. The Kindle itself was only developed in 2007. 8 The iPad was released in 2010. Over the course of 3 9 10 years, knowing that not only are the major players 11 -- Amazon, Apple, et cetera -- working on further 12 developing and rolling out this kind of 13 technology, there are also a shocking number of 14 startups and small businesses that are interested 15 in making multimedia e-book writing more accessible to more authors. We are incredibly 16 17 excited to see this take shape and believe it 18 could do so easily over the course of the next cycle. 19 So it's only becoming more and more accessible all 20 the time if only sort of the legal infrastructure 21 were in place. So looking forward to seeing that 22 develop. 23 Thank you for your time. 24 MS. CHARLESWORTH: Thank you, Mr. Wolfe. 25 Professor Reid, before we get to Ms.

| 1 McClurg | , did you have something to add? |
|-------------|---|
| 2 | MR. REID: Thank you. I just wanted to |
| 3 make a | very quick interjection on the last point |
| 4 that Mi | ke raised. I don't even think we're being |
| 5 specula | tive about the likelihood that these |
| 6 technica | al improvements are going to result. So |
| 7 just fo | r example, Apple's App Store, which is not |
| 8 the sto: | re through which they sell books, but they |
| 9 sell ap | plications, has had a similar 2-gig size |
| 10 limit s | ince it came out, and it just recently |
| 11 doubled | it to 4 gig. So I think it's very likely |
| 12 we'll se | ee that in the near future. |
| 13 | I would also note, you know, Moore's Law |
| 14 is at p | lay here, and some of the constraints that |
| 15 are gove | erning this now are things like the |
| 16 capacity | y of sizes on devices like iPads where |
| 17 people | consume this content, the broadband speeds |
| 18 through | which people consume this, and we're |
| 19 seeing m | monumental increases in those. So, for |
| 20 example | , there is an order of magnitude increase |
| 21 in size | , in storage size, of the flash memory on |
| 22 an iPad | from the very first version to what's |
| 23 availab | le now. I was just thinking about my mom |
| 24 back in | Longmont, Colorado. She just jumped from |
| 25 a 10 me | gabyte broadband connection to the city has |

now just rolled out a 1 gigabyte municipal fiber connection, and those are the factors that are driving these sort of limitations, and I think those are going to disappear in the next 3-year period for enough people to make this an economically viable point.

7 And the only other point that I wanted to quickly address, to Ms. Smith's questions to 8 9 Bobette about dealing with Apple and consulting 10 with a publisher and all that sort of stuff. And 11 we take those questions in the spirit that many 12 authors will be able to engage and have those 13 discussions, but many, many more will not. That's 14 not an option that's available to folks who are 15 trying to do self- publishing, who are going out 16 without an agent, who don't know how to negotiate 17 the industry, and even for someone like Ms. 18 Buster, that's a very difficult proposition. For lots of other authors, that's a nonstarter. 19 And I 20 don't think it's fair to expect as a condition of 21 the exemption for someone to have to go through 22 that level of negotiation. So I just wanted to 23 throw in that point. 24 And, Professor Lerner, do you have

24 And, Professor Lerner, do you have25 anything to add before Molly speaks?

1 MR. LERNER: Thank you. Just that we 2 are aware, just to answer another question that 3 was posed to Ms. Buster -- we are aware that iBooks does have HD titles, that have HD (off 4 5 microphone). 6 MR. REID: Excuse me. I forgot to 7 So I was just doing some searching mention that. while we were talking. In the iBooks store, for 8 example, there is a book called Beginner Blues 9 10 Guitar Solos with audio and video, which I'm 11 looking forward to checking out later, that contains over 53 minutes of HD video instruction. 12 13 So this is something that the instructor has 14 filmed by himself, it's just him playing blues 15 quitar licks. So where the source material is 16 something original that's not being derived from a 17 film, people are actually able to use the platform 18 for the purposes that Ms. Buster described. So I 19 think the point is that the inability to 20 circumvent and get content from the sources that 21 Ms. Buster is looking to get at is a 22 differentiating factor. 23 MS. BUSTER: Yes, there are other 24 materials, such as cook books, that have great 25 illustrations that are HD, but I was answering the

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1 question vis-a-vis the use in my field of underlying copyrighted material. 2 MS. CHARLESWORTH: Yeah, I mean, well, I 3 think we're sort of blending copyright with a 4 technological discussion here. I think the record 5 6 is a little murky, it seems to me, whether or not Apple would accommodate Ms. Buster's book, but you 7 are suggesting you just looked up -- this is one 8 of the interesting parts about this hearing, is 9 it's in real time, the evidence comes in as people 10 11 submit it, you know, research their computers or 12 the commentary comes in, but you're suggesting 13 that Apple may be able to accommodate HD content 14 in its iBook platform? 15 MR. REID: I just downloaded a sample of 16 the book, and only for a very short moment I was 17 paying attention --18 MS. CHARLESWORTH: Are you going to 19 start playing guitar for us? 20 MR. REID: I did not bring it, but next 21 time I promise. 22 (Laughter.) 23 MS. CHARLESWORTH: Okay. I want to move 24 along a little bit, Professor Lerner, because I 25 want to make sure we have time for the other end

| 1 | of the table here. Did you have something to add? |
|----|--|
| 2 | MR. LERNER: I have a very, very, very |
| 3 | minor addition to something that Mr. Wolfe said, |
| 4 | and that is that it's not just Authors Alliance, |
| 5 | which has several hundred members, who are very |
| 6 | keenly interested in this issue. The American |
| 7 | Association of University Professors is also one |
| 8 | of the proponents of this exemption, which is |
| 9 | 47,000 university professors who are coming |
| 10 | forward and saying we're really interested in |
| 11 | doing this kind of thing, and so we think it has |
| 12 | many educational possibilities as well. And I |
| 13 | just wanted to point out that this is a very, very |
| 14 | large group of folks who has come forward to say |
| 15 | we think this is important. Thank you. |
| 16 | MS. CHARLESWORTH: Okay. Ms. McClurg, |
| 17 | you have been very patient. Please proceed. |
| 18 | MS. MCCLURG: Thank you so much and |
| 19 | thanks again for your time this morning. |
| 20 | So I've already introduced myself. A |
| 21 | quick roadmap of what I'm going to go over today. |
| 22 | I would like to cover five points if there's time, |
| 23 | but three if not. I would like to do a quick |
| 24 | overview of multimedia e-book authors outside of |
| 25 | Bobette just to give you a little flavor of who |
| | |

1 else is in this field. I would like to talk a
2 little more about the state of the e-book industry
3 and the changes in technology. And then I would
4 like to again reiterate the need for high quality,
5 high resolution content.

So first of all, I would like to really 6 7 emphasize that the authors that we're working with are content creators and rights holders 8 9 themselves. So this exemption really seeks to in 10 many respects pay homage to the underlying work 11 and seeks to respect the underlying copyright. We 12 just wanted to reiterate that again for the record 13 we're the good guys, we're the content creators. 14 I would also like to reiterate that (Laughing.) 15 authors do have a long track record of doing this 16 responsibly.

17 Moving on to the technology and the 18 rapid changes in the marketplace. I think it's 19 really apropos that Michael noted that the Kindle 20 only came out in 2007. Just in the past couple of 21 years we've seen new versions of a lot of e-22 publishing software, including EPUB Version 3, 23 Amazon's Kindle Format 8, and Apple's iBook 24 Version 2. This represents the lion's share of 25 the e-books marketplace, and all of these envision

1 multimedia content being embedded.

2 So --

3 MS. CHARLESWORTH: Can I interrupt you 4 there? We've had a lot of discussion about Apple 5 and whether they can accept HD. What about the 6 other platforms that you just mentioned? I think 7 you mentioned two others.

MS. MCCLURG: I apologize. 8 I don't know if they're accepting only SD or SD and HD. But I 9 10 would say that the transitions in the marketplace 11 envision HD content, especially when you look at 12 the devices that people are using to access the 13 content that these platforms provide. So when you 14 look at the Kindle, when you look at an iPad, 15 there is a clear trajectory and a clear trend 16 towards increasing the pixel size, increasing the 17 level of HD visibility. I think all of that would indicate a trend towards HD becoming the norm and 18 19 the minimum standard.

20 So while Apple and others may also allow 21 for SD content, that's certainly not the norm for 22 what readers are expecting. And I would argue 23 that it's also not the norm of the underlying 24 authors of the original work. If I created the 25 underlying work, I wouldn't want it to be

1 represented in any less than its full quality. 2 MS. CHARLESWORTH: Okay. Thank you. So just since we touched 3 MS. MCCLURG: on the devices, I thought I would run through a 4 The Surface Pro 3, which you see here, you 5 few. 6 can run a 4K pixel monitor if you just plug it into this. Similarly, the iPhone 6 is HD, the iPad 7 Third Generation is 1.5 times HD. The Kindle Fire 8 HDX is double HD. I think all of this 9 demonstrates that increasingly SD won't cut it, 10 11 not for authors, not for readers, and not for the 12 underlying content creators. 13 I would like to talk a little bit more about the underlying fair use arguments and the 14 15 authorship. We've talked about sort of whether SD 16 is a good conception or whether that would be enough, and I think especially when you look at 17 Professor Samuelson's work, we're looking at the 18 19 evolution of a character at a granular level. 20 MS. CHARLESWORTH: Is any of her actual 21 work in the record? I mean, I know I saw it 22 described. Do we have that, the actual clips 23 she's seeking to use or an illustration of why SD 24 wouldn't be sufficient for her purposes? 25 MS. MCCLURG: We have a description of

| 1 | why SD would be insufficient, but I think that |
|----|--|
| 2 | your question really highlights the problem. |
| 3 | Warner Brothers v. X One X specifically tells us |
| 4 | that character copyrights are much more clearly |
| 5 | delineated in film than in description. So if we |
| 6 | had HD content of the film to show James Bond's |
| 7 | watch and the scuffmarks on his watch throughout |
| 8 | the film, that would clearly be the ideal |
| 9 | situation rather than having only the |
| 10 | descriptions, which we've got, and which |
| 11 | MS. CHARLESWORTH: But what about SD? |
| 12 | Can you see the scuffs in SD? I mean, that's the |
| 13 | question |
| 14 | MS. MCCLURG: Certainly. |
| 15 | MS. CHARLESWORTH: like that she |
| 16 | would be commenting on. I mean, do you know the |
| 17 | answer to that? |
| 18 | MS. MCCLURG: No, ma'am, I'm sorry, but |
| 19 | I do have that she really emphasized the details |
| 20 | were the bread and butter of the book, his |
| 21 | cufflinks, the scuffs on his watch, and I think |
| 22 | you've already seen from Bobette's clips that at |
| 23 | least for me the outline of the bird in the last |
| 24 | scene was just entirely invisible to me until it |
| 25 | came into the light. |
| | |

| 1 | MS. CHARLESWORTH: Well, yes, we saw the |
|----|--|
| 2 | clip, and we'll probably be watching it again. |
| 3 | Thank you. Did you have anything else you wanted |
| 4 | to add before we move on to Mr. Benmark? |
| 5 | MS. MCCLURG: Yes. I would like to |
| 6 | again reiterate the point that there has been no |
| 7 | harm both to existing authors and rights holders |
| 8 | and to those who work on the underlying access |
| 9 | control technologies. I think it's important to |
| 10 | note that the Blu-ray keys were decrypted many |
| 11 | years ago as well as the DVD access control keys. |
| 12 | These authors have a clear fear of the law and are |
| 13 | not engaging in piracy, and I think that point |
| 14 | should also be raised. |
| 15 | I would like to again reiterate the |
| 16 | points that we made about the scope. While I |
| 17 | think there has been an impetus to try and limit |
| 18 | this to a certain duration of clips or rather than |
| 19 | saying fair use, I think it's our contention that |
| 20 | that kind of drafting could further chill the |
| 21 | marketplace by cutting out paradigmatic fair use |
| 22 | that's on the fringes, which while the DMCA seeks |
| 23 | to protect the underlying works, I think the DMCA |
| 24 | should not chill even those works at the fringes. |
| 25 | So that's everything that I've got. |

1 Thank you so much for your time. 2 MS. CHARLESWORTH: Well, thank you. Thank you for being here and for participating. 3 Mr. Benmark. 4 5 MR. BENMARK: Hi. I'll keep this pretty 6 short because I know we're running pretty low on time here. I just want to talk briefly about the 7 problems with screen capture and why screen 8 9 capture does not work and is not a viable 10 alternative for multimedia e-book authors. 11 The first major problem with the screen capture programs that the opponents to the 12 13 exemption presented is that the vast majority of 14 them, I think all but one, do not even represent 15 that they don't bypass TPMs, and there is no way to know even with the one that does represent that 16 that it actually is not decrypting or bypassing 17 18 the TPM in order to get the footage. 19 Furthermore, we're dealing with authors 20 who do not have technical expertise, these are not 21 engineers, and because of that problem, they're 22 not in a position to make these judgments on their 23 own. They're not going to be able to look at a 24 particular screen capture program and say -- you 25 know, and evaluate how it actually achieves the

| image and whether it's actually violating the DMCA |
|--|
| in the process of doing so. And furthermore, many |
| authors work on Apple computers, which will just |
| flat block any screen capture program from working |
| with a TPM- protected or encrypted disk. |
| The other big problem is just quality. |
| The clips that were presented, particularly the |
| matrix clip that was presented, is not in HD. |
| Without it being in HD, this is not going to get |
| past gatekeepers, you know, based on what we |
| understand of the current market trends. And the |
| matrix clip in particular was presented in 776 by |
| 344 pixels. This is basically standard definition |
| quality. It's in the wrong aspect ratio even for |
| standard definition. So it's not as good as |
| authors can even get using the current DVD |
| exemption. This simply is not going to cut it in |
| the modern high definition marketplace. |
| Again, authors do not have the technical |
| expertise to evaluate the software. They also |
| don't have the technical expertise to use the |
| software without creating many of the problems |
| that screen capture is renown for: dropped |
| |
| |

25 getting it into the right resolution, getting it

1 into the right frame rate. These are all very,
2 very important to get into the marketplace and to
3 look like a professional product. These are things
4 that require an engineer to deal with, and most
5 authors are not going to have access to that level
6 of expertise.
7 MS. CHARLESWORTH: Can I ask you a

question about Apple computers and screen capture? 8 Because this has come up a couple of times in the 9 10 hearings. Are there earlier operating, Apple 11 operating, systems that allow the use of screen 12 capture? Does the current -- I mean, what -- can 13 you explain more about why you can't use -- you 14 said -- I think I heard you say you can't use any 15 screen capture technology on an Apple computer 16 where there's a TPM-protected work. Is that what 17 you said? Can you explain why that is and whether 18 that's -- you know, the bar is as extensive as you 19 suggested or are there ways, workarounds, for that 20 when you're in an Apple environment? 21 MR. BENMARK: My understanding of how it 22 works -- and this is from interviews with Jim

23 Morissette, who would be much better able than me 24 to answer this question as far as the technical 25 specifications go, but my understanding is that

| 1 | Apple has in its operating system proprietary |
|----|--|
| 2 | software that prevents bypass of TPMs. I'm not an |
| 3 | engineer, I can't describe exactly how that |
| 4 | software works or how that process works, but |
| 5 | that's my understanding based on representations |
| 6 | from interviews with Jim Morissette. |
| 7 | MS. CHARLESWORTH: But, I mean, we're |
| 8 | told also that at least some screen capture does |
| 9 | not involve circumvention of TPMs. In other |
| 10 | words, the work is decrypted before the capturing |
| 11 | takes place. So, I mean, that's why I'm asking the |
| 12 | question, is there no sort of screen capture that |
| 13 | will work on an Apple computer? |
| 14 | MR. BENMARK: Again, my understanding is |
| 15 | that the Apple proprietary software will not allow |
| 16 | most screen capture programs to work with it. The |
| 17 | only screen capture program that the opposition |
| 18 | presented that makes the representation that it's |
| 19 | compliant with the DMCA is WM Capture, which my |
| 20 | understanding is a Windows-only program, which |
| 21 | wouldn't work with Apple regardless. |
| 22 | MS. CHARLESWORTH: Okay. Well, maybe |
| 23 | we'll ask Mr. Taylor some of those questions when |
| 24 | we get to him. |
| 25 | MR. BENMARK: Absolutely. Yeah. And I |
| | |

1 guess I just kind of want to finish with, you 2 know, why does it matter? You know, again kind of hitting this point of, why do we need this HD 3 And it really comes down to in order to 4 footage? 5 make professional criticism and commentary on a 6 visual image, you need that visual image to look 7 like it was professionally made as well, and the quality of your criticism and commentary as an 8 9 author is going to be inextricably linked to the 10 quality of the footage that you're commenting on, 11 whether that's fair or not. So if you're 12 commenting on a low quality piece of footage, a 13 piece of footage that's in standard definition, 14 that has dropped frames, that has artifacting 15 effects, interlacing, doubled images, all of the 16 problems that are associated with screen capture 17 technology, your commentary and criticism is going 18 to look -- you know, you're just going to look 19 like you're not a professional in your commentary 20 and criticism either, and that may not be fair, 21 but that's absolutely going to be an effect that's 22 associated with this, and this is a big part of 23 why we're very insistent on being able to get the 24 high definition quality and why the gatekeepers 25 and why the authors are very, very interested in

1 the high definition issue. 2 And if there are no further questions, I'll end there. 3 Okay. We're going to 4 MS. CHARLESWORTH: 5 let you off the hook for now. 6 Mr. Turnbull. 7 MR. TURNBULL: Okay. I will try to respond to a few of the points that have been made 8 in the previous discussion here today, and then 9 I've got a couple points to make sort of from what 10 11 I had prepared. 12 First, I think, as was evident, the 13 gatekeeping function that we heard about had to do with bandwidth and gigabytes, it did not have to 14 15 do with HD quality, and, you know, I think the evidence in the record is, as somebody said, very 16 17 murky on this whole subject, and I don't think that's the basis for making an exemption that 18 19 would affect the AACS technology and the Blu-ray 20 business in the way that I believe it would. 21 One other point that was made was there 22 was a reference made to Blu-ray keys having been 23 revealed. It's important to understand that Blu-24 ray and AACS have a very different structure than 25 CSS and DVD did. There are millions of keys. Each

| 1 | individual device has its own key, and those keys, |
|----|--|
| 2 | as we've said in previous panels, can be revoked |
| 3 | when they are determined to have been revealed, |
| 4 | whether published on the Internet or used in a |
| 5 | product that was unauthorized, and we do |
| 6 | revocations, AACS does revocations every month. |
| 7 | We have been able to limit the number of |
| 8 | actual circumvention tools to a very restricted |
| 9 | number where we're engaged in a bit of battle of |
| 10 | the technology with some of the producers of those |
| 11 | where they have hidden the keys that they're |
| 12 | using, so we don't know what they are. We're |
| 13 | engaged right now in developing forensic tools to |
| 14 | try to figure that out better than we have, and |
| 15 | when we do, we will revoke their keys, but it has |
| 16 | been a very limited number and they are all |
| 17 | commercial products, most, I believe in previous |
| 18 | panels I said all, but I've been corrected. There |
| 19 | is one that at least is free. Most are for pay. |
| 20 | The ones that are listed on sort of the top 10 |
| 21 | circumvention sites are all listed for pay. But |
| 22 | in any event, they're all commercial products. |
| 23 | And so the revelation of keys some years ago is |
| 24 | not really relevant to the state of the |
| 25 | technology. |
| | |

| 1 | The discussion in the filings on the |
|----|--|
| | |
| 2 | need for Blu-ray content is also I think I would |
| 3 | describe as murky. They quote various articles |
| 4 | saying Blu-ray is going to take over the market, |
| 5 | but in fact those same articles there was one |
| 6 | from Computerworld that was quoted in the filings |
| 7 | say that the Blu-ray disk format simply never hit |
| 8 | the market levels of the DVD format. It is |
| 9 | struggling to survive under the assault of video |
| 10 | on demand and downloads, so the state of the |
| 11 | market for Blu-ray is not what the state of the |
| 12 | market for DVD is. |
| 13 | MS. CHARLESWORTH: Mr. Turnbull? |
| 14 | MR. TURNBULL: Yeah. |
| 15 | MS. CHARLESWORTH: Just on this, I mean, |
| 16 | so that's one argument that's made. Another |
| 17 | argument is that you just can't see the fine |
| 18 | detail in some cases that you're trying to discuss |
| 19 | in an analysis of a film, and I was wondering if |
| 20 | you could comment on that. I mean, do you |
| 21 | what's your view on that as a reason for needing |
| 22 | Blu-ray? |
| 23 | MR. TURNBULL: Well, it's difficult |
| 24 | because you know, I understand the expertise of |
| 25 | Ms. Bobette, Bobette Buster, but, honestly, I saw |
| | |

| 1 | a bird, I saw a gold line, I saw a gold frame, you |
|----|---|
| 2 | know. I'm not sure, you know, that in order to |
| 3 | point those particular points out that the Blu-ray |
| 4 | was necessary, and that, it seems to me that the |
| 5 | record is really not clear that this is necessary. |
| 6 | Mr. Taylor is going to do some demonstrations here |
| 7 | in a couple of minutes where we think that we'll |
| 8 | be able to see the kinds of features that have |
| 9 | been said to be important. |
| 10 | MS. CHARLESWORTH: Okay. Thanks. You |
| 11 | can continue. |
| 12 | MR. TURNBULL: Yeah, I just have a |
| 13 | couple more points. |
| 14 | The harm to the Blu-ray market and to |
| 15 | AACS, as the technology provider for the Blu-ray |
| 16 | market, has been recently found to be the harm from |
| 17 | the distribution of the circumvention tools. In |
| 18 | the DVDFab case, Judge Broderick found irreparable |
| 19 | harm from the distribution of those tools. These |
| 20 | are the tools that would be used if circumvention |
| 21 | exemption is granted, and so our concern is that |
| 22 | the same situation would occur as a result of the |
| 23 | grant of an exemption in this proceeding. |
| 24 | And I think in the interest of time and |
| 25 | being able to see the demonstrations, I'll stop |
| | |

1 there. Thanks. 2 MS. CHARLESWORTH: Thank you, Mr. Turnbull. 3 I quess we are going to turn now to Mr. 4 Taylor, who will be presenting I believe what have 5 6 been marked as, premarked as, Hearing Exhibits 23, 7 24, and 25? Is that correct? 8 MR. TAYLOR: I only have two exhibits for Class 5, which the first will be Exhibit 23, 9 10 which is identified as "Bond, James Bond," that's 11 the name of the file. And Exhibit 24 will be the 12 InDesign demo. 13 MS. CHARLESWORTH: Okay. So we have two 14 exhibits that you'll be presenting, Exhibits 23 and 24. 15 MR. TAYLOR: Yeah. 16 17 MS. CHARLESWORTH: Thank you for clarifying that. 18 19 MR. TAYLOR: Good morning. In the 20 interest of time, I am going to try to make this 21 as quick as possible. I am going to show you two 22 clips. The first clip is a compilation of video 23 capture that we used from various James 24 Bond titles, which we had understood was something 25 that the proponents wanted to do. And the second

1 clip is taking that compilation and using it in what they describe as their preferred software 2 system, which is Adobe InDesign. 3 So --MS. SMITH: Can I ask, are either of 4 these clips also submitted with your opposition 5 comments? 6 7 MR. TAYLOR: I'm sorry. Could you 8 repeat? 9 MS. SMITH: Were either of these clips also submitted with your opposition comments? 10 11 MR. TAYLOR: No, because the way this is 12 developed -- there was a James Bond clip that was submitted with our initial comments that was much 13 14 longer, but for this presentation, we've shortened 15 it just to set up the Adobe InDesign. 16 MS. SMITH: Okay. And are the James Bond clips that we're going to see now and the 17 18 ones that you submitted with the opposition 19 comments, do they use the same technology or 20 different technology? 21 MR. TAYLOR: They use the same 22 technology, which was the Camtasia, and it was 23 used on an older Apple operating system, so the 24 Camtasia screen capture worked at that time on 25 that computer.

1 MS. SMITH: Okay. Thanks. 2 MR. TAYLOR: So I'm going to go ahead and play this. 3 (Playing Exhibit 23.) 4 5 MR. TAYLOR: Okay. So that basically 6 demonstrated that you could take the video capture and for every DVD that we had, we found those 7 scenes where he introduced himself as James Bond, 8 and you could make your arguments of whether or 9 10 not the character is copyrightable. The next demo is a demonstration of the 11 12 use of Adobe InDesign, which I understand -- I 13 don't know much about the product, and I apologize 14 about that, but our point is that the images that 15 were captured by video capture and can be 16 successfully employed with the Adobe InDesign. So I'm going to play this a little bit through. 17 18 (Playing Exhibit 24. Walks through 19 Adobe InDesign setup.) 20 MR. TAYLOR: So what you're looking at 21 here is basically the interface for the Adobe 22 InDesign, and the clip that we made that you just 23 saw has been loaded already into it, and we're 24 going to create a new publishing that would be 25 something that you could publish on the Internet

1 in a page. So this is where you would create the 2 file, the new, and choose the option here. 3 And right now what's going on is we're 4 5 choosing the clip and we're going to place that 6 clip in this page. 7 So there we're importing the clip into the page, we placed it in the middle of the page. 8 Up here in the right-hand corner you can see the 9 10 preview of the clip that's going to be played. 11 And that is indeed the clip that we just 12 finished looking at. 13 Can I ask, so these clips, MS. SMITH: 14 is it -- this has an image resolution that's 15 comparable to DVD? Is that your position? MR. TAYLOR: Our position is, is that 16 the images are of sufficient quality that you can 17 18 see the details that the proponents suggest that 19 they wanted to see. Are they DVD quality? No, 20 they're not DVD quality because they're not 21 perfect DVDs, but you can make sufficiently good 22 images that you can see the details, and those 23 images can actually be upgraded for different 24 purposes. 25 So you might need to up-MS. SMITH:

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1 convert in order to get it to a standard definition format for publication? 2 It's not only up-convert, 3 MR. TAYLOR: but you would have to sharpen the image and do a 4 little bit more processing to it to make it look 5 better. Later this afternoon, we have some images 6 that have been processed in that way so that you 7 can take a look at it, and I'm sorry it was not 8 9 anticipated for this panel. 10 Okay. So this Camtasia MS. SMITH: 11 clip, I know Mr. Benmark said the matrix clip was This might be similar, you're 12 776 by 334 pixels. 13 not sure, it may be less? 14 MR. TAYLOR: I know that it's not 15 because my understanding is that when you -- if you -- in the Apple world, I think it's DVI, and 16 the way they transfer pixels isn't the same, so if 17 18 you went and looked at the inspector of the film, 19 it would never show you 720 by 486 or 720 by 480, 20 and I think that's something that's unique to the 21 world of Apple. 22 MS. SMITH: So because it's on Apple, it 23 would be less. 24 MR. TAYLOR: It wouldn't be the same. 25 It would be different. MS. SMITH:

1 MR. TAYLOR: Yes. Is it also a different 2 MS. SMITH: aspect ratio, do you know? 3 MR. TAYLOR: I don't think the -- I 4 don't understand the aspect ratio to change 5 between the different codexes. 6 7 Okay. So this may be the MS. SMITH: same aspect ratio as if you used a DVD or --8 9 MR. TAYLOR: Right. And all the video capture software that I have used, you can set the 10 11 aspect ratio, you can set the pixel ratio, you can So it's not that one size 12 set the frame rate. 13 fits all. At the time that we submitted our 14 exhibits, we had just recorded and we didn't take 15 in -- we didn't know what the proponents actually 16 wanted each clip to be, so during these presentations we have tried to go back and give 17 18 you examples of what they say they wanted. 19 MS. SMITH: Okay, got it. So you're 20 saying that this technology could, for example, 21 have the same frame rate that might be required or 22 used in standard definition, but you're not 23 contending that it will be the same frames, but 24 they're making maybe drop frames or filler frames, 25 and you're not saying it's the same frames because

1 it's just capturing what's on the screen, just that this frame rate could be the same. 2 MR. TAYLOR: I think that's accurate, 3 4 yes. 5 MS. SMITH: Okay. Thank you. And that's all I have. 6 MR. TAYLOR: 7 So I just have one other MR. DAMLE: So can you speak a little bit -- you 8 question. 9 mentioned that this was something that was captured on an older Apple operating system. 10 Can 11 you speak a little bit to the limitations? This 12 goes back to Ms. Charlesworth's question. The 13 limitations that Apple imposes on screen capture 14 and what versions of the operating system does it 15 impose those limitations on? MR. TAYLOR: I actually learned of this 16 change in the operating system yesterday for the 17 18 first time, so I can't explain it thoroughly. Ι 19 know that there is in the operating system, if you 20 upgrade your machine to the latest, it will 21 prevent most screen captures from working as they 22 have in the past. But I think that that in itself 23 is not a limitation because content in what we've 24 been working on, I was working on a PC, other 25 people were working on Macs, we exchanged the

| 1 | content back and forth, so the fact that you |
|----|--|
| 2 | necessarily can't use the screen capture with your |
| 3 | Apple doesn't mean that you can't get to it at |
| 4 | all, it just means that you need to borrow the |
| 5 | person's next to you machine and use their screen |
| 6 | capture and get the content there, and it switches |
| 7 | back and forth fairly easily. |
| 8 | MS. CHARLESWORTH: Were there any more |
| 9 | questions for Mr. Taylor from us? |
| 10 | (No audible response.) |
| 11 | MS. CHARLESWORTH: No. Okay. Thank |
| 12 | you, Mr. Taylor. |
| 13 | Mr. Williams. |
| 14 | MR. WILLIAMS: Thank you for having me |
| 15 | here again today on behalf of MPAA, ESA, and RIAA. |
| 16 | As with the filmmaking issues we discussed last |
| 17 | week in Los Angeles, my clients are not here to |
| 18 | oppose the existing exemption being renewed |
| 19 | applicable to nonfiction e-books for film |
| 20 | analysis. We are opposed to expanding the class |
| 21 | in the five ways that I believe have been |
| 22 | proposed. We do not want to do away with the |
| 23 | short portions limitation. We do not want to |
| 24 | expand this to cover fictional authorship. We do |
| 25 | not want to do away with the limitation to |
| | |

| 1 | criticism and comment and film analysis. We do |
|----|--|
| 2 | not want it to cover Blu-ray disks. And we don't |
| 3 | want to expand it to cover all audiovisual works |
| 4 | such as videogames. |
| 5 | As we've discussed previously and as |
| 6 | you've noted from the panel, the short portions |
| 7 | limitation, for example, really keeps this closer |
| 8 | to what is very likely to be fair use, and so we |
| 9 | think it's important to retain those types of |
| 10 | limitations and agree with the Register's 2012 |
| 11 | statement that those types of limitations are |
| 12 | critical to these types of exemptions. |
| 13 | On the expansion to fictional |
| 14 | authorship, I don't think we've seen any examples |
| 15 | of how exactly that would be done or when it would |
| 16 | be necessary. We're not saying that it would never |
| 17 | be fair use to use a portion of a motion picture |
| 18 | in a fictional e-book, but there is no evidence in |
| 19 | the record that that should be granted, and we do |
| 20 | think it's important to keep this proceeding |
| 21 | focused on the record and on very specific adverse |
| 22 | impacts. |
| 23 | The Manager's Report on Page 6, for the |
| 24 | legislation, Page 639 of the reprint in Copyright |
| 25 | Society Journal, it says that at times there could |

be an exemption granted based upon anticipated rather than actual adverse impacts, but only in extraordinary circumstances, and that that has to involve highly specific, strong, and persuasive evidence. And I don't think we've seen that on fictional authorship.

7 I would also say that while it can be fair use to use quotations of films in fictional 8 9 authorship, we think it's less likely to be fair 10 than in the nonfiction space, in the film analysis 11 space, and a lot of times someone might use a film 12 clip in fiction just to gain the audience's 13 attention, which is something that the Supreme 14 Court in Campbell and other courts have said 15 really should be licensed. And you heard some 16 testimony from Fox in Los Angeles about their 17 licensing practice and desire to license fictional 18 films, and I think that carries over into this 19 space.

20 One thing we think the exemption could 21 benefit from is kind of a clear definition of what 22 qualifies as nonfiction versus fiction, and we 23 talked some about that in Los Angeles and how it's 24 a little bit of a difficult line sometimes to 25 draw, but, you know, I found pretty quickly a

| 1 | number of definitions that could be played with to |
|----|--|
| 2 | try to come up with something that works. |
| 3 | Webster's says that fiction is written stories |
| 4 | about events that are not real, literature that |
| 5 | tells stories which are imagined by the writer. |
| 6 | The secondary definition they give is something |
| 7 | invented by the imagination or feigned, |
| 8 | specifically an invented story. Wikipedia says |
| 9 | that fiction is content primarily in a narrative |
| 10 | form derived from imagination in addition to or |
| 11 | rather than history or fact. And so I think that |
| 12 | definition acknowledges that sometimes fiction |
| 13 | might be biopic in nature or refer to actual |
| 14 | historical events, but there's a creative license |
| 15 | and an imagination at issue that goes beyond what |
| 16 | we think of as documentary film or nonfiction e- |
| 17 | book authorship. |
| 18 | I would like to just mention that on |
| 19 | this point the case law that the proponents rely |

20 on I believe is almost exclusively about 21 nonfiction authors. There's Rosemont v. Random 22 House, which is use of articles from the Howard 23 Hughes story, which appeared in Look magazine in a 24 biography. Wright v. Warner Books is also a 25 biography case involving Richard Wright. Norse v.

| 1 | Henry Holt is another biography case involving |
|----|--|
| 2 | William S. Burroughs. Bill Graham Archives of |
| 3 | course involved small reproductions of Grateful |
| 4 | Dead concert posters in a nonfiction book. There's |
| 5 | a case, Penelope v. Brown, that's really about |
| 6 | writing instruction, not a fictional use. I think |
| 7 | the only case they might reference that's a work |
| 8 | of fiction involves the play Jersey Boys and the |
| 9 | use of a clip in that play. So not a books case, |
| 10 | but a fictional use. |
| 11 | As Bruce said, I don't think there is |
| 12 | anything in the record that would justify |
| 13 | expanding this to Blu-ray. We give in our |
| 14 | comments in Exhibits 1 through 12 and also in the |
| 15 | exhibits that we attach with Class 7 examples that |
| 16 | show that almost all of the items that they claim |
| 17 | are only available in Blu-ray, and their comments |
| 18 | are actually available on DVD and in other |
| 19 | formats. |
| 20 | As I've raised previously, the existing |
| 21 | exemption doesn't prevent them from using HD |
| 22 | quality, as I read it. There is no limitation to |
| 23 | standard definition quality. It does prevent them |
| 24 | from using Blu-ray disks, and as I've said before, |
| 25 | there are numerous outlets online where you can |
| | |

| 1 | get HD downloads or HDX downloads, which is even a |
|----|--|
| 2 | higher grade of download. And so to the extent |
| 3 | that those are already available for their use, |
| 4 | expanding this to Blu-ray to me seems even more |
| 5 | inappropriate than it would have been in the last |
| 6 | cycle. |
| 7 | On videogames briefly, since that was |
| 8 | mentioned, I don't think there are any specific |
| 9 | examples. There were some hypotheticals that Jack |
| 10 | gave, but I think again the legislative history |
| 11 | says we really need specifics for this proceeding. |
| 12 | There is also no explanation really of |
| 13 | why circumvention is required to get clips from |
| 14 | the videogames or how that would be done, so I |
| 15 | think the record is incomplete on that point as it |
| 16 | was in 2012. |
| 17 | The iTunes license issue that was raised |
| 18 | today, there was a vague reference to iTunes |
| 19 | having opaque terms in the comments, but there was |
| 20 | no submission of the specific terms of service at |
| 21 | issue, so I haven't been able to review that. I |
| 22 | do think that these gatekeeper issues are not |
| 23 | really what we're here to be talking about, and |
| 24 | just quickly, I know we're short, but I want to |
| 25 | make sure we get some of this legislative history |
| | |

1 again into the record.

| 2 | And the Manager's Report again at Page 6 |
|----|--|
| 3 | says that adverse impacts that flow from other |
| 4 | sources than the TPMs, including marketplace |
| 5 | trends, other technological developments, or |
| 6 | changes in the role of libraries, distributors, or |
| 7 | other intermediaries are not something that you're |
| 8 | supposed to rely on when you're granting |
| 9 | exemptions. I think, you know, in the past in |
| 10 | this proceeding when it's clear that a proponent |
| 11 | can use one device to achieve a goal and some |
| 12 | other device might not work as well, that's been |
| 13 | ground to deny an exemption, and so I still don't |
| 14 | know the answer to the question on why some of the |
| 15 | newer Macs might not interoperate with certain |
| 16 | devices, but I don't think that that gives grounds |
| 17 | to grant an exemption. |

18 Just very quickly on the discussion of the Pam Samuelson hypothetical book and the use of 19 20 the Bond clips, I did look, and I believe all of 21 the James Bond films that come with the 50 years 22 collectors edition can be purchased in HD and HDX 23 quality through VUDU, so you can get those films 24 in HD quality without resorting to the Blu-ray. 25 MR. DAMLE: So just one question about

1 that. 2 MR. WILLIAMS: Yes. MR. DAMLE: I mean, they use that as an 3 example for why the exemption shouldn't be limited 4 to film analysis. 5 6 MR. WILLIAMS: Right. 7 MR. DAMLE: So could you speak to that 8 for a moment? 9 MR. WILLIAMS: Yes. Do you regard that as 10 MR. DAMLE: 11 falling within it or falling without it? 12 I look back, and I MR. WILLIAMS: Yes. 13 think every example in their comments is about 14 film analysis very clearly, except this one might 15 be on the edge, but I think it arguably is film analysis, and what she is describing is taking the 16 17 actual films and going through and using imagery from the films, kind of critiquing the character 18 19 and the development of the character through time. 20 So I think that's arguably film 21 analysis. I don't know what you guys intended 22 that term to mean, but it's certainly something 23 close enough that I'm relatively comfortable with 24 that use. 25 MR. DAMLE: So as I understand it, it's

1 less critiquing the film itself, but using the film to illustrate a point about copyright law, 2 about character copyrights. 3 MR. WILLIAMS: 4 Right. 5 So assuming that my MR. DAMLE: 6 understanding is correct, what's your view there? 7 MR. WILLIAMS: I think sometimes you can 8 do two things at once, and to me, what they're saying is they are -- she would be commenting on 9 10 the films and also commenting on how the films 11 would be treated under copyright law. So to me, 12 that's different than, for example, just saying I 13 want to show this footage to show you -- to teach you something about history, for example, that's 14 15 not really about how a film treats history 16 specifically, to comment on the film, but instead 17 just to educate someone about historical 18 occurrences, for example, that would be different 19 to me. And I don't think there are enough 20 examples really any other than this one in the 21 record to expand it beyond film analysis. Ιf 22 there had been specifics, I'm not sure we would 23 have said there is nothing else that should be on 24 the table to discuss, but I don't think we've 25 heard any other examples, and I do think it's

1 important to stay close to the procedural 2 guidelines that Congress gave. I'm not sure that to actually analyze 3 the copyrightability of Bond, some of the detail 4 that they describe as only being available through 5 Blu-ray is really required, whether there's a 6 scuff on the cufflink or not, that would get 7 pretty detailed in terms of a copyrightability 8 9 analysis, but I do think you can see those things 10 on the HDX copies. I would be very surprised --11 we didn't see a demonstration, but I would be very 12 surprised if you could see stuff like that in Blu-13 ray and not see it in an HDX copy. 14 MS. CHARLESWORTH: Mr. Williams, I'm sorry. 15 16 MR. WILLIAMS: Sure. 17 MS. CHARLESWORTH: Just the legislative 18 history that you -- can you just give us the exact 19 -- the citation for that? 20 MR. WILLIAMS: Yes, absolutely. 21 MS. CHARLESWORTH: Would you mind 22 reading that sentence again? 23 MR. WILLIAMS: Sure. Sure. So this is 24 a reprint of the Manager's Report that was done in 25 the Copyright Society Journal at the time that the

| 1 | legislation was enacted. It's prefaced with |
|----|--|
| 2 | remarks from Honorable Henry Hyde, and it goes on, |
| 3 | it's titled "Section-by-Section Analysis of H.R. |
| 4 | 2281 as Passed by the U.S. House of |
| 5 | Representatives on August 4, 1998." |
| 6 | MS. CHARLESWORTH: So it's a Manager's |
| 7 | Report. Okay. |
| 8 | MR. WILLIAMS: Correct. |
| 9 | MS. CHARLESWORTH: And if you could just |
| 10 | read that language again. |
| 11 | MR. WILLIAMS: Sure. I read two quotes. |
| 12 | The first is at Page 6 of the actual document, |
| 13 | which is Page 639 of the Society Journal. It |
| 14 | notes that at times you can base an exemption on |
| 15 | adverse impacts that are likely to occur during |
| 16 | the next 3-year period, and then it says, |
| 17 | "However, the determination should be based upon |
| 18 | anticipated rather than actual adverse impacts |
| 19 | only in extraordinary circumstances in which the |
| 20 | evidence of likelihood of future adverse impact |
| 21 | during that time period is highly specific, |
| 22 | strong, and persuasive. Otherwise, the |
| 23 | prohibition could be unduly undermined." |
| 24 | The second quote I read about the |
| 25 | gatekeeper issue, it starts that paragraph by |
| | |

| 1 | saying, "The focus of the rulemaking proceeding |
|----|--|
| 2 | must remain on whether the prohibition is actually |
| 3 | what's causing the anticipated harm." And then |
| 4 | the quote that I read was, "Adverse impacts that |
| 5 | flow from other sources, including marketplace |
| 6 | trends, other technological developments or |
| 7 | changes in the roles of libraries, distributors, |
| 8 | or other intermediaries or that are not clearly |
| 9 | attributable to such a prohibition are outside the |
| 10 | scope of the rulemaking, so are mere |
| 11 | inconveniences or individual cases that do not |
| 12 | rise to the level of the substantial adverse |
| 13 | impact." |
| 14 | MS. CHARLESWORTH: And that's also on |
| 15 | Page 6 of the actual document? |
| 16 | MR. WILLIAMS: Correct. |
| 17 | MS. CHARLESWORTH: Thank you. |
| 18 | MR. DAMLE: So hypothetically, if Apple |
| 19 | had a policy saying, "We won't accept any |
| 20 | multimedia e- books that are in standard |
| 21 | definition, that have clips in standard |
| 22 | definition," if they just said and that was |
| 23 | just like the industry practice, and no one |
| 24 | allowed those sorts of clips, are you suggesting |
| 25 | that's something that we can't take into account, |
| | |

1 that that would be irrelevant to our analysis of whether an exemption would be warranted for Blu-2 ray or for HD content? 3 MR. WILLIAMS: I think the legislative 4 history suggests that that by itself is not enough 5 6 to grant an exemption, that's correct. It's not that the access controls are actually leading to 7 the adverse impact in that circumstance, it's that 8 a gatekeeper has decided to implement some 9 separate business practices, and those business 10 11 practices would be causing the adverse impact, not the existence of access controls. 12 13 MR. DAMLE: Well, they're both causing it in that scenario; right? The fact that you 14 can't -- it's both the fact -- it's a combination 15 of the two that are causing the problem; right? 16 17 Because it's the fact that there is this business 18 practice out there, but also the fact that there 19 is the TPM. If there wasn't the TPM, you wouldn't 20 have the problem because you would be able to get 21 to the content and the format that's required for 22 the relevant gatekeeper, and so there are sort of 23 dual causes in that -- in my hypothetical 24 scenario. 25 MR. WILLIAMS: I think that's fair.

1 We're here because of the TPMs first and foremost, that's correct. 2 MR. DAMLE: 3 Okay. MS. CHARLESWORTH: Did you have anything 4 else, Mr. Williams? 5 6 MR. WILLIAMS: No, I think that was all. 7 Thank you very much. 8 MS. CHARLESWORTH: Before I Okay. forget, Ms. Buster, apparently this flash drive 9 with your exhibit on it doesn't actually have the 10 11 video. I don't know if there was a technological 12 problem. So I don't know if that's something you 13 We can do it after we shut down, either can fix. 14 that or if you need a day or so to get us one. We 15 just want to make sure we have the exhibit so we can include it in the record and consider it. 16 17 I was curious, Mr. Williams mentioned the HD downloads that are available, and we didn't 18 19 really discuss those earlier as a potential 20 alternative to Blu-ray, and I was wondering if 21 anyone on the other side of the room could comment 22 on those, and particularly in this context where 23 you're downloading the e-book, and, you know, 24 there are sort of limitations on bandwidth, at 25 least as we currently know it. There is some

1 intuitive appeal to that proposal -- right? -because it means it's content that is already sort 2 of fashioned to be transmitted through a current 3 bandwidth structure, but it's in HD, and I was 4 5 just wondering if you saw that as a potential 6 alternative to Blu-ray. 7 MR. LERNER: You're referring to the digital downloads on VUDU that Mr. Williams --8 9 MS. CHARLESWORTH: Yes, also and he said HD and HDX --10 11 MR. LERNER: Right. 12 MS. CHARLESWORTH: -- and we didn't really discuss that and whether that would be 13 14 useful in the e-book context. 15 MR. LERNER: Right. I mean, one of the 16 reasons why it hasn't been discussed thus far is 17 that it wasn't in the record until these hearings. 18 And we're glad to know that the James Bond films 19 are available on VUDU and I'm a little surprised 20 that Mr. Williams would rather have the proponents 21 circumvent VUDU than Blu-ray, which -- but that's 22 their business. But --23 MR. CHENEY: Well, let me ask there --24 I'm sorry. 25 MR. LERNER: Yeah.

1 MR. CHENEY: Let me ask there, are you suggesting that they would have to circumvent 2 something at VUDU in order to download that? 3 Is that what you're suggesting? I don't know that 4 5 that was what was suggested by Mr. Williams. 6 MR. WILLIAMS: I can speak to that quickly. I'm not suggesting you should be able to 7 circumvent VUDU and acquire a copy without 8 9 purchase, but if you pay for the copy, you can 10 then download it to your device. There would be, 11 I believe, TPMs on that copy that would need to be 12 circumvented to make the clips; however, my 13 reading of the existing exemption already allows 14 for that type of circumvention. So it's not so 15 much that we're thrilled that that's allowed, but 16 given that it already is and we're not opposing 17 the renewal of the exemption, I think it's a 18 viable alternative to Blu-ray. 19 MR. CHENEY: And let me add to the 20 discussion, is there is a difference between the 21 quality that's on the Blu-ray versus this HD or

HDX? Is there a difference in the quality between those two products? And is there anyone that can answer that one for --

25 MR. WILLIAMS: My understanding -- and

| 1 | it's probably not as technical as Bruce but the |
|----|--|
| 2 | HDX copies are marketed as a 1080p product, so |
| 3 | that would be something that's marketed as being |
| 4 | very, very close to Blu-ray. The HD copies are |
| 5 | generally not quite that high but still crystal |
| 6 | clear when I watched them on all of the devices |
| 7 | that they've described that come with HD-capable |
| 8 | displays. |
| 9 | MR. CHENEY: So there are some subtle |
| 10 | differences between a Blu-ray version versus an HD |
| 11 | or an HDX version of the |
| 12 | MR. WILLIAMS: I can't say that I've |
| 13 | ever been able to discern a difference, and during |
| 14 | prep for this, I have been playing around with all |
| 15 | of these things. I haven't been able to discern a |
| 16 | real difference, but there might be a title out |
| 17 | there that there is some little discrepancy that |
| 18 | you wouldn't see. I just haven't seen any |
| 19 | evidence of that. |
| 20 | MR. CHENEY: Thank you. |
| 21 | Mr. Turnbull, you had your response on |
| 22 | that. |
| 23 | MR. TURNBULL: Yeah. The 1080p, I mean, |
| 24 | to the extent that that is what the quality is, |
| 25 | that is what is known as full HD, and that is what |
| | |

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| 1 | is on the Blu-ray itself. So, you know, any given |
|----|--|
| 2 | implementation might be better or worse, and |
| 3 | that's true that some Blu-rays are better than other |
| 4 | Blu-rays, but as far as the baseline quality, |
| 5 | 1080p is full HD. |
| 6 | MR. WILLIAMS: If I could just quickly |
| 7 | add also in response to Jack, information about |
| 8 | ultraviolet and VUDU and digital downloads is in |
| 9 | our comments, so it's been in the record before |
| 10 | the hearings. |
| 11 | MS. CHARLESWORTH: Okay. Professor |
| 12 | Lerner. |
| 13 | MR. LERNER: One quick additional |
| 14 | response on the HDX. We're delighted to know or |
| 15 | are certainly willing to look and see whether HD, |
| 16 | these downloads, work for the James Bond example. |
| 17 | I do know that offerings on those services are |
| 18 | much more limited relative to Blu-ray, and so I |
| 19 | don't think that's a full solution. |
| 20 | I would also point out that it's |
| 21 | actually technically much more difficult to obtain |
| 22 | those streams, as Mr. Morissette testified last |
| 23 | week. When it's streaming something as opposed to |
| 24 | a download, it can be more difficult technically |
| 25 | to access. So that would make it more difficult |
| | |

1 for our clients to actually utilize the exemption, 2 and that's another reason why we think Blu-ray is 3 useful.

I know that Professor Reid wanted to say 4 something about the House Manager's Report. And I 5 6 also just wanted to quickly respond to something that Bruce Turnbull said, which was that he saw 7 the bandwidth and gigabytes being the main barrier 8 9 here. That's not correct. The main barrier, certainly bandwidth and gigabytes is a limitation, 10 11 and I think that does speak to the question of 12 whether short portions are appropriate relative to 13 other exemptions that have been proposed, but what we're facing here and one of the main reasons why 14 15 we think that it's important to have access to HD 16 content, specifically Blu-ray content, is because 17 it's our understanding that Apple's quality 18 control is very strict and that there's a serious 19 and reasonable fear that without HD content, Apple 20 will reject quite a number of books. There is --21 MS. CHARLESWORTH: I feel like we need 22 to send a subpoena to Apple. 23 (Laughter.) 24 MS. CHARLESWORTH: It would be helpful to have some technical --25

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1 MR. LERNER: Right. MS. CHARLESWORTH: -- and business 2 practice information from them since they've been 3 a focal point of this discussion, but, alas, I 4 don't think we'll be able to do that, but I think 5 6 we heard earlier, though, that there is no -- just to clarify, they don't have a written policy in 7 this regard and there is no specific information 8 9 in the record about whether they would or would not reject something for lack of HD. Isn't that 10 11 correct? 12 MR. LERNER: That's correct, but it is 13 also -- you do have evidence that we have a fear, 14 and we think it's a reasonable fear, that lower 15 quality SD or screen capture content would do two 16 things. One, it would very likely cause Apple to 17 reject some or many or even all of the e-books 18 that people are going to be submitting. And also, 19 you know, Bobette coined a term that I think is 20 important, which is "backwatered." Right? We 21 don't want to be submitting something that's 22 instantly archival material and that is jarring 23 and disruptive to readers and viewers. And so 24 that's one of the issues that we're dealing with. 25 This is something where, you know, every

| 1 | single device that's being sold now is HD-Plus, |
|----|--|
| 2 | not just HD, but HD-Plus, and so then to go back |
| 3 | to SD on a device like that is what we would |
| 4 | consider not just an adverse effect, which is all |
| 5 | the statute requires, but a substantial adverse |
| 6 | effect. |
| 7 | MS. CHARLESWORTH: Okay. But just, I |
| 8 | mean, to play a little devil's advocate here, I |
| 9 | mean, certainly you agree that a lot of archival |
| 10 | footage, for example, old movies that weren't shot |
| 11 | in HD, are going to look older and they're not |
| 12 | going to be HD. Do you agree with that? |
| 13 | MR. LERNER: Absolutely, but |
| 14 | MS. CHARLESWORTH: So if you're reading |
| 15 | an e-book and it's examining an old movie, you may |
| 16 | be jarred when you go from the HD to the SD or |
| 17 | below or the old analog |
| 18 | MR. LERNER: Right. But old movies were |
| 19 | screened in 35-millimeter, so those actually were |
| 20 | much higher than HD definition |
| 21 | MS. CHARLESWORTH: Right. |
| 22 | MR. LERNER: when you're talking |
| 23 | about how to analyze something. And I would say, |
| 24 | listen, if you're talking about you want to show |
| 25 | something that had PBS footage from the 1970s, |
| | |

| 1 | that's going to be fuzzier and grainier, but |
|----|---|
| 2 | audiences understand that because that's how that |
| 3 | was experienced in that time as opposed to films |
| 4 | and other types of material that weren't. Right? |
| 5 | And so audiences are sophisticated, and |
| 6 | so are gatekeepers, and as you saw in the |
| 7 | documentary filmmaking context and in the |
| 8 | narrative filmmaking context, gatekeepers also |
| 9 | understand that because they know that it's the |
| 10 | limits of the technology at that time, but those |
| 11 | limitations weren't there for films that were |
| 12 | screened in the theaters. |
| 13 | MS. CHARLESWORTH: Okay. |
| 14 | Professor Reid? |
| 15 | MR. REID: Thank you. I know we're |
| 16 | running short on time, so I want to just very |
| 17 | briefly preserve for the record, our strenuous |
| 18 | objection, and we know it's been used in several |
| 19 | proceedings before this one and during this |
| 20 | proceeding, but the reliance on the Manager's |
| 21 | Report to determine the meaning of words in the |
| 22 | statute for which there has been no sufficient |
| 23 | identification of an ambiguity that would allow |
| 24 | the use of the Manager's Report. |
| 25 | We also want to note that the Manager's |
| | |

| 1 | Report actually came out after the House passed |
|----|--|
| 2 | the DMCA, and so I don't claim to be an expert on |
| 3 | this branch of law, but I've never heard of |
| 4 | relying on legislative history that came out after |
| 5 | the law came into effect. |
| 6 | So to the extent the Office is relying |
| 7 | on the Manager's Report to import doctrines such |
| 8 | as the mere inconvenience doctrine and that sort |
| 9 | of thing, we strenuously object to the continued |
| 10 | use of those doctrines, and we would urge the |
| 11 | Office to look to the statute, which just requires |
| 12 | a finding of adverse effects. |
| 13 | And I think we have established today |
| 14 | that to use something like screen capture software |
| 15 | essentially requires hiring a lawyer, hiring an |
| 16 | engineer, and potentially buying a new computer, |
| 17 | and that wherever the line you might draw for |
| 18 | adverse effects is set, it's well before you get |
| 19 | to the point where you've got to spend that much |
| 20 | money and invest that many resources, and we think |
| 21 | that's consistent with the plain text of what the |
| 22 | exemption process in 1201(a) requires. So I just |
| 23 | wanted to preserve that for the record. |
| 24 | MS. CHARLESWORTH: Okay. Well, as you |
| 25 | know, we have examined the legislative history, |

| 1 | including the Manager's Report, and have invoked |
|----|--|
| 2 | it on many occasions to try and understand what |
| 3 | this proceeding is about because the statute is |
| 4 | facially difficult to interpret, but I take your |
| 5 | objection for the record. |
| 6 | Professor Lerner, it sounds like you |
| 7 | wanted to respond |
| 8 | MR. LERNER: Yes, ma'am. |
| 9 | MS. CHARLESWORTH: directly to |
| 10 | something that was just said. And then we'll go |
| 11 | to Mr. Wolfe. And then we have a couple here. And |
| 12 | then we're going to try and wrap this up. |
| 13 | MR. LERNER: Yes, ma'am. |
| 14 | MS. CHARLESWORTH: Okay. |
| 15 | MR. LERNER: Thank you for your |
| 16 | indulgence. I know that we're running low on time. |
| 17 | I just also want to point out that the text that |
| 18 | Matt read about distributors and intermediaries |
| 19 | doesn't saying what he's saying, it says it all, |
| 20 | and Mr. Damle's questioning spoke to that a little |
| 21 | bit, but I think that's the kind of situation |
| 22 | where VHS is no longer available. Now, if VHS had |
| 23 | TPMs on it, we wouldn't be able to come here and |
| 24 | say we need to be able to you know, the reason |
| 25 | that we need to be able to circumvent VHS is |
| | |

| 1 | because distributors don't want it or whatever, in |
|----|--|
| 2 | that situation it would be because of the |
| 3 | what I'm saying is that if VHS, for example, had |
| 4 | TPMs on it, we wouldn't be able to come in here |
| 5 | and say, "Well, we need to be able to circumvent |
| 6 | the TPMs on VHS because," and the reason we |
| 7 | wouldn't be able to say that is because VHS went |
| 8 | away for some other reason unrelated to the TPMs. |
| 9 | But there is a direct relationship in |
| 10 | our view here between TPMs and the inability to |
| 11 | get this in the market and all of the adverse |
| 12 | effects. And so I think that's really a |
| 13 | misinterpretation of what the House Manager's |
| 14 | Report said anyway and I encourage you not to take |
| 15 | that interpretation because I think it's specious. |
| 16 | MS. CHARLESWORTH: Well, I think Mr. |
| 17 | Williams well, I can let him respond for |
| 18 | himself, but I think he why don't you respond |
| 19 | just briefly? Because I heard you sort of taking a |
| 20 | softer approach to that. |
| 21 | MR. WILLIAMS: Sure. I think the Report |
| 22 | speaks for itself. You have relied on it in the |
| 23 | past, as you said. It can provide guidance. I'm |
| 24 | not saying it's the only word on the issue, but it |
| 25 | does provide a pretty clear statement about these |
| | |

1 types of issues. So I don't think it's a specious 2 argument at all. There is certainly a basis to 3 look at the legislative history, and you've done 4 that, and I would encourage you to continue doing 5 that.

I failed earlier to give the actual 6 7 volume citation to the Society reprint, so I'll give you that. It's Volume 46, Number 4, Summer 8 9 of 1999. And as Blake mentioned, it was published 10 after the statute passed, however, the statute 11 passed on August 4, 1998, and this report came out 12 September 1998, so virtually simultaneous. And as 13 you know, the history of this proceeding during 14 the development of the statute, it changed 15 significantly throughout the process, so the idea 16 that a report would be published at the conclusion that would try to explain some of those changes I 17 don't think is unusual or out of the ordinary and 18 19 doesn't undermine its value as a resource. 20 Thank you. 21 MS. CHARLESWORTH: Okay. I think we'll 22 go to -- should we -- okay. Professor --23 Mr. Wolfe, do you yield to Professor 24 Reid or do you want to go first? 25 MR. WOLFE: Yeah. My comments are

1 circling back to film analysis, so I'm happy to 2 yield to this discussion. I will just make a 10-second 3 MR. REID: reply to that, which is that none of the language 4 5 that Mr. Williams has cited from the Manager's 6 Report appears in the text of Section 1201, and that's a clear manifestation of Congress's intent 7 to include what is in the statute and not what is 8 in the Manager's Report, and to the extent that 9 10 the Office is importing limitations from the 11 Manager's Report that are not in the statute, 12 that's an impermissible reading of the statute, 13 and again we want to preserve our objection. 14 MS. CHARLESWORTH: Okay. I mean, you 15 have preserved your objection, but the Office has 16 looked at the legislative history and definitely 17 relies on it in some areas for guidance, and I 18 think you're aware of that, and has for a long 19 time. 20 Mr. Wolfe. 21 MR. WOLFE: Very briefly, to circle back 22 to the idea of the film analysis limitation, Mr. 23 Williams made -- argued in favor of maintaining it 24 under the impression that it covers all or at 25 least most of the universe of possible uses that

1 we've discussed.

| 2 | I want to raise just one quick example |
|-----|--|
| 3 | of ways in which film can play into particularly |
| 4 | scholarship, but other works, that is incredibly |
| 5 | significant, important, paradigmatic fair use, but |
| 6 | is absolutely I think outside the realms of film |
| 7 | analysis. There is a clear trend in scholarly |
| 8 | communications to focus on the reproducibility of |
| 9 | experimental results and to do so by both |
| 10 | providing experimentation documentation and tools |
| 11 | and insofar as they're available, data, et cetera. |
| 12 | The psychological literature is replete with |
| 13 | studies that are based on or require film clips in |
| 14 | their production. |
| 15 | Now, with regards to online publications |
| 16 | of these kinds of papers and documents and |
| 17 | journals, including the clip via YouTube or |
| 18 | something like that might be acceptable, but as |
| 19 | we're moving more and more towards digital |
| 20 | publishing, being able to point to what you use in |
| 21 | your experiment, not as film analysis, but as a |
| 22 | fact of your study and how it was done and |
| 23 | performed is absolutely essential and falls within |
| 0.4 | |
| 24 | the bounds. |

1 MS. CHARLESWORTH: Okay. Well, we've run a little bit over with this panel. 2 I want to just make sure my colleagues don't have any 3 further questions. 4 5 Ms. Smith? MS. SMITH: I'll make this guick. 6 7 First, Professor Reid, you mentioned that some of the uses of screen capture require buying a new 8 computer potentially, but isn't it true that you 9 10 would also need to switch to a PC if you were going to use a Blu- ray? 11 12 MR. REID: I'm probably not the best 13 person to speak to this. I believe you can buy an 14 external Blu-ray drive for a Mac and access it 15 that way. I see some folks chiming in on the rest 16 17 MS. SMITH: Mr. Turnbull? 18 MR. TURNBULL: There are no licensed 19 players for a Mac. 20 MS. SMITH: Okay. Thanks. 21 And my next question is for Ms. Buster. 22 I'm just wondering, because I think it may be the 23 case that VUDU makes HD or HDX copies of Shawshank 24 Redemption or The King's Speech. I'm wondering if 25 you have explored using that for your projects.

1 It seems like it may be a good alternative, or if not, you know, explaining why it may not be. 2 3 MS. BUSTER: No, I haven't explored it. MS. SMITH: If you could use the 4 microphone. 5 6 MS. BUSTER: No, I haven't explored it. 7 I'm actually learning a lot about I'm interested. I was actually just working 8 these workarounds. within the parameters of what I thought were the 9 10 legal requirements for fair use and exemption. 11 And I'm interested. I've learned a lot. But it 12 would be a hardship for me to go and buy and work 13 with other -- you know, with a Windows computer 14 and work back and forth. I mean, I can work on 15 those issues and try to make that work. 16 MS. SMITH: Well, again, if you needed -17 - if you can't use Blu-ray on an Apple anyways, it 18 seems like you need to be in the Windows 19 environment, so I think for a relatively nominal 20 fee, you might be able to download these movies 21 and -- you know, the existing exemption, achieve 22 what you're looking to do. 23 MS. BUSTER: Well, didn't -- I'm not 24 sure who said this, but I think it's the second 25 man over there who said that, you know, once you

pull the video in any computer, you can exchange 1 2 it from one to the other. Is that right? Mr. Taylor? 3 MS. CHARLESWORTH: MR. TAYLOR: light's on. 4 5 MS. CHARLESWORTH: Oh, I'll turn -well. 6 7 Okay. My comment was that MR. TAYLOR: you could switch between environments and we 8 regularly switched between environments when we 9 were doing this. So the fact that other people I 10 11 was working with were using Macs and I was using a 12 PC did not pose a hurdle for us to work with each 13 other on the clips. 14 Okay. MS. CHARLESWORTH: We're having a 15 problem, a difficulty, of wrapping this up, but I 16 will allow very brief additional comments. 17 And, Ms. Smith, did you have any other 18 questions before we get to those? 19 MS. SMITH: No, I think Mr. Lerner 20 wanted to respond to my question, but that was it. 21 MR. LERNER: I can actually speak to Ms. 22 Smith's question very directly and very, very 23 quickly, which is I just bought an external Blu-24 ray player for my Mac recently, and it plays Blu-25 rays. And so I wasn't aware, I think that that's

1 routinely done. MS. CHARLESWORTH: Okay. I think, Mr. 2 3 Turnbull. MR. TURNBULL: That may be possible. 4 What I said was that there are no licensed 5 6 players, and, you know, and that was a choice made 7 by Apple, not by AACS. 8 MS. CHARLESWORTH: Okay. 9 MS. SMITH: I mean, that was my first question, but the second question is to whether or 10 11 not you could access this content in a non-screen-12 captured, you know, 1080p version to online 13 digital. Did you have something to respond to that? 14 15 MS. CHARLESWORTH: No. MR. LERNER: I'm not sure I understand 16 17 the question. 18 MS. SMITH: I mean, you use HD 19 downloading or HDX downloading to access the films 20 that Ms. Buster wishes to discuss? 21 MR. LERNER: That may be possible, but 22 one of the issues is that that's a very limited 23 catalog compared to what's out there, and so I 24 don't know if Shawshank and the other films that 25 she wants to use are available online, but when

| 1 | you think about the thousands and thousands of |
|----|---|
| 2 | people that want to use the exemption, there is a |
| 3 | very strong likelihood that that's not going to |
| 4 | cover all of the HD content that people want to |
| 5 | access. That has been made available via Blu-ray. |
| 6 | MS. SMITH: Okay, but it may work for |
| 7 | Ms. Buster. |
| 8 | MR. LERNER: It may or may not. I don't |
| 9 | know. |
| 10 | MS. BUSTER: What I would have to |
| 11 | examine is, how easy is it to cut the clips |
| 12 | precisely in order to get to the fair use |
| 13 | exemption? And that would be the next step of |
| 14 | questioning. |
| 15 | MS. SMITH: Okay. Thank you. |
| 16 | MS. CHARLESWORTH: Okay. Well, thank |
| 17 | you. Yet another very stimulating discussion. And |
| 18 | we did run over a little bit. I'm thinking we |
| 19 | should start our next panel, Proposed Class 26, |
| 20 | maybe at 11:25? Does that? |
| 21 | UNIDENTIFIED MALE SPEAKER: A 5-minute |
| 22 | break? |
| 23 | MS. CHARLESWORTH: Oh, I'm sorry, we ran |
| 24 | way over. Okay. 11:30. We'll take a brief break |
| 25 | and come back for Proposed Class 26. Thank you |
| | |

1 very much. (Break.) Proposed Class 26: Software--2 3D Printers 3 MS. CHARLESWORTH: Could everyone take 4 their seats? We gave you a slightly longer break 5 because we've been sitting a long time, but we 6 certainly do want to get to our 3D Printer class. 7 Once, again, we have some new faces, which is --8 all new faces on our panel. Oh, no, no, Sherwin, 9 10 All new faces for D.C. ves. 11 I'm Jacqueline Charlesworth. Welcome to the Section 1201 Rulemaking Proceeding, the Sixth 12 13 Triennial Rulemaking Proceeding. And I and my 14 colleagues will be presiding over the hearing 15 today. I'm glad to see there is more of us than 16 you. We'll probably have a lot of questions, and 17 we're grateful that you'll be here to answer them. 18 Just really quickly, if my colleagues 19 could introduce themselves for the record. 20 MS. CHOE: Michelle Choe, Ringer Fellow. 21 MS. SMITH: Regan Smith, Assistant 22 General Counsel. 23 MR. DAMLE: I'm Sy Damle. I'm Deputy 24 General Counsel. 25 MR. RUWE: Steve Ruwe, Assistant General

1 Counsel.

| 2 | MR. RILEY: John Riley, Attorney-Advisor. |
|----|--|
| 3 | MR. CHENEY: Stacy Cheney, Senior |
| 4 | Attorney at NTIA, U.S. Department of Commerce. |
| 5 | MS. CHARLESWORTH: Okay. And the goal |
| 6 | of the hearing is really to explore areas of the |
| 7 | record that aren't particularly clear, areas where |
| 8 | there is disagreement between the parties, and |
| 9 | sometimes we'll be asking about technical issues |
| 10 | and so forth, so it will I'm sure be an engaging |
| 11 | discussion. |
| 12 | The format we've been following is after |
| 13 | you guys introduce yourself, we'll sort of go down |
| 14 | the line starting with Sherwin and asking that you |
| 15 | make brief opening remarks, and then sometimes we |
| 16 | interject questions, and sometimes the remarks |
| 17 | become longer than brief, but that is okay, and we |
| 18 | don't have that many panelists today, so we look |
| 19 | forward to exploring the issues. We try not to |
| 20 | talk over one another. There is another sort of |
| 21 | technological piece here, which is you can only |
| 22 | have four mics on at a time, so when you're done |
| 23 | speaking, if you could turn your mic off, that |
| 24 | would be helpful. We have a court reporter taking |
| 25 | down what you say today. And I think that with |

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1 that introduction, I'm going to ask you just quickly to again introduce yourself and then we'll 2 go back to Sherwin. 3 4 Sherwin Siy, Public Knowledge. MR. SIY: 5 MR. WEINBERG: Michael Weinberg, unaffiliated. 6 7 MS. CHARLESWORTH: Okay. Do you want to 8 9 MR. WEINBERG: I can explain that. Yeah, is that easier? 10 11 MS. CHARLESWORTH: Yeah. And I've asked 12 if you're not representing an organization, can 13 you explain what interest you represent or have in 14 the proceeding? 15 MR. WEINBERG: Sure. So when this 16 proceeding began, I was a Vice President at Public 17 Knowledge, and so I drafted the initial petition and the initial comments. 18 I'm not longer at 19 Public Knowledge, I'm now at a company called 20 Shapeways, but I'm here in my personal capacity. 21 I've been working for the last 5 years or so on 3D 22 printing policy issues, and it's a personal 23 interest of mine, and so I'm here I guess as a 3D 24 printing advocate but not affiliated with any 25 company or organization specifically.

| 1 | MS. CHARLESWORTH: And you're, I would |
|----|--|
| 2 | take it, supporting the proposed exemption? |
| 3 | MR. WEINBERG: Yes. |
| 4 | MS. CHARLESWORTH: Okay. |
| 5 | MR. CAREY: And Pat Carey from |
| 6 | Stratasys. |
| 7 | MS. CHARLESWORTH: Okay. And thank you |
| 8 | again for being here. |
| 9 | Mr. Siy, do you want to provide your |
| 10 | opening remarks? |
| 11 | MR. SIY: Sure. And I'm sure that we'll |
| 12 | get into a lot of things in the back-and-forth in |
| 13 | the question-and-answer. But the thing that I |
| 14 | want to emphasize in this as we look at this |
| 15 | particular petition and this particular class is |
| 16 | to be specific about what the copyrighted work is |
| 17 | at issue. That's the software embedded within the |
| 18 | printer, it's not anything produced by the |
| 19 | printers, it's not even necessarily we can |
| 20 | discuss the extent to which it's software embedded |
| 21 | on the chip, but I think that with in the |
| 22 | intervening years since the 2003 rulemaking when |
| 23 | printers, when 2D printers, came up, the |
| 24 | resolution of the Lexmark decision has sort of |
| 25 | moved that a bit more out of the arena of the |
| | |

1 discussion here. I think that also the extent to which 2 consumers can face an actual adverse effect in 3 this, you know, Stratasys is quite clear about how 4 they view their ability to lock TPMs to particular 5 printers can benefit them, and I think that their 6 7 incentives in doing that are clear and therefore their incentives in order to continue to do this, 8 to use the exemption in a manner that would 9 10 restrict usage and therefore have an adverse 11 effect on consumers, is clear. 12 MS. CHARLESWORTH: Okay. Tell me more about the software, as you understand it, that's 13 14 at issue here. 15 MR. SIY: So we are concerned about 16 whether or not -- so the question is whether or 17 not accessing the software contained within the 3D printer itself, which would likely be a 18 19 copyrighted work in many, if not most, cases, 20 would constitute access under Section 1201(a). 21 MS. CHARLESWORTH: Okay. So, I mean, I 22 don't know much about the technology of 3D printers, but reading through some of the 23 24 submissions, it seemed that there is sort of two 25 components here that may be at issue. One is sort

| 1 | of the chip on the cartridge that then locks into |
|----|--|
| 2 | the software on the machine, and the other is the |
| 3 | software on the machine that's other than what's |
| 4 | on the chip. Do you agree with that |
| 5 | characterization? |
| 6 | MR. SIY: That's right. |
| 7 | MS. CHARLESWORTH: And how does your |
| 8 | exemption I mean, do you want to circumvent the |
| 9 | chip, do you want to circumvent the software on |
| 10 | the machine, or both? |
| 11 | MR. SIY: So I think ultimately what we |
| 12 | want to be able to do is to use a chip that was |
| 13 | not created by the original manufacturer or to use |
| 14 | feedstock attached to a chip in a cartridge where |
| 15 | the feedstock was not created by the original |
| 16 | manufacturer with that 3D printer. |
| 17 | So both programs are involved, however, |
| 18 | I believe that the copyrighted work at issue would |
| 19 | be the one in the printer. |
| 20 | MS. CHARLESWORTH: Okay. And so |
| 21 | MR. SIY: And this is the distinction |
| 22 | drawn in the Lexmark case in the Sixth Circuit. |
| 23 | MS. CHARLESWORTH: Right. And so what's |
| 24 | the can you generally describe what the nature |
| 25 | of the circumvention is? How do you make the |
| | |

1 different cartridge work with the software in the printer? 2 So there could be a number of 3 MR. SIY: ways of doing that. One of those would be to make 4 a copy of the data on the software on the chip on 5 6 the smaller component. Now, that would interface with the computer program on the printer, and in 7 that case, the question of accessing the work is 8 whether or not accessing by using the printer, 9 10 merely using the printer, and creating any 11 potential RAM copies along the way, whether that 12 creates the -- triggers 1201(a). 13 MS. CHARLESWORTH: Okay. So I'm just --14 and again forgive my naivete. 15 MR. SIY: Sorry. Oh, yeah --16 MS. CHARLESWORTH: No, no, no. So if you have a chip, one of the things is to basically 17 18 provide a substitute chip? Is that what you're 19 saying? 20 MR. SIY: Yes. 21 MS. CHARLESWORTH: You said something, I 22 think you said copy the chip. 23 MR. SIY: Yes. You can provide a 24 substitute chip, copy the instructions on it. You 25 could also attempt to reuse the chip and modify an

| 1 | existing one and use that and refill a cartridge. |
|----|--|
| 2 | MS. CHARLESWORTH: And in copying the |
| 3 | software, are you saying there is circumvention |
| 4 | involved? On the chip we're talking about now. |
| 5 | MR. SIY: This is the point in which I |
| 6 | don't think that this is the particular |
| 7 | circumvention we're discussing because I think |
| 8 | that if there is any circumvention, it's likely to |
| 9 | access a non- copyrightable, non-copyrighted work, |
| 10 | non-copyrighted program. |
| 11 | MS. CHARLESWORTH: Well, that's |
| 12 | MR. SIY: To the extent that it's |
| 13 | necessary to do that, I think that that would also |
| 14 | be that should be permissible. |
| 15 | MS. CHARLESWORTH: Okay. Setting aside |
| 16 | whether the program on the chip is protectable, |
| 17 | like I think you're making an argument it's not, |
| 18 | is there circumvention involved in accessing that |
| 19 | program? And what is it if there is? |
| 20 | MR. SIY: That would vary depending upon |
| 21 | the nature of the system. |
| 22 | MS. CHARLESWORTH: I mean, do you have |
| 23 | any specific I mean, but is there any |
| 24 | MR. SIY: No, I do not have a specific |
| 25 | model in mind with that discussion. |
| | |

1 MS. CHARLESWORTH: Okay. But, I mean, what's the nature of circumventing a chip? 2 Ι mean, what kind of TPM is on a chip? 3 Well, the TPM is protecting 4 MR. SIY: the interface between the chip and the printer 5 itself. 6 7 MS. CHARLESWORTH: Well, there's a TPM on the -- so I understand there's a TPM perhaps on 8 9 the software. I guess some of the submissions suggest there are a lot of printers that don't 10 11 have that, but in some cases there's a TPM on the 12 software that's in the printer. But if you're 13 doing stuff to the chip, that's the -- I'm just 14 trying to understand whether there is 15 circumvention, and maybe we can ask the other 16 panelists that question as well, because we're 17 trying to sort -- I'm trying to sort out what the 18 exemption actually would cover here. 19 MR. SIY: Sure. And I think, you know, 20 by analogy, with the Lexmark case, you know, it 21 could or it could not. I think in many cases 22 there is no overt TPM, it's merely a question of 23 accessing the chip itself and being able to read 24 data off of it. In other cases, there is no reason that somebody wouldn't be able to, 25

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1 depending on other variables, whether or not they were willing to invest in that to prevent people 2 from accessing that. 3 MS. CHARLESWORTH: Okay. So on the 4 chip, you're suggesting there might be an asserted 5 copyright issue --6 7 MR. SIY: Yes. 8 MS. CHARLESWORTH: -- but not necessarily a circumvention issue. 9 10 Yes. MR. SIY: 11 MS. CHARLESWORTH: And you're not pointing out any specific examples of chips that 12 need to be circumvented in this context. 13 14 MR. SIY: That's correct. 15 MS. CHARLESWORTH: Okay. Now let's turn 16 to the software on the machine. So can you explain the nature of the circumvention there? 17 So the circumvention in this 18 MR. SIY: 19 case would be circumventing the measures that 20 require a manufacturer-created chip in the printer 21 in order to operate. 22 MR. WEINBERG: In the cartridge. 23 MR. SIY: Yeah. 24 MS. CHARLESWORTH: Okay. 25 MR. DAMLE: So let me just see if can --

maybe I could see if I can help clarify this. 1 2 MS. CHARLESWORTH: Maybe you can ask 3 better questions. 4 MR. DAMLE: No, I'm not --5 MS. CHARLESWORTH: He's geek here than I 6 am, so --7 So is the idea that the TPM MR. DAMLE: really is the -- it's like a lock and key, that 8 9 the chip is the key and there's like a lock on the 10 software. So the TPM is really making sure that 11 the two match up. 12 MR. SIY: I think the analogy is a little bit inapposite because in that case it's 13 14 really an authentication mechanism more than an 15 access granting mechanism, but, yeah, I mean, I think the idea is the TPM is --16 MR. DAMLE: Is a combination of the two. 17 The TPM controls the 18 MR. SIY: 19 combination of the two, that's what it's 20 restricting, yes. 21 MR. DAMLE: And so are you doing 22 anything to the software itself? Are you changing 23 anything in the software itself when you are 24 engaging in the circumvention to put in new 25 feedstock or non- manufacturer approved feedstock?

| 1 | MR. SIY: I think that can vary, but |
|----|--|
| 2 | depending upon what the feedstock is that you're |
| 3 | using. For instance, if you're trying to use a |
| 4 | different sort of material, you might want to |
| 5 | change some of the variables in the program |
| 6 | itself. |
| 7 | MS. CHARLESWORTH: And do you know how |
| 8 | extensive those changes would need to be? |
| 9 | MR. SIY: It would vary depending upon |
| 10 | what material you wanted to use, it would depend |
| 11 | upon the model of the machine, and it would depend |
| 12 | upon a wide variety of factors. |
| 13 | MR. WEINBERG: If I could just hop in |
| 14 | for one second, I think that part of the issue |
| 15 | here with the specificity of your questions and |
| 16 | the kind of general nature of the answers is there |
| 17 | are a number of ways once you move past a |
| 18 | fairly abstract level, which is you have a |
| 19 | feedstock container, let's say, and a machine |
| 20 | that's verifying that the feedstock container came |
| 21 | from the manufacturer or an approved |
| 22 | subcontractor, there are a number of different |
| 23 | ways technically that you could implement that |
| 24 | verification process. You could make a chip on |
| 25 | the feedstock container dumb, in which case, it |
| | |

1 would have very little information and there 2 probably -- there may or may not be copyright protectable works on it, but it would contain not 3 a lot of information and most of the action would 4 5 be going on, on the software side, where it is 6 looking to see what's in the container on the 7 chip. You could also structure the system where there is much more information in the feedstock 8 container chip, and so it's a more, instead of a 9 10 kind of look- and-see structure, the two pieces talk to each other in a much more intensive way. 11 12 And depending on how you implement it, a specific 13 answer to how will it work will vary.

14 I mean, the key thing is that, yeah, 15 you're at a level of traction up. You're in a situation where at a minimum there is software on 16 17 the printer that is waiting to be used until it 18 can verify that it has approved input, and that 19 software is likely protected by copyright, and so 20 the only way you can access and interface with 21 that is once you have done something to convince 22 it that you have an approved feedstock, and how 23 that is implemented on a technical level can vary 24 from machine to machine, manufacturer to 25 manufacturer, and a number of different ways. Ι

1 don't know if that's at all helpful. 2 MS. CHARLESWORTH: Yeah. So, I mean, just to follow up because this is sort of a 3 different angle on this, is the chip then --4 you're saying the TPM is the fact that you need 5 6 the chip to access the software and make the What's the -- explain exactly what 7 printer run? 8 the TPM is in your scenario. 9 I think that would be the MR. SIY: system in its entirety that requires it and the 10 11 portions of that system that require the presence 12 of that chip. So whether or not that code is 13 located on the chip or whether it's in -- probably 14 in the more likely case, that code is located on 15 the printer. That system, that software code, is 16 what constitutes the TPM, that specific part of it 17 that requests the authentication. 18 MS. CHARLESWORTH: Okay. And that --19 MR. WEINBERG: And if it's easier for 20 the purposes of conversation to describe a system 21 that is a dumb chip on a cartridge and a more 22 sophisticated system on the printer, we're happy 23 to have -- or I'm happy to have the conversation 24 kind of at that level, but I want to make sure 25 that it's clear that we aren't restricting our

1 request to that, but it may be easier from a conversational standpoint to use that as our kind 2 of paradigm system in the absence of a specific 3 system that we're asking about. But I'll defer, 4 5 but --6 MS. CHARLESWORTH: No, no, no. I'm not 7 trying to get you to exclude anything here, I just am trying to clarify. So when you say a dumb chip, 8 9 what is that? I mean, what do you mean by that? 10 MR. WEINBERG: Yeah, and so you were 11 talking about a chip that doesn't contain a lot of information. 12 It may be something as simple as an 13 RFID chip or a chip that just has a serial number 14 in it and doesn't have any sort of microprocessor 15 or is doing any work, it just basically has 16 information that it is presenting to be read --17 Like a key kind of MS. CHARLESWORTH: 18 thing. 19 MR. WEINBERG: Yeah, like a key card, if 20 you have a swipe card to get into the building. 21 Right. Your swipe card has a chip in it that has 22 information. It's not doing any processing, but 23 without your swipe card to get into the building, 24 the TPM that is the locks on the building won't 25 work. You could see a more sophisticated system

| 1 | that worked with a smartphone where the smartphone |
|----|--|
| 2 | and the building actually did an exchange and a |
| 3 | back-and-forth communication, the result would |
| 4 | still be the same. You can't get into the building |
| 5 | unless you have the key card that will open the |
| 6 | door, but the level of technical sophistication |
| 7 | embedded in the key card versus phone is |
| 8 | different. |
| 9 | MS. CHARLESWORTH: Okay. I think that's |
| 10 | helpful. Thank you. |
| 11 | Mr. Siy, did you have anything you |
| 12 | wanted to add at this point? |
| 13 | MR. SIY: Not at this point. Thank you. |
| 14 | MS. CHARLESWORTH: And, Mr. Weinberg, |
| 15 | you have obviously helped us already, but why |
| 16 | don't you give us your further thoughts on this |
| 17 | proposed exemption? |
| 18 | MR. WEINBERG: Sure. And would it be |
| 19 | I mean, there is a lot of information in the |
| 20 | record. Would it be at all helpful to give a kind |
| 21 | of 30-second here's how this 3D printing |
| 22 | technology works, or do you feel comfortable with |
| 23 | it and we can |
| 24 | MS. CHARLESWORTH: I think we're fairly |
| 25 | comfortable. |
| | |

1 MR. WEINBERG: Okay. 2 MS. CHARLESWORTH: We know there are different versions of the technology, so -- I 3 mean, do you guys, would it be helpful down there? 4 5 Do you know? Mr. Cheney? We're a little --6 MR. WEINBERG: You're putting him on the 7 spot. 8 (Laughter.) 9 MS. CHARLESWORTH: Well, if it would be helpful to -- at the Copyright Office, we've 10 11 examined it a little bit over here, but --MR. CHENEY: As have we. 12 The one 13 question I would have in sort of the scope of this is, is this intended primarily for consumer use or 14 15 is it at the manufacturing level that that's also 16 you're intending this to be expanded to include larger 3D printers at perhaps the manufacturing 17 18 level? Can you explain that just a little bit? 19 MR. WEINBERG: Sure. I think while this 20 was originally motivated by focus on consumer use, 21 I don't think there is any reason to exclude 22 manufacturing or more sophisticated commercial 23 And I think it's worth noting that there players. 24 may be, and in some cases there very likely are, 25 non-copyright-related restrictions on what owners

| 1 | or possessors are doing with these printers. |
|----|--|
| 2 | There may be contractual restrictions. There may |
| 3 | be warranty restrictions. The focus of this is |
| 4 | really about this copyright part of it, but |
| 5 | conceptually I don't see any reason why this |
| 6 | shouldn't apply across the board. |
| 7 | MR. CHENEY: And a further follow-up |
| 8 | question if I might. There is a lot at play here |
| 9 | where there is sort of 3D modeling and some other |
| 10 | things that are involved, and this is not included |
| 11 | in that. This only has to do with the feedstock |
| 12 | bypass, is essentially sort of a high level way of |
| 13 | explaining it. It doesn't include any of the sort |
| 14 | of software that includes reading the 3D modeling |
| 15 | or any of that kind of stuff. That's all excluded |
| 16 | here; right? |
| 17 | MR. WEINBERG: That's exactly correct. |
| 18 | There is nothing to do with the models going into |
| 19 | the machine or the models coming out of the |
| 20 | machine. It has nothing to do, even really with |
| 21 | the software that is running the machine except to |
| 22 | the extent it's necessary to be able to use the |
| 23 | feedstock of your choice. |
| 24 | MR. CHENEY: And does that breaking |
| 25 | the TPM for the feedstock, does it affect the |

1 machine's ability to read and process that 3D modeling at all, and when obviously done 2 correctly, does it have any effect on that or does 3 it change sort of that input? 4 5 I think it depends on the MR. WEINBERG: I don't think there is a technical 6 machine. reason why it has to be. 7 The process that reads and verifies the input does not have to be linked, 8 to my knowledge, to the process that is used to 9 10 slice the model. So when you have a 3-dimensional 11 model, one of the things that the machine will do 12 is it will slice the model horizontally into a 13 bunch of thin layers and then establish a path within each layer that the machine should travel 14 15 to be creating it physically, and while the path 16 is determined by the material and the type of 17 material, the path isn't necessarily determined by 18 the origin of that material. And so while it may 19 be on some machine, it's implemented in a way that 20 they are tied, there is nothing that sort of 21 inherently ties them together. 22 MR. CAREY: I would dispute that, well, 23 at least to clarify that the output of the machine 24 is very dependent upon the material and the 25 authenticity of the material, and the knowledge of

1 the input is not, but the output, which is the desired product, is highly dependent on that. 2 3 MR. WEINBERG: Yeah, absolutely. MR. SIY: Though I would say the output 4 depends on that only insofar as the quality or 5 6 what ends up, you know, what product you end up with, not necessarily any question of how the 7 software inside or any copyrighted material is 8 9 affected. 10 MS. CHARLESWORTH: Okay. And this is just -- might there be different TPMs involved, 11 you know, protecting the basic software versus the 12 13 modeling software, just to pick up on Mr. Cheney's question? Or once you break with the one TPM, you 14 15 have access to everything? MR. WEINBERG: There is no technical 16 17 reason why you would have to be a one TPM for all, 18 and so how a manufacturer decides to implement it 19 is entirely up to them, but there is no reason why 20 you couldn't have a TPM that simply governs 21 feedstock source in another one. 2.2 MS. CHARLESWORTH: Right, but based on 23 your knowledge of the printers out there today, I 24 25 mean, are there multiple TPMs or is it generally just one where there is a TPM?

| 1 | MR. WEINBERG: I actually don't know |
|----|--|
| 2 | mostly because in my experience, no one is |
| 3 | particularly interested in making unauthorized |
| 4 | copies of the software that runs these machines. |
| 5 | It's not very useful absent the machine, and so |
| 6 | when people are worrying about these sorts of |
| 7 | TPMs, the reason they're worrying about it is |
| 8 | because they want to do something, they want to |
| 9 | use unapproved feedstock. There is not as much |
| 10 | discussion about wanting to access the software so |
| 11 | you could copy it or something. So I don't know, |
| 12 | but part of the reason I don't know is because |
| 13 | there is not as much interest in doing that sort |
| 14 | of thing in my experience. |
| 15 | MS. CHARLESWORTH: Do you need to copy |
| 16 | the software in order to make the modification |
| 17 | required for changing your feedstock? |
| 18 | MR. WEINBERG: It depends on the |
| 19 | software implementation. |
| 20 | MS. CHARLESWORTH: Okay. So it seems |
| 21 | there is a lot of variation. |
| 22 | MR. WEINBERG: Absolutely. |
| 23 | MS. CHARLESWORTH: Okay. And this then |
| 24 | |
| 25 | leads into my next set of questions for you guys, |

1 which is, what is the legal basis for your exemption? It wasn't discussed at length in your 2 I mean, what are you claiming here as the 3 papers. legal basis to potentially copy and alter the 4 machine's software? 5 MR. WEINBERG: I think 6 7 fundamentally we're talking about two core harms that result in this sort of blocking, and I think 8 the harms are -- both of the harms flow from I 9 10 would say a cloud of ambiguity as to whether or 11 not this type of behavior even triggers a 1201 12 analysis. 13 MS. CHARLESWORTH: Right. I think I'm 14 sort of asking a slightly different --15 MR. WEINBERG: Yeah, sorry. Okay. MS. CHARLESWORTH: What is the non-16 infringing use here? Like what are you claiming 17 18 as the reason why this is a non-19 infringing use of the software? You're sort of 20 making the 1201 argument --21 MR. WEINBERG: Sure. Yeah, yeah, yeah. -- but I want to --22 MS. CHARLESWORTH: 23 you know, sometimes people claim 117, fair use, 24 there's a menu of items, I know, but I'm curious 25 to know more about the basis for the claim that

1 it's not infringing. Yeah, and I think that --2 MR. WEINBERG: and -- Sherwin, do you want to --3 MR. SIY: Sure. Yeah. So I think that 4 there is -- you know, in addressing that question, 5 we will want to figure out first of all what 6 7 Section 106 uses are involved in this process because any of the other ways in which the 8 9 software is being used that are not a reproduction 10 or distribution, public performance, and so on. 11 MS. CHARLESWORTH: Well --12 MR. SIY: And so the reproductions that 13 might be at issue would be RAM copies made simply 14 in the utilization of the 3D printer itself or any 15 modifications necessary in order to utilize a 3D printer with the new feedstock, and both of these 16 17 fall within Section 117. 18 MS. CHARLESWORTH: Well, so you're 19 saying you're claiming a 117 exemption. What 20 about the derivative? I mean, if you're altering 21 the software, you might be creating a derivative 22 work. 23 MR. SIY: That's also covered within 24 117. 25 MS. CHARLESWORTH: And walk me through

1 me why 117 applies.

| 2 | MR. SIY: Well, Section 117 allows the |
|----|--|
| 3 | making of any copies or adaptations created as an |
| 4 | essential step in the utilization of the computer |
| 5 | program in conjunction with a machine that's used |
| 6 | in no other manner. So any copies or adaptations |
| 7 | that are essential to using that embedded software |
| 8 | with that machine, and that's the purpose for |
| 9 | which this is being put. Those copies and |
| 10 | adaptations aren't being made in order to take the |
| 11 | software to a different machine, they're not being |
| 12 | made in order to distribute that on the open |
| 13 | market, they're being used for the use of that |
| 14 | machine in which they're embedded. |
| 15 | MS. CHARLESWORTH: Okay. Then that |
| 16 | leads to the question of, who owns the computer |
| 17 | program in the machine? |
| 18 | MR. SIY: I think in the vast majority |
| 19 | of cases, it will be owned by the person who owns |
| 20 | the machine. |
| 21 | MS. CHARLESWORTH: And what is the |
| 22 | evidentiary I mean, why do you say that, and |
| 23 | what evidence is there in the record about that? |
| 24 | MR. SIY: I think it's entirely possible |
| 25 | for the Office to recognize to the extent that |
| | |

| 1 | that software is owned by the hardware owner, that |
|----|--|
| 2 | Section 117 should apply. I think that also in |
| 3 | those cases where there might be contracts |
| 4 | governing the use of the software, those |
| 5 | contracts, as in MDY, were ruled to be covenants |
| 6 | when there's a question of whether or not the use |
| 7 | of the software is licensed or not. |
| 8 | MS. CHARLESWORTH: And you're talking |
| 9 | about the two competing multifactor tests in terms |
| 10 | of whether you own software or it's under license, |
| 11 | the owner and is that what you're talking |
| 12 | about? |
| 13 | MR. SIY: Yes. |
| 14 | MS. CHARLESWORTH: So you're saying |
| 15 | is it your testimony that in some cases you |
| 16 | believe it sounds like you're saying in some |
| 17 | cases you believe that the owner of the hardware |
| 18 | owns the software. I mean, do you know when you |
| 19 | get I'm sorry. |
| 20 | MR. SIY: Oh, no, no. Sorry. |
| 21 | MS. CHARLESWORTH: No, I was just going |
| 22 | to ask you whether if I go to wherever I |
| 23 | would go to buy a 3D |
| 24 | printer, when I open the package, am I going to |
| 25 | see something in there that says, "Our software is |
| | |

| 1 | ours, it's licensed to you," or is there nothing |
|----|--|
| 2 | in there to I mean, do you know any do you |
| 3 | have any information about sort of the typical |
| 4 | practices of manufacturers in this regard? |
| 5 | MR. SIY: Sure. Regardless of the |
| 6 | language of that of any license that would be |
| 7 | included, that license will allow you to use the |
| 8 | printer. |
| 9 | MS. CHARLESWORTH: Right, but my |
| 10 | question is different. Do they even |
| 11 | claim let's talk |
| 12 | about the consumer type 3D printers, are they even |
| 13 | claiming that the software is under a license, or |
| 14 | is it just silent on that issue? |
| 15 | MR. SIY: And I'm sorry to fall back on |
| 16 | this, but it will vary from manufacturer to |
| 17 | manufacturer. Some of them will be silent, some |
| 18 | of them might explicitly disclaim it, some of them |
| 19 | might actually might claim |
| 20 | MS. CHARLESWORTH: But have you actually |
| 21 | looked at any of I mean, have you seen any of |
| 22 | the I'm asking for direct evidence here, like I |
| 23 | looked at a printer |
| 24 | MR. SIY: So, no, I do not have direct |
| 25 | evidence. |
| | |

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1 MS. CHARLESWORTH: So you're just sort of -- and I don't mean this in a mean way --2 3 MR. SIY: No --MS. CHARLESWORTH: -- you're kind of 4 speculating about what's in the box in terms of --5 or what the manufacturers are claiming in terms of 6 whether it's a license. 7 8 MR. SIY: Yes, because this exemption is meant to apply across all of those potential 9 10 cases. 11 MS. CHARLESWORTH: I understand that, 12 but I just want to make -- in some other classes 13 we look -- we see examples of what -- you know, 14 the manufacturers' practices. We'll see purported licenses, we'll have evidence that there is no --15 16 you know, so that's why I'm asking the question, 17 to try and get a sense of where the manufacturers 18 19 MR. SIY: Sure, and --20 MS. CHARLESWORTH: -- and I know we'll 21 get to Mr. Carey clearly is going to have a point 22 of view on this, but I'm just trying to get your 23 thoughts and your sense of the marketplace on that 24 issue. 25 MR. SIY: Sure.

MS. CHARLESWORTH: So you think it could 1 vary, but you don't really have any direct 2 information to share. 3 MR. SIY: No. I mean, I am fairly 4 confident that all three of those cases will be 5 fulfilled in the market, and I think --6 7 MS. CHARLESWORTH: Mr. Weinberg, do you 8 have anything to add? MR. WEINBERG: I would just say that 9 especially in the consumer market, while I do not 10 11 have a study of the licenses that are operated, 12 right now there are probably 70 desktop 3D printer 13 companies that are of, I think it's fair to say, 14 highly variable legal sophistication, and so it 15 would be highly surprising if you did not see 16 almost every version of copyright license theory 17 applied to software in this space, including and probably the majority of which being completely 18 19 silent on the matter. 20 MS. CHARLESWORTH: Have you seen any 21 purported licenses in this for 3D printers? 22 MR. WEINBERG: I have not. I have not 23 certainly in the context of this proceeding. 24 MS. CHARLESWORTH: And are you aware of 25 any 3D printers that are sold where you could say

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1 for sure they're sold without a claimed license? 2 MR. WEINBERG: I can -- there are printers that are sold in an explicitly open way, 3 so their license is a open license, but not to the 4 5 degree that you're talking about. 6 MS. CHARLESWORTH: Okay. 7 MR. RILEY: There seem to be relatively fewer 3D printers that use these TPMs. 8 Have you looked at those for the licenses? 9 10 MR. WEINBERG: No. 11 MS. CHARLESWORTH: Okay. I think we'll 12 go on to Mr. Carey, and obviously he is sort of on notice as to what sorts of things we're interested 13 14 in hearing about, among others. So, Mr. Carey. 15 16 MR. CAREY: Thank you. I've got some 17 prepared remarks. 18 MS. CHARLESWORTH: Yes. Mm-hmm. Okay. 19 MR. CAREY: So I'll read those. Okay, 20 so good morning. My name is Pat Carey. I am the Vice President for Strategic Accounts at 21 22 Stratasys, and what that means is I deal with the 23 top 120 manufacturers in the world, so I deal with 24 the high- end companies. If I named all 120, you 25 would probably know who they all are. And my

1 customers are actually doing prototyping and manufacturing of parts. 2 MS. CHARLESWORTH: Okay. So you're not 3 -- are you involved, I mean, at all with sort of 4 consumer, you know, low-end consumer printers as 5 well? 6 7 MR. CAREY: Yes. Yes. My same customers do buy those, they buy our low-ends, 8 called MakerBot, so we do -- the same customer 9 will buy from the high end to the low end as we go 10 11 through the design to manufacturing process, so 12 yes. 13 MS. CHARLESWORTH: Okay, so you're 14 familiar with MakerBot. Okay. 15 MR. CAREY: Correct. Correct. 16 MS. CHARLESWORTH: Thank you. 17 MR. WEINBERG: He owns MakerBot. 18 MR. CAREY: Yeah. 19 (Laughter.) 20 MS. CHARLESWORTH: Even better, even 21 better. 22 MR. CAREY: Yes, yes, we own MakerBot. 23 So thank you to the Copyright Office for 24 the time and consideration of this matter. I know 25 that you have opposition as well as the IPO

1 Association opposition to the proposed DMCA exemption for 3D printers to allow non-manufacturer 2 approved feedstock. I will not repeat our arguments 3 this morning. 4 5 Since this is the first DMCA rulemaking to examine 3D printing, what I want to do is give 6 you a brief introduction to our company, 7 Stratasys, and the 3D printing industry. 8 9 So Stratasys was founded in 1989 by Scott and Lisa Crump, a husband and wife team from 10 11 Eden Prairie, Minnesota, where we're still 12 located. Mr. Crump invented and commercialized 13 one of the first rapid prototyping technologies, 14 fused deposition modeling, our trademark, which we call FDM and I'll call FDM in the rest of this. 15 16 Our FDM printers heat and push plastic filament 17 through an extrusion nozzle and lay down a layer 18 of plastic based on a software file, as we've 19 talked about, that is mathematically sliced and 20 oriented in the build process. Almost all 21 printers go through this same generic process. 22 FDM technology laid the groundwork for the growth 23 of 3D printing by dramatically shortening product 24 development cycles, allowing designers and 25 engineers to make prototypes much faster.

| 1 | The original Crump patents have expired |
|----|--|
| 2 | and there are a large number of companies |
| 3 | manufacturing 3D printers today using similar |
| 4 | technology. The number I was in a meeting last |
| 5 | week, I heard the number of new 3D printing |
| 6 | companies this year is 150. |
| 7 | We also offer printers using a second |
| 8 | revolutionary technology that we call PolyJet. So |
| 9 | we have two core technologies. Our PolyJet |
| 10 | printers use inkjet heads to jet and instantly |
| 11 | cure tiny droplets of photopolymer. Our software |
| 12 | again calculates the placement of photopolymers |
| 13 | from a 3D CAD file. We can print three different |
| 14 | materials at the same time. Each of these |
| 15 | materials may have different properties, including |
| 16 | color, opacity, and flexibility. |
| 17 | My customers, and Stratasys, in our |
| 18 | service bureau business so we have a core |
| 19 | printer manufacturing business and we also have a |
| 20 | service bureau business where we have all |
| 21 | technologies and we manufacture parts for |
| 22 | customers. We are helping my customers and the |
| 23 | industry go to the next revolution, which is |
| 24 | direct digital manufacturing, so making of tools |
| 25 | and use parts. |
| | |

1 And the three primary areas that we are focused on is airplanes; cars, automotive; 2 electronics; and medical devices. Those are the 3 areas that my customer set is focused on. 4 5 I have with me some samples. We made them exhibit numbers. I hopefully won't screw 6 this up. And I brought small ones because I had to 7 put them in my laptop bag. 8 9 MS. CHARLESWORTH: Okay. MR. CAREY: And I'll briefly go through 10 these. Is that okay? 11 12 MS. CHARLESWORTH: Yes. And do you know the exhibit numbers? 13 14 MR. CAREY: Yes. 15 MS. CHARLESWORTH: So if you could 16 reference those, that would be very helpful. And 17 do we get to keep them? 18 MR. CAREY: You do. 19 MS. CHARLESWORTH: That's what I'm told. 20 So there are souvenirs? 21 MR. CAREY: Yeah. Michelle gave me crib 22 notes, yeah. So this is actually -- this was 23 printed on an FDM machine. ABS is the 24 thermoplastic use, and this is actually a full-25 size engine that we shrunk down. And if you look

at it, you can see the extremely fine detail. 1 2 MS. CHARLESWORTH: Okay. And that would 3 be exhibit --4 MR. CAREY: That was Exhibit 25. 5 MS. CHARLESWORTH: That was Exhibit 25. 6 MR. CAREY: 25, yeah. Exhibit 26, this 7 is actually again -- I had to shrink down everything -- this is the lid from a drone, engine 8 cover from a drone, and this was printed in ULTEM. 9 10 So ULTEM is a very high-precision engineering 11 plastic, and this is where the opposition's 12 comments are troubling to my customers. So you 13 may have seen a recent announcement that a large 14 airplane manufacturer is putting 1,000 printed 15 parts on commercial airplanes, it was announced 2 16 weeks ago. It is with this plastic. And we spent 17 millions of dollars and years certifying this 18 plastic to be on a commercial airplane for 25 19 years to get the FAA to approve it. So the highly 20 integrated machine that produces, that takes the 21 material and prints it in an FAA-certified part is 22 extremely important, highly integrated machine, 23 for parts to be on a commercial airplane. 24 MR. RILEY: So, sorry to interrupt, but 25 the people who are making those parts for those

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machines, are those the airline companies or 1 someone who has a relationship with them? Are 2 they a downstream manufacturer? 3 MR. CAREY: They're down like one to two 4 manufacturers. 5 6 MR. RILEY: Okay. 7 MR. CAREY: And the airplane -- and the 8 airline company. 9 MS. CHARLESWORTH: And you said your 10 customers were upset. Can you explain the 11 concern? 12 MR. CAREY: When they are putting parts in an automobile or medical device or an airplane, 13 14 they don't want anybody to be able to get into 15 that integrated system. 16 MS. CHARLESWORTH: Okay. And so they're concerned that --17 18 MR. CAREY: They want a reliable part 19 that is exactly what they declared it to be. 20 MS. CHARLESWORTH: Okay. And they think 21 that if people -- I mean, is the suggestion that 22 someone that they're relying on to manufacture 23 parts would violate what I assume would be the 24 terms of the contract and use different --25 MR. CAREY: Cheaper feedstock.

1 MS. CHARLESWORTH: Feedstock? So these customers 2 MR. CAREY: Correct. are tracing from the feedstock to the end use part 3 that is traceable, and they are liable for keeping 4 that data for years. So as the feedstock goes 5 through the machine, it's influenced as the 6 machine changes it, forms a new product, and it 7 comes out and the part is put on a plane, that is 8 all traced: automotive, medical device, 9 aerospace. It is very important that that 10 integrated system is reliable, no derivative works 11 were created, no other feedstocks were introduced. 12 13 MS. CHARLESWORTH: Okay. And when you 14 mentioned the FAA, are there specific regulations 15 in place that govern the manufacturer of airline -16 - airplane parts? 17 MR. CAREY: Yes. And that's --MS. CHARLESWORTH: And where would I 18 find those if I were so inclined? 19 20 MR. CAREY: All I know -- FAR is all I 21 know. So FAR and FDA. I'm not an expert in that. 22 We have experts in that. 23 MS. CHARLESWORTH: FAR and the --24 MR. CAREY: FDA does the medical devices. You know, there is a regulation on any 25

1 material that touches the human body, goes on an airplane, et cetera. 2 3 MS. CHARLESWORTH: Okay. MR. CAREY: I'm not an expert on that by 4 5 far. 6 MS. CHARLESWORTH: But are there people 7 in your company who actually study those regulations and --8 9 MR. CAREY: Yes. MS. CHARLESWORTH: -- make use of them 10 11 in designing --12 MR. CAREY: They help our customers 13 actually certify the material and the part. MS. CHARLESWORTH: 14 Okay. 15 MR. CAREY: So we work with our 16 customers. We spend a considerable amount of money 17 helping our customers certify parts and materials. 18 MS. CHARLESWORTH: Okay. So in other 19 words -- I just want to make sure -- so these would be manufacturing type customers, not people 20 21 like me, who would buy a MakerBot. This is a more sophisticated type of customer that you have -- is 22 23 that correct? --24 MR. CAREY: Correct. 25 MS. CHARLESWORTH: -- who would need to

1 certify something in this way. 2 MR. CAREY: Correct. MS. CHARLESWORTH: And so what they're 3 saying is, "We want to manufacture airplane parts, 4 and, Stratasys, will you help us come in with this 5 6 process to get our process certified?" Is that 7 correct? MR. CAREY: That's correct. 8 MS. CHARLESWORTH: 9 Okay. Thank you. 10 MR. CHENEY: May I follow up? I'm sorry, Sy. Go ahead. 11 12 MR. DAMLE: So I just wanted to ask whether, with that example in particular, whether 13 14 it's possible to test the actual part itself when 15 it comes out to make sure it's used the right material? 16 17 MR. CAREY: I'm leery of my knowledge. 18 I know they test the part. I don't know if they 19 test the material, but they test the strength, did 20 it come out right? 21 MS. CHARLESWORTH: Who tests it? 22 MR. CAREY: The customer. When they get 23 the part to put on whatever the thing is, they 24 test it. Like they would test any part from any 25 manufacturer. Traditional manufacturing or non-

tradition, you know, or additive, they do test the 1 Is this the right part? Is it the right 2 part. size? Does it really fit? 3 MS. CHARLESWORTH: But they don't test 4 every part, right? Or are you saying they do test 5 6 every part? 7 It depends what the part is. MR. CAREY: It depends what the 8 MS. CHARLESWORTH: 9 part is. Okay. So they may or may not test the individual part before installing it in the 10 11 airplane, for example. MR. CAREY: Correct. 12 13 MS. CHARLESWORTH: Okay. The last part --14 MR. CAREY: 15 MR. CHENEY: Let me ask another question 16 -- I'm sorry -- before you continue. Is part of the fear here is that someone that's not in the 17 18 normal stream, manufacturing stream, or one of 19 these normal manufacturer that's used to doing 20 this, that goes and goes around the TPM, gets 21 hold of inferior materials, and then tries to put 22 that part into the manufacturing stream and 23 somehow passes it off, is that what the fear is 24 here, is that there is sort of not just a 25 competition issue but that somebody outside of

that normal chain inserts an inferior part and 1 that somehow makes it through the process? 2 Is that what the fear is here? 3 MR. CAREY: Correct. That's my 4 customers' fear. So they are getting -- they have 5 multiple tiered suppliers. We have all heard 6 about multiple tiered suppliers supplying 7 counterfeit or cheaper parts, and they fail, and 8 9 that would affect our brand at Stratasys, and it would also affect the brand of the manufacturer. 10 11 MR. CHENEY: And so the fear is that one 12 of these downstream manufacturers, second tier or 13 whatever, that they would somehow break the TPM, 14 install an inferior material into the part, and 15 then it goes up the chain without being tested 16 adequately otherwise. 17 MR. CAREY: Correct. It's falsely 18 represented is what it is. 19 MR. CHENEY: Yeah. 20 MS. CHARLESWORTH: Okay. Mr. Carey, 21 please continue. 22 MR. CAREY: Thank you. The third part 23 is actually a tool. This is from our PolyJet 24 machine. 25 MS. CHARLESWORTH: And this is Exhibit

1 27?

| 2 | MR. CAREY: 27, yes, thank you. And |
|----|--|
| 3 | this is a tiny injection mold. So our customers |
| 4 | are actually making, manufacturing, tools, and |
| 5 | I've actually got a little piece of plastic that |
| 6 | they molded in not actually in this one, in one |
| 7 | that I had to take apart. So this is to represent |
| 8 | from PolyJet again this material is a droplet |
| 9 | material, not the fused deposition modeling, and |
| 10 | customers are creating injection molds. So this |
| 11 | becomes a traditional manufacturing tool, it |
| 12 | doesn't become an end use part. |
| 13 | A lot of what my customers are doing are |
| 14 | creating manufacturing tools that again have to be |
| 15 | reliable, have to be consistent. They aren't |
| 16 | creating end user parts. And my thought is people |
| 17 | think about ponies and penguins and cute little |
| 18 | Hello Kitty dolls, is what this industry is about, |
| 19 | and in our belief, the industrial revolution is |
| 20 | not about that, it's about changing the underlying |
| 21 | basis of manufacturing, it's not about toys. |
| 22 | MS. CHARLESWORTH: Okay. Thank you. |
| 23 | MR. CAREY: So I'll keep going with my |
| 24 | remarks? |
| 25 | MS. CHARLESWORTH: Yes. Mm-hmm. |
| | |

| 1 | MR. CAREY: Okay. So our printers are |
|----|---|
| 2 | fully integrated systems, and I want to emphasize |
| 3 | that people apply 2D printing to 3D printing too |
| 4 | much. Our machines are very complicated servers. |
| 5 | They are not printers. We call them printers. |
| 6 | They're servers. They are complicated. They're |
| 7 | controlling the filament and also controlling the |
| 8 | motion. A CNC machine is a high precision |
| 9 | manufacturing machine. We do the same thing a CNC |
| 10 | machine does. It's a highly complicated, high- |
| 11 | precision engineering tool. These are not |
| 12 | printers. I just want to make sure that's clear. |
| 13 | We call them 3D printing. Actually, we don't call |
| 14 | I call it additive manufacturing. It's a |
| 15 | manufacturing tool. |
| 16 | MS. CHARLESWORTH: Well, although I |
| 17 | think you acknowledged you have a range of |
| 18 | products, some of which are far more, I assume, |
| 19 | sophisticated than the MakerBot. |
| 20 | MR. CAREY: Correct. Yes. |
| 21 | MS. CHARLESWORTH: But okay. |
| 22 | MR. CAREY: Correct. But I want to make |
| 23 | sure that we're talking we're talking about the |
| 24 | we're not talking about software, we're talking |
| 25 | about the operating system here and derivative |
| 1 | |

1 works.

| 2 | So our systems create high quality parts |
|----|--|
| 3 | that have to meet very tight tolerances equivalent |
| 4 | to CNC machines. So controlling the feedstock and |
| 5 | controlling the slicing is very important. Our |
| 6 | systems track lot numbers and enable certification |
| 7 | of tracing of parts, which I talked about already. |
| 8 | News reports continually emphasize the |
| 9 | tremendous promise of 3D printing. Market studies |
| 10 | predict a compound annual growth of 29 percent |
| 11 | through 2017. Indeed, the latest estimates show |
| 12 | that there are now hundreds of manufacturers |
| 13 | offering 3D printing systems across the price |
| 14 | spectrum. We anticipate that the technology will |
| 15 | have a monumental effect on production, shortening |
| 16 | the supply chain, and creating new markets for |
| 17 | niche and custom products. |
| 18 | And I have an interesting statistic |
| 19 | here. So inkjet, the same basic technology that's |
| 20 | in our PolyJet machine. So inkjet was introduced |
| 21 | by Hewlett Packard 30 years ago. As of last year, |
| 22 | they've sold 600 million inkjet printers. Our |
| 23 | technology was introduced, our FDM technology was |
| 24 | introduced, 26 years ago. To date, between |
| 25 | PolyJet, FDM, and MakerBot, we've only sold |

1 120,000 systems in total, and we've sold more than 2 anybody. So this is a very nascent industry. 3 MS. CHARLESWORTH: Okay. Actually, I have a question. You were discussing your 4 customers, and this is really the same question I 5 6 asked them. When you sell -- and I would like the answer, if you can, for MakerBot versus maybe a 7 more sophisticated machine that's being sold to a 8 manufacturer, when you sell those machines, how do 9 10 you handle the software? Is it a license? 11 MR. CAREY: It's a license. 12 MS. CHARLESWORTH: In every case? 13 MR. CAREY: Yes. 14 MS. CHARLESWORTH: With MakerBot? 15 MR. CAREY: Yes. 16 MS. CHARLESWORTH: So is there something in the box of a MakerBot that says, 17 18 "Congratulations, you have a license for our 19 software"? 20 MR. CAREY: I actually don't know if 21 it's in the box or in a manual, but yes. 22 MS. CHARLESWORTH: Okay, but somewhere 23 you are notified --24 MR. CAREY: It's clearly licensed 25 software.

1 MS. CHARLESWORTH: And do you provide updates for MakerBot software? 2 Is there an ongoing relationship of some sort? 3 MR. CAREY: Yes, there is an ongoing 4 relationship. In fact, there's a network that 5 people are connected called Thingiverse, and 6 7 there's a whole community. MR. WEINBERG: Thingiverse doesn't 8 9 govern the software. 10 MR. CAREY: Correct. 11 MS. CHARLESWORTH: Right. I'm saying 12 like -- let's take the MakerBot example. I buy a 13 MakerBot. Is there ever an occasion when I would 14 be updating my software? First of all, where is 15 the -- and are we talking about the design software or the software that runs the machine? I 16 guess I'm asking a bunch of questions here. 17 18 MR. CAREY: The design software is 19 separate from what we do. There are CAD vendors 20 that --21 MS. CHARLESWORTH: Right. 22 MR. CAREY: There are many -- multiple 23 vendors that make the design software. We accept 24 all those files. 25 MS. CHARLESWORTH: Okay. So, yeah,

1 you're compatible and interoperable with a bunch of different design software. 2 MR. CAREY: Correct. 3 MS. CHARLESWORTH: But in terms of the 4 software that actually operates the MakerBot, do 5 6 you send out, you know, patches? 7 MR. CAREY: I actually don't know on MakerBot. I know on all the rest of the lines we 8 do, do patches and upgrades. I just don't know on 9 MakerBot how it works. 10 11 MR. WEINBERG: I actually know that I 12 own a no longer supported MakerBot. 13 MS. CHARLESWORTH: And what -- and when you say it's no longer supported, I mean, what do 14 15 you mean by that? 16 MR. WEINBERG: There are no further 17 patches or upgrades. It's a machine that stands 18 alone in the world that will not get upgrades. 19 MR. CAREY: But there were patches. 20 MS. CHARLESWORTH: Okay. And how were those -- do you just -- when you just plug your 21 MakerBot into your PC, how do you -- is it a 22 23 wireless thing? How do you get the upgrades, or 24 how would you have gotten the upgrades? 25 MR. WEINBERG: This is an early version,

1 so it was a very cumbersome process of transferring data. The cards, SD cards, and 2 pushing a bunch of buttons and series, but as 3 machines get more sophisticated, I know that at 4 least some that are connected to the internet and 5 it could potentially be a direct download. Again, 6 7 it depends. 8 MR. CAREY: It depends. 9 (Laughter.) MS. CHARLESWORTH: Yeah. So it's --10 11 MR. WEINBERG: But it's certainly 12 conceivable you have a machine that's always 13 connected to the internet or connectable to the 14 internet and you could have an update pushed to 15 it, for some models. 16 MS. CHARLESWORTH: Okay. So in many cases I think what I'm hearing is a 3D printer, 17 even on the sort of consumer, basic consumer, 18 19 model, you might be receiving upgrades from the 20 manufacturer. MR. WEINBERG: It's certainly possible. 21 22 Not in all cases, but, yeah, it's possible. 23 MR. CAREY: Okay. I'll keep going. 24 MS. CHARLESWORTH: Yes. 25 MR. RILEY: Can I ask a question? Is

that software that runs the printer, is it 1 encrypted? Is it freely readable? 2 MR. CAREY: It's compiled so it can only 3 be run on the software. I mean, I'm sure there 4 are tools that it's readable, but it's compiled to 5 run on the software. 6 7 MR. RILEY: And what about the chip for the feedstock, is any of the programs on that 8 9 encrypted? 10 MR. CAREY: The feedstock chip is 11 encrypted, yes. 12 MS. CHARLESWORTH: And, I'm sorry, there are a lot of questions coming at you, but what is 13 your warranty policy if someone modifies their 14 15 printer? 16 MR. CAREY: It's no longer covered under 17 warranty. 18 MS. CHARLESWORTH: And what's your 19 normal warranty? 20 MR. CAREY: 1 year. 21 MS. CHARLESWORTH: For all kinds --22 every kind of printer you sell, or just -- or the 23 MakerBots or --24 MR. CAREY: Just the ones I deal with. I'm only limited to that knowledge. 25

1 MS. CHARLESWORTH: So you have a 1 year 2 warranty, and then if someone modifies it, the printer --3 MR. CAREY: It's not covered under 4 5 warranty. 6 MS. CHARLESWORTH: Okay. 7 MR. CAREY: Kind of standard IT. MR. RILEY: Follow-up on the other 8 9 question. Those chips, are you asserting that they are copyrightable, the computer programs on the 10 11 feedstock chips? 12 MR. CAREY: Not today. And I'll address it in the remarks. Not today, but we do 13 14 anticipate it might be. It's a very simple 15 encryption. 16 MS. CHARLESWORTH: Okay. Why don't you proceed with your remarks. 17 18 MR. CAREY: Okay. Thank you. 19 So it should not be a surprise that 3D 20 printing is a lot more complicated than 2D 21 printing. Our FDM printers, for example, extrude 22 carefully formulated plastics at specific 23 temperatures to form a 3-dimensional object. Our 24 PolyJet printers jet and instantly cure layers of 25 droplets of proprietary liquid photopolymer.

| 1 | Intellectual property protection is critical to |
|----|--|
| 2 | the industry. Without intellectual property |
| 3 | protection, investments required for future |
| 4 | development will be discouraged. |
| 5 | Let me now turn to the DMCA. I'm not a |
| 6 | lawyer or an expert on the DMCA. I learned that |
| 7 | in the last session. That was very interesting. |
| 8 | But I understand that the DMCA was enacted to |
| 9 | prevent circumvention of technological protection |
| 10 | measures, TPMs, designed to prevent copying of |
| 11 | intellectual property, and I understand that |
| 12 | exemptions to the DMCA were to be exceptional. |
| 13 | They serve as a failsafe mechanism where the |
| 14 | DMCA's prohibition on circumvention has caused |
| 15 | substantial adverse effects on non-infringing uses |
| 16 | of a copyright-protected work. |
| 17 | MS. CHARLESWORTH: All right. I'm going |
| 18 | to interrupt you again. Is the rest of what you |
| 19 | have prepared pretty consistent with what you had |
| 20 | put into the record already in writing in your |
| 21 | prepared remarks? Because we're running behind, |
| 22 | and we have some additional questions. |
| 23 | MR. CAREY: I address the opposition's |
| 24 | statement next, I would like to do that, and then |
| 25 | I have an example, which we've actually talked a |
| | |

1 lot about the example. 2 MS. CHARLESWORTH: Okay. Yeah. If you could address the opposition, that would be very 3 helpful to us. 4 5 MR. CAREY: Okay. The petitioner's proposed exemption would deprive the 3D printing 6 7 industry of a potentially useful tool during a critical period in its development with inadequate 8 proof of support for the exemption. Petitioners 9 10 are not seeking unlawful access to copyrighted 11 works; instead, they are attempting to misuse the 12 DMCA exemption process to encourage users to 13 bypass controls where the DMCA does not apply and 14 to infringe copyrighted software controls. 15 Petitioners have made only a hypothetical showing 16 of harm and, at most, speculative benefits. 17 MS. CHARLESWORTH: Well, I think they're 18 saying the benefit is they want to use cheaper 19 feedstock, and that's a benefit to them. 20 MR. WEINBERG: And new feedstock. 21 MS. CHARLESWORTH: And different 22 feedstock. I mean, that's the benefit. I mean --23 MR. CAREY: But today in our machines 24 that's not copyright protected, it's just an 25 encryption chip. We do plan to have it copyright

1 protected because as we get into more highprecision engineering plastics, it is more and 2 more important to have a fully integrated system. 3 MS. CHARLESWORTH: Right. So but you're 4 saying that -- are you saying you don't object if 5 6 they do something with the chip? 7 MR. CAREY: No, we highly object to counterfeiting the chip, to copy and 8 counterfeiting the chip, and we highly object to 9 10 the exemption because in a nascent industry, with 11 a 3-year exemption, this could stunt the industry. 12 And as I tell my people, because of all the 13 hype, people believe this is a huge industry. 14 This industry is just starting. My customers are 15 just starting to use this in production, and this 16 will stop it. They will not do medical devices, 17 airplane parts, or car parts if they can be 18 hacked, if the machine can be hacked. 19 MS. CHARLESWORTH: Okay. And I heard 20 you say that, and that was very interesting 21 testimony in terms of the fact that manufacturers 22 have quality controls and need them and so forth. 23 I think on the consumer end, I guess I 24 have a question. If I buy a MakerBot and I want 25 to circumvent and use different feedstock and, you

1 know, break my warranty and all that, I mean, is that -- I mean, what is the harm to you on that 2 end of the spectrum? 3 MR. CAREY: If the part comes out not 4 right, it affects our brand, it affects who we 5 6 are, because they'll say it's MakerBot's junk. It doesn't work because it was used improperly. 7 So again I think it does do harm to us as a company 8 9 and to our brand. 10 MS. CHARLESWORTH: Okay. Is there any 11 other -- that's the harm you're speaking of then 12 as sort of your --13 MR. CAREY: On the low end. MS. CHARLESWORTH: 14 And then on the high 15 end, I assume you have the same concern about your brand? 16 17 I have a much bigger concern MR. CAREY: because making derivative works of our server 18 19 operating system is of huge concern. If we 20 consider who our competition is, there are other 21 countries that view 3D printing as a competition 22 to their economy. So opening up all of that for 23 exemption as well as the feedstock, as well as the 24 integrated system now becomes an unintegrated 25 system, it's of severe concern and will stunt the

174 1 industry and our company. 2 MS. CHARLESWORTH: Okay. And are you familiar with the sort of Lexmark case where the 3 court said you can use a different cartridge in a 4 5 printer --6 MR. CAREY: Yes. 7 MS. CHARLESWORTH: -- and that doesn't 8 violate copyright law? MR. CAREY: Yes, but that's a printer, 9 not a manufacturing machine. 10 MS. CHARLESWORTH: Well, it's sort of --11 12 and I know you're not a lawyer -- but it's sort of 13 the principle of the thing. I mean, it's a kind 14 of important case in copyright. It's sort of 15 saying you -- you know, I'm just wondering what 16 your -- you're saying you would distinguish your 17 situation from that? 18 MR. CAREY: Yes, because printer toner 19 is basically all the same. We print hundreds of 20 different kinds of plastics, and we print them in 21 different ways. So making a comparison of a 22 commodity versus a commodity to a set of different 23 photo and thermoplastics and photopolymers, it's 24 not even a fair comparison, it's a very different 25 comparison. And we're not printing. So if you're

1 -- we're not printing text, we're making physical 2 objects that people rely on. 3 MS. CHARLESWORTH: Okay. Mr. Siy and Mr. Weinberg, how do you respond to this concern 4 about the, you know, reliance on the integrity of 5 things that are manufactured with these printers? 6 Is that really what the thrust of your exemption 7 I got the impression it was more about 8 is? consumer uses, but maybe you can address that. 9 10 Well, I think in both the MR. SIY: 11 consumer and the commercial context, the person 12 who would be making use of the exemption is the 13 person who -- I mean, the person who is using the 14 printer is the person making use of the exemption, 15 so they are going to be fully aware that they're 16 the ones using third party feedstock or feedstock 17 that they've made themselves as opposed to 18 manufacturer-approved feedstock. Their knowledge 19 that they're the ones doing this, possibly 20 violating their warranties, certainly in the case 21 of those warranties that Mr. Cheney was referring 22 to, they'll be doing that, they'll be aware that 23 the product that they end up with may well differ, 24 and that's their responsibility and their 25 knowledge, and so it won't -- it doesn't affect

| 1 | the reputation of Stratasys or any other maker. |
|----|--|
| 2 | As for the commercial context, those |
| 3 | who might later rely upon those parts, the |
| 4 | standards for those parts, unless they are |
| 5 | contingent upon who made the feedstock, unless the |
| 6 | FAA regulations dictate who made the feedstock, |
| 7 | then that shouldn't be relevant to the quality of |
| 8 | the part. If they are, then the proper |
| 9 | enforcement mechanism would be through the |
| 10 | revocation of their certification. |
| 11 | MS. CHARLESWORTH: Right, but the |
| 12 | concern is that you're making it I mean, at |
| 13 | least the concern, as I understand from Mr. Carey, |
| 14 | and just I'm positing it for you, is that this |
| 15 | will make it a lot it will seem a lot more |
| 16 | legitimate to substitute in inferior feedstock, |
| 17 | and because, say, it's cheaper, and manufacture |
| 18 | parts that really aren't actually meeting the |
| 19 | certification, people might not know about |
| 20 | it's that line of argument, it's a concern |
| 21 | about the integrity of the products that are being |
| 22 | certified by I guess regulatory agencies. |
| 23 | MR. SIY: And again I think that the |
| 24 | question of whether or not you know, of the |
| 25 | integrity of the product as a functional object is |
| | |

| 1 | going to be dependent upon the manufacturer and |
|----|--|
| 2 | the supplier regardless of where they source the |
| 3 | original material. If there are counterfeit |
| 4 | parts, there are counterfeit parts. If they fail |
| 5 | to meet standards, they fail to meet standards. I |
| 6 | think the TPMs at issue here don't solve the |
| 7 | problem of unreliable suppliers. |
| 8 | MS. CHARLESWORTH: Right. But, I mean, |
| 9 | I think the argument is it kind of makes it more |
| 10 | likely that you would have suppliers doing the |
| 11 | circumvention and using the inferior feedstock. |
| 12 | That's the argument. It encourages that. |
| 13 | MR. SIY: Yeah. I don't think that |
| 14 | there is a significant amount of encouragement |
| 15 | that would lead to people violating the standards |
| 16 | of their contracts. Plus I want to point out there |
| 17 | are plenty of printers in the market we've |
| 18 | given you a list that do support open |
| 19 | feedstock. So preventing an exemption hurts us, |
| 20 | does not actually open the market up. There are |
| 21 | plenty of printers out there that do support any |
| 22 | feedstock and have no encryption. So we're not |
| 23 | solving a problem here. |
| 24 | MR. CAREY: And therefore somebody |
| 25 | wanting to produce parts on the cheap could easily |

| 2 3 | MS. CHARLESWORTH: Well, I think that's |
|--------|--|
| 3 | |
| | not I mean, what Mr. Carey is saying is the |
| 4 | Stratasys manufacturing process is essentially |
| 5 | being certified, not any printer's process, and so |
| 6 | he's worried about that. |
| 7 | I mean, do you have examples, specific |
| 8 | examples, in the record of people who want to |
| 9 | circumvent commercial or manufacturing type |
| 10 | printers as opposed to what we're calling consumer |
| 11 | printers? |
| 12 | MR. SIY: No. |
| 13 | MS. CHARLESWORTH: Okay. |
| 14 | MR. WEINBERG: I would like to note that |
| 15 | there are companies who are actively developing |
| 16 | alternative feedstocks for commercial industrial |
| 17 | printers, and for whatever it's worth, I recognize |
| 18 | that I don't have them here, and part of the |
| 19 | reason I don't have them here is because they see |
| 20 | themselves as engaging essentially in an activity |
| 21 | that's unrelated to copyright, and so they didn't |
| 22 | understand why they should come. |
| 23 | But there is an industry that is |
| 24 | actively building third party innovative |
| | |

that can easily get lost in this is you have this 1 idea of kind of a Lexmark style situation where 2 the primary benefit -- which is a significant 3 benefit -- is lower costs of existing materials, 4 but you also have this industry of people who are 5 6 trying to bring new materials to existing printers that are owned by people -- for whatever reason 7 they've chosen that printer -- and they're looking 8 at specific printers because those printers are 9 10 not -- I mean, you're right, printers are not a 11 commodity and the different printers can compete on all sorts of different technical, functional 12 13 capabilities, and so when someone is looking to 14 develop a new feedstock, they sometimes target to 15 a specific printer because it has that technical 16 capability. 17 Then why don't they MS. CHARLESWORTH: 18 just target it to the open print -- I mean, there 19 are -- I do agree there are quite a few printers 20 that have no TPMs, and they're --21 MR. WEINBERG: There are in the desktop 22 space, less so in the commercial industrial space,

23 but the reason is because -- sometimes the reason 24 is because only some printers can achieve some 25 technical goal because they're not co-modified,

1 interchangeable, it's not necessarily the situation where if some printers are locked down, 2 you can go to a different printer and you can 3 achieve the same goal. Also --4 5 MS. CHARLESWORTH: Can you give me a specific example of a printer that's locked down 6 7 that does something that no non-locked printer 8 does? 9 MR. WEINBERG: I mean, I'm sure that the Stratasys marked material is rich with examples of 10 11 things that only Stratasys machines can do and they're probably right from a technical 12 13 standpoint. 14 But do you have an MS. CHARLESWORTH: 15 example today to offer us in that sense? Or from 16 your experience, that, you know, a locked printer 17 does something that other printers -- no other 18 printer does? 19 MR. WEINBERG: I know that the people 20 who have developed Open Bio 3D printing started 21 with -- they started with a Stratasys machine, and 22 the reason that they started with a Stratasys 23 machine, perhaps in violation of the DMCA, was 24 because that was the machine that had a technical 25 capability that they required in the initial

| 1 | stages of their process. They eventually moved |
|----|--|
| 2 | on, but they started with that machine because |
| 3 | that was the machine that could do what they |
| 4 | needed to do. |
| 5 | MR. CAREY: And let me point out that we |
| 6 | regularly offer licenses for research and |
| 7 | development to universities that we do offer |
| 8 | licenses to all aspects of our machine for this |
| 9 | exact reason. So we are not a closed system, we |
| 10 | offer licenses, but it needs to be in a controlled |
| 11 | atmosphere. |
| 12 | The other thing I want to point out is, |
| 13 | yes, there are a lot of people developing |
| 14 | materials. We are the number one material |
| 15 | developer and we are working with all the |
| 16 | materials developers because it's a requirement |
| 17 | for my customers to print new materials. So it's |
| 18 | our greatest area of investment, is the new |
| 19 | materials development that will work in the |
| 20 | machine. |
| 21 | MR. RILEY: I had a question. Other |
| 22 | than you keep making references to the |
| 23 | technical abilities of these different printers. |
| 24 | Is there anything other than the computer programs |
| 25 | that run the printers that you're referring to, |
| | |

1 the technical abilities? MR. WEINBERG: Yeah, actually I'm 2 primarily talking about not the computer programs 3 that are running the printers, I'm primarily 4 talking about the actual mechanism, the technical 5 6 physical mechanism they use to print, to create, to manufacture, to create the objects. 7 Within -and there is information in the record on this --8 within 3D printing there are a bunch of different 9 10 kind of sub- technologies that are being used, and 11 the primary differentiation are those physical 12 techniques, in many cases, those patented 13 techniques. 14 Sorry, just to confirm, you MR. DAMLE: 15 said that some of those techniques, the physical 16 techniques, are patented? 17 MR. WEINBERG: A great many number of 18 them. 19 MR. DAMLE: And so by definition, they 20 would only be found in the Stratasys printer or 21 the patent holder, they might be licensed, but --22 MR. WEINBERG: Yeah, they're patented or 23 were once patented. I guess my point is they're 24 functional processes. So, yeah, a great number of 25 them are patented, are still patented. Some of

1 them were once patented, those patents have expired, and so they've found their way into the 2 market, but, yeah, there's 20 years of 3D printing 3 technology that is still protected by patent and 4 is tied to a specific manufacturer. 5 6 MR. DAMLE: Okay. Thanks. 7 MR. RILEY: For proponents, can you answer me, how useful 1201(f) is or isn't? 8 9 So I think 1201(f), I think --MR. SIY: and certainly when the Copyright Office last 10 addressed printing in 2003 and raised the issue of 11 12 1201(f) as an alternative, that was before Lexmark 13 had been decided, and there was an open question 14 as to whether or not the object that was copied, 15 the actual smaller toner loading program on the 16 chip, was the copyrighted issue at work, not necessarily the equivalent here of the printer 17 18 engine program on the machine itself, and 19 therefore, the question that the Copyright Office 20 was addressing was whether or not that smaller 21 program was copied or reverse engineered, and 22 1201(f) is specifically geared towards reverse 23 engineering and not necessarily the larger 24 questions of interoperability. 25 So to the extent that somebody might

1 actually make a copy of the chip directly as opposed to reverse engineering its functions, I 2 think 1201(f) is an uncertain alternative. 3 MS. CHARLESWORTH: 4 Okay. Do my 5 colleagues have any more questions? 6 MR. RUWE: Is there any more certainty 7 under 1201(f) for use of for recreating the software for reverse engineering software on the 8 9 printer itself? 10 MR. SIY: So I think the questions are, 11 if we're asking whether 1201(f) applies or whether 12 we need 1201(a), is again, what is the allegedly infringing use? If the act is the reverse 13 14 engineering, I think 1201(f) will work for that. 15 I think for the use in and of itself, absent 16 reverse engineering, I think 1201(a) would provide 17 additional certainty that 1201(f) does not 18 necessarily provide. 19 MR. RUWE: Could it be an alternative 20 that would obviate the need for a 1201 exemption? 21 MR. SIY: No, it does not obviate the 22 need for an exemption in all cases and across all 23 of the uses necessary, depending upon the case, 24 the particular circumvention, at issue. 25 MR. RUWE: Are you identifying any of

1 those with specificity? 2 MR. SIY: No. I think the issue is, again, there are a wide number of ways in which 3 TPMs can be implemented. Mr. Carey has already 4 5 said that they are looking into the future for ways of including more sophisticated, potentially 6 copyrightable works on the chip. Therefore, where 7 the circumvention is necessary may change, but 8 9 also what different uses, what different 10 reproductions or modifications might be made, will 11 also be subject to change. I did want to address one additional 12 13 thing about the licensing question, and that is 14 Section 117 is one of the ways in which the use by 15 a consumer of a 3D printer with third party 16 feedstock is not infringing. There are other reasons that their use of the programs within that 17 18 3D printer are non-infringing uses. 19 For example, they are used with 20 permission when they are used. Since there are 21 licenses that come with all of these, even the 22 most restrictive purchase of a machine, the most 23 restrictive license of the software that comes 24 with the purchase of a machine, will provide for 25 the use of that software. Given that, the only way

| 1 | in which use of a third party feedstock could |
|----|---|
| 2 | possibly constitute an infringement would be if |
| 3 | you were to believe that there was a functional |
| 4 | condition of the grant of a license of that |
| 5 | software |
| 6 | MS. CHARLESWORTH: Well, but you might |
| 7 | be altering the software. Does the license allow |
| 8 | you to alter the software? |
| 9 | MR. SIY: The license would allow you to |
| 10 | use the software as is necessary to operate the |
| 11 | machine. |
| 12 | MS. CHARLESWORTH: Well, I mean, you're |
| 13 | going back to 117, I think, but a license in |
| 14 | general doesn't say, "And you may change our |
| 15 | software," I mean, in the normal course. I grant |
| 16 | you that it said you can use it, but I think the |
| 17 | idea is you're using it in its original form. |
| 18 | MR. SIY: And I think that so, yes. |
| 19 | I mean, I wanted to address the question of sort |
| 20 | of whether or not you have a condition as in MDY, |
| 21 | a condition versus a covenant as an MDY. With |
| 22 | regard to the modification question, I think that |
| 23 | fair use can cover that modification. |
| 24 | MS. CHARLESWORTH: So you are also |
| 25 | relying on fair use? |
| | |

1 MR. SIY: That's correct. 2 MS. CHARLESWORTH: Okay. Anything further? 3 MR. RILEY: I have one last quick 4 5 question for Mr. Carey. 6 MS. CHARLESWORTH: Okay. 7 MR. RILEY: There was an assertion before that we didn't know how much rewriting of 8 the printer program would be needed to use other 9 10 feedstock in it because obviously you have to 11 change the temperatures and the rates and things 12 like that. Do you have any statement on how much 13 you would need to change that computer program 14 that controls the feedstock? 15 MR. CAREY: I just know from personal 16 experience of working with customers who desire 17 new feedstock, we take it in and we test and tune 18 the machine, and sometimes it's up to a year 19 before we can get the machine tuned to produce a 20 high number of reliable, consistent parts. So 21 there are many pieces of the machine in the motion 22 control and also the heating, distribution, and 23 layering that's dependent on the feedstock, 24 because my customers are demanding precision parts 25 that will become real things. So up to a year,

1 which you can imagine I, as a sales guy, am putting a tremendous amount of pressure on them to 2 make it go faster. So it's a long onerous 3 process. It's simple clicking a couple things with 4 your mouse and making a machine work differently. 5 6 MR. RILEY: In terms, though, how much 7 Would you say it's a small part of of the code? the code, even though it takes a lot of testing? 8 9 MR. CAREY: I don't know. I don't know. 10 MR. RUWE: Mr. Carey, are there any 11 other defining characteristics that distinguish between the low end or high end or the consumer 12 13 versus commercial printers that you use or the 14 industry uses in general? 15 MR. CAREY: First, I want to 16 distinguish, "consumer" is kind of a vague --17 MR. RUWE: I know, that's why I'm trying 18 to --19 (Laughter.) 20 MR. CAREY: Yeah, yeah. So we say "pro-21 sumer" from our view because it tends to be 22 professionals. 23 MR. RUWE: Okay. 24 MR. CAREY: You know, some people are 25 using these at home. The home market tends to be

| 1 | the actually lower end. We're really focusing on |
|----|--|
| 2 | professionals. And so my customers, the |
| 3 | professional engineer, will use them on his desk |
| 4 | to create to get things going and then to |
| 5 | create the real product, he'll use it in a |
| 6 | production machine. So it's hard, you know, |
| 7 | nobody has actually figured this the industry |
| 8 | is so small, nobody has figured out how to |
| 9 | distinguish all this, and people use the same |
| 10 | machine to do a prototype and a production part in |
| 11 | the same day. So |
| 12 | MS. CHARLESWORTH: Are you guys done? |
| 13 | (No audible response.) |
| 14 | MS. CHARLESWORTH: Okay. Now we're |
| 15 | officially very behind, and I'm sorry about that, |
| 16 | but we've had a lot of questions this morning. I |
| 17 | think that we can get back on schedule if we |
| 18 | reconvene as intended at 1:45, which still gives |
| 19 | us close to an hour for lunch. Is that acceptable |
| 20 | on our end? Do you want more? They want more. |
| 21 | (Laughter.) |
| 22 | MS. CHARLESWORTH: Okay. We're going to |
| 23 | come back at 2:00 so everyone has ample time for |
| 24 | lunch. And we'll be discussing Proposed Class 7: |
| 25 | Audiovisual Works. Thank you. |
| | |

1 (Lunch.) 2 MS. CHARLESWORTH: Hello, everyone. I can tell people had food because it looked like 3 the volume is a lot higher. Thank you and we 4 5 appreciate your being here this afternoon to discuss Proposed Class 7: Audiovisual works -6 7 derivative uses and noncommercial remix videos. That's the proposed class. 8 9 I'm Jacqueline Charlesworth and I am General Counsel to the Copyright Office. 10 I'll be 11 presiding over the hearing along with my colleagues here, and they will quickly introduce 12 13 themselves for the record. 14 MS. CHOE: Michelle Choe, Ringer Fellow. 15 MS. SMITH: Regan Smith, Assistant General Counsel. 16 17 MS. DAMLE: I'm Sy Damle. I'm Deputy General Counsel. 18 19 MR. RUWE: Steve Ruwe, Assistant General 20 Counsel. 21 MR. RILEY: John Riley, Attorney 22 Advisor. 23 MR. CHENEY: Stacy Cheney, Senior 24 Attorney at NCIA, Department of Commerce. 25 MS. CHARLESWORTH: Okay. So as I've

| 1 | mentioned earlier, some people have heard this |
|----|--|
| 2 | little speech. We're most interested not in so |
| 3 | much a review of your written commentary which |
| 4 | we've all read but in sort of your honing in on |
| 5 | issues that are maybe in dispute or areas of |
| 6 | contention. And we'll, of course, have a lot of |
| 7 | questions for you. |
| 8 | I know we have some I think some |
| 9 | exhibits we'll be presenting today, so without |
| 10 | further oh, one more thing. On the we are |
| 11 | being transcribed here and we try not to talk over |
| 12 | each other. If you need to add something or want |
| 13 | to add something, just tip your placard up and we |
| 14 | will get back to you. We can only have four |
| 15 | microphones on at a time and that's actually true. |
| 16 | We've tested that and sometimes you so and |
| 17 | people have been very good about turning them off. |
| 18 | I guess oh, one last thing. We'll |
| 19 | have you introduce yourselves for the record and |
| 20 | then we'll start over with Ms. McSherry. Who was |
| 21 | to be at your are we missing someone? |
| 22 | MS. McSHERRY: I think Art Neill from |
| 23 | New Media Rights was maybe going to come but he |
| 24 | wasn't able to make it. |
| 25 | MS. CHARLESWORTH: Okay. So he okay, |
| | |

| 1 | he's we're not waiting for him then. Okay. So |
|----|--|
| 2 | Ms. McSherry, then we'll you know, we'll give |
| 3 | you the floor and you can proceed with your |
| 4 | opening remarks and well have our discussion and |
| 5 | we'll go down the line that way. So but first |
| 6 | let's have you introduce yourselves and explain |
| 7 | who you represent or what interest you represent |
| 8 | here today. |
| 9 | MS. McSHERRY: So my name is Corynne |
| 10 | McSherry and I'm the Legal Director for the |
| 11 | Electronic Frontier Foundation, and I am here as |
| 12 | one of the proponents of proposed class 7. |
| 13 | PROF. COPPA: Hi, I'm Francesca Coppa. |
| 14 | I'm a Professor of English and Film Studies, and |
| 15 | I'm here with the Organization for Transformative |
| 16 | Works on behalf of remixers and vidders. |
| 17 | PROF. TURK: I'm Tisha Turk. I'm a |
| 18 | Professor of English. I am here with the |
| 19 | Organization for Transformative Works on behalf of |
| 20 | vidders. |
| 21 | PROF. TUSHNET: Rebecca Tushnet. I'm a |
| 22 | Professor of Law at Georgetown and I'm here as a |
| 23 | legal academic and on behalf of the Organization |
| 24 | for Transformative Works. |
| 25 | MR. TURNBULL: I'm Bruce Turnbull. I'm |
| | |

1 counsel to the Advanced Access Content System Licensing Administrator, LLC. 2 MR. TAYLOR: I'm David Taylor. 3 Ι represent DVD Copy Control Association. 4 5 MR. WILLIAMS: I'm Matt Williams. This is my last panel this year for --6 7 (Laughter.) 8 MR. WILLIAMS: -- MPAA, ESA, and RIAA. 9 MS. CHARLESWORTH: Wow. Well, we could create some new ones if you'd like. 10 So anyways, Well, again, welcome and Ms. 11 there's still time. 12 McSherry, if you want to lead us off here, we'd be 13 grateful. 14 MS. McSHERRY: Sure. Thank you. So 15 just as a brief introduction, I'm going to hit a 16 few points. I'm going to actually try to mostly 17 cede the floor to my fellow panelists who are here to provide a ton of really good factual and 18 19 technical detail for you that -- I'm just a 20 lawyer. I'm not an artist so I can't do as 21 effectively but, of course, I'll answer any 22 questions that you'd like. 23 I want to make just three points. The 24 first point I want to make is that I urge you to 25 look at the actual record of evidence that's been

| 1 | submitted by all sides in this proceeding. And as |
|----|--|
| 2 | you said you wanted to do in the notice of |
| 3 | proposed rulemaking, you stressed, I think, that |
| 4 | you are going to base your findings on the record, |
| 5 | on the evidence in the record, and I urge you to |
| 6 | do exactly that. |
| 7 | So let me just highlight some of the |
| 8 | evidence that we've submitted. On the question of |
| 9 | fair use, we have submitted many, many examples of |
| 10 | the kinds of videos that this exception would help |
| 11 | protect and explained why a court would be likely |
| 12 | to find them fair. We've explained that remix has |
| 13 | become a central part of our culture and provided |
| 14 | supporting evidence on that issue. |
| 15 | Opponents, on their part with respect to |
| 16 | have offered very little evidence that our |
| 17 | examples aren't fair uses and instead I think the |
| 18 | record shows a lot of blanket statements about how |
| 19 | remix is generally infringing and pages of case |
| 20 | law about the nature of transformativeness but |
| 21 | without actually applying them to our examples. |
| 22 | So I think our record on fair can you hear me? |
| 23 | UNIDENTIFIED FEMALE: (Inaudible). |
| 24 | MS. McSHERRY: Secondly, let's look at |
| 25 | the records on harms and the statutory factors. |
| | |

| 1 | We've submitted ample evidence in our opening |
|----|--|
| 2 | remarks and in our reply that artists are already |
| 3 | relying on Blu-ray source. And I'm sorry; I meant |
| 4 | to say at the beginning that as far as I can tell, |
| 5 | the existing exemption is not controversial, so I |
| 6 | plan to focus here on the extension to Blue-ray |
| 7 | MS. CHARLESWORTH: Okay. |
| 8 | MS. McSHERRY: rather than rehashing |
| 9 | what we already know. Sorry, I should have said |
| 10 | that up front. So we've submitted evidence that |
| 11 | artists are already relying on Blu-ray source and |
| 12 | that's likely to consider I'm sorry to |
| 13 | continue. Professor Coppa will have more to say |
| 14 | on that as well. |
| 15 | Opponents, for their part, have conceded |
| 16 | that Blu-ray is a vehicle for bonus features which |
| 17 | are exactly the kinds of features that fan vidders |
| 18 | and other remix artists might want to comment on. |
| 19 | So I think we've actually gotten agreement that |
| 20 | Blu-ray is special in a way that remix artists are |
| 21 | actually going to care about. |
| 22 | We submitted evidence that currently, |
| 23 | remix artists are relying on the current exemption |
| 24 | to defend themselves against improper takedown |
| 25 | claims because they know they can do that as long |
| | |

| 1 | as they're protected by fair use, they don't have |
|----|---|
| 2 | to worry about an additional 1201 risk. Blu-ray - |
| 3 | - people who use Blu-ray source, however, don't |
| 4 | have that protection and for the most part, |
| 5 | they're not going to know until they get a |
| 6 | takedown, talk to a lawyer and find out that they |
| 7 | can't fight back because they used the wrong |
| 8 | source material. |
| 9 | MS. CHARLESWORTH: Can I ask you a |
| 10 | question? |
| 11 | MS. McSHERRY: Sure. |
| 12 | MS. CHARLESWORTH: And I know there's an |
| 13 | extensive record in this class. Did you provide |
| 14 | specific examples of, and if so, how many of uses |
| 15 | where the content was only available on Blu-ray |
| 16 | and from no other source? |
| 17 | MS. McSHERRY: I do think we have some |
| 18 | examples of that in particular and I know that we |
| 19 | collected over the course of a week, just by |
| 20 | issuing a call, a whole collection of examples |
| 21 | where people said, "I used Blu-ray." |
| 22 | MS. CHARLESWORTH: Well, they may have |
| 23 | used it but the question was setting aside the |
| 24 | quality issues which I know |
| 25 | MS. McSHERRY: Right. |
| 1 | |

| 1 | MS. CHARLESWORTH: you've also |
|----|--|
| 2 | extensively briefed. You were talking about the |
| 3 | bonus features and so forth, you know, unique Blu- |
| 4 | ray content. Let's call it that. Do you have |
| 5 | you know, how many examples of that are there in |
| 6 | the record where vidders, you know, wanted to or |
| 7 | did access that to create their the video? |
| 8 | MS. McSHERRY: So I know we have at |
| 9 | least two that we described in some depth and |
| 10 | particularly, if you look to Appendix A of I |
| 11 | believe, right of Professor Coppa's declaration |
| 12 | and some of the |
| 13 | MS. SMITH: This is in the reply/ |
| 14 | MS. McSHERRY: other things that she |
| 15 | did. I'm sorry, in the Reply, Appendix A, |
| 16 | Professor Coppa's declaration and there are |
| 17 | statements from artists who relied on Blu-ray and |
| 18 | they talk about why they did that. |
| 19 | MS. CHARLESWORTH: Okay, thank you and |
| 20 | continue. |
| 21 | MS. McSHERRY: Sure. So as we've said |
| 22 | before but it continues to be true, Section 1201, |
| 23 | without an exemption, is a trap for the unwary |
| 24 | where you have artists who are trying to do the |
| 25 | right thing, trying to, you know, lawfully acquire |
| 1 | |

| 1 | works, make sure the original creators get paid, |
|----|--|
| 2 | and trying to, you know, abide by what they |
| 3 | understand to be the law and only find themselves |
| 4 | tripped up later by something that for an artist |
| 5 | is going to be very confusing, which is a message |
| 6 | that you totally did the right thing only you used |
| 7 | the wrong source material and so now you've done |
| 8 | something illegal that you would never expect to |
| 9 | have been illegal. |
| 10 | Also, I would like to point out what is |
| 11 | not in the record. What is not in the record is |
| 12 | any evidence whatsoever that the proposed |
| 13 | expansion, the current exemption or the proposed |
| 14 | expansion could cause any harm whatsoever as to |
| 15 | the availability of copyrighted works. The |
| 16 | opponents have suggested that copyright owners |
| 17 | maybe won't make works available on Blu-ray if you |
| 18 | grant the expansion that we're asking for, but |
| 19 | they just speculate that. They don't show us |
| 20 | anything. They don't give us any reason to |
| 21 | believe that that would be true and they also note |
| 22 | that Blu- ray is still an emergent business model |
| 23 | and I think we can accept that is true. |
| 24 | But it's also true that online streaming |
| 25 | is an emergent business model and what is also |

| 1 | absent from the record here today is any |
|----|---|
| 2 | participation by online streaming services. They |
| 3 | know the existing exemption and the continued |
| 4 | exemption for online streaming hasn't hurt their |
| 5 | emerging business model. It has no effect on it. |
| 6 | MS. CHARLESWORTH: On the issue of |
| 7 | online streaming, do and again, recognizing the |
| 8 | extensive record and the many examples are you |
| 9 | aware of situations where vidders have used sort |
| 10 | of HD online content, you know, downloaded HD |
| 11 | content, and has that been a workable option for |
| 12 | some vidders? |
| 13 | MS. McSHERRY: I believe that Professor |
| 14 | Turk has a fair bit to say |
| 15 | MS. CHARLESWORTH: Okay. So |
| 16 | MS. McSHERRY: on exactly this issue |
| 17 | if you don't mind my kicking it to her. |
| 18 | MS. CHARLESWORTH: Yeah. Did you do |
| 19 | you want to respond to the question about or do |
| 20 | you want to wait? We can if you can hold that |
| 21 | in your head. |
| 22 | MS. McSHERRY: I just need a few more |
| 23 | MS. CHARLESWORTH: Then we can finish |
| 24 | with Ms. McSherry and you can speak about it when |
| 25 | you're ready. Okay. |
| | |

| 1 | MS. McSHERRY: Sorry to punt it but I |
|----|--|
| 2 | just think speaking from the actual community of |
| 3 | artists will make the most sense. So just a |
| 4 | couple more points. So opponents have also |
| 5 | suggested that allowing circumvention for any |
| 6 | purpose might lead to piracy because they'll be |
| 7 | copies in the clear, but I think if that were |
| 8 | true, we'd have some evidence for that by now with |
| 9 | respect to DVDs and online streaming. And as I |
| 10 | recall, your office specifically asked for that |
| 11 | kind of evidence and you didn't get it, and I |
| 12 | think that that absence is telling. Pirates don't |
| 13 | need or want this exemption, remix artists do. |
| 14 | Finally, very briefly, I want to speak |
| 15 | to the existence of alternatives which has clearly |
| 16 | been important in this proceeding. The record |
| 17 | shows, based on what we have already submitted and |
| 18 | what we will submit today, that the technologies |
| 19 | that opponents believe might work for remix |
| 20 | artists won't. They're simply inadequate for the |
| 21 | actual editing that artists need to engage in in |
| 22 | order to produce high-quality work that is taken |
| 23 | seriously by their community and by the audiences |
| 24 | that they are trying to reach. |
| 25 | MS CHADIESWODTH, Okay I'm sorry, I |

25 MS. CHARLESWORTH: Okay. I'm sorry; I

1 know I keep interrupting you but you --2 MS. McSHERRY: Sure. MS. CHARLESWORTH: -- keep saying things 3 that are intriguing. 4 5 MS. McSHERRY: Sure. 6 MS. CHARLESWORTH: Artists, you keep 7 referring to the class of people who would seek to use this exemption as "artists." And why and how 8 do you define that or how does -- how is that -- I 9 10 quess we've heard -- the exemption, as it 11 currently exists, doesn't use the word -- does it use the word "artist?" It does not use the word 12 13 "artist" and I'm just wondering is -- in terms of 14 your pursuit of this exemption, is it mainly to 15 allow for artistic production? Is that the main 16 purpose of this or how do you see that? 17 MS. McSHERRY: So I'm using artists as, 18 frankly, a bit of catch-all for actually a broad 19 array of communities and that's why I want to be 20 very careful in tying this to any particular 21 community. As we discuss in our comments, remix 22 artists, that group includes vidders, fan vidders. 23 It includes political remix artists who are 24 specifically, you know, engaged in political 25 commentary. It includes, you know, professional

1 video makers, more and more who have -- you know, who are professional artists who are having their 2 work displayed in museums around the country and 3 around the world. 4 5 So I worry a little bit that if we tried 6 to -- I worry a lot that if we tie an exemption to some artistic endeavor, that might end up being 7 confusing for people because there are so many 8 different communities that might identify 9 10 themselves as remix artists. 11 MS. CHARLESWORTH: Okay. 12 MS. McSHERRY: So if that's where you're 13 going with this, I would take care. 14 MS. CHARLESWORTH: Okay. Well, I was 15 quite curious about your use of the word "artist" 16 and thank you for clarifying that. 17 MS. McSHERRY: Yeah. I mean like I 18 said, we -- I'm using it as a shorthand for a 19 broad array of communities that engage in this 20 kind of activity. 21 MS. CHARLESWORTH: Okay. 22 MS. McSHERRY: Okay. So I'm almost 23 finished because I want to get on to my fellow 24 panelists. So Professors Coppa and Tushnet and Turk are going to show you how important high-25

1 quality source material is for the art form -- for the work that folks are engaging in if they want 2 it to be taken seriously. 3

I just want to close though by 4 5 dispelling a different source of confusion from 6 purely a legal perspective which is this notion we've seen in the papers that fair use doesn't 7 entitle the user to the use of any particular 8 9 technology. I actually think that the corollary 10 is pretty in opposite to what's at stake here and 11 we present it in our papers. The legal cites seem 12 to make more sense if you want to think about 13 whether artists get to have access to the quality 14 they need for their transformative purpose, and I 15 think the case law is pretty clear that they do. 16 But I would also suggest that that's, in part at 17 least, a red herring because whether artists need 18 the best quality source also speaks to the 19 statutory questions of whether 1201 is having an 20 adverse effect. And if 1201 is impeding their 21 ability to have access to the source material they 22 need for their work, then it is, and putting it at 23 legal risk, then I would submit that that is an 24 adverse effect. 25

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Can I ask you on the

MS. CHARLESWORTH:

1 case law? I mean what cases would you cite as most supportive of your position that fair use 2 should consider the quality say of the source 3 material or the format? 4 5 MS. McSHERRY: Sure. So I would point you to the Bill Graham case which found fair use 6 7 when copying the size and quality necessary for the transformative purpose -- and sorry, I'm 8 looking at my cites from here; Warren Publications 9 10 Company v. Spurlock which said that high-quality 11 copy images were fair use because they were 12 necessary for the transformative purpose; the 13 Swatch case, I know you all discussed yesterday so 14 we don't need to belabor it here; Sony Computer Entertainment America v. Bleem! which found fair 15 16 use where real images were necessary for accurate 17 comparisons. So courts have repeatedly taken into 18 account what is necessary for the purpose, and I 19 think we've had ample evidence in the record at 20 this point that high-quality source is exactly 21 what's needed for the transformative purpose that 22 these artists are engaging in. 23 I'll close for now unless you have 24 questions. 25 MS. CHARLESWORTH: No, thank you.

1 Professor Coppa [COP-A]. PROF. COPPA: Coppa[CO-PA]. 2 Coppa [CO-PA], yeah. 3 MS. CHARLESWORTH: PROF. COPPA: This is my third time 4 5 testifying here. I'm writing a book right now on vidders as a specific subset of the remix 6 7 community. But to speak to your question before, I think remixers, in general, think of themselves as 8 artists and cultural critics. That's the kind of 9 10 identity that they take on and remix is 11 increasingly understood to be an art form with a 12 kind of board practice. 13 I know through my work that 14 noncommercial vidders and remixers are already 15 using Blu-ray or other high definition footage, 16 which I'll get to in a minute, in practice. 17 Whether or not they use Blu-ray or a high definition streaming depends on a number of 18 things, some technical, as my colleague will talk 19 20 about, but some of it's just geographical, whether 21 or not you have broadband to do high definition 22 streaming. Not everybody does. 23 And remix is practiced primarily by 24 woman but all across the country. And so Blu-ray 25 discs are still a significant source of high-

definition footage. I'll explain in a minute why 1 remixers want it but it's still a significant way 2 of getting footage for many people in different 3 parts of the country. And vidders are using high 4 5 definition for two reasons. First, the discs that 6 they bought and the idea that they can use, you 7 know, one kind of disc legally but not the other when they open up their plastic pack is not 8 9 intuitive on the ground. But more than that, 10 you'd be asking artists to deliberately choose 11 lower quality footage rather than higher or spend 12 extra money on worse footage which is not, again, 13 an intuitive thing.

14 But second, and more importantly, 15 vidders are using Blu-ray footage because it allows them to make the kinds of transformation of 16 17 the image that they want to make. If I leave you with one point, it's this: 18 that remixers are not 19 interested in playing back footage. They want to 20 change it and comment on it as artists. They want 21 to edit it, crop it, color it, speed it up, mask 22 out parts of it, layer things on top of it, mash 23 it up with other things. And the more information 24 in the original footage, the better the image will 25 stand up to that kind of heavy digital processing

| 1 | and the more the complex an idea you can |
|----|--|
| 2 | articulate visually. And vidding, which is a 40- |
| 3 | year-old art form now vidders date their own |
| 4 | practice from about 1975 and have worked in other |
| 5 | media and, in fact, have always been on the kind |
| 6 | of cutting edge of media to the point where |
| 7 | vidding is actually fairly well-represented in |
| 8 | literature on remix because vidders care about the |
| 9 | quality of image, so our work is watchable where a |
| 10 | lot of work is not watchable because it's |
| 11 | pixilated and it falls apart when you project it |
| 12 | in a museum about which more later but |
| 13 | MS. CHARLESWORTH: Can I ask a quick |
| 14 | question about |
| 15 | PROF. COPPA: Absolutely. |
| 16 | MS. SMITH: the distribution of these |
| 17 | remix videos, right, it seems like, from the |
| 18 | record, can vary in types of quality, some might |
| 19 | be lower quality, some may be a high |
| 20 | PROF. COPPA: Well, especially is it's |
| 21 | got a long history, right, I mean |
| 22 | MS. SMITH: Right. |
| 23 | PROF. COPPA: a video from 1980 is |
| 24 | not |
| 25 | MS. SMITH: Right. So I guess I'm |
| | |

wondering, you know, say today if you make 1 something in 2015 and it's going to be distributed 2 into a lower output, can you explain why it 3 matters to have the high input? 4 5 PROF. COPPA: It typically isn't, even YouTube has a high definition option and many of 6 the remix videos might be seen on a projector 7 being done in a theater style setting in a museum 8 exhibition --9 10 MS. SMITH: Sure. 11 PROF. COPPA: -- and certainly on 12 computer screens which high retina -- all of that. 13 And in fact, there's a kind of emerging practice 14 among vidders where they're remastering older vids 15 in Blu- ray. There used to be a practice of 16 remastering VHS into DVD and now DVD is being 17 remastered into Blu-ray to keep the artwork watchable and vibrant, kind of as an artifact in 18 19 the community, so you see this practice of fans of 20 the art remastering older video with the newest 21 footage because they love it or because they think 22 it's important now and that it is less watchable 23 in its DVD cut than it would been in its Blu-ray 24 cut, so we're seeing Blu-ray cuts of existing kind 25 of canonical artworks.

1 MS. CHARLESWORTH: Can I ask is there like an -- some sort of -- what's the process of 2 remastering standard definition into --3 PROF. COPPA: Again, I might push that 4 to Tisha but it would be about matching -- in 5 other words, if you're remastering something, the 6 original artist has made the decision about where 7 8 the clips -- where the cuts come and what it looks like but somebody's essentially just replicating 9 10 their process, which is not as creative as 11 creating the thing. They are essentially 12 recreating the thing using better quality footage. 13 MS. CHARLESWORTH: So they're actually 14 assembling better quality footage and recreating 15 what they did before? PROF. COPPA: Correct. 16 17 MS. CHARLESWORTH: It's not a typical --18 PROF. COPPA: On a shot-by-shot --19 MS. CHARLESWORTH: -- grade process? 20 PROF. COPPA: Correct. 21 MS. CHARLESWORTH: Okay. 22 PROF. COPPA: I mean Tisha is going 23 to elaborate on some of these technical 24 specifications but I want to talk briefly about 25 the kind of artistic reasons for doing this. Ιf

| 1 | you want to bring a background character to the |
|----|--|
| 2 | foreground to argue for their importance in a |
| 3 | text, as we saw with the M video that was |
| 4 | submitted or in the Captain America vids. |
| 5 | To your question about what's only on |
| 6 | Blu- ray, for instance we see in the kind of |
| 7 | Captain America vids a lot, the (inaudible) was in |
| 8 | color is one of them, people using the deleted |
| 9 | scenes in order to kind of create critiques of the |
| 10 | military industrial complex in Captain America, if |
| 11 | you can imagine such a thing, but using additional |
| 12 | footage, deleted scenes, this kind of thing. But |
| 13 | anyway, if you want to kind of bring background |
| 14 | information forward, you can crop the bigger |
| 15 | the image is, you can crop it or magnify something |
| 16 | small and still have a watchable picture. |
| 17 | Deleted scenes often also have things |
| 18 | that the original editors didn't thing were |
| 19 | significant enough to make the final cut and those |
| 20 | kinds of things are often the sort of thing that a |
| 21 | vidder is interested in because vidders are often |
| 22 | about re- prioritizing the image. They're |
| 23 | essentially having an argument with the editor and |
| 24 | the director saying what you thought was important |
| 25 | about this is not right. So the kinds of things |
| | |

1 that were left out are often the kinds of things 2 we want to put back in or see expanded and hence the need for these, you know, kind of special 3 features and things. 4 Another kind of case in terms of "Blu-5 ray only" content, if you look at the discussion 6 and the materials on telephone, which was a John 7 Carpenter vid, he ended up having -- he was not 8 9 planning to use Blu-ray but ended up having to use 10 Blu-ray because he was trying to say something 11 about the Jamie Lee Curtis character in the 12 Halloween films over a kind of 30- year period. 13 And the only way he could create a kind of 14 coherent artwork was essentially to kind of use 15 Blu-ray across because otherwise, the difference between Halloween of 1977 and the Halloween H20 of 16 whatever year that was would have been too jarring 17 to the viewer. 18 19 And so those are kinds of cases where 20 the artistic need really necessitated a "Blu-ray

20 the artistic need really necessitated a "Blu-ray 21 only" thing, and I think the last of the films 22 that he used was only in Blu-ray and so he ended 23 up having to kind of back-go and get all of the 24 Blu-ray in order to make a coherent art object. I 25 mean that's in the literature but just to, you

1 know, because you asked.

| 2 | You know, so again, if he's trying to |
|----|---|
| 3 | mash up, you know, you're not just playing this, |
| 4 | you're making something. So if you want to mash |
| 5 | up multiple visual sources, draw comparisons |
| 6 | across films, trace a theme across films, make an |
| 7 | argument across films, you need you might want |
| 8 | to and from a vidder's point of view, you need to |
| 9 | match aspect ratio, match color palette so that |
| 10 | the eye goes to the argument that the editing is |
| 11 | making and is not simply disrupted by putting |
| 12 | together clips that look wildly different. And so |
| 13 | these are some of the artistic reasons that you |
| 14 | would process the images in this way in order to |
| 15 | talk visually as it were, to use remix to create |
| 16 | art and conversation. |
| 17 | Since I last testified, vids and |
| 18 | other noncommercial remixes have been featured in |
| 19 | major exhibits at the Cleveland Art Gallery, the |
| 20 | Museum of the Moving Image, the Vancouver Art |
| 21 | Gallery, the EPM Museum in Seattle, the Museum of |
| 22 | Image and Sound, the Australian Center of Moving |
| 23 | Images. I'm getting more and more people who are |
| 24 | interested in putting together shows recognizing |
| 25 | vids but also other forms of remix, political |

| 1 | remix. There are now starting to be exhibitions |
|----|---|
| 2 | of GIFs, graphical image format, about which I |
| 3 | talked in my thing but GIFs are becoming which |
| 4 | are made with Blu-ray and you see people tagging |
| 5 | them, you know, Blu-ray GIFs without having any |
| 6 | idea that they're doing something that's wrong or |
| 7 | could get them into any trouble, but we're |
| 8 | starting to see it in museum exhibitions of this |
| 9 | too as a significant kind of borderline art form |
| 10 | between film and photography. |
| 11 | And many of these galleries, the vids |
| 12 | are projected on the walls. I gave a talk at the |
| 13 | Museum of the Moving Image exhibition and, you |
| 14 | know, we were talking about projecting vids, you |
| 15 | know, on not quite movie theatre screens but on |
| 16 | really large screens and so it matters what these |
| 17 | things look like when they're in museum settings |
| 18 | or vid shows at universities or galleries, this |
| 19 | kind of thing. |
| 20 | So remix videos are increasingly |
| 21 | appreciated as an art form and as a grassroots |
| 22 | form of film and television criticism. Social |
| 23 | media sites like Facebook and Tumbler have made |
| 24 | it, you know, very easy to share remix video and |
| 25 | to make them the kind of centerpiece for |
| | |

1 discursive arguments about meaning when it comes to popular culture or high culture even. 2 In a recent book on the filmmaker Joseph 3 Cornell, Michael Piggett claimed that vidders are 4 5 grassroots cinefiles who represent the viewer who 6 spots something latent, hidden or potential in a moving image and who feels the need to reveal it 7 to other viewers to make it prominent and clear. 8 And Blu-ray and high definition footage are 9 10 crucial to remixers' needs to make the latent 11 thing in the footage prominent and clear to others 12 and so for us, this exemption for Blu-ray is a 13 natural extension of the exemptions we sought in 14 2009 and '15, which is to say that artists who 15 transform naturally want to start with the best 16 most information-dense images because we're going to lose quality in processing and these are, 17 18 again, fair users who are trying to do the right 19 thing. They know that they have made something. 20 They want to be able to defend what they made if 21 they need to, and they know that they're sort of 22 artists. They're not pirates. They want the right 23 to be able to sort of stand up for what they 24 produced. Thank you. 25 MS. CHARLESWORTH: Thank you, Professor

1 I guess we'll move on to Professor Turk Coppa. 2 now. So as I mentioned, I'm a 3 PROF. TURK: professor in an English department but I'm here 4 today as a vidder, so one artist within the larger 5 remix video community or communities. 6 7 Since clearly I'm going to get some tech questions kicked to me, I want to emphasize that I 8 9 am not a film or a TV professional. I am, alas, no Jim Morissette, so I know about digital video 10 11 because I've been creating digital remix videos 12 for about 15 years now. 13 I want to make two points right now and, 14 of course, I am happy to answer any questions that 15 you guys have. The first one -- the first point I 16 want to make is that quality really matters to 17 video remix, and the distinction here is between what I need as a consumer and what I need as a 18 19 creator. As a consumer, I don't always need the 20 highest possible quality just for its own sake. 21 When I'm just watching a show, I might stream 22 Netflix on my laptop because it's convenient or I 23 might download a show from iTunes in standard def 24 rather than high def because that's cheaper. But 25 when I'm making a remix video, quality is

1 important. It's really important because as a 2 creator, I need tools that work. The video is not just video. It's 3 something that I am using. It's something that I 4 5 am doing something with so as Professor Coppa 6 said, the work that vidders do is transformative. A vid transforms genre. It transforms narrative. 7 It transforms meaning. 8 And in order to do that, I have to be 9 able to transform individual clips. 10 I have to be 11 able to manipulate them and, you know, juxtapose 12 them and combine them and high quality clips allow 13 me to do those things without compromising the end 14 effect, without ending up with something that 15 someone will just hit the back button because they 16 don't want to see it in low quality. 17 The second point that I want to make is that alternatives to circumvention don't work and 18 19 they don't work for multiple reasons. Some of 20 those reasons are aesthetic. Opponents haven't 21 shown that screen capture produces visually 22 acceptable results for Blu-ray and there are 23 reasons for this. A single frame of DVD video --24 I'm going to pull out numbers now -- a single 25 frame of DVD video has 345,600 pixels, right, 720

| 1 | by 480. A single frame of Blu-ray video has over |
|----|--|
| 2 | 2 million pixels so six times as many pixels. And |
| 3 | screen capture technology can't keep up with that, |
| 4 | right. It's just too much information for screen |
| 5 | capture to handle very well. |
| 6 | MS. SMITH: Excuse me. And so that's |
| 7 | true for material you grab online? If it's in |
| 8 | can you speak can you incorporate that as well? |
| 9 | I know you're focused on Blu-ray but if you use |
| 10 | screen capture for material that's streamed |
| 11 | online, like from Netflix? |
| 12 | PROF. TURK: Yes. I mean it's this |
| 13 | just in terms of sheer number of pixels. If it |
| 14 | is 1080p, so if it's 1920 by 1080, then that is |
| 15 | just the number of pixels that it has and if |
| 16 | you're capturing it, that's just a lot of pixels |
| 17 | that the screen capture software has to deal with. |
| 18 | And lots of things affect that, I mean the |
| 19 | capabilities of the software, the capabilities of |
| 20 | the machine, right. Some machines have more |
| 21 | processing power than others, but it's just an |
| 22 | awful lot to ask of software that's not designed |
| 23 | to do that, right. Screen capture software is |
| 24 | designed to let you make a video showing where you |
| 25 | move your mouse to click on the thing. That's |
| 1 | |

1 you know, that's the kind of thing that it's built 2 for, so Well, can I ask a 3 MS. CHARLESWORTH: question in that regard? I mean you're sort of 4 generalizing. Obviously, we're often speaking in 5 generalities in this proceeding but I mean are you 6 7 saying that every vidder would necessarily need HD quality or -- Professor Coppa's nodding over 8 9 I mean why -- you're saying there's no there. 10 vidders who would want to work with -- let's say a 11 beginning vidder, someone who's not that 12 sophisticated or someone who is only going to be 13 showing things to their friends, I mean I guess 14 I'm -- the existing exemption actually says 15 something to the effect that you really need it, 16 to paraphrase. I mean is it your -- so it's your 17 position that every single vidder needs access to 18 Blu- ray content no matter what their purpose is, 19 no matter what their project is? 20 PROF. TURK: I mean what I would say is 21 that vidders have a pretty wide range of needs and 22 backgrounds and access to stuff, right. I mean 23 what I have access to is a 40-year-old professor 24 or who I imagine my audience to be may not be the 25 same audience as say, you know, the younger

1 sibling of one of my 18- year-old students. 2 MS. CHARLESWORTH: Right. I could imagine my daughter doing something like this. 3 She, at least as a beginner, she might not need to 4 be circumventing Blu-ray. She might be able to 5 use screen -- just hypothetically -- use screen 6 7 capture. 8 PROF. TURK: I mean I think --9 MS. CHARLESWORTH: It's a very big I mean I'm just trying to suggest that 10 claim. 11 there might be variations and then you need to 12 think your -- are you agreeing with me? 13 PROF. TURK: I would say that there --14 that variations are possible but what I would also 15 say is that the ceiling is getting higher on that, 16 if you see what I mean. So what someone wants to 17 do at 14, if they're interested and keep doing it, 18 in two years, they might have very different 19 aesthetic needs and they might have a very 20 different sense of who they're communicating with. 21 They might also maybe want to make a different 22 kind of vid that requires far more effects than 23 their sort of initial fooling around an i-movie 24 kind of thing. They might want to focus on a 25 character who's in the background and they might

| 1 | really need to crop something down in a way that |
|----|---|
| 2 | if you're only using DVD, you end up with a muddy |
| 3 | mess. So I would agree that there is a possible |
| 4 | range but I think the high end of that range is |
| 5 | very high and is getting higher as more and more |
| 6 | people get used to high definition and see that all |
| 7 | the time and have bigger TVs and have higher |
| 8 | resolution laptop screens. So |
| 9 | MS. SMITH: Can I ask I just want to |
| 10 | |
| 11 | PROF. TURK: Yes. |
| 12 | MS. SMITH: make sure I'm |
| 13 | understanding how we're using the word "vidder" |
| 14 | versus "remixer." I understand vidder to be, you |
| 15 | know, a subset of a community and |
| 16 | PROF. TURK: Yes. |
| 17 | MS. SMITH: perhaps maybe more I |
| 18 | understand it's more a female but is there also |
| 19 | do they have more of a need to use higher images |
| 20 | or does what you just said apply to the remix |
| 21 | communities at large or just vidders? |
| 22 | PROF. TURK: I would say it applies to |
| 23 | the community at large. I mean I think vidders, |
| 24 | particularly because we are fans of the things |
| 25 | that we are using, our audiences tend to be very |
| | |

| 1 | familiar with the source, they tend to care very |
|----|--|
| 2 | much about the source to know it very well to have |
| 3 | it in high quality, and so if someone loves a show |
| 4 | or a movie and they've seen it many times and |
| 5 | they've seen it in high def and suddenly you're |
| 6 | asking them to watch it in, you know, in squinty |
| 7 | vision, you know, with pixilation or whatever, I |
| 8 | think that would be a turnoff for our community |
| 9 | specifically. And that's what I know best so I do |
| 10 | think that it applies more broadly. |
| 11 | MS. SMITH: So you know and this |
| 12 | you may not be the person to ask this but if like |
| 13 | the broader remix community, a group of sub |
| 14 | communities have internalized the same sort of |
| 15 | like pseudo fair use norms that the papers say the |
| 16 | vidders have? |
| 17 | PROF. TURK: Can I toss that to you |
| 18 | because I don't I don't know enough to answer |
| 19 | that question. |
| 20 | PROF. TUSHNET: Right. So in our |
| 21 | submission, we cite several studies. Some of them |
| 22 | are vidder specific, some of them are cross- |
| 23 | cutting, so Casey Fiesler's study, for example, |
| 24 | studies a number of different communities online |
| 25 | and finds overarching I mean there are norms |
| 1 | |

| 1 | that vary kind of internally but they tend to be |
|----|--|
| 2 | not about copyright things. They tend to be about |
| 3 | sort of different things that the community cares |
| 4 | about, and she does find an emphasis on |
| 5 | transformation that is make your own work credit |
| 6 | on noncommerciality and on taking portions that |
| 7 | are associated with your goal rather than, you |
| 8 | know, going on and on, so I won't either. |
| 9 | MS. SMITH: Thanks. |
| 10 | MS. CHARLESWORTH: Professor Coppa. |
| 11 | PROF. COPPA: I just wanted to say |
| 12 | quickly that actually, I find younger people are |
| 13 | often even more footage conscious than not. A, |
| 14 | because they haven't bought their own computers |
| 15 | which are better than younger. I mean we're |
| 16 | consciously upgrading. They have processing power |
| 17 | and they've been living with these big shiny |
| 18 | screens their whole lives. And as a film |
| 19 | professor, I see students coming in at 17 or 18 |
| 20 | with unbelievably good video editing chops. We |
| 21 | actually just graduated a student who came in as a |
| 22 | vidder and four years later left and is working in |
| 23 | the industry and kind of that came in running in a |
| 24 | way that we didn't see young women coming in to |
| 25 | film studies programs. So there is I don't |
| 1 | |

even know that it's necessarily -- your younger 1 may teach you. 2 MS. CHARLESWORTH: Well, she's not 3 familiar with circumvention tools --4 5 PROF. COPPA: Well --6 MS. CHARLESWORTH: -- at this point. 7 PROF. COPPA: -- that you know of. MS. CHARLESWORTH: She -- so I can 8 9 report that. 10 (Laughter.) 11 MS. CHARLESWORTH: Okay, thank you, 12 though. It's helpful commentary. 13 PROF. TURK: So we started to get into 14 the technical but the other thing that I wanted to 15 say is that it's not just aesthetic reasons that 16 alternatives or supposed alternatives don't work. 17 There are technical reasons as well. So video can 18 look good to a casual viewer and not be editable 19 because of the way that it's been encoded or the 20 way that it's been captured. It can be not 21 exportable which, in some ways, is even more 22 frustrating, where you can pull it into your 23 editing program but then you try to export and it 24 crashes, which is actually what happened to me 25 when I was working on the video or what was

1 supposed to be a video that I wanted to submit 2 with the reply comment but I was using captured footage and it wouldn't work with my equipment. 3 So, the whole point of being a remix 4 artist is that we edit stuff. We don't want to 5 6 capture stuff just to look at it. We need to be able to do something with it. 7 And so when opponents present what they consider to be 8 9 alternatives, they're thinking about those 10 supposed alternatives from the point of view of viewer, of consumer, and you can see that in the 11 12 examples in the record and the fact that they 13 don't actually do anything with their clips. They 14 just capture a clip and say "look, we captured 15 it." Well, sure, but did you pull it into Premiere 16 or Final Cut? Did you apply effects to it? Did 17 you actually do what a remix -- you know, what a remixer would do? There's no attempt to transform. 18 19 There's no attempt to remix. 20 So I have to assess alternatives from 21 the point of view of a creator, not just a viewer, 22 someone who is going to transform and remix clips. 23 And so screen capture may be good enough if all 24 you want to do is watch. It may be good enough 25 if all you want to do is pirate but it's not good

1 enough for someone who's going to create something. 2 That's what I have and I'm happy to 3 4 answer other questions. 5 MR. DAMLE: So one of the questions that 6 had been kicked down to you was about the alternative of downloads --7 PROF. TURK: Yes. 8 9 MR. DAMLE: -- HD downloads for HD streams. There was some talk in the earlier panels 10 about HDX. I don't know if you could speak to that 11 and whether that is a sufficient alternative for 12 13 your purposes? 14 PROF. TURK: Well, there are two reasons 15 why -- I mean people do use high download -- high defendant downloads. I mean that -- and there are 16 circumstances under which that's extremely useful 17 and there are circumstances under which that 18 19 works. There are a couple of potential problems 20 with it or reasons why Blu-ray might be necessary. 21 Some of them are, as Professor Coppa suggested, 22 geographical. I say this is as someone who lives 23 in rural Minnesota with intermittent broadband 24 access, that getting definition high def 25 downloads, boy, that's an awful to -- I mean that

1 is a pretty big file to download and being able to get something on Blu-ray is useful. 2 The other thing, though, is that HD 3 downloads and Blu-ray video are not actually the 4 same thing in terms of the way that they're 5 So they're encoded with different 6 encoded. 7 compression algorithms and the reason for that is the Blu-ray comes on a disc and you put the disc 8 in and so there's no need to download it. 9 The 10 file size doesn't -- the file size only has to be 11 small enough to fit on the disc and a Blu-ray disc 12 holds a lot, really a lot of data. But a 13 download, you know, from iTunes or something like that is encoded to produce a smaller file. 14 And 15 this is actually interesting -- if you look at the relative size of a 780 or a 720p download versus a 16 17 1080p high def download, the file size is actually not that different. It's not as different as you 18 19 would expect given that there is 2-1/2 times more 20 pixels. 21 The reason is that -- let me -- I'm 22 trying to think of the easiest way to explain this 23 -- okay, so video is encoded using any of a 24 variety of codecs which stands for coder, decoder, 25 right, and there are three different codecs that

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1 Blu-ray supports, and it's up to the people encoding the video what codec they want to use but 2 all Blu-ray players and all Blu-ray encoders or 3 recorders have to support each of these three 4 codecs. 5 Now each of those codecs has multiple 6 7 options in terms of compression algorithms. There are different profiles. There are different 8 9 So, for example, what is the byte rate. levels. 10 Variable byte rate is a sort of standard encoding 11 thing, right, where if you have a scene that 12 doesn't have a lot of motion, you have lower byte 13 rate and then when something explodes, you have a 14 lot more byte rate, right, to sort of allow for better distribution of the data. 15 16 Different progression algorithms serve really different purposes. So some progression 17 18 algorithms maximize sharp detail. So, for 19 example, if you're looking at something animated, 20 that's what you want, right. You want really 21 clear outlines. Some of them maximize smooth 22 motion. That's what they emphasize. Some of them 23 are designed to produce a relatively small file 24 size. You can never have all of the magic things 25 the codec can do for you, right. There's always a

1 tradeoff. If you get really sharp images, you 2 probably aren't going to have as smooth motion; 3 pretty smooth maybe but not as smooth. So you take the original data and you make decisions 4 5 about what's the most important. And so high def 6 downloads are sort of aggressively compressed in order to make -- I mean it's still a really big 7 file but it's way smaller than what you get if you 8 9 rip Blu-ray disc and you get the uncompressed --10 not uncompressed because something has been 11 compressed to be on -- to fit on the Blu-ray disc, 12 but it hasn't been compressed as much as a high 13 def download. Now when you're watching, that 14 makes very little difference actually because the 15 progression algorithms that they use mean that 16 it's a relatively small file, relative to -- you 17 know, compared to the amount of data. But they've 18 chosen to compress it in a way that makes it 19 really watchable which is great and really 20 exciting, especially if you can download it rather 21 than having to stream it. 22 So the compression for distribution 23 doesn't necessarily affect viewing. You get 24 really good watchability and a smaller --25 relatively smaller file size but it can affect

| 1 | editing. So when you need to do something to that |
|----|--|
| 2 | footage, you potentially have pretty unpredictable |
| 3 | results depending on what you want to do to the |
| 4 | downloaded footage because compression affects the |
| 5 | underlying data and here it might be helpful to |
| 6 | think about a non-visual example. So if you think |
| 7 | about how compression works, let's say I have a |
| 8 | string of numbers. I want to have 30 nines in a |
| 9 | row, like 9, 9, 9, 9, and so I would need, if it's |
| 10 | uncompressed, I need 30 bytes to express that, |
| 11 | right, one after the other. When you compress |
| 12 | something, you say there's got to be a faster way |
| 13 | to represent this. And so instead of 9, 9, 9, 9, |
| 14 | 9, 9, 9, you say 9 times 30. You have sort of a |
| 15 | shortcut, right. You have |
| 16 | MR. DAMLE: But that would be a lossless |
| 17 | compression algorithm but I assume you're saying |
| 18 | that the Blu-ray, the compression algorithms are |
| 19 | lossy as they say, right? |
| 20 | PROF. TURK: Yes. Yeah, I mean because |
| 21 | anything that will get it that small has to be |
| 22 | lossy. |
| 23 | MR. DAMLE: Okay. |
| 24 | PROF. TURK: But again, you have you |
| 25 | know, within lossy compression algorithms, you |
| | |

have -- you lose different things, what gets lost 1 in the compression, different algorithms sort of 2 make different choices about what to keep and what 3 to discard from the data. 4 5 MR. DAMLE: Could you give me a sense of just sort of the sort of scale of compression 6 7 we're talking about in the different -- sort of starting maybe with the raw file. I don't know 8 9 what it is in the video context. I'm thinking sort of photography context but the raw file to 10 what -- how much data is in the raw file versus 11 12 how much is typically in a Blu- ray versus how 13 much is even in a 1080p download? 14 PROF. TURK: That's a really good 15 question and I would have look. I don't know --MR. DAMLE: Give some scale even. No, 16 17 you don't -- okay. 18 PROF. TURK: Someone can probably Google that as I sit here thinking. 19 20 MR. DAMLE: I'm just curious whether you 21 knew off --22 PROF. TURK: Off the top of my head, I 23 don't know. 24 MR. DAMLE: That's fine. 25 PROF. TURK: I mean I know that, you

| 1 | know, the raw file is enormous. It's unmanageably |
|----|---|
| 2 | enormous. It would crash your computer to, you |
| 3 | know, do anything with it. And then Blu-ray is |
| 4 | compressed but not as compressed because again, |
| 5 | you I mean so if you were to look at, you know, |
| 6 | the HD download from iTunes of a particular |
| 7 | episode of television and the Blu-ray rip, there |
| 8 | would be a really significant size difference, |
| 9 | yeah. |
| 10 | MR. CHENEY: Could you in part of |
| 11 | doing this, could you talk about the editing |
| 12 | limitations? You've alluded to that and you said |
| 13 | that there are limitations with the different |
| 14 | versions, the download versus the full Blu-ray. |
| 15 | Can you describe what those limitations would be |
| 16 | in some detail? And you may have done some of |
| 17 | that already in the record but if you could add |
| 18 | just a little bit here. |
| 19 | PROF. TURK: I mean the one that comes |
| 20 | to mind is cropping and resizing that you would |
| 21 | probably lose and, you know, I haven't done a |
| 22 | side-by-side of this so I am I don't have an |
| 23 | example to show you. But if you were resizing |
| 24 | footage, you might get somewhat different results |
| 25 | with Blu-ray than with a high def download. Now |
| | |

| 1 | both of them would still be a lot better than DVD |
|----|--|
| 2 | just because you have more pixels you're starting |
| 3 | with, right. Other kinds of things that might be |
| 4 | affected, changing something to slow mo might be |
| 5 | different. Color, I'm not sure about. That I |
| 6 | would have to see. I haven't done enough with |
| 7 | that to know. But cropping, zooming, changing of |
| 8 | speed, those are all things that I think there |
| 9 | could be some differences. |
| 10 | PROF. COPPA: Sorry, I just want to say |
| 11 | after effects you can often use internal cameras |
| 12 | on the computer to move the camera in a computer |
| 13 | over a piece of footage and I know those kinds of |
| 14 | things take huge amounts of processing power and |
| 15 | require like really big underlying images. I |
| 16 | wouldn't be surprised if that kind of after |
| 17 | effects internal camera work you saw a difference |
| 18 | between HD download and Blu-ray. |
| 19 | PROF. TURK: Yes. That would make sense |
| 20 | to me. I haven't I admit I am not that fancy. |
| 21 | I have not done that kind of work. |
| 22 | MS. CHARLESWORTH: Professor Turk, have |
| 23 | you personally worked with I mean you're |
| 24 | describing what you think would be the case but do |
| 25 | you have personal experience dealing with HD |
| | |

1 download materials and trying to edit them? PROF. TURK: I don't actually because I 2 have not had much time to vid in the last couple 3 of years, so I am a little bit behind the curve on 4 5 this one I am sorry to say. 6 MS. CHARLESWORTH: Okay. Have either 7 Professor Coppa, have you worked with those materials, with HD? 8 PROF. COPPA: No, not myself but the 9 vidders that I've been interviewing for my book 10 11 have, so this is where, for instance, I've learned 12 myself. I find it hard to get my head around the 13 idea of like internal -- you know, vidders using 14 internal cameras in programs like After Effects to 15 process footage and how difficult, how much 16 processing power that is. But -- so I've -- I can give you anecdotal examples but I have -- I don't 17 -- I'm a film studies professor. I don't have that 18 19 level of --20 MS. CHARLESWORTH: Professor Turk is an 21 English professor but I never learned any of that 22 in English. 23 PROF. COPPA: It's true. 24 MS. CHARLESWORTH: I have to tell you, this is pretty detailed technical information. 25

1 But are they reporting -- so is that -- what you 2 just talked about, the internal -- you spoke of 3 the internal cameras. Is that reported as a deficiency in the HD download? 4 5 PROF. COPPA: No. 6 MS. CHARLESWORTH: -- or an editing 7 issue or is it just a --8 PROF. COPPA: What it is is actually an exciting -- in other words, increasingly the 9 10 software has gotten -- digital editing software of 11 Final Cut, Premiere but also After Effects has 12 gotten sophisticated. A lot of vidders are 13 working with After Effects which is kind of three-14 dimensional Photoshop or also even integrating 15 footage that they're making themselves in with 16 other kinds of footage. I mean it's a really 17 exciting time for the art form, which I know is 18 not your primary thing, but I do know that the 19 people who are working with these kinds of tools 20 often are starting with very, very high-quality 21 source because they're doing unbelievable amounts 22 of processing. One vidder I interviewed for my 23 book literally melted the graphics card on her 24 computer in the making of a four-minute video. 25 You're often setting renders that go 26 hours to

| 1 | render a clip that is going to be integrated into |
|----|---|
| 2 | I mean just to give you a sense of what people |
| 3 | are doing. And again, often it's not just old |
| 4 | people like us. It's young people. It's people |
| 5 | who are increasingly just getting these amazingly |
| 6 | souped-up machines and making incredibly |
| 7 | expressive works of art. |
| 8 | MS. CHARLESWORTH: Okay, thank you. |
| 9 | PROF. TURK: So |
| 10 | MS. CHARLESWORTH: Professor Tushnet |
| 11 | oh, I'm sorry. |
| 12 | PROF. TURK: I was going to return to |
| 13 | the because there had been a question about |
| 14 | VUDU HDX and so I did a quick look into that and |
| 15 | here is what I found. This is a direct quote from |
| 16 | digitaldigest.com which had some info about this. |
| 17 | So VUDU's HDX streaming service brings down the |
| 18 | average byte rate of 1080p video form Blu-ray's |
| 19 | dizzying 35 mbps to a more manageable 12 mbps. So |
| 20 | that's great in terms of streaming, right, and |
| 21 | downloading but it's not great for editing. |
| 22 | MS. CHARLESWORTH: And explain exactly |
| 23 | why that is? |
| 24 | PROF. TURK: Because it's less data. |
| 25 | MS. CHARLESWORTH: It's just so you |
| | |

1 have less to work with? 2 PROF. TURK: Right. Okay. 3 MS. CHARLESWORTH: PROF. TURK: Exactly. You're starting 4 from here when, you know, you could be starting 5 from here. 6 7 MS. CHARLESWORTH: Okay. Professor Tushnet? 8 9 PROF. TUSHNET: Yeah. So I just wanted to remind you that the record is actually 10 11 extensive on this and among other places in our 12 reply, on pages 9 and 10, we quote 5 or 6 13 different people who report on their experiences 14 working with different downloads and say it's like 15 working with -- let's see, I think she says a 16 blowing up an old photo to twice its size. So even if we can't get them, you know, in our heads 17 18 right in the moment, it's in the record. Just --19 MS. CHARLESWORTH: Okay. Yeah. And I 20 know the record, as I said, is extensive and we'll 21 be going back through it again. I think it's your 22 turn actually to speak, make your so-called 23 opening remarks. And I think you are presenting 24 some exhibits that we've premarked. 25 PROF. TUSHNET: I am and hopefully this

1 will work again. Okay. Give me one moment to dismiss this. Great. So first, I do want to 2 thank you. This is often a quite thankless task 3 and thank you for your hard work. 4 5 I want to emphasize a couple of things. First the wide variety of fair uses involved here. 6 So a lot of the people that we talk, including the 7 people who litigated and won their fair use cases 8 9 like the anti-abortion group and Jonathan Autry, 10 weren't remixers until they found something that 11 they really needed to talk about. And at that 12 point, they said, okay, I have a message; I need 13 to get it out. And they went and they did what 14 they thought made the most sense. They made the 15 best message they could under the circumstances 16 using the best footage they could find. And the 17 record actually, in Northland, is quite clear 18 about this where they say every detail in that video is there for a reason, and that is actually 19 20 a litigated fair use outcome. 21 Jonathan Autry, they ended up even not 22 pursuing the claims against his remix but he also 23 won fair use on the pure copying videos that he 24 did and he just says he was a divinity student and

25 then he found -- you know, he had something to say

and that turned out to be a quite important thing
 to say about a guy who was going around being a
 fraud.

The Native Americans protesting Washington's football team, again, when I contacted them, they had no idea that they were -that they had fortunately been protected by the exemption because what they thought they were doing was intervening in a political debate.

10 So, you know, there's just a wide 11 variety of people here, film criticism from Tony 12 Zhou, soda jerk, vidders like Jan Giandujakiss and 13 others. And just to give you a sense of what we 14 mean when we say they were editing, I wanted to 15 show you an example. And here's the thing. 16 Unless you're a big fan of the show Supernatural, 17 I'm going to have to tell you what has been done 18 here because you won't know. But in fact, every 19 frame of this has been extensively edited and I'll 20 try to point out a few of these and we'll try not 21 to go very long. 22 MS. CHARLESWORTH: Professor, do you 23 know which Exhibit you're now showing us? 24 PROF. TUSHNET: This is Exhibit 28. 25

MS. CHARLESWORTH: Okay, Exhibit 28.

1 (Whereupon, Hearing Exhibit Number 28 was marked for identification and the 2 video exhibit was played.) 3 PROF. TUSHNET: 4 Okay. So Exhibit 28, just so you know, after this effect, all of the 5 6 effects you see will have been added to the footage by the vidder. None of the text you see is 7 8 in the original so that nomad is new. There have 9 been color changes, timing changes. Sorry. 10 Okay, see that. She's taken away the 11 background now. Sorry, I keep hitting it 12 accidentally. That's added, the effect on his 13 face. That's added, the effect on his face. The text again. The text again. The background has 14 15 been swapped. The background swapped again. 16 So these are the kinds of things we're actually talking about. They require really high 17 18 quality to start with and you do get degradation 19 no matter what when you start the operation, but 20 in order to get something that's watchable at 21 output, you need to start with really high quality 22 on the input. So -- and I actually encourage you 23 to watch the end where you see a fantastic the 24 vidder has created on person's arm, just it was 25 not there in the source at all.

| 1 | Second point I want to make is we've |
|----|---|
| 2 | submitted evidence that a substantial number of |
| 3 | remixes made using circumvention are likely to be |
| 4 | non- infringing. We have satisfied the statutory |
| 5 | demand for adverse effect in our ability to make |
| 6 | non- infringing uses. The question your |
| 7 | confronted with is how to word the exemption for |
| 8 | which we concededly quality and which is |
| 9 | unopposed, at least in its renewal. |
| 10 | Under our formulation, requiring fair |
| 11 | use more than satisfies the requirement of |
| 12 | substantial likelihood; in fact, it ensures it. |
| 13 | You can even say in the exemption that it's more |
| 14 | likely to be fair use if it's a short clip. |
| 15 | That's the standard given by the law. But a |
| 16 | contrary formulation presupposes that some fair |
| 17 | uses ought to be excluded which is not what the |
| 18 | statute says. |
| 19 | And I just would encourage the Office to |
| 20 | recognize that there are two concepts here that |
| 21 | are not the same. Limited more than fair use |
| 22 | limits is not the same as providing guidance. |
| 23 | Most of the non fair use based limits the Office |
| 24 | has imposed in the past have been unclear and |
| 25 | we've heard that in every single panel that, oh, |
| | |

1 there's a reasonable dispute about what that That's not guidance. 2 means. Third thing, opponents didn't offer 3 evidence about the quality of Blu-ray screen 4 capture. Since Blu-ray is the only exemption 5 6 they're opposing, that silence speaks volumes. Even screen capture applied to DVD produces bad 7 results and I want to show you what screen capture 8 9 applied to Blu-ray does. So this is The Lucky 10 One. She actually got it to work. So that's what 11 screen cap does to Blu-ray because of that 2-1/2 12 times as much data. You know, the software just 13 can't handle it. So she got lucky. 14 MR. RUWE: Excuse me --15 PROF. TUSHNET: And also, by the way, 16 this is before editing --MR. RUWE: -- what was the --17 18 PROF. TUSHNET: -- and of course, 19 editing -- I'm sorry? MR. RUWE: -- what was the file name for 20 21 that one? 22 PROF. TUSHNET: This is, sorry, Exhibit 23 29. It's called "Captain America" or Cap 2 24 Sequence." 25 (Whereupon, Hearing Exhibit Number 29

1 was marked for identification and the video exhibit was played.) 2 PROF. TUSHNET: All right. 3 So you can see the processing demands, you know, and this is 4 on a new computer with, you know, not -- probably 5 6 there are companies that have faster processes but certainly a high-end individual computer. 7 8 MS. SMITH: Wait. I'm sorry, can you --9 maybe I just missed it -- but explain how is that 10 one captured or --11 PROF. TUSHNET: Sure. So it was Snagit 12 on a PC. 13 MS. SMITH: Okay, thank you. 14 PROF. TUSHNET: On a -- yeah. 15 MS. SMITH: And going back to the ` 16 clip, it may not be possible because of what was done in the editing but when we go back and look 17 18 at this clip, we're not going to have the benefit 19 of, you know, you telling us what we're watching, 20 what's been changed. 21 PROF. TUSHNET: Uh-huh. 22 MS. SMITH: Is there a way we can see 23 the original clip to compare it? 24 PROF. TUSHNET: You would have to look at about 40 episodes of Supernatural. 25

MS. SMITH: Right. So it's all sliced 1 and diced from it? 2 3 PROF. TUSHNET: Yes. 4 MS. SMITH: Okay. 5 Sorry. I mean if you PROF. TUSHNET: 6 want, I'm happy to actually go clip-by-clip. I know Supernatural and I can do it but, you know, 7 if you -- but it would take me some time. 8 9 MS. SMITH: That's okay, thank you. So that's The 10 PROF. TUSHNET: Okay. 11 Lucky One. Here's what Thuviaptharth, who is the 12 one who -- she speaks about using the Captain 13 America deleted footage to make an important point about militarization in the Marvel universe. 14 15 Here's what she said, I spent an hour with WM 16 Capture which is, by the way, the only software 17 that claims not to be circumvention, and I spent 45 minutes with Camtasia Studio -- now I'm 18 19 actually playing a video. 20 (Whereupon, Hearing Exhibit Number 30 21 was marked for identification and the 22 video exhibit was played.) 23 PROF. TUSHNET: So it's playing on her 24 screen but Camtasia and WM Capture aren't getting 25 it because -- sorry -- yeah, just to show, it is

playing on her screen and you can hear -- you can 1 2 actually hear that in the sound. Okay. And that --3 MS. CHARLESWORTH: what Exhibit is that for the record? 4 5 PROF. TUSHNET: That was Exhibit 30. 6 MS. CHARLESWORTH: Okay. 7 PROF. TUSHNET: And so what Camtasia Studio and WM Capture will do on Windows 8.1, so 8 the version that you get if you buy it now, is 9 they record the audio but they have implemented --10 I don't know if it's the same -- they have 11 12 implemented technology that produces the same 13 result as you currently get on a Mac. So she said 14 she tried it with two different Blu- rays, same 15 result, so four attempts. 16 MR. RUWE: So which one was that though? 17 PROF. TUSHNET: So this one was WM 18 Capture. 19 MR. RUWE: Using what operating system? 20 PROF. TUSHNET: Using -- was this 21 Avengers or Captain America? It was one of those 22 two Blu-rays. 23 MS. SMITH: What operating system. 24 PROF. TUSHNET: ON -- sorry -- it is actually -- actually, I wrote it down elsewhere. 25

1 Give me one second. She used -- I'm sorry, can 2 you actually -- when I go back to my seat, would that be okay? 3 4 MR. RUWE: Sure, thanks. 5 PROF. TUSHNET: Okay. I'll tell you it is -- again, it's Windows 8.1 I believe but I --6 7 it's a Dell -- I can't remember the model. I can look it up for you. 8 9 Okay. So given the evidence that we've 10 submitted of artists actual experience, the burden 11 is on the opponents to provide some evidence that their alternatives work for Blu-ray. They do not. 12 13 Fourth and relatedly, the exemption 14 process looks at adverse effects in the real 15 world. People are using Blu-ray. Absent 16 exemptions, they risk violating the DMCA 17 regardless of the theoretical alternatives. 18 Giving them the ability to counter notify like 19 other people would be a real lifting of the 20 chilling effect. Remixers shouldn't have to be 21 lawyers. 22 Two more quick points, first, our 23 testimony comes from women, each of whom have more 24 than a decade of editing video. They've won 25 They've been featured in magazines and awards.

1 museums and scholarly articles. It's disconcerting to see men who admittedly don't make 2 or edit video discredit their experiences and 3 insist that there must be some way to do it 4 The MPAA has access to real film editors. 5 better. 6 I respectfully suggest that there's a reason that none of them are here to confirm the opponent's 7 assertions about file quality and editing. 8 9 Final point on adverse effects, in 10 previous panels, we've heard the opponents suggest that Mac owners go out and find a completely 11 12 separate computeer to do screen cap on and make sure 13 it's old. Pink collar workers, quys like Jonathan 14 Autry who was supporting two children on the 15 salary, or lack thereof, of a divinity student, 16 they can't do that. I know also that the Register 17 previously held, with respect to the print 18 disabled, that having to use multiple devices was 19 itself an adverse impact and I would encourage you 20 to consult that. 21 MR. DAMLE: But one of the points that 22 was made at an earlier panel was that there are no 23 licensed Blu-ray players for the Mac. 24 PROF. TUSHNET: Yes. 25 MR. DAMLE: So if you're using a

1 licensed Blu-ray player, you'd have to buy a PC anyways if you only have a Mac. 2 PROF. TUSHNET: So that's not true if 3 you have a Blu-ray player that's -- you have 4 another device and that you could -- but it is 5 6 true that -- you're right. I didn't know that 7 either. 8 So it's a question of what MR. DAMLE: multiple devices you need to --9 10 PROF. TUSHNET: Yeah. So, no, because, 11 well, a couple of things. It depends on sort of 12 what connections you can make, you know, in your 13 So I don't know everybody's setup. home. It is 14 the case -- I can look up how much the unlicensed 15 players are. Let's put it this way. Vidders 16 definitely will -- if they have the resources, they are interested in having, you know, the best 17 18 equipment they can. Nobody I know would say, "Oh, 19 I'll go out and buy a new PC." Instead they would 20 say, "Oh, I'll go out and buy a player." 21 Somebody's who really invested in complying with 22 the law didn't know this thing, right, about -- so 23 the people that I counsel, you know, who are 24 artists, they would buy a player and they wouldn't 25 know any more than I did before I got here.

1 Actually, let me leave you with one anecdote which is last -- this happened to me not 2 to long ago. So I am on a discussion list for 3 trademark lawyers who practice before the PTO, and 4 they were discussing submitting video clips to the 5 6 PTO to support argument about the use of a mark. And I mentioned that they would have to think 7 about DMCA compliance there. And I was told in no 8 9 uncertain terms that because it was a fair use, 10 they did not have to worry about circumvention 11 liability and like, again, these are practicing 12 lawyers, they're just not copyright lawyers. 13 MS. CHARLESWORTH: They said that over at 14 PTO? 15 PROF. TUSHNET: So it's a --16 (Laughter.) 17 PROF. TUSHNET: It's actually the -it's called a TTAB listserve so it's a listserve 18 19 for people who practice in front of. 20 MS. CHARLESWORTH: Okay. 21 PROF. TUSHNET: Okay. And they were --MS. CHARLESWORTH: 22 I don't --23 PROF. TUSHNET: -- and they were telling 24 me --25 MS. CHARLESWORTH: It's a PTO's friends,

1 okay. (Laughter.) 2 PROF. TUSHNET: Oh, yeah, and look, the 3 point is, you know, not even lawyers get this 4 5 right. We should make it easy to get it right. 6 Thank you. 7 Thank you, Professor. MS. CHARLESWORTH: I just wanted to remind you that Steve had an 8 outstanding question. She was going to look 9 something up for him. That's all. 10 11 PROF. TUSHNET: Yes. Give me one 12 moment. MR. CHENEY: And while she looks that 13 up, I wanted to ask, too, for clarification of the 14 15 record. It's my understanding that you can buy a 16 external drive that would attach to the Apple and that may -- that drive itself may be licensed that 17 18 you could then play the Blu-ray on. It's my 19 understanding that that may actually be true. Do 20 you understand if that's true or not? 21 PROF. TUSHNET: I'll have to defer to 22 Mr. Turnbull, I'm sorry. 23 MS. McSHERRY: I've been just handed a 24 device and according to this device and the Google 25 search that led to -- that it reflects, it's

1 actually quite easy to get hold of a Blu-ray 2 device that you can attach to your Mac. MR. CHENEY: And that would be licensed 3 I would assume? 4 5 MS. McSHERRY: Sure. No, I'm sorry. Ι 6 don't know the answer to that but it's certainly not hard to acquire. I could buy one right now by 7 clicking a button but I won't. 8 9 MR. CHENEY: Thank you. Mr. Turnbull, do you --10 MR. DAMLE: Well, I don't know what 11 MR. TURNBULL: 12 she was looking at so I have -- it's hard to 13 comment. The issue of whether you could connect a 14 stand-alone Blu- ray player through one of its 15 outputs to your Mac for playback purposes, you 16 potentially could. It would be unlikely that -- I 17 think you would have to circumvent something in order to actually be able to capture the video 18 19 that was being played back through a connection, 20 USB or whatever. The -- attaching a freestanding, 21 simply a Blu-ray drive to your Mac computer, the 22 way the technology works should not authenticate, 23 that drive should not authenticate with an 24 unlicensed player and so it should not play from 25 the drive using a player that's resonant of some

1 piece of software on the Mac. And would that be because 2 MR. CHENEY: 3 of the HDCP robustness --4 MR. TURNBULL: No. 5 MR. CHENEY: -- rules we talked about before? 6 7 MR. TURNBULL: That -- what I was just talking about now is an AACS requirement. 8 The 9 external drive that is connected is supposed to 10 authenticate itself to a licensed player, and the 11 licensed player is supposed to authenticate the drive as a licensed drive. If either one isn't 12 13 licensed, they're not supposed to play together. 14 The licensed one is supposed to refuse to play. 15 The -- when I was talking about a free-16 standing Blu-ray player, a set-top type Blu-ray 17 player that has an output that you could connect 18 to a PC, which is possible, the output would 19 itself have protection -- that would be HDCP or an 20 alternative -- would have protection that would --21 that's when I said the first time I was talking 22 about it, yeah, you'd have to crack the HDCP or 23 something else to get the image, to get the 24 content through that kind of connection. 25 MR. CHENEY: And that would be the case

1 for using screen capture software through that mechanism as well? 2 MR. TURNBULL: Screen capture software 3 is -- the -- screen capture software operates on, 4 the kind that my colleague has used, operates on 5 6 the decrypted video, so it would not actually be attacking either AACS or HDCP but it conceivably 7 could be something that has been imposed by the 8 Apple player or a Windows player for Blu-ray. 9 10 MR. CHENEY: Okay. 11 MS. CHARLESWORTH: Okay. I think --12 yes, Professor Tushnet. 13 Sorry. I just wanted to PROF. TUSHNET: answer your question. So Windows 8.1, Dell XPS 14 15 2720, 27-inch screen. It actually has to shift 16 resolution down to play Blu-rays but then again, 17 who cares because you can't see it, so 18 MR. RUWE: And just a quick question. Ιt 19 was only Windows 8.1 that has this problem or were 20 there other 21 PROF. TUSHNET: So, you know, my 22 informants only have one computer each so I don't 23 I know that the slightly older computer got know. 24 the crappy version so presumably, if you went far 25 enough back to get a processor that, you know,

1 can't handle it, you might find others that 2 support it. But, you know, if you bought something today, no. 3 MS. CHARLESWORTH: Professor Turk, you 4 5 had something to add? This is actually backing up 6 PROF. TURK: a bit but it's back to the question of the size of 7 uncompressed video. So we did a quick bit of 8 9 searching and uncompressed, 24 frames per second, 10 10 byte Blu-ray-sized video is 667 gigabytes per 11 hour of video. And for 40 minutes of, you know, 12 an iTunes HD download tends to be about 1.75 gigs. 13 So there is a pretty significant size difference. 14 MS. SMITH: Okay. Also on that topic, 15 I'm wondering if maybe Professor Tushnet can also 16 look up in the record, you said pages 9 and 10 was 17 like blowing up a photo, but I think that was talking about DVD instead of HD so I don't know if 18 19 there's another -- maybe I'm looking at the wrong 20 place? 21 PROF. TUSHNET: So actually -- so 22 there's a couple of them. So the vidder who talks 23 about I've tried screen capture and DVD rips, so 24 she wants -- she's talking actually about why she 25 wants to use Blu- ray, that even DVD isn't pulling

1 off what she wants. She's tried downloads. I think she does say that. 2 MS. SMITH: Where is this? This is robo 3 4 -- page nine? 5 MS. McSHERRY: This is in the reply just to be clear. 6 7 PROF. TUSHNET: This is in the reply, 8 I'm sorry. 9 MS. SMITH: I think I'm looking at your I mean I'm on page nine of the reply. 10 reply. 11 PROF. TUSHNET: Right. 12 MS. SMITH: So, okay -- because the -right above it, they say "I would like to use" --13 14 PROF. TUSHNET: Right. MS. SMITH: -- either download or Blu-15 16 ray so it's not that one. The next one is talking 17 about DVD. Right. So I think 18 PROF. TUSHNET: 19 actually it's the unnamed vidder that asked us to 20 remain anonymous and she's asking specifically for 21 Blu-ray because she's tried the other things. You 22 know, look, I have to say we actually do want high 23 quality downloads, too. In part, because we need 24 them to respond quickly so the Blu-ray -- there is 25 an important function that HD serves which is to

| 1 | respond to something, especially television where |
|----|--|
| 2 | there's usually a 9 or 10-month cycle. So it's |
| 3 | I mean it's not the case that these are useless. |
| 4 | It's just that, depending on what you want to do, |
| 5 | you may need the Blu-ray. But it's certainly the |
| 6 | case that, you know, the high quality downloads |
| 7 | can be good enough, especially if you want to |
| 8 | intervene in the conversation that's going on |
| 9 | right now, and we have some examples of that for, |
| 10 | say, you know, Supernatural, for Glee, for other |
| 11 | things where there's a cultural conversation going |
| 12 | on. So, you know, I don't want to say it like |
| 13 | they're useless. It's just that there are |
| 14 | situations where Blu-ray is better and |
| 15 | MS. COPPA: I think it |
| 16 | MS. McSHERRY: Okay. |
| 17 | MS. COPPA: If I may respond? I mean I |
| 18 | think it gets back to the basic of fair use |
| 19 | analysis, right. You take what you need for your |
| 20 | purpose. Sometimes your purpose is speed, |
| 21 | commenting on something while it's still happening |
| 22 | before your audience has forgotten about it, in |
| 23 | which case you might need to use one kind of |
| 24 | source. But maybe your purpose you think might |
| 25 | end up in a museum someday or as part of an |
| | |

| 1 | installation, in which case you're going to |
|----|--|
| 2 | recalibrate that and think about but it's |
| 3 | always it seems to me, the theme across all of |
| 4 | this is people are going to want the best quality |
| 5 | they can get within the parameters that they are |
| 6 | in. |
| 7 | MS. McSHERRY: Right. It also assumes |
| 8 | that people may just take the best quality and no |
| 9 | tailor it to their purpose because they may not be |
| 10 | aware of these slides I think is another stream of |
| 11 | what you're saying also, right? |
| 12 | MS. McSHERRY: Absolutely. I mean they |
| 13 | just won't know and it is really counterintuitive |
| 14 | from an artistic perspective but you just you |
| 15 | guessed wrong in your source and now you've got a |
| 16 | legal problem that you didn't have before. |
| 17 | MS. CHARLESWORTH: Thank you, Ms. |
| 18 | McSherry. Professor Coppa? |
| 19 | PROF. COPPA: I just wanted to add two |
| 20 | things. One was, you know, when you're reviewing |
| 21 | the Supernatural, you know, video, I feel like I'm |
| 22 | actually the least technical so in an odd way, I'm |
| 23 | most appreciative of the effects of, you know, |
| 24 | that. Just to iterate that it was the sort of |
| 25 | effects on the body, the fact that the body in the |
| | |

| 1 | foreground is not the same as the is mismatched |
|----|---|
| 2 | with the background, that the background was |
| 3 | switched on the person in the foreground but also |
| 4 | how difficult it is to integrate text so that it |
| 5 | looks as if it's in the image. I mean picture |
| 6 | that if you can imagine I don't know if you |
| 7 | ever used this kind of screen capture yourself |
| 8 | but, you know, I looks like you're writing on a |
| 9 | frame, you know, I mean like a typewriter, to |
| 10 | actually give something three-dimensionality that |
| 11 | it moves with you, that if you move, your arm |
| 12 | moves and the text shifts in real time. It looks |
| 13 | like nothing but like try it. It's actually |
| 14 | incredibly kind of difficult. |

15 And, you know, one of the hard things sometimes, you know, for me and having been around 16 17 these hearings is the fact that if somebody's done 18 their job right, you might often not see it at all 19 because it looks so beautiful and intuitive and 20 like TV looks, you know, ignoring the fact that it 21 was done by a pink collar worker in Mississippi 22 and not by like industrial light and magic in 23 Hollywood with all this processing power. 24 And I'm often very moved by that. We

25 were talking just before the thing about a vid

| 1 | that showed at a convention that we were at where |
|----|--|
| 2 | afterward, somebody went "yeah, what's the big |
| 3 | deal," and it just turned out that the main |
| 4 | character hadn't been in any of those shots and it |
| 5 | didn't look like anything. But the people who |
| 6 | knew the show were like "that guy wasn't in any of |
| 7 | those scenes." She'd actually just put them in. |
| 8 | And so sometimes when you're, you know, showing |
| 9 | these things to people, it's hard to sort of say |
| 10 | like that was hours of work. It was days of work. |
| 11 | It was, you know, days just to render. |
| 12 | The second thing that I wanted to |
| 13 | emphasize is that while certainly not everybody is |
| 14 | going to be using Blu-ray all the time, you know, |
| 15 | I reiterate my point about sort of younger people |
| 16 | who use it even, you know, without thinking. But |
| 17 | also, you know, my concern a lot is for the kind |
| 18 | of person who's using Blu-ray because they take |
| 19 | their voices seriously and who may be the person |
| 20 | who ends up defending their work from takedown. |
| 21 | You know, I spend a lot of time trying to help OTW |
| 22 | educating vidders that if, you know, somebody is - |
| 23 | - if they're the victim of an unfair takedown, |
| 24 | that they should fill out the form and say, "No, |
| 25 | my work is a fair use. This is my speech. This |
| | |

| 1 | matters," you know. And as a principle to me, |
|----|--|
| 2 | it's important to be able to tell people that they |
| 3 | should, if they think their work is fair, that |
| 4 | they should fill out any process forms that a |
| 5 | hosting site or whoever it is, you know, offers. |
| 6 | And so I feel like to the extent to |
| 7 | which somebody using Blu-ray is taking their |
| 8 | speech and their art seriously, that they may |
| 9 | exactly be t he person who is in that kind of a |
| 10 | dispute and so the very person who I want to have |
| 11 | the exemption because, you know, that's the person |
| 12 | who's going to fight it, right, where maybe the |
| 13 | 14-year-old is using Blu-ray but if she gets a |
| 14 | takedown and she doesn't think her speech is |
| 15 | important I'm working on it but she may not |
| 16 | think her speech is important enough to fight the |
| 17 | takedown, and I'm kind of interested in the person |
| 18 | who is, you know. |
| 19 | MS. CHARLESWORTH: Okay, thank you. I |
| 20 | think we're going to turn now Mr are we |
| 21 | skipping over you, Mr. Turnbull or |
| 22 | MR. TAYLOR: I'm just standing. |
| 23 | MS. CHARLESWORTH: You're just standing. |
| 24 | Okay, I don't blame you. Mr. Turnbull, would you |
| 25 | like to proceed? |
| | |

1 TURNBULL: Yes, and I actually won't MR. take a lot of time and will defer to Mr. Taylor 2 here momentarily. 3 Our view is that the evidence in this 4 record establishes that there is a vidder 5 6 community making all kinds of videos using the 7 existing technologies and the existing exemptions without having the exemption of AACS Blu-ray. 8 9 There are sites, as we -- sites on the internet 10 that, as we indicated in our written submission, 11 that tell vidders how to use screen capture software for their uses. 12 13 There are HD quality videos that we've 14 talked about that are available through downloaded 15 HD content under the existing exemption and 16 presumably a renewed exemption. I don't know. Ι 17 wasn't as fast as Professor Turk with figuring out 18 the gigabytes but there are also flavors of HD 19 that are available online and I don't know which 20 flavor she was using. HDX is, I think from what 21 I've seen, likely to be the highest quality and 22 the largest gigabytes. There is some complaint in 23 the early days of its use, that it took a long 24 time to download which suggests that it was a big 25 file. But in any event, there is high quality HD.

| 1 | Some of the quotes, the one that we were just |
|----|--|
| 2 | looking at on page nine of the reply from the |
| 3 | proponents actually cited the use of HD downloads |
| 4 | as a good thing, so we think that there are |
| 5 | alternatives. |
| 6 | And with regard to content that is |
| 7 | available only on Blu-ray, there is a de minimis |
| 8 | amount of that. It's also the case that some of |
| 9 | the online downloads contain bonus features as |
| 10 | well so even further diminishing it. |
| 11 | Second point I wanted to make is that as |
| 12 | to the case law, it's our view that Corley is good |
| 13 | law and, in fact, the most directly relevant law |
| 14 | to this proceeding. It was covering the same law |
| 15 | that this is operating under. The it's using - |
| 16 | - it's applying to the same kinds of technologies |
| 17 | that we have before us, the same kind of "it is |
| 18 | video" that is before us. Some of the other cases |
| 19 | that were cited had to do with written transcripts |
| 20 | versus audio recordings; they had to do with use |
| 21 | of posters. They had to they did so we |
| 22 | believe that Corley is, in fact, good law and |
| 23 | highly relevant to this case. And the quote that |
| 24 | we've used in a number of the panels is from the |
| 25 | direct finding of the court in relation to the |
| | |

relationship of the First Amendment and fair use,
 and it was one of the three reasons why the court
 found for the plaintiffs in that case.

Finally, in relation to the harm to the 4 markets for the content and for the proprietors of 5 6 the content protection or technological protection measures, as I've said in other panels, there was 7 a recent case in which the judge, Judge Broderick 8 in the Southern District, found irreparable harm 9 to AACS from the distribution of tools that were 10 used to circumvent AACS. It is our view that the 11 12 enabling of the further distribution of those 13 tools through exemptions, in this proceeding 14 particularly, one that is as broad and sort of 15 amorphous as the one that's proposed here would 16 have the similar irreparable harm to AACS. The 17 fact that there has not been commentary on any 18 harm from the DVD exemptions is simply a 19 commentary on the differences between DVD and Blu-20 ray, DVDs hack having been ubiquitous and it being 21 indistinguishable what might have happened from 22 somebody who misused an exemption versus somebody 23 who simply got a hack system or a circumvention 24 tool online. Here we've been able to contain the 25 -- for Blu-ray, we've been able to contain the

1 circumvention tools to at least some degree and the use of those tools in a more widespread 2 context we believe would indeed cause harm to 3 AACS. 4 5 MS. CHARLESWORTH: Mr. Turnbull, a 6 couple of questions. What do you make of the 7 claim that -- I mean one of the assertions here is that, you know, when you're in the editing process 8 9 and the kind of complex editing that's going on 10 here, that Blu-ray is a better format to be 11 working with than other formats? I mean do you 12 have a response to that? 13 MR. TURNBULL: The comment that was made 14 that I'm not, in fact, a vidder is correct. Т 15 don't have firsthand experience. I take the point 16 as made. On the other hand, I think that people 17 did make, have made perfectly good remix videos 18 using alternative forms of video. The compelling, 19 you know, 5 years ago, 10 years ago, people would 20 have said, you know, this was quite compelling and 21 so I think that it's possible to do it without 22 that. And as we've said, the HD content that's 23 available through the HD download, medium and as 24 Mr. Taylor will show, even using non-Blu-ray 25 content, the editing is possible to do.

| 1 | I would actually add one point that's |
|----|--|
| 2 | not directly relevant to your question but it |
| 3 | occurred to me and I admit we have not maintained |
| 4 | that screen capture of the playback of a Blu-ray |
| 5 | is an alternative. In general, our view is that |
| 6 | that probably doesn't work in more cases than it |
| 7 | does, and so we have not maintained that and so I |
| 8 | mean it was useful to see the demonstration but it |
| 9 | wasn't in response to anything we had proposed. |
| 10 | MS. CHARLESWORTH: Okay. What about the |
| 11 | other concern that, you know, as an artist, you |
| 12 | may think for aesthetic reasons you need Blu-ray |
| 13 | as opposed to any alternative; I mean how do you |
| 14 | respond to that? |
| 15 | MR. TURNBULL: I think the response is |
| 16 | that under our laws, you don't always get what you |
| 17 | want, and that the you know, and again, going |
| 18 | back to the Corley case, you know, the fact that a |
| 19 | critic might have had a better piece of criticism |
| 20 | if he had been able to take a video camera into |
| 21 | the movie theatre and to capture using the video |
| 22 | camera in the movie theatre, the clip that |
| 23 | demonstrated what he was talking about doesn't |
| 24 | mean that it's legal to go in the movie theatre |
| 25 | and use a video camera. |
| | |

1 MS. CHARLESWORTH: And, you know, on 2 that point there are sort of -- I'm just asking you sort of broad, you know, so you can respond 3 for the record these sort of broad themes, you 4 5 know, that the bar is getting higher and higher in 6 terms of quality and that -- I mean it's true 7 there are, you know, as we saw in LA, you know, we have 4k coming, we have a lot of other -- we have 8 newer formats coming into the market that are even 9 10 above Blu-ray in terms of their quality and, you 11 know, pixels and so forth. I mean do you agree 12 that in general, the way the market is moving is 13 it's progressing to higher and higher res formats 14 and that that's just sort of an inevitable 15 progression and that --MR. TURNBULL: 16 Well --17 MS. CHARLESWORTH: -- partly what we're 18 -- I'm sorry to -- that's a long question but 19 partly what we're discussing here is sort of the 20 change, you know, from three years ago or looking 21 a little bit into the next three years, that that 22 bar is -- is that there's that shift going on 23 toward higher res content? 24 MR. TURNBULL: -- well, yes and no. Ι think that my clients and the people who 25

| 1 | participate in their in the companies who are |
|----|--|
| 2 | part of AACS very much hope that, in fact, |
| 3 | everybody will rush out this Fall and buy their |
| 4 | new ultra-high definition television and ultra- |
| 5 | high definition Blu-ray players that are going to |
| 6 | be made available this Fall. They really hope |
| 7 | that that's the case. Having and so to a point |
| 8 | that there's no doubt about that. |
| 9 | On the other hand, DVD is still the |
| 10 | dominant optical media form factor, |
| 11 | notwithstanding the fact that Blu-ray has been |
| 12 | around for however long, nine years, DVDs vastly |
| 13 | outsell Blu-rays every year and have for some time |
| 14 | and there's no, you know, indication that that's |
| 15 | changing. I mean the and the video online |
| 16 | videos, you know, people are watching all kinds of |
| 17 | different resolutions. You know, even when I I |
| 18 | know as a consumer, when I try to, you know, go to |
| 19 | one of my online systems to watch on my big screen |
| 20 | TV, it frequently says that, you know, the content |
| 21 | may be down resolved in order to deal with |
| 22 | bandwidth. So people are watching I don't know |
| 23 | that it's it isn't just, you know, everybody is |
| 24 | watching the high definition all the time. |
| 25 | MS. CHARLESWORTH: Okay. Ms. McSherry, |
| | |

| 1 | did you have something you wanted to add? |
|----|--|
| 2 | MS. McSHERRY: I do, yes, a couple of |
| 3 | things. First of all, just on Corley, this is in |
| 4 | our paper so I'm not going to belabor the point |
| 5 | but Corley wasn't a fair use case. It was really |
| 6 | quite a different case than what's at issue here. |
| 7 | We actually have submitted for the record actual |
| 8 | fair use cases that think about the fair use |
| 9 | analysis and they go the other way. |
| 10 | Second thing, harm. So what opponents |
| 11 | have cited to is, you know, a court decision |
| 12 | that's quite brief saying there is harm, |
| 13 | irreparable harm here. Moving on, okay. What they |
| 14 | haven't submitted is anything beyond that, any |
| 15 | actual evidence. They suggest that there is a |
| 16 | distinction because with DVDs, the circumvention |
| 17 | tools were widely available and that's different |
| 18 | than it is for Blu-ray but I would suggest to you |
| 19 | that based on what we're hearing from the vidding |
| 20 | community and the remix community, apparently |
| 21 | these tools are widely available because people |
| 22 | are using them, and we've submitted lots and lots |
| 23 | of examples of that in the record. So clearly, |
| 24 | they're already available. There isn't really |
| 25 | distinction to be made with between DVDs or online |
| | |

| 1 | distribution or Blu-ray with respect to, you know, |
|----|--|
| 2 | that theory of harm. And again, I would remind |
| 3 | the Office that there have been many, many |
| 4 | opportunities for opponents to submit some |
| 5 | evidence that the previous exemptions have caused |
| 6 | any harm whatsoever and they have never been able |
| 7 | to do that. |
| 8 | Finally, I think your question speaks to |
| 9 | this so I'll be super brief but, you know, Mr. |
| 10 | Turnbull suggested that, well, you know, five |
| 11 | years ago, people were perfectly happy with one |
| 12 | standard of technology and why should and |
| 13 | suggesting, I think, that we should have settled |
| 14 | for the standard of five years ago but, of course, |
| 15 | that standard has evolved. Technology has evolved |
| 16 | and I think that many of us aren't thrilled that |
| 17 | we all have to do this every three years, but the |
| 18 | one benefit of coming back here every three years |
| 19 | is that it's an opportunity to look at the |
| 20 | exemptions that exist and decide if they need to |
| 21 | evolve according to new technologies and practices |
| 22 | and that's exactly what we're here to ask for. |
| 23 | MS. CHARLESWORTH: Okay. Thank you, Ms. |
| 24 | McSherry. Professor Tushnet, did you want to |
| 25 | respond as well? |

1 PROF. TUSHNET: So super briefly on harm. I'm sorry people don't know about this 2 proceeding. This is in the record. 3 We're the only ones who have empirical evidence about remixers' 4 5 actual knowledge on the ground, studies both of vidding and other remix communities -- I can't 6 remember the guy's name off the top of his (sic) 7 head -- but it's a 2014 study that they looked 8 across internet users generally. It's the one 9 10 that found that 2.6 percent of people are making 11 remix. And the thing is it's relevant to both the 12 question of alternatives and the question of 13 alleged harm. It may be unfortunate but there's 14 nothing you can do, deny the exemption, grant the 15 exemption, whatever you do will not affect the 16 prevalence of the circumvention technology. The 17 only thing you can do is get people out of a trap 18 that they walked into that they didn't know about, 19 and this has been true the entire time and, you 20 know, now we have anthropological evidence saying 21 it's been 15 years, people still don't know about 22 this -- sorry, 17 years -- excuse me. 23 MS. CHARLESWORTH: Don't know about the 24 Section 1201 proceeding? 25 That's correct. PROF. TUSHNET:

1 MS. CHARLESWORTH: -- okay. 2 MR. CHENEY: May I ask a question at this point? There's an interesting thing that 3 we're talking here. One of the effects that's 4 often talked about is the chilling effect on 5 vidders and I'm not getting a sense from you that 6 there has been a chilling effect on videos being 7 creative. It sounds like its proliferating. 8 Can 9 you explain a little more about that and maybe I'm misunderstanding what you're saying there? 10 11 PROF. TUSHNET: We have an exemption 12 for many uses so obviously, it's very hard to show 13 chilling. 14 MR. CHENEY: Let me be more specific 15 then with respect to the Blu-ray. 16 PROF. TUSHNET: Right. MR. CHENEY: It sounds like a lot of 17 folks --18 19 PROF. TUSHNET: So --20 MR. CHENEY: -- are using the Blu-ray 21 when it's not an exemption. 22 PROF. TUSHNET: Right. So in 2009, the 23 finding of harm when there wasn't an exemption was 24 based on the fact that we had to counsel people who wanted to counter notify. That's the only 25

| 1 | situation in which this comes up, that they get a |
|----|--|
| 2 | DMCA takedown and when they come to us saying like |
| 3 | "I'd like to fight this. I have something to |
| 4 | say." The harm finding was based on that we had |
| 5 | to tell them, "Okay, how did you make it and |
| 6 | sorry, we agree it's a fair use but it you |
| 7 | didn't know and it turns out you made it wrong." |
| 8 | So we do see those people. Fortunately, not |
| 9 | they're not the largest percentage of the people |
| 10 | we see, but we do see them and so again, I want to |
| 11 | talk about the American Indians and the Center for |
| 12 | Bioethical Reform and, you know, Jonathan Autry, |
| 13 | all people who like had no idea of what the rules |
| 14 | were until they got sucked into something. |
| 15 | MR. CHENEY: So you're suggesting that |
| 16 | the chilling effect is that folks after the fact |
| 17 | PROF. TUSHNET: That's correct. |
| 18 | MR. CHENEY: are learning that they |
| 19 | have violated a law potentially or they can have, |
| 20 | after the fact, these takedown notices? Now |
| 21 | you're saying that's the chilling effect |
| 22 | PROF. TUSHNET: And yes |
| 23 | MR. CHENEY: not that they're being |
| 24 | prevented from making the videos or that because |
| 25 | of the law may be murky or unclear, they're not |
| | |

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making the videos; that's not the chilling effect? 1 PROF. TUSHNET: That's correct and I 2 just want -- again, in 2009, the Office held that 3 that counted as an adverse effect because these 4 are fair uses. We'd like to litigate them in 5 6 court. We'd like to counter notify and they go 7 down. 8 MS. CHARLESWORTH: So you're saying the chilling effect is that the -- that people are 9 10 agreeing to take down what are perceived as fair 11 uses rather than fight it in court? PROF. TUSHNET: That's correct. Or even 12 13 to counter notification, right. 14 MS. CHARLESWORTH: Well, or -- well, 15 yeah. PROF. TUSHNET: Most counter 16 notifications don't actually end up in court but 17 18 yes. 19 MS. CHARLESWORTH: Understood, yes. 20 PROF. COPPA: If I could just say and 21 often, these takedowns, they're just algorithms, 22 right. It's not anybody making an actual 23 decision. It's just, you know, some algorithm 24 comes and knocks off a video and certainly, on the -- using the DVD exemption, it's been hugely 25

| 1 | helpful to be able to say, "No, go on ahead and if |
|----|--|
| 2 | you think your use is a fair use, you go and fill |
| 3 | out that paperwork." So I do worry, in fact, that |
| 4 | I don't know if the I mean you may know, |
| 5 | Rebecca, if Blu-ray people are coming to you and |
| 6 | recognizing like, "oh, well, I was going to |
| 7 | counter notify but I didn't because it was Blu- |
| 8 | ray." I think they just may not know and so I do |
| 9 | worry about that. |
| 10 | MS. McSHERRY: And if I might just very |
| 11 | quickly? I think also, the other harm we have an |
| 12 | increasing number of people incurring legal risk |
| 13 | with no idea. So that's not exactly a chilling |
| 14 | fact in the traditional sense of chilling effect, |
| 15 | like it's chilling, you know, people's speech but |
| 16 | it is, I would submit, harm that we have all these |
| 17 | people who are just basically waiting for the |
| 18 | Sword of Damocles to fall and it can happen at any |
| 19 | time and they have no idea. And, you know, that |
| 20 | in and of itself you know, given that what they |
| 21 | are otherwise doing is perfectly lawful is, I |
| 22 | think, a harm that this Office should take |
| 23 | seriously. |
| 24 | MS. SMITH: Ms. McSherry, going back to |
| 25 | what you said about technology evolving, I just |

1 wanted to be clear. Do you conceive this proposal as potentially encompassing ultra HD Blu-ray if 2 Blu-ray were granted or would that be different? 3 MS. McSHERRY: I'm not sure of the 4 technical difference between ultra-HD, Blu-ray and 5 6 regular Blu- ray. 7 MS. CHARLESWORTH: One, I mean I think one is HD and one is ultra-HD. 8 9 MS. McSHERRY: Oh, I see. Okay. Thank 10 you. 11 (Laughter.) 12 MS. CHARLESWORTH: That's my 13 understanding. 14 MS. McSHERRY: All blu -- no, no, then 15 all Blu-ray all the time. MS. CHARLESWORTH: It took me a week to 16 learn that but here I am. 17 18 MS. McSHERRY: Thank you. I think the way we've crafted is that it covers Blu-ray in all 19 20 of its forms. 21 MR. TURNBULL: Okay. Let me --22 MS. McSHERRY: Does that --23 MS. CHARLESWORTH: Mr. Turnbull. 24 MR. TURNBULL: Thank you. We would 25 object to any inclusion in this proceeding the

| 1 | ultra-HD Blu- ray format. It is a format that is |
|----|---|
| 2 | completely different from HD Blu-ray. It is going |
| 3 | to be protected using a technology which is based |
| 4 | on AACS but is going to itself be very different |
| 5 | from the existing AACS technology. There is no |
| 6 | evidence in the record whatsoever of harm having |
| 7 | to do with ultra-HD Blu-ray. |
| 8 | MS. SMITH: Is it out yet? |
| 9 | MR. TURNBULL: No. |
| 10 | MS. SMITH: Okay. |
| 11 | MR. TURNBULL: It's not and so, you |
| 12 | know, I hope we can limit the and when this was |
| 13 | raised in Los Angeles in relation to the |
| 14 | documentary and other filmmakers, their answer |
| 15 | very quickly was "no, no, no, we're not talking |
| 16 | about that" and I would hope that would be the |
| 17 | case here. |
| 18 | MS. CHARLESWORTH: I mean, Ms. McSherry, |
| 19 | can I mean Mr. Turnbull's represented there's |
| 20 | really nothing in the record on this forthcoming |
| 21 | format. I mean do you think so that we are |
| 22 | you willing to concede that at this point, that's |
| 23 | not what you mean; when you're talking about Blu- |
| 24 | ray, you're talking about the more traditional HD |
| 25 | Blu-ray? |
| | |

| 1 | MS. McSHERRY: Well, I would absolutely |
|----|--|
| 2 | concede that we could not have built a record on a |
| 3 | technology that is not yet available so, no so |
| 4 | I will concede that. I mean I think that, you |
| 5 | know, look, in an ideal world, you know, we would |
| 6 | have a forward-thinking exemption that actually |
| 7 | would adapt for that because the same arguments |
| 8 | and the same problems that we're talking about |
| 9 | here are going to apply. There will not be a |
| 10 | distinction but, you know, I suppose if we need to |
| 11 | come back in three years and talk about ultra-HD |
| 12 | Blu-ray and whatever the next one is and the next |
| 13 | one, you know, we can do that. |
| 14 | MS. CHARLESWORTH: I think you'll |
| 15 | probably be doing that. Professor Coppa. |
| 16 | PROF. COPPA: I had just wanted to say |
| 17 | about the what you implied about the forward- |
| 18 | thinkingness that, you know, we're expecting that |
| 19 | this exemption covers three years ahead and, you |
| 20 | know, technology changes and artistic practice |
| 21 | shifts. You know, and when you go on Tumblr and |
| 22 | you see written really, kids, you know, tagging |
| 23 | Blu-ray or apologizing. You see people sort of |
| 24 | saying oh, I cut this fast to respond but I'll re- |
| 25 | cut it in Blu-ray as soon as the Blu-ray comes |

| 1 | out, like but so don't hate me. Like oh, I |
|----|--|
| 2 | put out this crap thing but I'll put out a good |
| 3 | thing really fast, you know. And here they are |
| 4 | just tagging it in their Tumblrs with no sense at |
| 5 | all that there's a trap or that there's |
| 6 | potentially some kind of an issue there. And so |
| 7 | it would be nice if we, you know, thought a little |
| 8 | bit ahead. |
| 9 | MS. CHARLESWORTH: Okay. I know I |
| 10 | think that the we have two more, I think, |
| 11 | opponents need to go. Professor Tushnet, is it |
| 12 | something very brief, because we really need to |
| 13 | give them some |
| 14 | PROF. TUSHNET: Right. There is |
| 15 | something in the record |
| 16 | MS. CHARLESWORTH: equal time. |
| 17 | PROF. TUSHNET: Sorry. There is |
| 18 | something in the record about uses which is that |
| 19 | they that people use it because they bought it |
| 20 | and because they don't want to be pirates. They |
| 21 | believe and that's in the record that they |
| 22 | don't make these distinctions and I believe that's |
| 23 | record evidence of relevance to whatever comes on |
| 24 | the market. |
| 25 | MS. CHARLESWORTH: Okay. Mr. Taylor. |
| | |

| 1 | MR. TAYLOR: Good afternoon. Today I |
|----|--|
| 2 | would like to demonstrate three videos and go |
| 3 | through some images on a PowerPoint. The first |
| 4 | will be a clip of The Matrix. I'm sure you're |
| 5 | tired of The Matrix by now but |
| 6 | MS. CHARLESWORTH: No. |
| 7 | MR. TAYLOR: it is a different clip |
| 8 | than we have shown before in response to the reply |
| 9 | comments. The second will be a demo of using that |
| 10 | clip with Premiere. I'll go over the Exhibits |
| 11 | shortly. And then the third clip will be a |
| 12 | comparison of the original screen capture clip |
| 13 | versus what we actually produced in Premiere and |
| 14 | the edited effects. And then the fourth will be a |
| 15 | set of images that have been upgraded or processed |
| 16 | that were originally taken from the screen capture |
| 17 | sets. |
| 18 | So what I believe is going to be Hearing |
| 19 | Exhibit 31 |
| 20 | MS. CHARLESWORTH: Okay. |
| 21 | MR. TAYLOR: is the file's name is |
| 22 | "Matrix MP4 720 x 486, 23.97 fps" and I'm going to |
| 23 | go ahead and get that started right now. |
| 24 | (Whereupon, Hearing Exhibit Number 31 |
| 25 | was marked for identification and |
| | |

1 played back.) MR. TAYLOR: So this is the video that 2 we went back and recorded with a WM Capture and 3 it's going to be -- it's outputted as an MPEG4. 4 And the reason why we had originally -- our 5 original submission said MPEG2 in it and we 6 learned through the reply process that Adobe 7 Premiere does not handle MPEG2 any longer but it 8 does handle MPEG4, so that's why we went and re-9 10 recorded the video. 11 So that was the first video and again, 12 it was made with a WM Capture and it was outputted 13 into an MP4 file. My next --14 MS. CHARLESWORTH: Can I just ask a 15 question? Did the aspect ratio on that change? 16 MR. TAYLOR: The image size I kept at 720 x 486. What we had talked about with the 17 18 broadcasters, that I couldn't tell from the reply 19 comments what image size that they wanted exactly. 20 There were some competing information in there so 21 I kept it as 720/486 and the aspect ratio should 22 be 4 to 3. MW capture, you can change the aspect 23 ratios that you want to set so if you want 16 to 24 1, you can choose 16:1. There is a whole host of 25 other aspect ratios and 4 to 3 is right there.

1 MS. CHARLESWORTH: Okay. But was it a change from the original material that was 2 captured in terms of the proportion of the aspect 3 4 ratio? 5 MR. TAYLOR: I do not know what the 6 original aspect ratio was. It was what -- WM Capture has some predetermined aspect ratios. 7 Ιt has some predetermined settings so if it thinks 8 you're going to record something, it's going to 9 10 record it set for maybe an iPod or an iPad --11 excuse me -- an iPad or an iPhone. And I am not 12 sure that those aspect ratios are necessarily 4 to 13 3. 14 MS. CHARLESWORTH: Okay, thank you. 15 MR. RUWE: And what operating system, do 16 you know, were you using when you used WM Capture? 17 MR. TAYLOR: Oh, WM Capture was Windows 8.1. 18 19 MR. RUWE: 8.1. 20 MS. SMITH: And Professor Turk talks 21 about the frame size and the frame rate of it and 22 so did you change the frame size? What, it's 23 720:486, so that's not the UT resolution that 24 she's talking about? 25 MR. TAYLOR: I did change it from the

| 1 | original. I'm not sure what the original size was |
|----|--|
| 2 | so I did change it to 720:486. You can set it to |
| 3 | whatever size you want it to. I did understand |
| 4 | that they wanted 23.97 or 24 frames per second so |
| 5 | I chose 23.97, so that was recorded at 23.97. |
| 6 | MS. SMITH: Well, I think she was saying |
| 7 | 24 frames per second is film and 29.97 is like the |
| 8 | telecine transfer. |
| 9 | MR. TAYLOR: I agree. |
| 10 | MS. SMITH: Okay. So it was 23.97? Was |
| 11 | that |
| 12 | MR. TAYLOR: I think that the popular |
| 13 | speech is 24 but there is actual choice between |
| 14 | 23.97 and 24. |
| 15 | MS. SMITH: And we call it 24. Okay. |
| 16 | MR. TAYLOR: So right is the interface |
| 17 | for Adobe Premiere and what I'm going to show is |
| 18 | we're going to import the file that you just so |
| 19 | into Adobe Premiere. |
| 20 | MR. RUWE: Can you give me the file name |
| 21 | again? |
| 22 | MR. TAYLOR: Oh, I'm sorry. This is |
| 23 | Hearing Exhibit 32 and the name of the file is |
| 24 | "Premiere Demo Matrix. |
| 25 | (Whereupon, Hearing Exhibit Number 32 |
| | |

1 was marked for identification and viewed.) 2 MR. TAYLOR: And so that is choosing the 3 import and choosing the file, and you're going to 4 5 see the file pop up in the left-hand corner and there it is. And I've referenced timelines a 6 7 couple of times into things and over here on the right-hand side of the bottom screen is, in fact, 8 9 a timeline that's common to video editing 10 software. 11 So I'm going to move it forward. They -12 - in the reply comments, they talked about they 13 wanted to do two things, zoom and cross-fading. 14 And so I'm going to show you -- take you quickly 15 to a couple of places where we did zoom and cross-16 facing. And as you see that, you can see that the 17 right preview is moving over to the right and 18 what's going to happen is we're going to actually 19 focus on the short guy in the back who's called 20 "the Keymaker." Okay, so that was the first zoom 21 that we're doing. 22 Now the second zoom and you see the 23 right. And now we're focusing. The zoom is on 24 Morpheus and Neo. And the final is the cross-25 fades and it's toward the end and it's going to be

| 1 | when Morpheus not Morpheus when Neo holds up |
|----|--|
| 2 | his hand to stop the bullets, you're going to |
| 3 | what we're going to do is layover the guys who are |
| 4 | shooting the guns at him so that effect where |
| 5 | you saw it go back again over the people, that is |
| 6 | the segment of the clip that is going to be cross- |
| 7 | faded in the edited product. |
| 8 | Now I'm going to go and do a side-by- |
| 9 | side comparison of the original video capture clip |
| 10 | and what was produced with the Premiere, and it's |
| 11 | going to be Hearing Exhibit 33 and the file name |
| 12 | is called "Side- by-side Matrix Comparison. |
| 13 | (Whereupon, Hearing Exhibit Number 33 |
| 14 | was marked for identification and |
| 15 | viewed.) |
| 16 | MR. TAYLOR: So on the left-hand side is |
| 17 | the original video capture and on the right-hand |
| 18 | side is what we is what was rendered through |
| 19 | Adobe Premiere. I'm going to let it play through |
| 20 | one time and then go back to the same zoom |
| 21 | features and cross- fades that we produced. |
| 22 | All right. So to show you the editing |
| 23 | features that we did do, I'm going to take you to |
| 24 | the first one which was involved the Keymaker |
| 25 | and I'm going to try to stop it so that you can |
| | |

| 1 | compare the difference. I'm going to let it play |
|----|---|
| 2 | through a little bit, and focus on the right-hand |
| 3 | side on the right screen and there will be the |
| 4 | appearance of the Keymaker. On the original, the |
| 5 | Keymaker was never in that part of the clip. |
| 6 | All right. So just to show so the |
| 7 | original clip, he's he talked the entire time |
| 8 | and never showed the Keymaker but what we did was |
| 9 | when he said Keymaker all right, so this the |
| 10 | Keymaker is here and when he references the |
| 11 | Keymaker. |
| 12 | Moving on to the second clip |
| 13 | MS. SMITH: So I mean you've just |
| 14 | spliced a clip into it but you're not saying that |
| 15 | you could use the screen capture technology to |
| 16 | like add a character into the existing frame the |
| 17 | way they were talking about, some of these vids? |
| 18 | MR. TAYLOR: What we did was we used |
| 19 | screen capture technology as the source material |
| 20 | and then with that source material, you can use |
| 21 | their preferred software, which was Adobe |
| 22 | Premiere, and do the same things with the screen |
| 23 | capture material that they said that they wanted |
| 24 | to do. |
| 25 | MS. SMITH: Okay. But you haven't tried |
| | |

to like insert the Keymaker into the still we're 1 2 looking at now or anything to see what that does, right? 3 MR. TAYLOR: We did do that. 4 MS. CHARLESWORTH: I think what Ms. 5 Smith is asking about, and I think you may have 6 answered it but maybe not -- maybe if you can sort 7 of explain a little bit -- is could you, say, 8 import -- say take a completely different film, 9 10 for example, and import an image, a screen 11 captured image from that film into this film that 12 we're watching? 13 MR. TAYLOR: With Adobe --14 MS. CHARLESWORTH: Using screen capture and Adobe. 15 MR. TAYLOR: Right. And so we created 16 the Adobe Premiere edit from original footage that 17 was made with screen capture software and then 18 19 this is -- what we outputted was processed. If we -- you could add other clips to it, as many other 20 21 clips as you wanted to, as much as Adobe Premiere 22 would handle, but Adobe Premiere doesn't treat it 23 any differently. 24 MS. CHARLESWORTH: Does that answer your 25 questions?

1 Yes. Okay, thank you. MS. SMITH: MR. TAYLOR: And so this is the 2 zoom where we actually focus on Morpheus and Neo 3 and Trinity is cut out of the scene. So on the 4 5 image on the -- the original, you could see 6 Trinity was on the left because we had zoomed in on Morpheus and Neo, the effect of this was to 7 actually cut Trinity out of the scene. 8 And then 9 the final feature, which was the cross-fades, just 10 play that real -- (Whereupon, continue playback of 11 Hearing Exhibit 33.) 12 13 MR. TAYLOR: And so you can see the cross- fades effect. So in the original, you just 14 15 see Neo holding up his hand and stopping the 16 bullets. When we put the cross-fades effect, it superimposes the images of the actual shooters on 17 18 top of Neo, so I think that's what we were able to 19 show. 20 Now I want to go on to the -- all right, 21 so what we have here are --22 MS. CHARLESWORTH: Is this Exhibit 34? 23 MR. TAYLOR: It's Exhibit 34 and it's a 24 PowerPoint presentation called Family Guy. 25 (Whereupon, Hearing Exhibit Number 34

1 was marked for identification and viewed.) 2 3 MR. TURNBULL: And what we have a couple of still images. You can call them screen --4 5 they're frames from the screen capture video and 6 this is kind of typical of the results and if you process it, you can improve the quality of the 7 And so -- and that's really kind of the 8 image. 9 point in all of this is that any image that you have can be edited and processed so that the image 10 11 quality is improved. 12 MS. CHARLESWORTH: Okay. How did you 13 process that one? 14 This is actually upscaled MR. TAYLOR: 15 from -- it was -- the original shot was 720 x 46 16 so it was upscaled to 720 x 540, and there's a 17 video editor and it uses an algorithm called nnedi3 [IN-ED-I-3], which is N-N-E-D-I-3 and 18 19 that's the algorithm. And what it basically does, 20 as I understand it, is it takes the interlaced 21 film frame and it drops -- so an interlaced frame 22 is made up of two fields and it will drop the 23 second field and reproduce the first field to get 24 you a better image when it's changed from -- when 25 it's de- interlaced from interlaced to progressive

| 1 | scan. |
|----|--|
| 2 | MS. CHARLESWORTH: Okay. |
| 3 | MR. TAYLOR: And so again, similar |
| 4 | image; that's the before and here's the after. |
| 5 | And you can see the details are much clearer. The |
| 6 | lines are clearer. The pixilation has |
| 7 | disappeared. |
| 8 | MR. RUWE: Is this an image from the |
| 9 | same PowerPoint? |
| 10 | MR. TAYLOR: It's the PowerPoint has |
| 11 | |
| 12 | MR. RUWE: These are all okay, |
| 13 | thanks. |
| 14 | MR. TAYLOR: each image in it. And |
| 15 | so this image is particularly good because you can |
| 16 | see how fuzzy it really is or you could call it |
| 17 | pixilated. And then once it's been processed, it |
| 18 | becomes strikingly clear. |
| 19 | MS. SMITH: And say you were going to |
| 20 | upscale like a one-minute clip, how long would |
| 21 | that take? |
| 22 | MR. TAYLOR: I think a one-minute clip |
| 23 | probably would take about the processing of it |
| 24 | would, as I understand it, takes between 20 to 30 |
| 25 | minutes. |

1 MS. SMITH: Okay, thank you. MR. TAYLOR: And that is all I have. 2 3 MS. CHARLESWORTH: Thank you, Mr. 4 Taylor. Does anyone have any more questions for Mr. Taylor before we get to Mr. Williams, our last 5 6 witness of the day? 7 (No response.) 8 MS. CHARLESWORTH: Go, tell us what's on 9 your mind, Mr. Williams. Thank you for 10 MR. WILLIAMS: Okay. 11 having me here again on behalf of MPAA, ESA, and 12 RIAA. I wish I could say that I'll be very, very 13 brief, but there is a lot to cover here, so I'll 14 try to be as quick as I can, but I want to make 15 sure that we cover what needs to be covered. As with the e-book issues that we 16 17 discussed earlier today, my clients are not here 18 opposing the renewal of the existing exemption 19 that's applicable to remix videos. We are opposed 20 to the expansions that have been proposed 21 including uses beyond short portions, coverage of 22 primarily noncommercial videos, coverage of uses 23 other than criticism and comment and film analysis 24 including brays in the scope of the exemption, of 25 course, and coverage of all AV works instead of

1 just motion pictures.

| 2 | Many of those limitations we believe are |
|----|--|
| 3 | critical, as the Register said in 2012, to |
| 4 | ensuring that the uses at issue here are very |
| 5 | likely to be non- infringing. We are not saying |
| 6 | that using a portion of a motion picture in a |
| 7 | remix video is never a fair use and the coalition |
| 8 | that I'm representing did not take the position |
| 9 | that remix videos are generally infringing as the |
| 10 | reply comments seem to say that we did. We take |
| 11 | the work that vidders do seriously and I'm |
| 12 | certainly not here to try to criticize it as an |
| 13 | art form. That doesn't mean that every remix |
| 14 | video is a fair use either and I think that we do |
| 15 | have to be able to discuss that fact in this |
| 16 | proceeding. So even despite my readily apparent |
| 17 | gender limitations, I'm going to try to go through |
| 18 | some discussion of the fair use factors. |
| 19 | So some online videos do involve the |
| 20 | uses of existing content that simply gain an |
| 21 | audience's attention by using an entertaining clip |
| 22 | from a recognizable film. That's something that |
| 23 | has entertainment value of a sort that we think |
| 24 | under Campbell and other cases, it needs to be |
| 25 | licensed. And as you've heard from studio |

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1 executive testimony, licensing is an option. Ι think the online video best practices, which I'm 2 not endorsing across the board, but they do 3 contain some good statements regarding the law. 4 Ι think acknowledge that these types of uses can be 5 6 infringing. They say things like "the use should not be so extensive or pervasive that it ceases to 7 function as critique and becomes instead a way of 8 satisfying the audience's taste for the thing or 9 10 kind of thing that is being quoted. In other 11 words, the new use should not become a market substitute for the work or other works like it." 12 13 MS. SMITH: And can you point to -- is that in the record and if so, where? 14 15 MR. WILLIAMS: I believe that is an 16 exhibit to the proponent's comments. I don't have 17 the specific exhibit number. MS. SMITH: An exhibit to their initial 18 19 comments, does that sound right? 20 MR. WILLIAMS: I believe so. It is the online video statement of best practices that was 21 22 put out by a number of folks including people 23 working at American University. 24 MS. CHARLESWORTH: Just quickly, proponents, are they in there? 25

1 MS. McSHERRY: I'm not sure we submitted those but other proponents of other exemptions 2 likely did. 3 MR. WILLIAMS: I could try to find that 4 for you in response to a letter if you want. 5 I'm certain that there is at least a link somewhere in 6 one of the comments to them. They the best 7 practices statements were discussed, for example, 8 at the documentary filmmaking hearing as well. 9 10 MS. CHARLESWORTH: Does anyone know --11 MS. McSHERRY: We do think the best 12 practices -- a lot of the best practices and were promulgated are quite nice and helpful guidance 13 14 for people. 15 MS. CHARLESWORTH: Do you know where I 16 might find them online? 17 PROF. COPPA: American University School of Communications had one. That's Patricia --18 19 MR. WILLIAMS: Right, Aufderheide and 20 Peter Jaszi. 21 PROF. COPPA: And Peter Jaszi. 22 MR. WILLIAMS: Right. 23 PROF. COPPA: And isn't the DFF -- isn't 24 there one of remix? 25 MS. McSHERRY: We have a whole other

1 one. MS. CHARLESWORTH: So I just want to be 2 clear about the one you're referring to --3 MR. WILLIAMS: 4 Sure. 5 MS. CHARLESWORTH: -- Mr. Williams, just in case we want to go take a look at it. 6 You're talking about the Jaszi -- the American 7 University set? 8 9 MR. WILLIAMS: Correct. 10 MS. CHARLESWORTH: Okay. 11 MR. WILLIAMS: I only had one other 12 quote from that which is that a use -- "where a 13 use is a pretext to exploit the popularity or 14 appear of the copyrighted work employed or where 15 the amount of material used is excessive, fair use 16 should not apply." So we are not saying that 17 entertaining uses can never be fair. As I've said 18 in other panels, my clients rely on fair use 19 including when they're making entertainment, but 20 pure entertainment is not at the heart of fair use 21 like criticism and commentary and film analysis, 22 and so that's why we would prefer that the 23 existing limitations on the exemptions stay in 24 place. 25 MR. DAMLE: Mr. Williams?

1 MR. WILLIAMS: Yes. I'm just sort of curious 2 MR. DAMLE: whether you have an opinion of the Supernatural 3 clip that we saw at this panel. I don't know if 4 you feel comfortable opining on it or -- but I am 5 6 just curious about --7 You mean whether it's a MR. WILLIAMS: 8 fair --9 MR. DAMLE: Yeah, exactly. MR. WILLIAMS: I think I would need to 10 11 know a little bit more. I'm not familiar with the 12 series. I did see what was pointed out as being 13 added and subtracted. It seemed like there was 14 some significant alteration going on there but I 15 don't know for sure which way I would go. I think I would need to know more about it. 16 17 MR. DAMLE: Okay, that's fair enough. 18 MR. WILLIAMS: So one thing that's in 19 the proponent's comments is that the opponents are 20 not qualified to evaluate the transformativeness 21 of the videos at issue, and I think that that's 22 incorrect. I am not qualified to opine the 23 qualitative value of these videos certainly and 24 I'm not claiming that I am, but I think that 25 lawyers and judges have to be qualified to apply

1 the fair use factors objectively to the works that are presented to them because otherwise, no one 2 other than a defendant in a case could opine on 3 whether or not the use was a fair use. 4 5 MS. SMITH: Yes, but have you opined on -- to the specific examples they raised whether or 6 not they're transformative or fair use? 7 MR. WILLIAMS: We did not try to 8 Sure. provide an opinion on every one of the examples 9 and as I've said, we're not claiming that there 10 11 aren't a significant number of fair uses and for 12 that reason, we're not opposing renewal of the 13 existing exemptions. So my statements today about 14 fair use is more in relation to preserving the 15 limitations that are in place and to point out 16 that not everything out there is not infringing 17 and so some caution, I think, is still called for 18 here. We only, I think, pointed to a couple of 19 videos in our comments that they then responded to 20 with more information about the meaning of the 21 videos that we didn't have access to in advance. 22 You know, I still have some questions about those 23 specific videos, whether I would find them to be 24 fair but, you know, I understand they responded 25 with some explanations that were interesting.

1 So as I said, I don't think that the 2 only person who can have the answer as to whether something is fair or not is the defendant in a 3 lawsuit or the creator of a derivative work or a 4 What the audience of a work takes away 5 remix. from the use is relevant and I think that's 6 becoming more and more the case in recent fair use 7 case law. And it's to only the specific audience 8 that the work might have been intended to or a 9 10 very small community. It has to be a broader 11 audience, a reasonable observer, so to speak, 12 something the judges can wrap their hands around. 13 And it's relevant what the specific 14 community that something was targeted to would 15 take away from it but that can't be the only 16 question, I think, and one case where I think this 17 comes out is in Salinger v. Colting, the Second 18 Circuit opinion there. There the defendant, he 19 wrote an unauthorized sequel; to Catcher in the Rye 20 and there was an expert witness there that opined 21 on why the audience for that work would understand 22 that it was really a critique of Salinger and his 23 works. And the Second Circuit disagreed and 24 affirmed the District Court's ruling on the issue 25 and said that from the court's point of view, it

| 1 | sounded more like the explanations were post talk |
|----|--|
| 2 | rationalizations employed through vague |
| 3 | generalizations about the alleged naivete of the |
| 4 | original rather than a reasonably perceivable |
| 5 | parody. |
| 6 | And so I think judges have to be able to |
| 7 | consider this from an objective point of view with |
| 8 | the aid, hopefully, of evidence like experts and |
| 9 | other testimony about the meaning at issue and |
| 10 | what audiences take away. So whether you like |
| 11 | that specific decision in that case or not, I |
| 12 | think it does show that we have to be able to talk |
| 13 | about these issues in this proceeding. |
| 14 | The next topic I'd like to cover |
| 15 | quickly, and we've discussed this in other panels, |
| 16 | is, you know, as I've said, our preference is that |
| 17 | the current bundle of exemptions be split apart |
| 18 | and that each one be clearly defined so that we |
| 19 | know what's at issue. I had said yesterday that I |
| 20 | was hoping by today to come up with a good |
| 21 | definition of exactly what this exemption that |
| 22 | we're talking about covers. I failed in that |
| 23 | regard. I can't come up with a perfect definition |
| 24 | and I think some of what we heard today was |
| 25 | helpful. I think it would probably take some more |
| | |

| 1 | drafting and consideration but it sounds like |
|----|--|
| 2 | there are really remixes and mash-ups that are |
| 3 | either parodies or satires at issue. There are |
| 4 | kind of traditional core political statements at |
| 5 | issue that might not fit into that first category |
| 6 | but there are also examples of in the record. And |
| 7 | then we also heard some discussion of more art |
| 8 | display type presentations. So those are the |
| 9 | types of things that I've actually heard discussed |
| 10 | and seen in the record, and maybe a combination of |
| 11 | some kind of definitional language and a |
| 12 | discussion in the recommendation would be helpful |
| 13 | to really explain what is at issue with this |
| 14 | MS. CHARLESWORTH: So are you objecting |
| 15 | to the term "noncommercial" then which is the |
| 16 | current description in the exemption? |
| 17 | MR. WILLIAMS: We want that to stay in |
| 18 | the exemption but we would like more than just a |
| 19 | reference to noncommercial uses for the reasons |
| 20 | I've said before, that we're afraid it starts to |
| 21 | swallow up other things that I don't think were |
| 22 | intended to be swallowed up given the drafting. |
| 23 | MS. CHARLESWORTH: And I know that you |
| 24 | spoke to this in an earlier panels |
| 25 | MR. WILLIAMS: Sure. |
| | |

| 1 | MS. CHARLESWORTH: but to make the |
|----|--|
| 2 | record clear here, I mean what are some examples |
| 3 | of things that are getting swallowed up that you |
| 4 | think weren't intended under this exemption? |
| 5 | MR. WILLIAMS: Right. So one clear one |
| 6 | that we focused on yesterday was that currently K |
| 7 | through 12 students are not covered by the |
| 8 | educational exemption, but there's an argument out |
| 9 | there that the noncommercial video exemption would |
| 10 | cover everything that they would want to do anyway |
| 11 | and so that limitation would be rendered |
| 12 | meaningless basically. |
| 13 | MS. SMITH: Okay. And the proponents in |
| 14 | this case have also used National History Day as |
| 15 | an example of something that would qualify as one |
| 16 | of their videos; do you think that should be |
| 17 | excluded from the scope of the exemption? |
| 18 | MR. WILLIAMS: I don't recall that. |
| 19 | They did do a great job of putting a lot in the |
| 20 | record. I don't recall that specific example but |
| 21 | is that students on National History Day creating |
| 22 | vids or |
| 23 | MS. CHARLESWORTH: Well, it could be a - |
| 24 | - I mean in theory just again, you know, it |
| 25 | could be a remix, some sort of remix video |

1 MR. WILLIAMS: Right. 2 MS. CHARLESWORTH: -- illustrating historical events from films let's say. 3 I mean I don't know that much about National History Day 4 5 but 6 MR. WILLIAMS: Right. I quess I'm hesitant to speak to that one since I haven't 7 focused on it but I'd be happy to respond to a 8 letter if I could wait to do that. 9 10 MS. SMITH: I mean are you aware of 11 instances where you feel this -- the prior -- the 12 current exemption has been abused? 13 MR. WILLIAMS: Right. So I have seen on 14 various blogs mention of the fact that there is 15 this lack of clarity and that maybe everything can be done under the noncommercial video exemption. 16 I'm not saying anyone has abused the process based 17 18 on that, and the other thing that was said earlier 19 that I've commented on before but I'll say again 20 for this panel is, you know, the ability of my 21 clients to collect evidence that someone who was 22 using the exemption then went on to engage in some 23 type of infringement, it's really not possible and 24 I think it's a bit unfair to try to put that 25 burden on us. We just can't collect that kind of

1 evidence. So we are here because we're honestly concerned about the threat of harm and we wouldn't 2 be here if that wasn't true. 3 MS. SMITH: Well, I mean are you seeing 4 an uptake in instances that you perceive to be 5 6 infringement, like presumably if all of a sudden, 7 you know, the gates were open and it was allowed, apparently you'd see more occurrences of it? 8 9 MR. WILLIAMS: Right. So there are lots of marketplace factors at issue to take account 10 11 of. I don't think that I have heard of any study 12 that's been able to show whether the exemptions 13 themselves increased infringement. I have no 14 evidence of that. 15 MS. CHARLESWORTH: I want to get back to 16 the sort of -- and I appreciate that you haven't had time to come up with a definition -- but sort 17 18 of what the concern -- I guess what the underlying 19 concern is in the sense that forget about whether 20 it overlaps with other exemptions and stuff --21 MR. WILLIAMS: Right. 22 MS. CHARLESWORTH: -- and how it relates 23 to them, but I mean are you saying that the 24 exemption is overly -- you're concerned it's 25 overly broad and if so, how so?

| 1 | MR. WILLIAMS: Right. So I think there |
|----|--|
| 2 | are two pieces to that. One is we do think it's |
| 3 | very important that the proceeding lead to |
| 4 | exemptions that cover conduct that's been vetted |
| 5 | during the process. And so, you know, I was trying |
| 6 | to identify the what I think are basically |
| 7 | three types of conduct that are arguably going to |
| 8 | be non-infringing a large portion of the time and, |
| 9 | therefore, the proceeding would arguably result in |
| 10 | an exemption for those things. That's one piece |
| 11 | of it. |
| 12 | The other is that I am concerned that |
| 13 | just saying noncommercial videos is a very |
| 14 | potentially expansive way to describe what's at |
| 15 | issue. And, you know, not all noncommercial uses |
| 16 | are fair uses and just like we would like to |
| 17 | maintain things like short portions or criticism |
| 18 | and commentary, we would like to keep the |
| 19 | definitions as clear as possible for what each |
| 20 | exemption applies to so that basically things that |
| 21 | aren't intended to be swept up stay outside of the |
| 22 | scope of the exemption. |
| 23 | MS. CHARLESWORTH: Okay. |
| 24 | MR. WILLIAMS: Okay. I don't have a lot |
| 25 | more but I want to run through just a few more |

1 things. 2 MS. CHARLESWORTH: That's okay. You've been -- I realize that we're running late. I 3 apologize. The panels, we've been -- it's been a 4 5 progressive problem all day but I do want to make sure we have the complete discussion here so 6 7 MR. WILLIAMS: Sure, sure. So just staying on that theme of things potentially 8 9 getting wrapped up, so one -- I did try to review 10 a large number of the videos that were in the 11 comments, and one thing I found interesting, it's 12 -- there's a link in footnote seven of the opening petition that was filed for this class to a 13 14 website called "Screen Crave dot com" 15 (screencrave.com), 10 Best YouTube Trailer Remixes 16 Ever," and I think it was originally created in 17 2010, so some of these would be old videos but 18 they were referenced in the opening petition here. 19 Some of them, you know, to me, seemed like pretty 20 clear examples of fair use. Others were quite 21 more questionable. I mean the number 10 video on 22 the list is a video that basically asks the 23 question "what if in the movie Ferris Bueller's 24 Day Off, Ferris actually was sick the whole time?" 25 It's an entertaining video. It's a funny video.

| 1 | It's got over basically 2-1/2 minutes of a pop |
|----|--|
| 2 | song as the backdrop to it. I don't see the real |
| 3 | criticism and commentary there. Somebody might be |
| 4 | able to explain it to me. I don't really see it. |
| 5 | There's another one which is number 3. |
| 6 | It's basically if the movie Home Alone was really |
| 7 | a horror film and the elderly gentleman in the |
| 8 | film with the snow shovel really was out to get |
| 9 | you. That, again, is entertaining. It's |
| 10 | creative. It's on the borderline, I would say, at |
| 11 | least. |
| 12 | Another one that I found very |
| 13 | interesting because I actually recently defended a |
| 14 | copyright lawsuit against this director and |
| 15 | others, Roland Emmerich. It's the number 2 on the |
| 16 | list, the film 2012, which is a disaster movie, |
| 17 | and the description of this video is that the |
| 18 | genius of this remix is that it doesn't really |
| 19 | change the genre but instead cranks it all up to |
| 20 | 11 in every sense of the phrase. Let's be honest |
| 21 | here. You didn't go into 2012 for the plot or |
| 22 | characters, you wanted to see things exploding and |
| 23 | falling apart and this trailer knows it. |
| 24 | Definitely the movie we most wish was made. Now |
| 25 | that sounds like it's just trying to show you the |
| | |

| 1 | most entertaining portions. I could also see it is |
|----|--|
| 2 | as potentially a critique of Emmerich's movies, |
| 3 | that they're just too much about violence and |
| 4 | explosions so, you know, maybe that one goes one |
| 5 | way or the other based on kind of how people in a |
| 6 | given case perceive it. But it certainly was |
| 7 | entertaining and funny and so again, there's a lot |
| 8 | out there that's on the border or over the line, |
| 9 | and so I think we just need to be cautious in how |
| 10 | we craft the exemption. |
| 11 | MS. SMITH: And so you see those |
| 12 | examples maybe more in line with the cases you've |
| 13 | sited, the Harry Potter, Lexicon, or the Seinfeld |
| 14 | case; is that how you want us to take that? |
| 15 | MR. WILLIAMS: Yeah. I mean I think |
| 16 | those cases are specific instances that involved |
| 17 | much more extensive copying than what's at issue |
| 18 | here. But yes, I think those cases would support |
| 19 | taking a cautious approach. I have a few more |
| 20 | here but in the interest of time, I'll just cut |
| 21 | those out. |
| 22 | On the Blu-ray issue, I think that Bruce |
| 23 | covered that well. There's really a small sliver |
| 24 | of material that's only available on Blu-ray. I |
| 25 | was trying to think of the actual examples, that |
| | |

1 after going through this process, I'm pretty certain are only on Blu-ray. I think I only have 2 in my mind two examples. 3 There might be some more but I think just like in 2012, when the Register 4 decided that it was really an insignificant amount 5 6 of material that's only available on Blu-ray. Ι think there's really maybe fewer examples this 7 time than there were last time of things that are 8 9 actually only on Blu-ray if you go and look for 10 them in other formats. It sounded to me like 11 there might be some issues with products like HDX 12 but that really, you could achieve 99 percent, if 13 not everything, of what needs to be achieved with 14 those products that are already covered by the 15 existing exemptions, so I would oppose any 16 expansion to Blu- ray. 17 MS. SMITH: Can I ask 18 do you feel that the current exemption encaptures 19 streaming material? I mean you've re-raised the 20 (inaudible) transmit and distribute. 21 MR. WILLIAMS: Right. 22 MS. SMITH: Do you object if we were to 23 clarify? I mean I think that others believe that 24 streaming has already been in the exemption. 25 MR. WILLIAMS: Right. So that is a bit

1 of a wrinkle. The current exemption reads "distributed video services," I believe, or 2 "distributed downloads." 3 MS. SMITH: It's "online distribution 4 services acquired by" -- yeah, "online 5 distribution services." 6 7 So you could try to read MR. WILLIAMS: that narrowly in a copyright sense and say it 8 doesn't cover streaming video. I think, as I said 9 10 in Los Angeles, in the recommendation, there is 11 language that's much looser and seems to imply 12 that maybe streaming video was supposed to be 13 I think I also said there that as long covered. 14 as a number of these other limiting factors are 15 included in an exemption, I don't think we would 16 be opposed to a clarification of that point that 17 transmitted video is covered. My one real 18 hesitancy there is, especially on this short 19 portions issue, if you haven't paid for access to 20 a full copy of a work and permanent possession of 21 a work, I don't think you should be able to walk 22 away from your streaming video subscription with a 23 bunch of full copies of works, and so that's 24 something that I would be hesitant about but that 25 said, you know, I'm cautiously okay with that type

1 of clarification.

| 2 | I think just two very final points. |
|----|--|
| 3 | One, it was raised earlier that there are no |
| 4 | streaming service providers here in front of you |
| 5 | today. I will just note that MPAA member studios |
| 6 | are partners in or investors in streaming services |
| 7 | including Hulu and, you know, they certainly are |
| 8 | here to say that they're concerned about harm and |
| 9 | want cautious approaches to these exemptions. |
| 10 | And the other think I would like to say |
| 11 | is that I do regret there's no studio business |
| 12 | executive witnesses here with us today, but I |
| 13 | would like to emphasize that we did produce those |
| 14 | types of executives when we were in Los Angeles |
| 15 | including the chief technology officer of Disney |
| 16 | and so this is important to them. They take it |
| 17 | very seriously. Unfortunately, because of |
| 18 | scheduling, they elected to appear in Los Angeles. |
| 19 | But I hope that you don't take from that that they |
| 20 | aren't keeping a very careful eye on this and that |
| 21 | they don't take it very seriously. Thank you. |
| 22 | MS. CHARLESWORTH: Okay. Thank you, Mr. |
| 23 | Williams. All right. We are going to I'm |
| 24 | going to set a deadline of 10 minutes. We have a |
| 25 | couple of really sort of, I think, relatively |
| | |

| 1 | quick issues that we want and, you know, sort |
|----|--|
| 2 | of outstanding questions that we have and we'll |
| 3 | try and get very targeted responses so we can get |
| 4 | you out of here. Ms. Smith. |
| 5 | MS. SMITH: Yeah. You know, one is the |
| 6 | current exemption includes exemptions for screen |
| 7 | capture. Is that something that you're seeking |
| 8 | this time around? Do you find it helpful to use, |
| 9 | to have available. |
| 10 | PROF. TUSHNET: So the answer is there |
| 11 | are a few situations, especially for political |
| 12 | remix vidders who where that screen capture may |
| 13 | be their only alternative given the way something |
| 14 | is presented. We didn't ask for it in 2012. You |
| 15 | gave it to us. You know, it depends on what you |
| 16 | write but certainly I mean to the extent that |
| 17 | we have no idea what screen cap does, obviously we |
| 18 | need something to give us some certainty for the |
| 19 | circumstances where that's the only thing. |
| 20 | MS. CHARLESWORTH: Okay. Very clear |
| 21 | answer. Thank you. Next. Do you want |
| 22 | MS. SMITH: Just to clarify, when I look |
| 23 | at the, I think it's the initial comments, you're |
| 24 | fine with the exemption staying as "motion |
| 25 | pictures" as opposed to "audiovisual works" as |
| | |

1 long as it's clear that "motion pictures" is in the copyright definition that includes television, 2 etcetera, correct? 3 MS. McSHERRY: 4 Yes. 5 MS. CHARLESWORTH: Lots of nodding heads in the affirmative --6 7 MS. McSHERRY: Yes. MS. CHARLESWORTH: -- for the record. 8 And last but not least, there's been -- we heard -9 - I heard Mr. Williams say briefly, you know, want 10 to keep it "noncommercial." I think I saw 11 12 something in some of the submissions about -- I 13 think this issue came up last time, the 14 "primarily" language which the Copyright Office 15 had some trouble with but we did try to clarify in 16 certain instances, you know, where someone was 17 paying someone just for the service to produce 18 something that -- you know, I don't -- I'm 19 paraphrasing now but we kind of clarified that 20 certain things were still considered noncommercial 21 in our eyes. Is there -- I mean is that an 22 acceptable approach, again, here from your point 23 of view proponents? 24 PROF. TUSHNET: So it is super 25 acceptable and it's actually what I suggest you do

| 1 | with all the qualifications being suggested, that |
|----|--|
| 2 | is it was interpretive language saying like |
| 3 | usually this will be short clips, by noncommercial |
| 4 | we mean, you know, non- profits can do it even if |
| 5 | they pay someone for it, right, if there's a |
| 6 | museum exhibition that doesn't make it commercial. |
| 7 | Thos are the kind of clarifications that make |
| 8 | total sense and we absolutely have no objection to |
| 9 | using "noncommercial" and then placing the |
| 10 | explanatory language so that people like the |
| 11 | Center for Bioethical Reform aren't kicked out |
| 12 | because they actually paid someone to help. |
| 13 | MS. CHARLESWORTH: Okay, another very |
| 14 | clear answer. Ms. McSherry? |
| 15 | MS. McSHERRY: Just to say not that we |
| 16 | want to give you more writing to do, so we're |
| 17 | sorry about that. |
| 18 | MS. CHARLESWORTH: Well, we'll have |
| 19 | plenty of that with or without, yeah. That's a |
| 20 | hopeless case. Any of my colleagues? Are we |
| 21 | we're good? Well, thank you all for your patience. |
| 22 | I'm sorry we got behind but we had a lot of |
| 23 | questions and we appreciate your being here. We |
| 24 | have a couple more tomorrow, once again starting |
| 25 | at 9 a.m. We will be back for networked to medical |
| | |

1 devices -- for those of you who are interested in that. 2 PROF. TUSHNET: I'm so sorry, may we 3 have permission to submit a letter in response 4 once we get the exhibits to look at because --5 6 MS. CHARLESWORTH: Are you talking about 7 those exhibits you saw today? 8 MS. McSHERRY: Yes, please, because I know we're out of time but I think Tisha has a lot 9 10 of stuff to say. 11 MS. CHARLESWORTH: And did you -- were -12 - was there a procedure for you to get those 13 exhibits? I guess we're going to try and put them 14 online. 15 MS. McSHERRY: I'm sure --16 MS. CHARLESWORTH: You've been copying 17 them? 18 MS. McSHERRY: -- opponents will --19 yeah, we have copies and we will put them online 20 but --21 MS. CHARLESWORTH: Okay. 22 PROF. TUSHNET: -- they're not currently 23 available online. 24 MR. TAYLOR: But I looked at exhibits 25 yesterday so

| 1 | MS. CHARLESWORTH: Do you do the |
|----|---|
| 2 | opponents have any objection with it would be |
| 3 | like a two-week kind of deadline. |
| 4 | MR. TAYLOR: (Inaudible/off mic.) |
| 5 | MS. CHARLESWORTH: Okay, so |
| 6 | MS. McSHERRY: Thank you |
| 7 | MS. CHARLESWORTH: we will allow you |
| 8 | to respond within two weeks of our posting the |
| 9 | Exhibits online if you have further comments on |
| 10 | those. |
| 11 | MS. McSHERRY: Thank you. |
| 12 | MS. CHARLESWORTH: Okay. Thank you all |
| 13 | very much again. |
| 14 | (Whereupon, at 4:33 p.m., the hearing |
| 15 | was concluded.) |
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