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UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

THE AUTHORS GUILD, INC., ET AL.,

Plaintiffs.

Case No. 11 Civ. 6351 (HB)

v.

HATHITRUST, ET AL.,

Defendants.

DECLARATION OF CORY SNAVELY IN OPPOSITION TO PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT

- I, Cory Snavely, pursuant to 28 U.S.C. § 1746, hereby declare as follows:
- 1. I am the Manager of Library IT Core Services at the University of Michigan Library. I submit this declaration in opposition to Plaintiffs' motion for summary judgment. Unless otherwise noted, I make this declaration based upon my own personal knowledge.

- 2. As Manager of Library IT Core Services at the University of Michigan ("Michigan"), I am responsible for, among other things, the continued development and maintenance of the HathiTrust Digital Library ("HDL") server and storage infrastructure, which is where HDL content is stored and HDL services operate.
- 3. I have served as Manager of Library IT Core Services at Michigan for more than thirteen (13) years. During my tenure at Michigan, I have designed and overseen the development of the library's technology infrastructure. In or about December 2004, I began to oversee the development of the infrastructure that would ultimately underlie HDL when it launched in 2008.
- 4. My duties include ensuring the security of the works within the HDL. This entails, among other things, ongoing attention to a rigorous security program for the entire Michigan library's technology environment. I manage a team of five in connection with this work.
- 5. I have a degree in Systems Analysis which I received from Miami University in 1992. I have participated in numerous groups on campus to help guide Michigan's strategies for security and storage. For example, I am currently serving on the Information and Infrastructure Assurance Council, a key oversight and decision-making body, which provides guidance to the campus on security initiatives, programs, and policy relating to computer security.

A. The Unblemished Security Record of the HDL

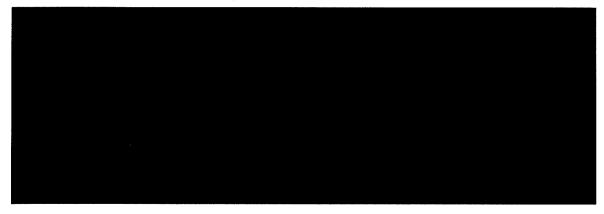
6. I have reviewed the declaration of Dr. Benjamin Edelman, which the Plaintiffs have submitted in connection with their motion for summary judgment. In that declaration, Dr. Edelman provides a list of generalized threats to the security of the HDL, but without regard to the steps already taken by the library defendants (the "Libraries") to minimize if not eliminate

altogether the threats he identifies. His approach is akin to assessing the safety of commercial air travel by summarizing the ways in which a plane may fall from the sky without taking note of all of the steps taken by the aviation industry to guard against such calamity.

- 7. In fact, Dr. Edelman apparently had no choice but to limit his report to generalities. This is because he never attempted to study the specific security measures taken by Michigan to protect the HDL and admits that he would not be qualified to conduct such a risk assessment in any event.
- 8. Dr. Edelman, who has degrees in economics, not computer science, sat for a deposition in the Google lawsuit two weeks before submitting his declaration in this action. He confessed during that deposition that "I don't know about all of the security systems that [the Libraries] have." (Edelman Tr. at 248:11-12). He also conceded that apart from information contained in a risk assessment conducted by Michigan to improve the security of the HDL, "I don't think I have knowledge of [Michigan's] current security." (Edelman Tr. at 268:12-18). He testified that if a company asked him to conduct an evaluation of its security measures, "I don't think I would be the best person to evaluate their security systems, but I think I would be able to assist them in selecting an appropriate person." (Edelman Tr. at 288:15-18). True and correct copies of relevant excerpts of Dr. Edelman's deposition testimony are attached hereto as Exhibit A.



10. Based upon my experience in securing computer systems and first-hand knowledge of the security controls used to protect the HDL, I believe that the generalized risks identified by Dr. Edelman, which are customary and typical risks faced by the operators of any large service accessible through the Internet (including services demanding a high level of security such as Internet banking), do not render the works within the HDL corpus insecure.



B. The Security Measures Protecting the HDL From the General Risks Dr. Edelman Identifies.

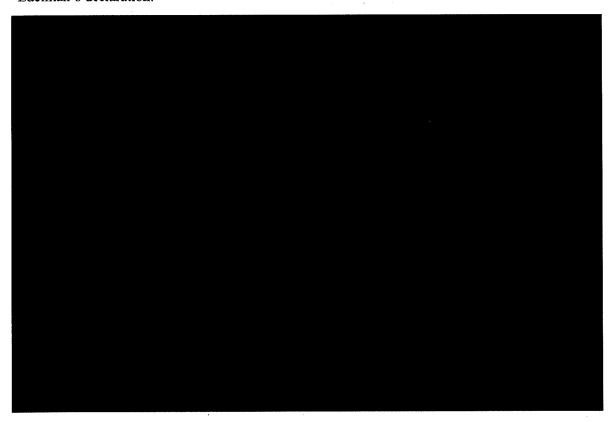
- 12. Dr. Edelman, in paragraphs 16 through 26 of his declaration, sets out a number of generalized security risks associated with maintaining a digital library such as the HDL. The risks he identifies are, in fact, well known to experts in computer security and my team has taken a number of precautions to minimize them, if not eliminate them altogether.
- 13. Specifically, in paragraph 16, Dr. Edelman claims that "pirates could extract book copies through defects in the security of a provider's system." Dr. Edelman continues by

Additional background on the security measures taken to protect the HDL is found in the June 28, 2012 declaration of the HathiTrust's Executive Director, John Wilkin, submitted in support of the Libraries' motion for summary judgment.

claiming that unauthorized individuals could gain access to digital copies of works through defects in the physical or virtual access controls guarding the servers housing the digital copies.

Dr. Edelman also claims in this paragraph that "[d]efects could also arise through flaws in the operating system, database server, web server, or other software run on a provider's servers; such flaws have been widespread in even the most popular server software" and claims that "defects could arise through the provider's custom software."

14. These are all well-known, common risks. The HDL uses industry best practices to greatly reduce the possibility of unauthorized access of the type discussed in paragraph 16 of Dr. Edelman's declaration:



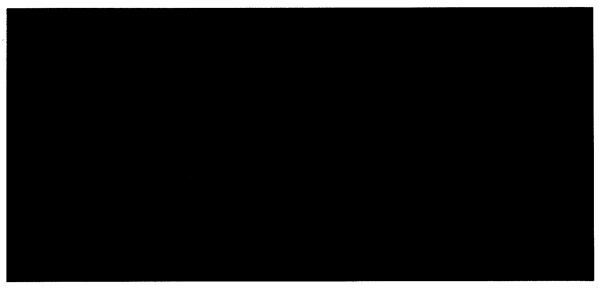
² Frequently, commercial enterprises do not apply updates because their business requirements demand that running systems be unchanged and untouched; this type of approach to security can, in fact, expose systems to some of the security risks identified by Dr. Edelman. HDL systems, in contrast, are designed to be maintained regularly and continuously kept up-to-date and secure.

16. The security controls identified above (see paragraph 14), particularly the double

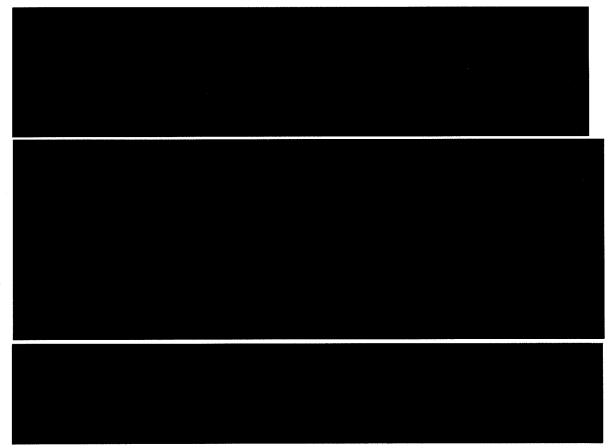
16. The security controls identified above (see paragraph 14), particularly the double perimeter firewalls, greatly minimize the risk of access through exploitation of errors in security configurations. Further, Dr. Edelman's selective use of Mr. Wilkin's testimony falsely suggests that the HDL experiences disproportionately frequent, targeted attacks as compared to similar

17. In paragraph 18 of his declaration, Dr. Edelman cites the risk of a "rogue employee" that "intentionally redistributes[s] book copies." In fact, employee access to incopyright materials is far more restricted than Dr. Edelman suggests:



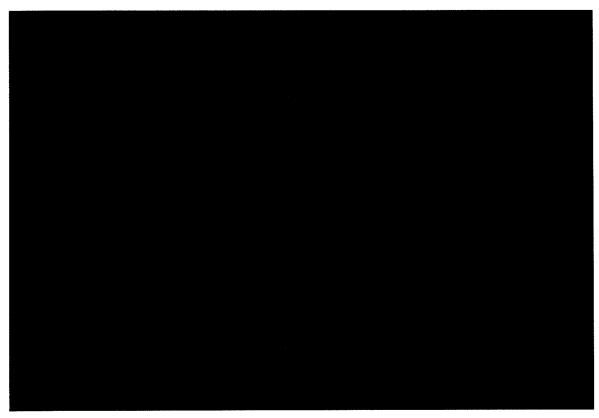


20. Dr. Edelman, in paragraph 20 of his declaration, speculates that "any error made by an employer could create a security breach allowing hackers to access book copies and





23. Dr. Edelman, in paragraph 22 of his declaration, asserts that "[e]ven if Defendants attempt to implement security controls and other limitations on users' ability to download book copies, experience suggests that users will exceed those limitations." He juxtaposes this claim



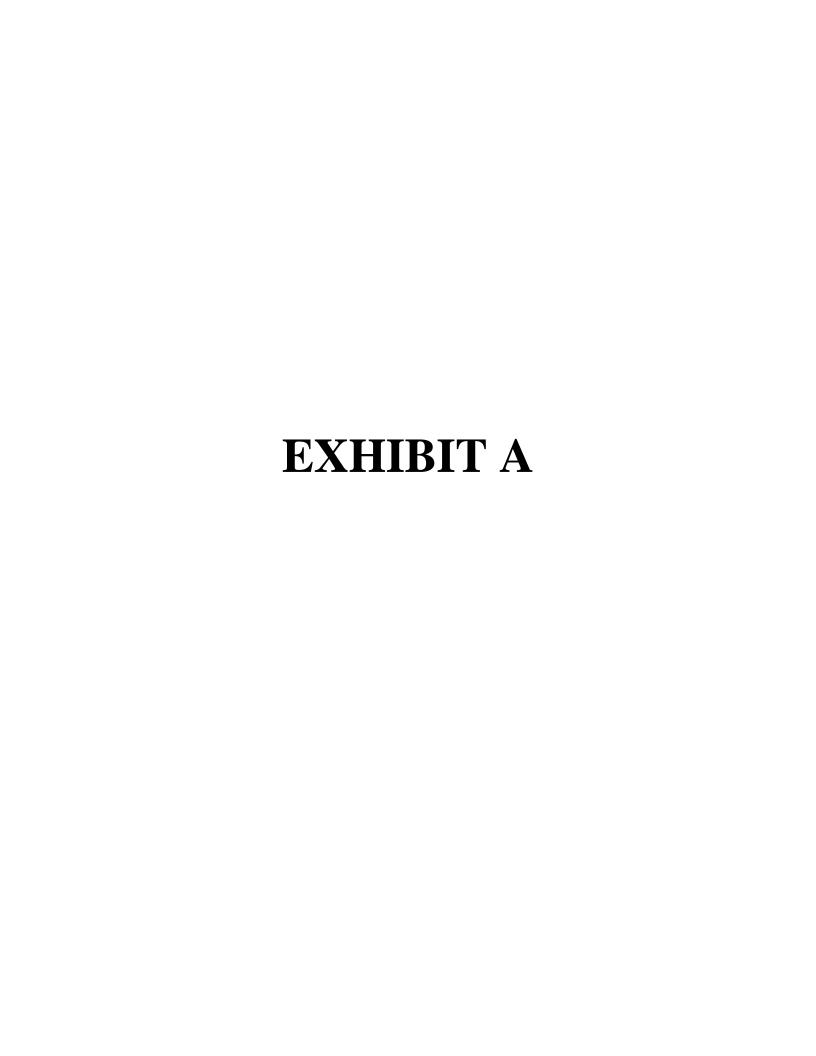
26. Dr. Edelman asserts in paragraph 23 of his declaration that the Libraries permit "non-consumptive research" aimed at analyzing patterns in the texts found in the HDL and he

claims that this functionality increases the risk of a security breach. *The entire premise* underlying this assertion is incorrect however. The HDL only permits research on material determined to be in the public domain. If, in the future, the Libraries permit non-consumptive research over in-copyright text, security measured would be adopted to negate the security risks identified by Dr. Edelman, as well as other risks he did not.

27. In sum, Dr. Edelman's report offers the Court nothing more than a collection of hypothetical risks without any countervailing assessment of the ways in which the HDL is protected against such risks. A detailed assessment of the HDL's security protocols in fact establishes that the risk of a security breach is exceedingly low, well within the guidelines for a trustworthy repository of digital information.

I declare under penalty of perjury that the foregoing is true and correct.

Executed: July 20, 2012



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Page 7 Page 5 1 PROCEEDINGS 1 Q. You have an undergraduate degree and 2 2 THE VIDEOGRAPHER: Good morning. We a Ph.D. in economics; is that right? 3 are on the record at 10:03 A.M. on June 14th, 3 A. Yes. 4 4 2012. This is the videotaped deposition of O. Do any of the opinions stated in your 5 Benjamin Edelman. My name is Jody Urbati, here 5 report apply economic analysis? 6 6 with our court reporter Barbara Avis. We are A. I think they do broadly understood, 7 here from Veritext National Deposition and 7 yes. 8 8 Litigation Services at the request of counsel. Q. How so? 9 This deposition is being held at 9 A. The report considers the incentives 10 10 Harvard Business School in the city of Boston, of various parties, the factors motivating them Massachusetts. The caption of this case is the 11 11 to act or not to act and the likely consequences 12 Authors Guild versus Google, Inc. Please note 12 of those incentives. 13 13 that the audio and video recording will take Q. Are there any specific economic 14 place unless all parties agree to go off the 14 methods that are applied in your report? 15 15 MR. BONI: Object to form. record. Microphones are sensitive and may pick 16 up whispers, private conversations and cellular 16 A. I'm not sure I understand what you 17 interference. 17 mean. 18 At this time will counsel and all 18 Q. What economic methods are applied in 19 19 present identify themselves for the record. your report? 20 MR. GRATZ: Joseph Gratz from Durie 20 MR. BONI: Same objection. 21 Tangri, LLP in San Francisco for defendant 21 A. My training and economics teaches me 22 Google. 22 to understand and analyze incentives in 23 MR. BONI: Michael Boni from Boni & 23 considering the actions of any rational actor. 24 24 Zach, Bala Cynwyd, Pennsylvania for plaintiffs. That method of analysis of considering and 25 THE WITNESS: Benjamin --25 applying incentives is applied throughout the Page 6 Page 8 1 1 MR. BONI: I'm sorry, and here report. 2 2 representing the witness. Q. Can you tell me more about that 3 3 THE VIDEOGRAPHER: Thank you. The method? 4 witness will be sworn in and we can proceed. 4 MR. BONI: Objection to form. 5 5 BENJAMIN G. EDELMAN, A. Well, you know I think it's pretty 6 6 intuitive. It can be structured in a formal A witness called for examination, having been 7 7 duly sworn, testified as follows: algebraic model when a particular situation 8 8 DIRECT EXAMINATION calls for that approach. It can be studied 9 BY MR. GRATZ: 9 empirically through large sample or small sample 10 Q. Good morning. 10 data when the context calls for that approach. 11 A. Good morning. 11 It can also inform understanding and analysis 12 Q. Could you state your name for the 12 without specific application of modeling or of 13 13 large sample data analysis. record, please. 14 14 A. Benjamin Edelman. Q. Did you apply any algebraic modeling 15 Q. And you're an assistant professor at 15 in preparing your report? 16 Harvard Business School; is that right? 16 A. No. 17 17 Q. Did you apply any empirical large A. Yes. 18 Q. Do you have tenure? 18 sample data analysis in preparing your report? 19 A. No. 19 A. I wouldn't call it large sample data 20 20 Q. You have a number of degrees from analysis. There are sections that draw on 21 Harvard; is that right? 21 specific examples considered individually which 22 22 probably is a better example of small sample A. Yes. 23 Q. Are any of those degrees in computer 23 data analysis. 24 science? 24 Q. And those are the particular 25 25 anecdotes that you set forth in your report? A. No.

Page 245 1 1 it's pretty straightforward that if you have 2 2 more limited resources, your ability to expand 3 those resources on any given project is going to 3 4 4 be correspondently limited. A. Yes. 5 Q. In your view is it necessarily the 5 6 6 case that smaller and less sophisticated 7 7 entities have worse security than larger and 8 8 more sophisticated entities? 9 9 MR. BONI: Object to form. 10 10 A. Not always. Sometimes with simpler 11 systems or with less valuable contents to 11 12 safeguard, the security of a smaller entity can 12 13 13 be more than satisfactory. On the other hand, 14 when one flips around those conditions, a small 14 15 15 entity guarding a very large gem, one could 16 16 quickly get into trouble. 17 Q. Are your statements in Paragraph 18 17 18 18 of your report based on a survey of companies of 19 19 various sizes considering their security 20 20 measures? 21 21 A. No. 22 Q. Can you provide an example of one of 22 23 23 the smaller and less sophisticated companies to 24 24 which you refer? 25 25 A. For example, in the context of domain Page 246 1 1 names, there used to be one company, VeriSign

report, you say that attackers can take advantage of even a brief period when a single book provider is insecure. You see that?

Q. Is that true today?

A. Today there aren't so many book providers. We've discussed only two today. Both of them large, sophisticated companies with impressive information security defenses; whereas, the premise of this section, Paragraph 13, is that there might be significantly more in the future, and they might look quite different.

Q. In the event of a fair use ruling?

A. Correct, which has been the premise of the entire section where we've been here.

Q. Have you -- so it's your view that today's book providers like Google and Amazon have a different and higher level of security than tomorrow's book providers might in event of a fair use ruling, such that smaller entities would enter the market and present the risks discussed in this section; is that right?

A. That's right.

Q. Turning to Paragraph 20, you say, "I

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2 Network Solutions that was the sole vendor of 3 .com domain names. When that market was opened 4 up to competition, there were a variety of 5 benefits, but there have also been some 6 downsides, including that some of the smaller 7 guys have been hacked in various ways, have 8 allowed their servers to be taken down by 9 something as routine as a power outage and have 10 otherwise failed to lived up to their 11 contractual commitments. In contrast, the 12 larger vendors in that space have largely 13 succeeded in living up to their contractual 14 commitments. 15 Q. Are you aware of any in The Book

understand that the Google Library Project includes providing to the library partners a full digital copy of the books the libraries allowed Google to scan. Breaches at the security systems at these libraries" -- excuse me -- "breaches in the security systems at these libraries, could facilitate book piracy." Do you know what security systems the libraries who store books such as the University of Michigan have in place?

A. I don't know about all of the security systems that they have.

Space? MR. BONI: Do you understand the

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question?

Q. How do they compare to the security systems that, for example, iUniverse which is the party to the agreement in Exhibit 17 has in place?

A. I do, but I think it's a little bit speculative at this point that there aren't that many smaller sites holding digital copies of books and presenting them in snippet form. If

MR. BONI: Object to form. He just said he's not sure what the security systems are in the libraries.

22 23 there are any small such companies, I guess I 24 don't know about them. 25

A. I'm also not sure what the security systems are at iUniverse, so I really don't think I can make a comparison.

Q. Turning to Paragraph 19 of your

O. You, likewise, couldn't make a comparison to the security systems that Google or Amazon has in place?

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- A. I don't know everything that I'd want to know in order to make that comparison. In general, I think there's good reason to suspect that the libraries will have significantly lower levels of security.
- Q. But you don't know one way or the other?
- A. I don't know one way or the other, and furthermore, I'm not sure the answer is knowable just yet. We need to think about what level of security libraries will have several years from now. It's hard to say, sitting here today what they'll do in several years.
- Q. Are you aware of any books being pirated or stolen from a research library archived with scans made by Google?
 - A. No.

Q. Turning to Paragraph 21, you say, "I've not been informed of all the ways that libraries intend to use the book contents data they receive from Google, nor have I been informed how libraries intend to secure that data. But the information currently available indicates that libraries' actions present a risk

of book piracy." You see that?

- Q. Did any of your work on the Multnomah County case or the interviews with librarians and other librarian staff members in that case form a basis for any of the opinions you render in your report in this case?
- A. It's not a basis. It's part of my overall professional background consistent with expert service.
- Q. Do you know whether the University of Michigan is storing book scans in its normal library information systems or in a separate system?

MR. BONI: Object to form.

- A. I don't know one way or the other.
- Q. What information, additional to the information you have about the library's security measures, would permit you to better assess the risks?

MR. BONI: What risks?

- Q. The risks you discussed in Paragraphs 20 and 21.
- A. Understanding both what they do now and what they will do in the future, what they commit in some sort of a binding contractual sense to do or not to do. I need to understand

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- A. Yes.
- Q. You don't know what security measures the libraries have in place today; is that right?
- A. I don't know all of what they have in place.
- Q. What do you mean by "information currently available" as you use it in Paragraph 21?
- A. Yes, in Exhibit C, I cite the Hathitrust materials which I did review. That gives some information about some of the libraries' security systems. I actually have quite a bit of experience with library information systems from the Multnomah County Public Library case that we discussed previously.

I've spent time interviewing
librarians. I've spent time with the CIOs of
libraries. I've spent time in the library
computer systems, understanding how they work
and how they interoperate and have come to have
a general understanding of the overall culture
and approach to information sharing that's
common in libraries.

the servers on which the data is to be stored, the physical security, the network security, the logical security, software level, user accounts, credentialing.

This sounds like a full security audit. I'm not sure I'm the best person to do it, but in any event, it requires understanding quite a bit about their practices, both in the present and their future practices, which is a little bit harder to investigate in anticipation.

- Q. Turning to Paragraph 22, you refer to a student who used MIT library access to download 4.8 million articles and other documents. You see that?
 - A. Yes.
- Q. Is that man named Aaron Swartz?
- A. Yes.
- Q. Aaron Swartz is being charged criminally for that activity; is that right?
 - A. Yes.
- Q. And those charges are currently pending; is that right?
 - A. That's my understanding.
 - Q. What was the effect on the value of

Page 267 Page 265 1 A. Yes. 1 of 2004? 2 Q. Do you consider that to be in 2 A. I don't know. 3 violation of intellectual property rights? 3 O. Did it occur when the Red Sox made it 4 4 A. I think it's an infringement of the to the World Series? 5 trademark, and the question is whether a fair 5 A. I don't know. 6 Q. Were the -- do you think that the 6 use defense applies. There is a doctrine of 7 7 students celebrating the Red Sox making it to fair use for trademarks and stylized images. I 8 8 think it's a plausible fair use defense. There, the World Series by displaying the logo on the 9 9 I'd really have to apply the factors and read dome of the university building was intellectual 10 10 the cases. I'm much less familiar with the Fair property infringement? 11 Use Doctrine as it applies to stylized images 11 A. The law is what it is, and it's not 12 12 and logos. for me to rewrite trademark law. I wouldn't be 13 13 Q. The Apple prank which you refer surprised if that is infringement as a matter of 14 occurred in October of 2011; is that right? 14 law, and fair use defense might or might not 15 15 A. I don't recall. apply. It wouldn't shock me if you said that to 16 Q. Did it occur shortly after the death 16 do that a license must be paid to the Red Sox, 17 of Steve Jobs? 17 and if you don't pay it, then you're in 18 18 violation of the law. A. If you say so. 19 19 O. Did students display the Apple logo MR. GRATZ: Mark as Exhibit 19, this 20 in the clock tower of Maseeh Hall at MIT in 20 document. I want to note for the record before 21 honor of Steve Jobs in the prank you referred to 21 I hand it to the witness that despite the 22 in Paragraph 25? 22 confidential legend at the bottom of this 23 A. Now, that could be. I don't recall. 23 document, this is not a confidential document. 24 24 O. Do you think that that prank is (Document marked as Exhibit No. 18) 25 relevant to the issues in this case? 25 for identification.) Page 266 Page 268 1 1 A. I can certainly see how it would seem Q. You have before you what's been 2 peripheral. On the other hand, the fact that 2 marked as Exhibit 18. Do you recognize this 3 3 students are well known to disregard document? A. Yes. 4 intellectual property is anything but 4 5 5 peripheral. It's well known that Napster was Q. Is this the document to which you 6 most used on college campuses. There were 6 refer in Paragraph 26 of your report? 7 7 distinctive trends. You could see the number of A. I think so. 8 8 users signed into Napster decrease when major Q. Do you know what security measures 9 schools went onto spring break. So the 9 the University of Michigan has in place? 10 10 relationship between students, university A. That's discussed in part in this 11 11 libraries and piracy is not peripheral. document. 12 Q. Could you tell me about the Red Sox 12 Q. Aside from this document, do you have 13 logo prank you referred to in Paragraph 25? 13 any knowledge other than what is in this 14 A. I don't recall. I went through the 14 document of security measures that the 15 site, looked at the distinctive images 15 University of Michigan has in place? 16 memorializing the pranks, but I didn't note them 16 A. Aside from what's discussed in this 17 17 in great specificity. document, I don't think I have knowledge of 18 18 Q. Do you consider that an instance of their current security. 19 piracy? 19 Q. Is it your opinion that an author 20 20 A. I'm not sure. I do think it's would not agree to have his work stored by the 21 probably an instance of trademark infringement, 21 University of Michigan without greater security 22 22 and it might be subject to a fair use defense. terms than those set forth in Exhibit 18? 23 23 Q. The prank you referred to in MR. BONI: Object to form. 24 Paragraph 25 with respect to the logo of the 24 A. I'm not sure. It all depends on what

the author gets in exchange. If they get zero,

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Boston Red Sox, did that prank occur in October

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to pass in the event of a fair use ruling in favor of Google?

MR. BONI: Object to form. You want a mathematical response to that question?

MR. GRATZ: Whatever the response the witness has for me.

MR. BONI: Object to form.

- A. I don't know. It would be easier to say once that fair ruling resulted, if it did result, once we see who comes along and scans which books and stores them in what ways, until then, it's just a little bit too speculative for me to want to put a number on it, but it certainly is a serious concern.
- Q. What's the magnitude of the harm in dollars? The harm here, I mean the harm that you were discussing in Paragraph 38.

MR. BONI: Object to form.

A. I'm not sure. It's difficult to put a dollar value on it, but I do think it's significant. If you asked a publisher what would they be willing to pay to have a complete protection against piracy, to be able to print their books on uncopyable paper or with magical ink, I think you'd find publishers would be

MR. BONI: Objection. You know he's not a damages expert, Joe.

- Q. You can answer.
- A. I have not. I'm not a damages expert.
- Q. Has a company ever come to you and asked you to evaluate the risk of intrusion into their computer systems which protects books?
 - A. No.

- Q. Has a company ever come to you and asked you to evaluate the risk of intrusion into their computer systems at all?
- A. That seems like the kind of thing someone would have asked me to do at some point. I just need to take a moment to think about it.

Certainly I've thought about that question for the organizations which -- with which I've had long-term relationships. So, for example, when I was running the Berkman Center server, that was a question I thought about. I thought about it with ICANN. I've thought about it as to portions of Harvard Business School. I've thought about it with Wesley as to the servers that we operate together, as to paying clients that come specifically for that.

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willing to pay a significant portion of their enterprise values in order to get that magical technology.

Q. And you consider that to be the measure of the magnitude of the harm set forth in Exhibit -- in Paragraph 38?

MR. BONI: Object to form.

- A. It's not that that's how you'd measure it, but that's the sort of thought experiment one would do.
 - Q. How would you measure it?
- A. On thinking about the way that other large harms are measured, how do we assess the value of a life when a life is taken away from a person? How do we assess the value of a plane crash or a nuclear disaster? It's really not my area of expertise. It's not something I've opined on here. But here I consider the totality of future lost profits. So I do my best to figure out what profits would have been and then what they will be as a result of the loss, and I subtract those two numbers, and that would be the starting point for the harm.
- Q. Have you done that in preparing your report?

I think it would be unusual for anyone to seek my assistance for that solely and specifically, but if they already knew me from something else, I can think of a couple of clients who have sought assistance with problems generally in that vein based on prior relationships.

Q. If a company came to you and asked you to evaluate the risk of intrusion into its computer systems which protect books, would you accept the assignment?

MR. BONI: Object to form. That's the entire hypothetical?

MR. GRATZ: That's the question.

- A. I don't think I would be the best person to evaluate their security systems, but I think I would be able to assist them in selecting an appropriate person. I would be able to guide that person towards the areas of greatest concern, perhaps review their initial report, and suggest areas for extension and further inquiry.
- Q. What process would you recommend be undertaken to evaluate the risk of intrusion into those computer systems that protect books?

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A. I suppose it would all depend on what books I was trying to protect, what I was trying to protect them from, what access I needed to allow. The easiest thing to do to prevent unauthorized access is to prevent all access by destroying the digital records, but I imagine that wouldn't be what someone hired me to tell them. They'd want some way to use it for some purposes while disallowing use for other purposes.

- Q. If a company came to you and asked you to evaluate the risk of an intrusion into their computer systems which protect books and which host books for the purpose of making snippets available in response to searches, what process would you take to under -- to make that evaluation?
- A. Well, I think I would -- I would consider the sorts of security systems that we've discussed a couple times today in different parts of our time together as to physical security, network security, software security, application level security, human resources and internal controls. I'd consider each of those. Each would be significant. Each

at Google. I'd look at my organizations's experience or the client's organization's experience with rogue employees.

When we have a thousand engineers, how many of them turn out to be bad apples, how many bad ones do you get out of a thousand? Is there any way to prevent two of them from acting together in concert? Could we have an audit trail that prevents this kind of copying and that kind of copying? Is it possible to make an audit trail that's so robust that even a senior engineer can't turn it off? Because we know some of the problems occur from senior engineers who can bypass the ordinary control.

So that's the kind of question I'd be asking as to that facet, but to be sure, each of the facets would require a different type of analysis.

- Q. Did you do any of that in preparing your report in this case?
- A. I considered those kinds of approaches. The data and information required aren't available to me and weren't necessary in order to reach the conclusions set out in my report.

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would have multiple facets within it.

And then my analysis would be informed, importantly, by the material that I was holding. If it was unique and one of a kind and highly sought after, then I would be particularly concerned about the skills of my intruders. And if I needed to allow massive, high-volume access by a large number of different users, potentially some of them fake or automated or robotic, I would be even more concerned, and I would need to be open to the possibility, the very real possibility that I couldn't do this with the required level of quality and would need to revisit my plans.

- Q. What information would you need to evaluate the risk of intrusion into such a system which stores books for the purpose of making snippets available in response to searches, for example?
- A. One would need to think about each of the aspects of security just discussed. So for example, as to human resources security, making sure that there isn't a rogue employee who takes the data in the way that other rogue employees have done other untoward things, including even

Q. Why weren't they necessary? Would having them have aided you in reaching your conclusions?

A. Perhaps I could have reached additional conclusions. I imagine that with enough study, I might get to the point where I was prepared to put a number on some of the probabilities. There's this probability per year of this kind of bad thing happening if you use these controls. I think that is an estimatable number. One can estimate even these very small probabilities with enough analysis and enough review, but it's quite difficult, and I didn't consider it necessary or appropriate, given what I was asked to do in this report at this time.

- Q. Did you run any bargaining experiments in connection with your report?
 - A. No.
- Q. Did you perform any statistical analysis in connection with your report?
 - A. No.
- Q. In signing your own consulting agreements, have you performed market checks regarding terms?

	Page 309			Page	311
1	Q. Turning to the references cited page	1	CERTIFICATE		
2	of your senior thesis on page 77, under G, do	2	COMMONWEALTH OF MASSACHUSETTS. MIDDLESEX, SS.		
3	you see a citation to a book by A. Greco called	3			
4	The Book Publishing Industry?	4	I, Avis Barber, Registered Professional Reporter and Notary Public, in and for the		
5	A. Yes.	_	Commonwealth of Massachusetts, do hereby certify		
6	Q. And turning to page 33 of your senior	5 6	that: BENJAMIN G. EDELMAN, the witness whose		
7	thesis, you see the bottom of page 33 it says,		deposition is hereinbefore set forth, was duly		
8	"I further add two promotion-specific variables	7	sworn by me, that I saw a picture identification for him in the form of his Harvard College		
9	to investigate market trends noted by Greco	8	Identification card, and that the foregoing transcript is a true and accurate transcription		
10	(1997) in discussing clumping of book sales over	9	of my stenotype notes to the best of my		
11	time"?	10	knowledge, skill and ability.		
12	A. Yes.		I further certify that I am not related to		
13	Q. Is that a citation to the Greco work	11	any of the parties in this matter by blood or marriage and that I am in no way interested in		
14	titled The Book Publishing Industry cited in	12	the outcome of this matter.		
15	your references cited section?	13	IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal this 20th day of June		
16	A. Seems to be.		2012.		
17	Q. Do you have an opinion as to Albert	14 15			
18	Greco's expertise regarding The Book Publishing		Avis Barber, RPR		
19	Industry?	16	Notary Public My commission expires: July 30, 2015		
20	A. Not really.	17			
21	MR. BONI: Are you done with this,	18 19			
22	Joe?	20			
23	MR. GRATZ: Yes. Nothing further.	21 22			
24	MR. BONI: I have nothing.	23 24			
25	THE VIDEOGRAPHER: Here ends this	25			
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1	deposition. Off the record, 6:18 p.m.	1	I declare under penalty of perjury		
2	(Whereupon, the deposition was	2	under the laws that the foregoing is		
3	concluded at 6:18 p.m.)	3	true and correct.		
4	concrete at one pinning	4			
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