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UNITED STATES DISTRICT COURT

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SOUTHERN DISTRICT OF NEW YORK

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RANDOM HOUSE, INC.,)

5

)
Plaintiff,)

6

)
vs.)

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)
ROSETTA BOOKS, LLC and)

8

ARTHUR M. KLEBANOFF, in his)

individual capacity and as)

9

principal of ROSETTA BOOKS,)

LLC,)

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)
Defendants.)

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DEPOSITION OF ANDRIES VAN DAM

15

New York, New York

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Wednesday, March 28, 2001

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24 Reported by:

JOAN WARNOCK

25 JOB NO. 119763A

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March 28, 2001

10:00 a.m.

Deposition of ANDRIES VAN DAM, held at
the offices of Weil, Gotshal & Manges, LLP,
767 Fifth Avenue, New York, New York,
pursuant to Notice, before Joan Warnock, a
Notary Public of the State of New York.

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2 APPEARANCES:

3

4 WEIL GOTSHAL & MANGES, LLP

5 Attorneys for Plaintiff

6 767 Fifth Avenue

7 New York, New York 10153-0119

8 BY: R. BRUCE RICH, ESQ.

9

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11 Attorneys for Defendants

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13 Philadelphia, Pennsylvania 19107-3389

14 BY: JOANNE ZACK, ESQ.

15

16 ALSO PRESENT:

17 LISA CANTOS

18 ANKE E. STEINECKE

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IT IS HEREBY STIPULATED AND AGREED,

by and between counsel for the respective parties hereto, that the filing, sealing and certification of the within deposition shall be and the same are hereby waived;

IT IS FURTHER STIPULATED AND AGREED

that all objections, except as to the form of the question, shall be reserved to the time of the trial;

IT IS FURTHER STIPULATED AND AGREED

that the within deposition may be signed before any Notary Public with the same force and effect as if signed and sworn to before the Court.

1

2 ANDRIES VAN DAM, having been

3 duly sworn by the Notary Public, was

4 examined and testified as follows:

5 EXAMINATION BY

6 MS. ZACK:

7 Q. Please state your name and address for

8 the record.

9 A. Andries van Dam, Brown University,

10 Department of Computer Science, Box 1910,

11 115 Waterman Avenue, Providence, Rhode Island

12 02912-1910.

13 Q. Could you just repeat for the record

14 your full name.

15 A. Andries van Dam.

16 Q. Is that Dutch?

17 A. Yes. I am Dutch.

18 Q. Can you just tell me your date of birth,

19 sir?

20 A. 12/8/38.

21 Q. And I know you've provided us with a CV,

22 so let me first mark just the text of your

23 declaration without exhibits as van Dam Exhibit

24 No. 1.

25 (Expert Declaration of Andries van Dam

1 van Dam

2 marked Defendant's van Dam Exhibit 1 for

3 identification, as of this date.)

4 MS. ZACK: Then I'm just going to mark

5 his exhibits to the declaration as van Dam

6 Exhibits 2 and 3. So we will mark your

7 curriculum vitae as van Dam Exhibit 2, and

8 the article "As We May Think" by Vannevar

9 Bush as van Dam Exhibit 3, please.

10 (Curriculum Vitae marked Defendant's

11 van Dam Exhibit 2 for identification, as of

12 this date.)

13 (Article entitled "As We May Think" by

14 Vannevar Bush marked Defendant's van Dam

15 Exhibit 3 for identification, as of this

16 date.)

17 Q. Professor van Dam, I'm going to hand you

18 what has been marked as van Dam Exhibit 1. That is

19 an expert declaration that you have signed; is that

20 correct?

21 A. That is correct.

22 Q. And on the last page it's dated

23 February 26, 2001. Is that the date you signed it?

24 A. Correct.

25 Q. Let me hand you van Dam Exhibit 2, which

1 van Dam

2 is entitled "Dr. Andries van Dam Curriculum Vitae."

3 And that was attached to your declaration. Is that

4 something that you prepared?

5 A. Correct.

6 Q. Was that prepared specifically for this

7 case?

8 A. It was not. It's my standard CV.

9 Q. Does that include all of your articles?

10 A. It should.

11 Q. And I noted that at the very end you had

12 attendance at symposia or some such title from 1991

13 on. And I just noticed that. I assume you

14 attended symposia prior to that date?

15 A. Yes. It would have made the CV even

16 longer than it already is.

17 Q. Sure. And what I just want to determine

18 is, is there anything elsewhere you have a date cut

19 off in the information in your CV?

20 A. Only in the lecturing part, because that

21 would add twenty pages. So the articles are up to

22 date. The honors are up to date. As far as I can

23 tell, everything else is up to date. The

24 professional affiliations and so on.

25 Q. And that would include the books, then?

1 van Dam

2 A. That certainly includes the books.

3 Q. And what about any expert testimony. I
4 noted that you had one reference to expert
5 testimony that I saw or caught; is that correct?

6 A. There are others.

7 Q. Okay. Are they all listed there, sir?

8 A. Let's see. Crevath is there for IBM.

9 And Baine, Brown & Baine, is there for Autodesk.

10 Crevath, Swaine & Moore for IBM is there. Brown

11 and Baine is there for Autodesk. I was helping

12 them represent Autodesk. I have done other legal

13 work, but not to the same extent, so I did not list

14 a couple of small jobs where I reviewed patents and

15 gave opinions. For these I was deposed.

16 Q. I see.

17 A. And for the second one I actually was a

18 witness in court.

19 MS. ZACK: I would just ask counsel to

20 just supplement, pursuant to the federal

21 rule on expert testimony, if you can just

22 give us, whatever it is, the last ten years

23 or five years, whatever the rule calls for

24 under Rule 26.

25 MR. RICH: Of?

1 van Dam

2 MS. ZACK: Of the Federal Rules of
3 Civil Procedure.

4 MR. RICH: Of what information?

5 MS. ZACK: Just as to his actual
6 expert testimony.

7 MR. RICH: I'm not sure there is
8 anything beyond what he's just testified is
9 already in the vitae.

10 MS. ZACK: Well, he mentioned IBM and
11 Brown & Baine, which are in the vitae.

12 Q. And then you said there were a couple
13 others not in the vitae.

14 A. A couple where somebody asked me to read
15 a --

16 MR. RICH: Not testimony.

17 A. It was not testimony. I was not
18 deposed.

19 Q. But you gave opinions, written opinions?

20 A. No, not even written opinions. I had
21 telephone conversations after I read them.

22 Q. So there were no other written
23 opinions --

24 A. No.

25 Q. -- in litigation?

1 van Dam

2 A. Not as far as I remember. Correct.

3 Q. Have you ever been an expert in a
4 copyright case prior to this?

5 A. No.

6 Q. And I think you said the IBM, was that a
7 patent issue?

8 A. That was a patent issue. And Autodesk
9 was trade secret.

10 Q. And the other two matters were?

11 A. They were potentially going to be patent
12 litigations, so I looked at patents.

13 Q. What do you consider yourself to be
14 expert in, professor?

15 A. Computer science in general is my field,
16 but my research specialties lie in computer
17 graphics and human computer interaction as well as
18 in text and hypertext systems. I also know a lot
19 and work on educational software. So that's a
20 third area that makes use of results in the first
21 two.

22 Q. I have that you mentioned computer
23 graphics, human computer interaction. Is that a
24 part of the first, or is that a second category?

25 A. Some people consider it. Other people

1 van Dam

2 consider it differently. I certainly do not cover
3 both fields in their entirety because they are huge
4 fields at this point. So I cover in my research a
5 subset of both, of computer graphics and of human
6 computer interaction.

7 Q. And then text, hypertext, is that
8 another subspecialty?

9 A. Hypertext has been another longtime
10 research interest.

11 Q. And then, finally, educational software?

12 A. Right.

13 Q. Do you consider yourself an expert in
14 copyright?

15 A. In copyright from a legal point of view,
16 absolutely not.

17 Q. Do you consider yourself an expert in
18 copyright from a trade usage point of view?

19 MR. RICH: I'm not sure I understand the
20 meaning of that.

21 Do you understand?

22 THE WITNESS: No. I'm trying to
23 understand.

24 Q. Well, let me rephrase the question.

25 A. Is that a legal term you're using?

1 van Dam

2 Q. Do you understand the term?

3 A. I don't think so.

4 Q. Okay. Then I'll rephrase the question.

5 You're the one who has to understand the question.

6 Have you ever worked in publishing?

7 A. I have never been the employee to a

8 publishing company, but since I'm a book co-author,

9 I've certainly worked with publishers.

10 Q. Have you ever worked as part of a

11 publishing company, in a publishing company in any

12 capacity?

13 A. I have not.

14 Q. Do you consider yourself an expert in

15 any phase of copyright?

16 A. I do not.

17 Q. When you published your books, did you

18 have an agent?

19 A. Negative.

20 Q. You represented yourself in those

21 negotiations?

22 A. Correct.

23 Q. And did you sign contracts?

24 A. I did.

25 Q. Did you read them before you signed

1 van Dam

2 them?

3 A. I did.

4 Q. Did you negotiate any portions of the
5 contract?

6 A. I did.

7 Q. Were there cross-outs as a result of
8 those negotiations or additions to the contract?

9 A. I'm sure there were. I haven't looked
10 at my contracts in a very long time, but I know
11 that there were clauses that did not pertain and
12 places where we did specials.

13 Q. What do you mean by "specials"?

14 A. Where we made sure that the contract
15 reflected the conditions. For example, if it had
16 to do with electronic delivery of manuscript, that
17 would not have been part of standard contracts and
18 we may have put a clause in about that.

19 Q. That would be your electronic delivery
20 to the publisher of your manuscript?

21 A. Correct. Yes.

22 Q. And who was your publisher? Did you
23 have the same one?

24 A. Addison-Wesley. Actually, they're now
25 -- they were bought out, and they are now -- I'm

1 van Dam

2 spacing -- Addison-Wesley and someone, or somebody

3 Addison-Wesley. They're still in Massachusetts.

4 Q. Okay. For the sake of the court

5 reporter, we just have to not interrupt each other.

6 Even if you know what my last word is going to be

7 of my question, just wait until I say it. Okay?

8 A. Yes, ma'am.

9 Q. And I'll attempt to do the same for you.

10 You've been at Brown since you got your

11 Ph.D.; is that correct?

12 A. Actually, I came a year before I got my

13 Ph.D.

14 Q. So you've been there since you got your

15 Ph.D.; correct?

16 A. I just wanted to be a little more

17 precise.

18 Q. Okay.

19 A. Yes.

20 Q. And your affidavit mentions, and I saw

21 on your CV, that the Department of Computer Science

22 began at Brown in 1979; is that correct?

23 A. Correct.

24 Q. So prior to 1979, there was no

25 Department of Computer Science at Brown University;

1 van Dam

2 is that correct?

3 A. That is correct.

4 Q. Were you involved in the creation of

5 that department?

6 A. Very much so. I was the principal

7 founder, and, indeed, prior to the formation of the

8 department, there was a trial department, which was

9 I think the programming computer science. It's in

10 the CV. And I was the head of that, reporting to

11 the chairman of the two departments from which it

12 was formed. After three years of that, the

13 department was created, and I was then its chairman

14 for another six years.

15 Q. What you call the trial department, was

16 that set up in 1976, then?

17 A. Correct.

18 Q. And the two departments that it came out

19 of were applied mathematics and what else?

20 A. And the Division of Engineering. Two

21 divisions. Division of Applied Math, Division of

22 Engineering.

23 Q. At the time that Brown set up this

24 department, were there other departments of

25 computer science of which you were aware at other

1 van Dam

2 universities?

3 A. There were.

4 Q. Which ones?

5 A. MIT, CMU, Stanford, Berkeley.

6 Q. Do you know who was first to set up a
7 separate Department of Computer Science, which
8 university?

9 A. University of Pennsylvania, where I did
10 my Ph.D.

11 Q. What year did they set that up?

12 A. I believe it was formally started in
13 '61.

14 Q. And you were the second Ph.D., you said?

15 A. Correct.

16 Q. Who was the first?

17 A. My good friend and office mate Dick
18 Wexelblat.

19 MR. RICH: Off the record.

20 (Discussion off the record.)

21 Q. Can you tell me what hypertext is?

22 A. I can. Hypertext, in its simplest
23 definition, is non-linear text, that is,
24 arbitrarily long fragments of text with pointers or
25 links or hyperlinks -- those are all the same idea

1 van Dam

2 -- to other such fragments and/or pictures and/or
3 video clips, at which point hypertext becomes
4 hypermedia. So an early example of a precedent in
5 linear printed documents is the footnote or the
6 "see also" reference. And if you manually follow
7 that link, you go to another piece of information
8 which is being referred to.

9 Q. And that's something on which you
10 consider yourself to have expertise; correct?

11 A. Correct.

12 Q. Hypertext and text. And what is the
13 difference between text and hypertext?

14 A. Text is anything that you see on the
15 printed page, in a newspaper, in a magazine, on
16 television, on a CD ROM. Hypertext is text with
17 these embedded links, pointers or hyperlinks. So
18 it's something that you add to traditional text to
19 turn it into a hypertext.

20 Q. And what is the purpose of that?

21 A. To give you more flexibility in
22 information access in the same way that a footnote
23 allows you optionally to decide to look at the
24 material or not without disturbing the main flow of
25 the argument. The hypertext link, say on a web

1 van Dam

2 page, you take or you don't take at your option.

3 And when you do take it, you get additional

4 information that presumably you're interested in.

5 Q. And where are the kind of places that a

6 hypertext link can take you?

7 A. In the case of a textbook, it would

8 typically take you to a word gloss, an explanation

9 of a concept, additional information on the same

10 topic by another author or by the same author,

11 deeper treatment of the topic. Those kinds of

12 enrichment.

13 Q. Can it also take you to another

14 document?

15 A. And typically it will take you to

16 another document, or to at least another section of

17 the current document.

18 Q. Well, when you look at a footnote in a

19 printed book, you see the annotation and you go to

20 the point where the footnote is printed in the

21 book; correct?

22 A. Optionally.

23 Q. Right. And that may give you listings

24 of other books to then go to; right?

25 A. Correct.

1 van Dam

2 Q. Butthen --

3 A. It may give you a -- I'm sorry. I did
4 it.

5 Q. It's all right. It's normal.

6 A. Please.

7 Q. But if a book is noted in a footnote,
8 the book is not physically available to you;
9 correct?

10 A. Correct.

11 Q. Unless you happen to have it on your
12 shelf.

13 A. If you happen to have it on your shelf.

14 Q. Now, in a hypertext link, can you be
15 linked actually to another volume of a different
16 book immediately?

17 A. You can. And the word "immediately" can
18 mean different things at different times. If
19 you're working on a slow modem and your book is
20 coming from Sweden, it may take a while to get even
21 to the first page of the cited reference. If
22 you're working on a computer system in an
23 institution that has a fast internal network, and
24 the book is located on one of the servers in the
25 building, then it really is instantaneous, a

1 van Dam

2 fraction of a second to a second or two.

3 Q. And what if you're working on the
4 worldwide web?

5 MR. RICH: What's the question?

6 Q. Well, what are the possibilities for how
7 quickly or what the word "immediate" means in this
8 context.

9 A. It again depends upon where the server
10 with the data is relative to you, not just
11 geographically, but what the band width of the
12 network connections is between you and the server,
13 how many intermediate hops the information has to
14 go through. So there are a lot of variables in the
15 picture. But if you're working at a time when the
16 net is not overloaded, and you're not asking for a
17 huge amount of information, and you're connected
18 over a decent band width line, you could see a
19 result in a few seconds.

20 Q. And is that the type of work that you've
21 been doing to improve that?

22 A. I have not. My early work in hypertext
23 was done before there were large-scale geographic
24 networks, before the internet, before the worldwide
25 web.

1 van Dam

2 Q. So what time period was it that you did
3 work on hypertext?

4 A. From 1967 through today, with most of
5 the work concentrated in the 60's and 70's and
6 early 80's.

7 Q. Did any of your work involve working
8 with the internet?

9 A. It did not. Now, using the internet,
10 yes, the latest systems. Everyone uses the
11 internet.

12 Q. Sure. When would you say that everyone
13 began using the internet?

14 A. Relatively recently, five, six years ago
15 when it really became almost ubiquitous.

16 Q. Was the research that you did on the
17 hypertext links related to computers you had at
18 Brown?

19 A. It was.

20 Q. Could you connect to computers outside
21 of Brown?

22 A. We could, but did not. We had sometimes
23 terminals that were not at Brown linked in via
24 telephone lines to our central system at Brown.
25 But we did not make use of connected networks of

1 van Dam

2 computers sharing files.

3 Q. So you didn't connect with the computer
4 in MIT, for instance?

5 A. Correct.

6 Q. You did not?

7 A. Correct, I did not.

8 Q. What was the reason that you didn't do
9 that?

10 A. That was very uncommon, and the
11 protocols for connecting computers and sharing
12 information were only then being developed, and
13 they were available only to the research community,
14 principally sponsored by DARPA, and we were not
15 members of that club.

16 Q. That was DARPA, did you say?

17 A. DARPA, D-A-R-P-A. Defense Advanced
18 Research Projects Agency. They were the folks that
19 sponsored all the early research on networking.
20 That was ARPANET, which led to the internet as we
21 know it today.

22 Q. Who were the members of DARPA?

23 A. For example, MIT, Berkeley, CMU. Not as
24 universities, but as research groups and computer
25 science departments. Stanford Research Institute,

1 van Dam

2 UCLA, the larger institutions. Brown, which was
3 tiny, which started with seven faculty members in
4 '79, was not large enough to show up on DARPA's
5 radar.

6 Q. I see. How about your alma mater, the
7 University of Pennsylvania? Were they a member of
8 DARPA in the 70's or 80's?

9 A. I don't think so, but I don't remember.
10 And I had left Penn in '65. I did not keep up with
11 them.

12 Q. What type of research was done by DARPA
13 in the 70's and 80's, to your knowledge?

14 A. Certainly a lot of research on
15 networking and networking protocols, on the
16 hardware and software to build the network. DARPA
17 itself, by the way, did not do the research. It
18 sponsored the research both done at universities
19 and in commercial companies such as Bolt Beranek &
20 Newman, which built some of the very earliest
21 network nodes. They also sponsored work in speech
22 recognition. They sponsored work in computer
23 graphics. Since I was not a member of the club, I
24 can't give you an exhaustive listing. They
25 sponsored work in computer architecture.

1 van Dam

2 Q. And the club, as you mentioned, that had
3 these research institutions, universities, or the
4 computer arm of those institutions, were there
5 other members outside the university context?

6 A. I know that they sponsored commercial
7 companies to work on some of the problems.

8 Q. Do you know which --

9 A. BB&N, Bolt, Beranek & Newman, was one of
10 them. And I'm doubtless there were others.

11 Q. You're not aware of who else?

12 A. No.

13 Q. That's okay. Did they publish the
14 results of their research on a timely basis?

15 A. DARPA didn't publish. But the
16 organizations that they sponsored to a very healthy
17 extent made their results available through the
18 published literature. So this was not secret,
19 classified research. It was open.

20 Q. And did you make use of that research in
21 any practical way in the 1970's or 80's?

22 A. Indirectly, sure, because after a while
23 one was able to get accounts on the ARPANET and the
24 networks that followed it and could use those
25 accounts for doing email, file sharing. So we were

1 van Dam

2 a customer, in a sense, of results that came out of
3 DARPA engineering and research. And I knew about
4 various kinds of research projects that were being
5 sponsored and tracked them as I would other
6 research projects. So certainly, intellectually,
7 we built on things that we had learned.

8 Specifically to my interest, some of
9 DARPA money went into funding Doug Engelbart, who
10 is the grand old man in the area of hypertext
11 systems. And I was very well aware of his research
12 and used many of his ideas in my research systems.
13 So that, to me, is the clearest link where I
14 actually was able to use DARPA-sponsored results in
15 my own work.

16 Q. Were you involved in Brown becoming
17 connected to other --

18 A. To the network?

19 Q. To other institutions, to the network.

20 A. No, I was not, because those kinds of
21 connections are handled by our infrastructure arm,
22 as they are at other universities, and that in our
23 case is computer and information services, the
24 computing center.

25 Q. Can you tell me when it was that Brown

1 van Dam

2 became connected to the worldwide web?

3 A. I cannot.

4 Q. Was it in the 1980's?

5 MR. RICH: Don't speculate. If you

6 know, you can testify.

7 A. Since I don't know, I'm not going to

8 guess.

9 Q. Well, it's fair to say at the time you

10 started the department in 1979, you weren't

11 connected to the worldwide web, were you, at Brown?

12 A. There was no worldwide web in 1979, so

13 we could not have been connected.

14 Q. And is it fair to say that you weren't

15 connected ten years later in 1989?

16 MR. RICH: Objection to the form. You

17 can answer.

18 A. I can't tell you yes or no because I

19 don't remember when we were connected and how we

20 were connected.

21 Q. When you say that was handled by the

22 infrastructure, are you talking about the --

23 A. The computing center.

24 Q. The computing center at Brown?

25 A. CIS, computer and information services.

1 van Dam

2 Or computing and information services, I believe.

3 I can't remember whether it's "computer" or

4 "computing." It's always called CIS.

5 Q. Do you recall when you personally were

6 able to network with someone on a computer that was

7 different from Brown's computer?

8 A. I know that we were sending email around

9 in the 70's. Even from Switzerland in 1979 when I

10 had my sabbatical there, I used email regularly to

11 log on and communicate with colleagues worldwide,

12 including, first and foremost, my colleagues at

13 Brown.

14 Q. What about the first time you were able

15 to send a manuscript to someone outside Brown's

16 system?

17 MR. RICH: Object to the form. You can

18 answer.

19 A. I don't remember. I don't remember.

20 Q. Did you do that before 1979?

21 A. I don't remember.

22 Q. Did you do that before you were

23 connected to the worldwide web?

24 A. Possibly. I don't remember.

25 Q. Have you ever heard the term "digital

1 van Dam

2 copy"?

3 A. I'm sure I have, but it is not one that
4 is current in my circles.

5 Q. Does it have any meaning to you?

6 A. I can hazard a guess.

7 MR. RICH: I don't want you to guess.

8 Q. I don't want you to guess. If you've
9 heard the term or if it has meaning to you --

10 A. It has a meaning to me by guessing.

11 Q. Well, all right. We'll take your guess
12 with the understanding that it's a guess.

13 MR. RICH: Well, I don't know that the
14 record is elucidated by guessing by any lay
15 or expert witness.

16 MS. ZACK: Are you going to direct him
17 not to answer? He said it's a guess, so let
18 him guess.

19 MR. RICH: I'm directing him not to
20 answer. I think it's wasteful to elicit
21 guesses or speculation by way of testimony.

22 You can answer.

23 A. I'll take my attorney's advice.

24 MR. RICH: You're free to answer,
25 recognizing this is a guess.

1 van Dam

2 MS. ZACK: That was what I said.

3 MR. RICH: And of no probative value.

4 A. I'll stick with --

5 MR. RICH: You prefer not to simply

6 guess?

7 THE WITNESS: Yes.

8 Q. So that phrase "digital copy" has no

9 meaning that you can elucidate for me?

10 A. As I said, I can guess as to what it

11 means. It has a fairly obvious conventional

12 interpretation, but I don't know whether it's used

13 in any technically precise sense.

14 Q. What does it mean to digitize something,

15 in your view?

16 A. It means to take something that exists

17 in some analog form and make it machine-readable

18 and representable inside the computer.

19 Q. Now, is microfilm something that's been

20 digitized?

21 A. No, it is not, because it is not inside

22 a computer memory. It's still in analog medium.

23 Q. And the same would be true for

24 microfiche, I guess?

25 A. Correct.

1 van Dam

2 Q. So microfiche and microfilm are part of
3 the analog medium; correct?

4 A. Correct.

5 Q. And what would be part of the digital
6 medium?

7 A. Something stored on some kind of
8 computer memory and made accessible through some
9 kind of computer output device. Digital means it
10 has to have a representation in bits. It can be
11 stored, retrieved, manipulated, displayed.

12 Q. If you take information such as your CV
13 which is here in --

14 A. Print form.

15 Q. -- typed or print form and wanted to put
16 it into bits so that it could be read by the
17 computer, what is involved technologically with
18 that?

19 A. Starting with the paper?

20 Q. I'm asking as an expert --

21 MR. RICH: As of today how one would do
22 it, or any variety of techniques one might
23 do that over time? I'm not clear about your
24 question.

25 Q. Well, has the technique changed over

1 van Dam

2 time?

3 A. No. There are two basic techniques that
4 have been around for a long time. One is to
5 keyboard the information in with formatting
6 information, also thought of as typesetting codes,
7 or HTML. But there are codes that have something
8 to do with the way you want the information to be
9 displayed. But the entry process is manual.

10 The second is to use a scanner of some
11 kind with character recognition built in, and these
12 are widely used as well to take material that never
13 did exist in digital form and to digitize it.
14 Someone typically has to correct the automatic
15 scanning process because inevitably mistakes will
16 be made by the software. And then you have your
17 digital copy, as it were, of the original hard
18 copy.

19 Q. And what about the format in which the
20 document shows up on the screen? Is that something
21 that's changed over time?

22 MR. RICH: Object to the form. You can
23 answer.

24 A. I don't understand the question exactly.
25 Do you mean we can display things with fancier

1 van Dam

2 effects than we used to be able to?

3 Q. Well, let me just ask you this. That
4 wasn't a good question. Let me rephrase it. What
5 does Adobe Acrobat do, if it does anything, that's
6 different than could be done with formatting before
7 Adobe Acrobat existed?

8 A. Adobe Acrobat is, in a sense, an
9 exchange format. It allows people on a wide
10 variety of terminals to read a typeset document
11 with roughly the same look, independent of their
12 device's characteristics. The kinds of typesetting
13 conventions that are used to format a document have
14 not changed a lot in 20 to 25 years. So there is a
15 typesetting phase, and then there is an exporting
16 phase. Adobe Acrobat is primarily for the latter.

17 Q. Well, let me ask you this. If someone
18 sends -- say ten years ago, five years ago, let's
19 hypothesize, someone sends something in a Word
20 Perfect format to someone who has a Word computer.
21 Does the document come up on the screen?

22 A. If you first run it through a filter
23 that converts from Word Perfect format to Word
24 format. And many such filters exist to take a
25 document from one internal representation to

1 van Dam

2 another.

3 Q. Right. And if we don't have that
4 filter, what happens?

5 A. Then you're hosed, to use the technical
6 term.

7 Q. What does that mean?

8 A. Then you're stuck. You basically can't
9 read the document. And today we still continue to
10 be plagued by such incompatibilities. For example,
11 you could send a Microsoft Word file to someone
12 that has a Mac from your PC, and they may have
13 difficulty opening that Word file because they
14 don't have exactly the right Word to Word
15 conversion software loaded.

16 Q. And is that an issue that's been --

17 A. With us?

18 MR. RICH: Please let's have a question.

19 A. I'm sorry.

20 Q. That's all right. Is that an issue that
21 people are working to correct now in the computer
22 sector?

23 MR. RICH: Now as opposed to previously?

24 MS. ZACK: Now. I'm not saying as
25 opposed. I'm saying now.

1 van Dam

2 A. People have been working on format

3 conversion since the first formats were created.

4 Q. Have there been any improvements since

5 the first formats were created?

6 A. There are more of these conversion

7 programs available, so that's an improvement.

8 Q. And would you say there has been a

9 significant improvement from 1979 until today or

10 not?

11 MR. RICH: Object to the form. Your

12 question was from --

13 MS. ZACK: 1979 until today, has there

14 been any improvement.

15 MR. RICH: That's a different

16 question. You said "significant" in your

17 prior question.

18 Q. Significant improvement or not.

19 MR. RICH: Object to the form. You can

20 answer.

21 MS. ZACK: You're objecting to the use

22 of the word "significant"?

23 MR. RICH: Yes.

24 MS. ZACK: Okay. I'll withdraw the

25 word "significant," which I attempted to do.

1 van Dam

2 MR. RICH: I just want to know what

3 your question is.

4 Q. Has there been any improvement at all
5 from 1979 to date?

6 MR. RICH: In conversion ability?

7 Q. In formatting ability between different
8 types of computers or software.

9 A. I'm afraid the answer is yes and no.

10 There are more formats available. There are still
11 not universally accepted standards for document
12 interchange, format interchange. But there are
13 more converters available. So if you stick within
14 a fairly narrow set of well-accepted, popular
15 formats, you'll be all right. But you can still
16 hit as many bumps in the road as you did during the
17 60's and 70's if you use something exotic.

18 Q. And has there been any standardization
19 from 1979 until today or no?

20 A. Multiple standards exist.

21 Q. Would you prefer that there be one
22 standard?

23 A. I would love for there to be one
24 standard.

25 Q. Your declaration refers to electronic

1 van Dam

2 books.

3 MR. RICH: Can you just point us to
4 where you're looking, please.

5 MS. ZACK: Sure. It may be in more
6 than one place, but I'm looking on Page 3,
7 Paragraph 8.

8 Q. What is your definition of an electronic
9 book?

10 A. An electronic book is a means of storing
11 and displaying documents via the computer and
12 computer screens. That is the loosest definition.
13 In the limit, as we had more and more computer
14 capability, electronic books will evolve, and they
15 will look less like some equivalent of today's
16 printed material. They will add features. And in
17 my research, I work on much more advanced, next
18 generation kinds of electronic books. Today's
19 electronic books are alternate means of reading
20 documents such as books.

21 Q. When you say today's electronic books,
22 are you talking about a particular electronic book
23 that you've looked at?

24 A. I'm talking about commercial electronic
25 books such as what was called the Rocket Book when

1 van Dam

2 I got mine a year ago, but also electronic books as
3 content delivered on laptops and made readable via
4 say Microsoft Reader. That's also an electronic
5 book.

6 Q. Have you read any electronic books?

7 A. I have.

8 Q. Just tell me one that you've read.

9 A. I went through Alice in Wonderland.

10 Q. What do you mean by "went through"?

11 A. I browsed through it, read certain
12 passages, because I hadn't read it in a long time.

13 Q. And where did you access that?

14 A. I got this from the eBook team at
15 Microsoft, for whom I consult.

16 Q. Now, you said that you envision
17 differences in electronic books in the future. I

18 think that's what you said. Is that correct?

19 A. Evolution of the electronic books.

20 Q. And what do you envision in that sense?

21 A. That they will have far richer
22 capabilities that will go well beyond what you can
23 do with paper medium, that they will be live,
24 dynamic, reactive, adapt their contents to the
25 needs of the reader at any given time, and in the

1 van Dam

2 even further future, present immersive virtual

3 realities of the type that I work with in a

4 research setting in Brown.

5 Q. Why do you think that that can be done?

6 A. Because the hardware technology and

7 software at some point will be sufficiently

8 powerful to make it possible. And because with

9 that new hardware and software technology, you can

10 provide even more compelling, engaging, and

11 instructive experiences than you can with the

12 computer equivalent of printed textbooks and other

13 forms of documentation.

14 Q. And can you just give me an example of

15 what you mean? Does this have anything to do with

16 hyperlinks? Would you use hyperlinks?

17 A. Absolutely. Hyperlinks would still be

18 there.

19 Q. How would you use them in your vision?

20 A. A scenario that we often use to

21 illustrate what books of the future might look

22 like, electronic books of the future, is one of an

23 aircraft maintenance and repair technician who is

24 looking at a jet engine and is wearing stereo

25 glasses, and his head is being tracked by computer

1 van Dam

2 gear. Head trackers these are called. And what
3 the technician sees in front of him or her through
4 these glasses is the jet engine in situ, as well
5 pages of technical documentation with instructions,
6 parts explosion diagrams, and links to additional
7 information that he can simply point to with his
8 finger. So this is an enriched version of reality
9 having the documentation and layers of abstraction,
10 not just a single document, available surrounding
11 the part that he happens to be currently working
12 on.

13 Q. And how is that possible?

14 MR. RICH: How is --

15 Q. How is it possible?

16 A. How is it possible to implement it?

17 MR. RICH: It may be a long answer.

18 THE WITNESS: Yes, but I'll make it
19 short.

20 MS. ZACK: He's a teacher.

21 A. It's possible, first of all, by having,
22 as always, a computer representation of all of the
23 technical documentation, the text, the manuals, the
24 links to additional information. And the computer
25 glasses -- and these exist today -- allow him both

1 van Dam

2 to see through the real world and to have
3 superimposed computer-generated information. The
4 computer knows where he is looking. And in parts
5 of his visual field where the engine is not, it
6 will display these hypermedia pages from the
7 electronic maintenance and repair manual so that he
8 just swivels his head, looks at it, and then
9 swivels back to the part where he is supposed to
10 repeat, for example, an instructional sequence that
11 has been shown him in the documentation. I forgot
12 to mention that the book will also talk to him and
13 that he will talk to it. And in yet more lapsed
14 time, the book will have a dialogue with him,
15 answer his questions, What do I do next, but it
16 doesn't look like what you showed me, what do I do
17 now? So this may take ten, twenty, thirty years,
18 but there are early experiments that are very
19 evocative already.

20 Q. And this would all be through a
21 digitized medium; correct?

22 A. All of the information would have to be
23 available in digital form. It may not have been
24 digitized. Most material today is not, in fact,
25 digitized, particularly in the technical

1 van Dam

2 documentation arena. It is entered into the
3 computer ab initio as key strokes and pen gestures
4 or mouse gestures. The drawings are. The
5 documentation is. None of that is scanned in.

6 Q. But it goes into the memory of the
7 computer?

8 A. But it is then available in the memory
9 of the computer.

10 Q. And through various things that I'm not
11 going to ask you to describe, links, this can all
12 be accomplished; correct?

13 A. Correct.

14 Q. And you believe it can be in the next
15 twenty to thirty years; right?

16 A. I do.

17 Q. Would you call that an electronic book?

18 A. It is an advanced electronic book in the
19 same way that a Piper Cub is not the same as a 777.
20 You both call them airplanes, but no one would
21 confuse them. So Rocket Book with Alice in
22 Wonderland is a very different thing, although it
23 has things in common with the research kind of
24 electronic book of the future that I just
25 mentioned. They have a common heritage.

1 van Dam

2 Q. When you say they have a common
3 heritage, what do you mean by that?

4 A. They exist in digital format in the
5 computer. They were entered in some means. They
6 were edited. And they were displayed.

7 Q. Would you say that the computer is a
8 different medium than a print book?

9 A. It is.

10 Q. And a different medium than an audio
11 book?

12 A. A different medium than audio?

13 Q. Yes.

14 A. Right. Yes.

15 Q. And what about television? Is that a
16 different medium, too?

17 A. At some level they are all communication
18 media. But in terms of an engineering view of the
19 matter, they are different media, use different
20 technologies.

21 Q. And from an engineering point of view,
22 the printing press is a different medium than the
23 computer; correct?

24 A. Correct.

25 Q. Are you aware of any commercial market

1 van Dam

2 for eBooks that existed in the 1970's?

3 A. Not as we think of eBooks today. For
4 example, the hand-held devices that contain
5 downloaded documents, those were not available in
6 the 1970's. On the other hand, there were
7 certainly electronic documents that were being read
8 on-line. I think Nexus and Lexus were already
9 around in those days. Certainly maintenance and
10 repair manuals were available on-line. Systems
11 Builders with access to computers and computer
12 terminals were very prone to keep their electronic
13 documentation on-line. And those were early
14 examples of eBooks. So was there a thriving market
15 that recognized the term "eBook" and that sold
16 little devices specifically for the purpose of
17 reading electronic books, no. So I'm answering
18 your question in a narrow way.

19 Q. Was there a market, that you were aware
20 of, in the 1970's, a commercial market for eBooks
21 on home computers as opposed to a -- you mentioned
22 a device. I'm talking now about any home computer.
23 Was there a commercial market for eBooks being sold
24 to home computers?

25 A. I'm trying to remember when home

1 van Dam

2 computers would have been sufficiently pervasive
3 that you could think of them as more than a
4 hobbyist's toy. That would have been in the late
5 70's, early 80's is my guess. So if your question
6 is during the entire period of the 70's, I would
7 have to say no, because PC's and Macs and Apple
8 2E's before Macs didn't really come on the scene
9 until late 70's. But, again, that does not mean
10 that people were not reading electronic documents.

11 Q. By "electronic documents" you mean
12 reading things on a computer?

13 A. Reading things on computer screens that
14 were computer stored, typically, professionally in
15 institutions that had computers. And that includes
16 journalists, who in the 70's were using Atex
17 systems, for example, to compose their stories,
18 read and edit them on-line, and then transmit them
19 for publication.

20 Q. Are you aware of any publishing
21 companies that sold eBooks in the 1970's?

22 A. I'm not.

23 Q. How about in the 1980's?

24 A. I'm not, because I can't remember when
25 the first CD ROM-based publications were made

1 van Dam

2 available by eBook -- by publishers. I just don't

3 have the date in my memory. I would expect that to

4 have been in the 80's.

5 Q. Now, let me hand you what has been

6 marked as van Dam Exhibit 3, which is the article

7 --

8 A. Vannevar Bush.

9 Q. Does Mr. -- is it Professor? I don't

10 know what he was. Professor Bush?

11 A. Professor, doctor, genius. All

12 appropriate.

13 MR. RICH: Referring to Bush now?

14 THE WITNESS: This Bush.

15 Q. Does Vannevar Bush talk about computers

16 in that article?

17 A. He does not.

18 Q. He mentions the Memex, as you referred

19 to in your declaration; correct?

20 A. Correct.

21 Q. A Memex is not a computer; right?

22 A. That's in his -- back up. His vision of

23 the Memex is based on microfilm. He leaves many of

24 the details of his vision unspecified. He talks

25 about codes, levers. One could easily imagine

1 van Dam

2 building a hybrid device that stored the bulk data
3 on some form of microfilm and that did the indexing
4 and retrieving that he mentions by computer. So it
5 is not excluded by what he writes, but it is not
6 mentioned as his preferred implementation
7 technique.

8 Q. Is it mentioned at all?

9 A. No.

10 Q. So the Memex is a microfilm projection
11 device; correct?

12 A. At a minimum. The part he specifies
13 definitely is based on microfilm. The part that he
14 is unfortunately all too ambiguous on is how the
15 coding and decoding is done, whether that is done
16 through electromechanical technology or what and --

17 Q. Well, was he ambiguous, or was he just
18 being a visionary?

19 A. No. He doesn't talk about it. This is
20 a vision document. It is not an engineering
21 blueprint.

22 Q. Right. And it doesn't surprise you that
23 he didn't talk about the details in 1945; right?

24 A. Not at all.

25 MR. RICH: Objection. Object to the

1 van Dam

2 form.

3 Q. But what he envisioned involved

4 microfilm; correct?

5 A. That was --

6 MR. RICH: Objection. Asked and

7 answered. You can answer again.

8 A. His article describes one implementation

9 of Memex potentially using microfilm, a medium that

10 he was very familiar with. It does not restrict us

11 to microfilm.

12 Q. And microfilm is an analog medium;

13 correct?

14 A. Correct.

15 Q. And there is nothing said in the article

16 about digital medium; correct?

17 A. Correct.

18 Q. Now, on Page 4 of your declaration, the

19 carryover paragraph in the middle you say, "While

20 the commercial realization of the eBook as it now

21 exists is of more recent vintage" -- and what

22 approximate years are you talking about when you

23 say "more recent vintage"?

24 A. Say Rocket Book, which came out a year

25 and a half ago maybe. I don't remember exactly

1 van Dam

2 when I got mine. Probably a year ago.

3 Q. Who wrote that?

4 A. Sorry?

5 Q. I'm not familiar with Rocket Book. What

6 is that?

7 A. It's now called Gemstar RED-1200.

8 MR. RICH: 1100.

9 THE WITNESS: 1100?

10 MR. RICH: 1200 is right.

11 MS. ZACK: Okay. Thank you.

12 A. So I'm talking about the little

13 hand-held. But before then we had the Franklin

14 Pocket Dictionary, and we had Thesauri and other

15 little translators, other hand-helds that were

16 based on text.

17 Q. And those all came out in the 90's?

18 A. No. I think those were available much

19 earlier. I don't know the dates of those

20 specialized pieces of hardware because I never

21 bought one.

22 Q. So you don't know when they were

23 available?

24 A. I don't know when the Franklin was

25 available, for example. But things called eBooks

1 van Dam

2 in terms of the physical gadget, those are of very
3 recent vintage.

4 Q. To continue in that sentence, you said,
5 "While the commercial realization of the eBook as
6 it now exists is of more recent vintage, its
7 conception from these roots has long been
8 foreseeable." How long has it been foreseeable?

9 A. I believe since at least the early 60's.

10 Q. What about before then?

11 A. I know that there were -- that there was
12 at least one person who was thinking down this
13 line. That wasn't me.

14 Q. Was it foreseeable in 1945?

15 A. I don't know. I was not an adult at
16 that time, and I was not in the field. Could it
17 have been foreseeable by the people who worked on
18 ENIAC at University of Pennsylvania? It's
19 possible, but I'm purely speculating.

20 Q. When would you say that you foresaw
21 eBooks?

22 A. I would like to ask you for a
23 clarification. By "eBook" do you mean it in the
24 loose sense of any form of electronically stored
25 and displayed document, or do you mean the

1 van Dam

2 eBook-style gadget as in the Gemstar.

3 Q. Well, let me ask a different question.

4 Let me go back. On Page 4, Paragraph 8, the
5 sentence we've been looking at, you said, "While
6 the commercial realization of the eBook as it now
7 exists was of more recent vintage," and I guess
8 there you were talking about the Rocket Book type
9 of eBook; correct?

10 A. Hand-helds of various kinds with
11 literature on them.

12 Q. With that type of eBook in mind, when
13 did you foresee that?

14 A. I built a prototype that's still in our
15 little computer museum in the early 80's, but I
16 certainly understood the implications in the 60's
17 already with the forward march of
18 micro-miniaturization and the engineering
19 unstoppable improvement cycle, that eventually
20 things would allow one to have lots of information
21 in a very portable package.

22 Q. Did you write anything about eBooks in
23 any of your books?

24 A. Not in my books, but in multiple
25 articles. I did not start using the term "eBook"

1 van Dam

2 in an article until the mid-80's, but I had used it
3 in talks and in informal conversations long before
4 then.

5 Q. Which article?

6 A. "Reading and Writing the Electronic
7 Book" written with Nicole Yankelovich and --

8 MR. RICH: Do you want the --

9 THE WITNESS: Just the CV, so I can
10 pick out the date of that.

11 A. That was October '85.

12 Q. "Reading and Writing" --

13 A. "Reading and Writing the Electronic
14 Book" with Nicole Yankelovich and Norman Meyrowitz,
15 both of whom worked for me at the time and had been
16 former students. But I also had been using the
17 term "electronic document" and "electronic document
18 system" ever since I started in the field.

19 Q. And were there other articles that you
20 had read about the electronic book before you
21 published this article?

22 A. The term was not in common use at the
23 time. But I had certainly read articles about what
24 we could call electronic book systems for authoring
25 and reading them starting in the 60's.

1 van Dam

2 Q. Did you read Stephen King's novel

3 on-line?

4 A. I did not. I'm proud to say I've never

5 read a single Stephen King novel, on-line or

6 otherwise.

7 MR. RICH: Whenever it's convenient for

8 just two or three-minute break.

9 MS. ZACK: Sure. Do you want to do

10 that now.

11 (Recess)

12 Q. Going back to your declaration,

13 Professor van Dam, do you have it in front of you?

14 A. I do.

15 Q. On Page 2, Paragraph 3, you mention

16 various technical advisory boards that you have

17 headed or served on. Do you see that?

18 A. Yes, I do.

19 Q. On any of those boards, have you dealt

20 with the issue of eBooks?

21 A. I have not.

22 Q. Have you done anything with respect to

23 eBooks in your work for Microsoft at all?

24 A. I have.

25 Q. And what have you done?

1 van Dam

2 A. I consult for the eBook group as one of
3 the many groups that I talk with.

4 Q. When did Microsoft form an eBook group?

5 A. Several years ago.

6 Q. Do you recall what year? Or do you know
7 what year, I should say?

8 A. '98, I expect. Could be '99.

9 Q. And what is your understanding of what
10 that Microsoft eBook group does?

11 MR. RICH: Let me simply caution the
12 witness that if you develop any concern in
13 responding to these questions that you may
14 be revealing information proprietary, either
15 to Microsoft or in relation to your
16 consulting role, we can put that portion of
17 the transcript on a confidential record.

18 MS. ZACK: Yes. I'm asking him in a
19 general sense.

20 Q. But obviously if you have a concern, you
21 let me know.

22 A. I will. I'm very careful about my
23 NDA's.

24 THE WITNESS: May I answer the question?

25 MR. RICH: Sure.

1 van Dam

2 A. I am, first of all, not in any sense
3 working with the people in the trenches to build
4 product. I advise the higher levels of management.
5 I help them acquire some additional expertise both
6 in recruiting some people to come to Microsoft on a
7 permanent basis and some people at Brown to consult
8 for them on the open eBook standard.

9 Q. So would it be fair to say that you
10 haven't done any technical work for Microsoft on
11 eBooks?

12 A. I am not involved with productization
13 for Microsoft, including working with the eBook
14 folks.

15 Q. And has that work with the eBook group
16 been in the last couple of years?

17 A. It has.

18 Q. Have you worked for any other commercial
19 entity concerning eBooks?

20 A. Negative.

21 Q. "Negative" did you say?

22 A. Um-hmm. We're talking about the last
23 several years? I'm sorry. I should have asked you
24 to clarify your question as regards to the time
25 frame.

1 van Dam

2 Q. Well --

3 A. Ever? The answer is different.

4 Q. Okay. Yes. I did mean ever.

5 A. May we reset, please.

6 Q. That's okay.

7 A. Can you ask a different question that I
8 can answer.

9 Q. I understand that you misunderstood the
10 question.

11 A. I did.

12 Q. Let's take time frames, then, from 1997
13 until now, have you worked with any commercial
14 entities concerning eBooks?

15 A. Only Microsoft from 19 -- in the time
16 frame 1997 to now.

17 Q. Prior to that have you worked with
18 others?

19 A. I have. I was one of the founders of
20 Electronic Book Technologies and helped set that up
21 in 1989 and '90 and was chairman of its technical
22 advisory board, chief scientist, recruiter of the
23 initial technical talent, and helped conceptualize
24 both the product and the business strategy. I was
25 involved with it until 1995, when it was sold to

1 van Dam

2 INSO Corporation, at which point I ceased my

3 affiliation.

4 Q. Any others other than Electronic Book

5 Technologies?

6 A. No.

7 Q. Now, Electronic Book Technologies was a

8 corporation; is that correct?

9 A. Correct.

10 Q. And it was formed in 1989?

11 A. '89 or '90. I'm sorry. I'm not good

12 with dates.

13 Q. Is it listed on your CV there?

14 A. It would be.

15 Q. I'm looking on Page 3, and there is a

16 reference about two-thirds down, 1990, Co-founder,

17 Chief Scientist, and Chairman of Technical Advisory

18 Board, Electronic Book Technologies, Providence,

19 Rhode Island. Is that it?

20 A. Yes. That should be 1995. So, as I

21 said, I ceased any work with them when they were

22 sold.

23 Q. So during the period 1990 through 1995,

24 you were associated in these capacities with

25 Electronic Book Technologies; is that right?

1 van Dam

2 A. Correct.

3 Q. And did you develop a product there?

4 A. Did not.

5 Q. Were you trying to develop a product?

6 A. The company developed a product, but I
7 personally did not.

8 Q. What product did the company develop?

9 A. The first product was Dynatext, which
10 was authoring and reading software for electronic
11 books.

12 Q. Did you say "authoring" or "offering".

13 A. Authoring. Authoring and reading
14 software for electronic books. And there were
15 additional products which came along, Dynatag,
16 Dynabase.

17 Q. Was that product ever marketed?

18 MR. RICH: He's referenced three
19 products now.

20 Q. Dynatext. Was that marketed?

21 A. All three products were marketed and
22 sold commercially.

23 Q. And are they still being sold
24 commercially?

25 A. I do not know, because I lost touch with

1 van Dam

2 the company when it was acquired.

3 Q. When was Dynatext first sold
4 commercially?

5 A. I believe the first release came out in
6 1991. But, again, for the purposes of this
7 deposition, I did not review that history.

8 Q. Okay. And how about Dynatag? Was that
9 later developed?

10 A. That was later.

11 Q. And Dynabase?

12 A. Also later.

13 Q. So in about '91 and thereafter, these
14 three products were commercially available?

15 A. In various stages and in various
16 versions were made commercially available.

17 Q. How does the Dynatext work
18 technologically?

19 MR. RICH: Present tense, or did it as
20 of the last time he was familiar with it?

21 Q. Let's say in '91 when it first came out.

22 A. It was a system for inserting SGML tags
23 in documents and then displaying those tag
24 documents on the screen. Closest analogy that you
25 may be familiar with is HTML-tagged documents.

1 van Dam

2 Q. Did it have the ability to interact with
3 the worldwide web?

4 A. It was accessible via the web, via the
5 internet. There is a distinction between the
6 internet and the worldwide web. Yes.

7 Q. What's the distinction?

8 A. The web is a specific set of conventions
9 on top of the internet as a carrier that allows you
10 to have this global hypermedia library. And the
11 internet is the infrastructure underneath it.

12 Q. So going back to Dynatext in 1991, how
13 would one with the Dynatext get -- actually, was
14 there software in the Dynatext itself?

15 A. Dynatext is a software system.

16 Q. Okay. It's a software system. Is
17 Dynatext itself a hand-held device or --

18 A. Dynatext is software, and it was usable
19 on desktops and laptops.

20 Q. Okay. I somehow misunderstood that.

21 Okay. So the Dynatext is the software. Now, were
22 you in competition with other software that did the
23 same thing?

24 MR. RICH: Object to the form. You can
25 answer.

1 van Dam

2 A. There were other companies in the space
3 of marketing tools for technical documentation,
4 authoring, and reading. And to that extent, we had
5 competitors.

6 Q. Who were your competitors?

7 A. I think Arbor Text was one of them. And
8 since I was never involved with sales and
9 marketing, I don't remember who was in the space at
10 the time and how we competed. That was beyond my
11 scope.

12 Q. I'm referring back to your declaration.

13 On Page 3, Paragraph 5, you say that "Electronic
14 Book Technologies made one of the earliest systems,
15 Dynatext and its associated products, for
16 publishing and reading electronic books, primarily
17 for the professional document marketplace."

18 A. Yes.

19 Q. So do you know what any of the other
20 systems were?

21 A. Bell Labs at the time had something that
22 they were working on called Super Book.

23 Q. Super Book?

24 A. Super Book. Michael Lesk was working on
25 that. And there may have been others. I don't

1 van Dam

2 recall.

3 Q. So Dynatext was one of the earliest
4 software systems for publishing and reading
5 electronic books; is that correct?

6 A. That's correct, where electronic book
7 now refers to the content, i.e., a document that is
8 stored and presented using a computer and a screen
9 as opposed to electronic book, the hand-held
10 device. There is continuous confusion between the
11 device, the software that makes for the reading
12 experience, and then the content itself, which is
13 also called an electronic book.

14 Q. So the device, what would be the
15 examples of the device?

16 A. At that time we were concentrating on
17 desktop and laptop delivery platforms. This was
18 before PDA's.

19 Q. When you say a device that's called an
20 eBook, what devices are you talking about?

21 A. Again, something like the Gemstar.

22 Q. And those came out even later in the
23 90's; right?

24 A. Right.

25 Q. And the content, that comes from where?

1 van Dam

2 MR. RICH: Content for what?

3 MS. ZACK: For the eBooks.

4 MR. RICH: Which eBooks?

5 MS. ZACK: Any eBooks.

6 A. So you're including any system now that
7 delivers eBooks, where does the content come from?
8 That's your question?

9 Q. Yes.

10 MR. RICH: You can answer.

11 A. It is acquired either, as I mentioned,
12 through direct entry, keyboarding and mousing and
13 tablet stylusing the information in, or through
14 scanning with subsequent corrections, is then
15 stored, formatted, and delivered on the reading
16 device. And that hasn't changed since the 60's.

17 Q. Scanners haven't changed since the 60's?

18 A. No, no. I mean the fact that you have
19 these two ways of getting the information in there,
20 and that you have to store it and that you have to
21 display it. That abstract pipeline has not
22 changed, though implementation obviously has.

23 Q. Do you expect it to change?

24 A. It will keep evolving. It's engineering
25 technology.

1 van Dam

2 Q. Has it evolved since the 60's?

3 A. Everything is faster, cheaper, better.

4 Q. So the technology has evolved since the
5 60's?

6 A. Indeed.

7 Q. In your declaration on Page 7,
8 Paragraph 18, it reads, "To summarize, today's
9 electronic books, insofar as they enable a consumer
10 to read in electronic form entire texts of works
11 traditionally offered by publishers in paper form,
12 are, in my opinion, the natural extension and
13 outgrowth of the early information storage and
14 retrieval systems of the nineteenth and early
15 twentieth centuries and their subsequent
16 computerization during the 1950's and 1960's." And
17 is that your opinion?

18 A. It is.

19 Q. When you say "the natural extension and
20 outgrowth of the early information storage and
21 retrieval systems of the nineteenth and early
22 twentieth centuries," which systems are you
23 referring to of the nineteenth and early twentieth
24 centuries?

25 A. Primarily those based on microform.

1 van Dam

2 Q. Microform?

3 A. Form, which is the generic term for
4 film, fiche, and any other form factor.

5 Q. When you say "the natural extension and
6 outgrowth," what does that mean?

7 A. Natural given the evolution of
8 technology, which went from mechanical to
9 electromechanical to electronic and
10 electromechanical that resulted in the computer
11 technology that we know today. So not natural in
12 the sense of philosophy. Natural in the
13 engineering sense.

14 Q. And was microform a natural extension of
15 the printing press?

16 A. Again, philosophically, I'm not using
17 the term "natural." From an engineering point of
18 view, once you saw that you could record visual
19 information on film, it became entirely obvious
20 that one of the things you could store was the
21 printed page as any other object in the real world.
22 Natural in an engineering sense.

23 Q. Yes. Was that responsive to my
24 question?

25 MR. RICH: He believed it was or he

1 van Dam

2 wouldn't have answered it that way.

3 MS. ZACK: Well, that's not always

4 true.

5 A. Forgive me. Try again.

6 Q. Let me just ask you the question. I'm

7 not sure that I understood. Maybe you did answer

8 it. Was microform, microfilm and microfiche, a

9 natural extension of the printing press? That was

10 my question.

11 A. For storing and making accessible the

12 printed word, yes.

13 Q. And I assume the printing press was the

14 natural extension and outgrowth of something else;

15 correct?

16 A. Yes.

17 Q. And what was that?

18 A. Traditional handwritten manuscripts,

19 illustrated manuscripts, for example, which were

20 written on any number of other physical media

21 starting with clay, sand, walls of caves,

22 parchment, papyrus, and eventually paper of various

23 compositions.

24 Q. And was writing words down the natural

25 extension of speaking?

1 van Dam

2 A. Cultural anthropologists claim that one
3 of the things that set our species apart is that we
4 understand symbol manipulation. And once we had
5 oral symbol manipulation, that it was inevitable
6 that we would start using icons and marks of
7 various kinds. And from there it's a number of
8 years until you come up with rudimentary alphabets
9 of various kinds including pictograms, ideographs.
10 Biology is destiny, as it were.

11 Q. And you would agree that there will be
12 things that will be available in the twenty-first
13 century that will be the natural extension of
14 things that exist today; correct?

15 A. Indeed.

16 Q. That we don't yet know about; right?

17 A. Indeed. Again, from a technology
18 perspective.

19 Q. Right. Now, you say in the next
20 sentence of Paragraph 18, "While the fundamental
21 reading experience with respect to this category of
22 eBooks remains the same." What do you mean by "the
23 fundamental reading experience"?

24 A. What I mean by it here is that when I
25 sit down with my Alice in Wonderland, whether it's

1 van Dam

2 in hardback, paperback, microfilm, or my early
3 model Rocket Book, I go to the beginning and I read
4 sequentially through it. I may choose if I'm bored
5 to skip ahead. I may go back if I enjoyed reading
6 something. But, essentially, the reading
7 experience for books is that typically one
8 progresses in a linear fashion, from beginning to
9 end, and sees successive pages displayed on the
10 medium. That is the same in all of these
11 underlying technologies.

12 Q. Now, you previously mentioned your
13 vision for how the eBook would change over time.
14 Do you recall that testimony?

15 A. Yes.

16 Q. Would you say that that would be the
17 same fundamental reading experience or different at
18 that point?

19 MR. RICH: He did testify, Joanne, in
20 fairness, to a number of evolutions.

21 Perhaps we could try to be more precise
22 about what stages of evolution might or
23 might not entail the same reading
24 experience.

25 Q. Well, let's go back to the example with

1 van Dam

2 the glasses and the aerospace fellow.

3 A. I would consider that a fundamentally
4 different reading experience in that it is highly
5 unlikely that the maintenance and repair technician
6 would start at the beginning and read the technical
7 documentation from beginning to end. But in
8 pieces, the reading experience may, in fact, be
9 very similar. For example, if he chose to follow a
10 step by step procedure for removing something,
11 inspecting it, fixing it, or replacing it, he might
12 for that little piece in time have a linear reading
13 experience on something that might look very much
14 like a technical manual in paper printed today.
15 But, on the whole, that kind of far-out new form of
16 eBook, to me, does not provide the same --
17 basically the same linear reading experience as
18 does a book in any of these other media that I
19 mentioned.

20 Q. What do you mean by "linear reading
21 experience"?

22 A. I pick up the book, I open the title
23 page, and I start reading. And if --

24 Q. What if it's a textbook?

25 A. And if I stop because I go to bed and

1 van Dam

2 then I pick it up, I continue the reading

3 experience even though I don't start again at the

4 beginning of the book.

5 Q. What if it's a textbook or encyclopedia?

6 Is that a linear reading experience?

7 A. People don't use these very -- let me

8 distinguish first between textbook and

9 encyclopedia. An encyclopedia is not meant in hard

10 copy or any other form to be read linearly,

11 although we know people do that. Those are

12 reference books, and they are used in a different

13 way. But a textbook typically is read more or less

14 from beginning to end, although an instructor may

15 say don't read chapter four, and we're going to do

16 chapter seven before we do chapter six. So you may

17 read out of order, but those are very minor

18 variations on the theme of what is essentially a

19 linear reading experience.

20 Q. Is that something you've discussed with

21 other people?

22 MR. RICH: What is the "that"?

23 MS. ZACK: Whether they all read

24 linearly.

25 A. I've certainly been in hundreds of

1 van Dam

2 discussions about how people read, and people will
3 read differently at different times. And it
4 depends upon what it is. For example, a novel is
5 much more likely to be read from beginning to end,
6 even if it is in stages, than a textbook, which, in
7 turn, is far more likely to be read linearly than
8 an encyclopedia. So it depends on what kind of
9 book it is, what kind of content. I mean not the
10 physical form. What its purpose is, what the
11 intended audience is, and what the needs of the
12 particular reader are. And they are very different
13 in the form of a textbook versus the form of a
14 novel.

15 Q. Would you agree that some people may not
16 read things linearly?

17 A. Of course.

18 Q. So it may depend on the reader?

19 A. It may depend on the reader and the
20 content.

21 Q. Just as a hypothesis, if you had an
22 eBook that had hypertext links to pictures or
23 visualizations of what was going on in the text,
24 would you consider that the same or different than
25 the fundamental reading experience of reading a

1 van Dam

2 print book?

3 MR. RICH: Object to the form of the

4 question.

5 If you understand it, you can answer

6 it.

7 THE WITNESS: I do. At least I think I

8 do.

9 A. None of this is black and white. It's

10 on a spectrum. Just so we have some concrete

11 examples again, most people read a novel that they

12 have never read, most people, from beginning to

13 end. It would be unusual to find a novel reader

14 sort of reading chapters out of sequence and sort

15 of randomly picking a page here and there.

16 Textbooks are less linear. Electronic books with

17 hypertext links to additional material are less

18 linear yet. You would read chunks of text

19 linearly, and then optionally you might follow a

20 hyperlink to another page, another document, and

21 read there for a while, come back and continue. So

22 it is further along the spectrum between completely

23 linear and completely non-linear.

24 Q. And you're not expressing a value

25 judgment about what's good or bad as opposed --

1 van Dam

2 A. It's situation-dependent. It depends
3 upon the content, the reader, and the purpose to
4 which the reading experience is being put.

5 Q. You say "While the fundamental reading
6 experience with respect to this category of
7 eBooks," and what do you mean by "this category"?

8 A. Again, my prototypical example is the
9 Gemstar loaded with novels.

10 Q. Were other hyperlinks there?

11 A. There is a rudimentary form of hyperlink
12 in that there is an index at the beginning and that
13 you can from the index go to a particular chapter.
14 There are not hyperlinks in any of the ones that I
15 have seen in the more general sense.

16 Q. What if there were hyperlinks to other
17 books or other information?

18 A. Then it --

19 MR. RICH: Hold on. What if -- what is
20 the question? What if there were?

21 Q. What if there were? Would you consider
22 that a different reading experience?

23 MR. RICH: Than?

24 MS. ZACK: Than the fundamental reading
25 experience we've been discussing.

1 van Dam

2 MR. RICH: I believe that question has

3 been asked and answered. You can respond.

4 A. Again, it lies on the spectrum. So if

5 there is one hyperlink that takes you to another

6 book by Lewis Carroll, I wouldn't consider that as

7 having changed the fundamental reading experience.

8 If, however, you were to put annotated Alice by

9 Martin Gardner on the eBook, and if you could

10 follow all of the annotations and glosses and

11 references that Martin Gardner put in his print

12 book live on the screen reaching out through the

13 internet to get at some of those, then I would say

14 at that point we've moved into something that is

15 not fundamentally the same reading experience. It

16 shares some elements, and it has some new elements.

17 Q. But that's the way the technology is

18 going; right?

19 A. I believe that for certain classes of

20 content, that is the way the technology is going.

21 Web pages are already very much in that direction.

22 Q. So a web page with a lot of hyperlinks

23 you would consider to be a different reading

24 experience?

25 A. I would. But, again, by way of

1 van Dam

2 clarification, there are web pages and web pages.

3 There are some web pages that are just linear,

4 repurposing of the original document, and there may

5 be one or two links in there. And I would say that

6 is fundamentally the same reading experience. But

7 when they are really designed to be very

8 hypertextual, where you're concentrating on

9 navigating at least as much as you are on reading,

10 then it morphs into this different kind of

11 experience.

12 Q. And what would be an example of a web

13 page of that type?

14 A. A very rich web page of a company's

15 product line where you're making many, many jumps

16 before you get to the thing you're looking for.

17 Q. And you say in the same paragraph, "New

18 technological advances have enabled improved

19 efficiencies, cost savings, and an ability to store

20 books and even entire libraries on portable

21 devices." What improved efficiencies are there?

22 A. Storage efficiencies, so that, for

23 example, you can now buy a ten *** gigabyte hard

24 drive for your laptop, which was unthinkable ten

25 years ago. I mean it was unthinkable except to

1 van Dam

2 people who were in the business of making
3 technology projections. But your average lay
4 person would never have thought that. And in ten
5 gigabytes, you can store a lot of stuff. All of
6 Shakespeare, for example.

7 Q. You can store other things, too, or just
8 all of Shakespeare?

9 A. I haven't done the calculations. It's a
10 lot of storage.

11 Q. Any other improved efficiencies that you
12 were referring to?

13 A. Processor speed where you can do fancier
14 formatting in real time. Clarity of the fonts
15 makes for more efficient reading or things like
16 Clear Type, Microsoft's invention. So there are
17 subtle ones that all make it better, but primarily
18 for us it's storage.

19 Q. And there was a huge improvement in
20 storage efficiencies in the 90's; is that true?

21 MR. RICH: Object to the form. You can
22 answer.

23 A. There have been huge improvements in
24 storage efficiency since people worked on storage.
25 It just keeps going. And sometimes it's faster and

1 van Dam

2 sometimes it's slower, but it's inexorable.

3 Q. And you mentioned that ten gigabytes
4 became available recently in the last ten years or
5 so; right?

6 A. Yes.

7 Q. And that enables the storage of all of
8 Shakespeare; correct?

9 A. I believe so. That's a rough guess.
10 The point is that we are no longer talking about
11 storing single books. We are able to store many
12 books on our laptops, hard drives.

13 Q. What about cost savings? What were you
14 referring to, what cost savings, in this paragraph?

15 A. The cost to manufacture modern laptops
16 and hand-held computers and the subsequent cost
17 savings passed on to the consumers. You can buy
18 for under a thousand dollars now what you would
19 have had to pay \$5,000 for just a few years ago.
20 And it's much faster. So cost savings all around.

21 Q. In the next sentence you say,
22 "Moreover, the new technological advances have
23 expanded the potential readership of authors'
24 works." What do you mean by that?

25 A. First of all, it's potential, and what I

1 van Dam

2 was speculating on there is that as it becomes
3 cheaper both to produce and especially to
4 distribute books, if the publishers choose to do
5 so, they can pass on the cost savings to consumers,
6 and you might be able to download your vacation
7 reading selection before you depart to the airport
8 for less cost certainly than hardbacks, and maybe
9 in the future even less cost than it would be for
10 paperbacks. So it's clear that it's cheaper for
11 publishers to publish and distribute
12 electronically, but the economics are complex, and
13 it remains to be seen how much of that cost savings
14 will be passed on to consumers. That's what I'm
15 trying to say.

16 Q. So you're talking about expanding
17 potential readership because it costs less to the
18 consumer?

19 A. It costs less, and you can make more
20 things, more titles available.

21 Q. Do you have a view as to whether there
22 are certain people who will read things on-line
23 that they wouldn't read in print?

24 A. Again, I can speculate.

25 Q. I'm asking you if you have a view.

1 van Dam

2 MR. RICH: Only if it's informed

3 speculation.

4 Q. I'm asking whether you have a view.

5 A. A view is based on either knowledge or

6 speculation or some mixture of the two.

7 Q. A view is a view that you hold. I'm not

8 asking that you published a paper on it. I'm

9 saying is it a view that you held before you walked

10 in the room. That's what I'm asking.

11 MR. RICH: A matter you've given thought

12 to.

13 Q. Yes.

14 MR. RICH: That you can testify to. If

15 you haven't thought about it before this

16 moment, I don't want you to --

17 A. I believe that when you make more

18 information available cheaply and ubiquitously,

19 more people will avail themselves of it.

20 Q. Do you think that the fundamental

21 reading or the fundamental experience of reading a

22 book is the same as hearing the book read to you?

23 A. No.

24 Q. Do you think that the fundamental

25 experience of reading a hardback is the same or

1 van Dam

2 different than reading a paperback?

3 A. I think it's materially the same.

4 Q. What about reading something on

5 microfilm? Is that any different than reading it

6 on paper?

7 A. Materially the same. Physicality of the

8 medium does not intrude, typically.

9 Q. Does not intrude? What do you mean by

10 that?

11 A. That you're not consciously aware of the

12 fact that you're flipping the pages of a hard copy

13 book and not of a soft cover. You're immersed in

14 the story. Same thing with microfilm. The

15 mechanics are slightly different, but you are not

16 cognitively aware of the mechanics of it. The

17 story grips you, and that helps make the reading

18 experience the same.

19 Q. On Page 2, Paragraph 4, the last

20 sentence -- well, next to the last sentence, you

21 say, "As a published book author, and through my

22 research on document handling, I have learned a

23 good deal about the book publishing business and

24 have devoted considerable time and energy to

25 considering the formats in which books can be

1 van Dam

2 delivered to readers taking advantage of advances
3 in technology."

4 What research on document handling are
5 you referring to?

6 A. Research that I published in various
7 papers on text handling systems, which are listed
8 in my CV.

9 Q. And what do you mean by a "text handling
10 system"?

11 A. Systems for producing, that is, entering
12 text, for editing text, for annotating text, and
13 for printing text, either to soft copy display
14 devices or through line printers and photo
15 typesetters to print media.

16 Q. And is there a particular system you can
17 give me, software system, that would fit into this
18 category of document handling?

19 A. Sure. The hypertext systems that I have
20 worked on, again listed via papers in my CV. The
21 Hypertext Editing System, HES. The File Retrieval
22 and Editing System, FRES. The electronic document
23 system, Intermedia. And most recently Dynatext and
24 EDT. Those are all text handling, document
25 handling systems.

1 van Dam

2 Q. When you say that you've considered
3 formats in which books can be delivered, is that
4 the same sort of discussion we've already had about
5 the types of formats, or is there something else?

6 A. No. It has to do with the codes that
7 you put into the text so that they can be formatted
8 for various reading purposes, reading on screens,
9 reading on the printed copy, both line printer
10 output and photo typesetter output and so on.

11 Q. When you say -- go ahead. Did you want
12 to add something?

13 A. Yes. I did not mention -- I'm not sure
14 it's relevant or not, but just for completeness --
15 a little company I had, Text Systems, Incorporated,
16 produced a commercial version of FRES called
17 PhilText for Phillips, which is a large Dutch
18 conglomerate, in this country it's North American
19 Phillips. PhilText. But they never sold it. So
20 this is to the point of did you work on any
21 commercial -- so we produced it, but it was never
22 profitably sold. But that was another example of a
23 document formatting system that I worked on.

24 Q. And that was a commercial version of
25 FRES?

1 van Dam

2 A. Of FRES, yes.

3 Q. And that was for Phillips. And they
4 didn't sell it commercially? Is that what you're
5 saying?

6 A. They tried to sell it commercially, but
7 I think they decided that it wasn't going to make
8 it.

9 Q. What time period is this?

10 A. That would have been '72, '73.

11 Q. And FRES, which I know you referred to
12 elsewhere --

13 A. Certainly in the CV.

14 Q. It's here. FRES was a document
15 retrieval system, text storage and retrieval system
16 you said?

17 A. Yes.

18 Q. And is that software?

19 A. It's all software. It ran on a variety
20 of display devices, and it handled both vanilla
21 linear text and advanced forms of non-linear
22 hypertext. It was a successor to HES.

23 Q. And so that was actually computerized or
24 digitized text?

25 A. It was computerized or stored in digital

1 van Dam

2 form. We did not ever scan anything in. It was

3 always keyboarded in.

4 Q. And you mentioned this Brown -- I mean

5 your poetry class where you displayed something,

6 and that was something from the computer memory; is

7 that right?

8 A. Correct.

9 Q. And this was in 1976, according to your

10 declaration?

11 A. The article was in '76, yes. And the

12 class -- actually, the article may have come a

13 little bit later. The class was in '76, right.

14 Q. And was that the first time you had ever

15 done that?

16 MR. RICH: The "that"? Can we get

17 clarification for the "that"?

18 Q. Displayed something in a class on a

19 computer at Brown.

20 A. No. The previous year we had done a

21 similar experiment under Exxon Education Foundation

22 sponsorship in a physics course called "Man,

23 Energy, and Environment," but it wasn't as rich an

24 experiment as the poetry course.

25 Q. So in 1975 you did the first experiment;

1 van Dam

2 is that right?

3 A. First experiment involving students and
4 classroom. But there were many experiments before
5 then involving individual authors, students,
6 faculty members, and outsiders.

7 Q. So you would project the text from the
8 computer memory; is that right?

9 A. No.

10 Q. How did you display it?

11 A. On a display console. In the particular
12 case of the poetry experiment, by that time we had
13 a mini-computer called Imlac with a display screen
14 connected over a telephone line to the main frame.
15 So some of the program ran on the main frame. Some
16 of it ran on the Imlac. I have a movie still from
17 that we shot at that time, and it shows a student
18 sitting at the screen using a light pen, four
19 windows on the screen, characters, and various
20 languages on the screen. So it was actually two
21 computers working together.

22 Q. And was this a rather noteworthy
23 experience at Brown?

24 A. It was.

25 Q. Why was it?

1 van Dam

2 A. Because it was the first time that we
3 had ever had a section of students do all of their
4 reading, writing, and critical dialoguing on-line,
5 and we captured all of it. So we created something
6 we called the web at the time, in which we had
7 hundreds of poems and critical analyses of those
8 poems, but even more, raw numbers of characters in
9 terms of student input, that is, criticism of the
10 poems and each others' criticism and annotations by
11 the professor and the instructor on top of what the
12 students had done, and then additional dialogue on
13 top of that. So it is, I believe, the first
14 electronic community that used the computer as a
15 mediation tool.

16 Q. The first anywhere?

17 A. I believe so. Certainly in academe.
18 There may have been others in the military. You
19 don't know what NSA did in those days or the CIA.
20 But we know of no earlier academic on-line
21 community.

22 Q. Were you aware of any commercial on-line
23 community prior to 1976?

24 A. Negative.

25 Q. The community that was on-line was all

1 van Dam

2 within Brown; right?

3 A. That's correct.

4 Q. In other words, you didn't have links to

5 anyone outside of Brown?

6 A. That's correct.

7 Q. You were connected to your main frame

8 computer; is that right?

9 A. That's right. Over a telephone line.

10 So in today's terminology, you might almost say the

11 server was on the main frame, and the client was in

12 the Imlac.

13 Q. Now, have you seen books that have been

14 put on CD ROM's?

15 A. I have.

16 Q. And do you call those eBooks?

17 A. I do.

18 Q. And when, to the best of your knowledge,

19 if you know, was the first time that books became

20 available on CD ROM's?

21 A. Again, I think in the 80's, probably

22 late 80's, but I'm not sure.

23 Q. And do you make a distinction between

24 books on CD ROM's and books that are just

25 downloaded into the memory, not on a CD ROM?

1 van Dam

2 A. No, I don't.

3 MR. RICH: What form of distinction are
4 you seeking?

5 MS. ZACK: I'm just asking if he makes a
6 distinction.

7 MR. RICH: I don't understand the
8 question. If you do, you can answer.

9 THE WITNESS: Yes, I think I do.

10 A. I'm trying to understand questions as
11 you would ask them to a layman without looking for
12 lots of --

13 Q. I'm a layman.

14 A. -- hidden meanings and things like that,
15 so that's how I'm responding. The key question for
16 me is not what is the medium on which the book is
17 stored. As long as it is a computer-based medium,
18 whether it is main memory or secondary memory, as
19 long as I can get at the bits that constitute the
20 digital representation in real time, as long as I
21 can see the book on a screen in real time, page by
22 page, then I don't care about engineering
23 idiosyncracies of the medium on which it happens to
24 be stored, because I know those are going to
25 continue changing. We've had CD ROM's. We have

1 van Dam

2 DVD's. We have laser disks. We have -- and the
3 field just keeps inventing new media that are
4 denser and faster and cheaper and better. The
5 fundamental reading experience, the content and how
6 you get at it, is what matters most to me.

7 Q. So would it be fair to say that you
8 consider the CD ROM to be one type of
9 computer-based media?

10 A. Correct. In the physical sense. They
11 call them magnetic media or optical media.

12 Q. In the engineering sense, would they be
13 one type of computer-based media?

14 A. Yes.

15 Q. And a print book is not a form of
16 computer-based media, is it?

17 A. Correct.

18 Q. It is not?

19 A. It is not.

20 Q. Thank you. Is there somewhere in here
21 -- and forgive me, because maybe it's in here and I
22 just missed it. Is FRES an acronym?

23 A. FRES is an acronym.

24 Q. What does it stand for?

25 A. File retrieval and editing system. It

1 van Dam

2 is a made-up acronym. Medium in the previous

3 sentence -- well, shorthand for physical medium.

4 You asked me whether the book was a computer

5 medium, and I said no in the physical medium sense.

6 Q. As opposed to what other medium sense?

7 A. As opposed to some kind of digital

8 storage.

9 Q. I don't quite follow what distinction

10 you're making.

11 A. I understood your question to be still

12 in the line of inquiry that we were pursuing about

13 physical media --

14 Q. Right.

15 A. -- where I said I don't draw a

16 distinction between one form of digital slash

17 computer medium and another. As long as the

18 computer can get at it, it's fine. And then you

19 said is the print, printed page, a computer medium,

20 and I said no, it is not.

21 Q. Right. Okay. Project Gutenberg that

22 you allude to, you say they made available books in

23 the public domain. How were they made available

24 when they first were made available?

25 A. Files that you could get a hold of. The

1 van Dam

2 idea was, as I remember, to give people access to
3 things that hadn't been available digitally that
4 you could then store on your computer digitally and
5 manipulate them, do concordances of various kinds.

6 Q. And you mentioned Alice in Wonderland.

7 Did you get that from Project Gutenberg?

8 A. No. I did not use Project Gutenberg
9 myself. I just knew about it, knew that it
10 existed, and applauded the effort.

11 Q. Do you know when Project Gutenberg first
12 made available any book?

13 A. I think in the early 70's.

14 Q. Do you think, or you know?

15 A. Oh, a book. No, I do not know. I don't
16 have that chronology in my head.

17 Q. In other words, you say in your
18 affidavit that Project Gutenberg started up in
19 1971. My question is, when were they actually able
20 to deliver a book on some sort of computer file?

21 MR. RICH: Why don't you read your
22 declaration.

23 Q. It doesn't say, but you can read it.

24 A. It was sometime in the mid-70's, but I
25 don't -- I did not bother trying to figure out

1 van Dam

2 whether it was '73 or '76.

3 Q. Did you acquire anything from Project
4 Gutenberg at that time?

5 A. I did not, no.

6 Q. Did you ever use anything from them in
7 that time?

8 A. I did not, so I know this through
9 professional colleagues.

10 Q. Did you personally talk to anybody at
11 Project Gutenberg at any time?

12 A. I did not.

13 Q. And you've never used one of their
14 products?

15 A. Correct. I have not.

16 Q. Have you talked to anybody at Random
17 House concerning this case?

18 A. I have not.

19 Q. Not including their lawyer.

20 A. I don't know anybody at Random House.

21 Q. Have you talked to anyone other than
22 attorneys concerning this case?

23 A. I have asked my researcher at Brown to
24 find me some articles without discussing the case
25 with her.

1 van Dam

2 Q. Have you talked to anybody in the book
3 publishing industry about eBooks in the last couple
4 of years?

5 A. I have not.

6 Q. Have you ever talked to anybody in the
7 publishing industry about eBooks?

8 A. I have.

9 Q. And what time period?

10 A. In the early 1990's I talked to my
11 Addison-Wesley editor about some day doing an
12 electronic book version of our standard reference
13 work in computer graphics, which he was very
14 interested in.

15 Q. Other than that, have you had
16 communications with anyone in the book publishing
17 industry about eBooks?

18 A. I have not.

19 Q. Have you gone to the Rosetta Books web
20 site?

21 A. I have not.

22 Q. Have you in any form or fashion seen
23 anything concerning Rosetta Books?

24 A. I have.

25 Q. What have you seen?

1 van Dam

2 A. I have seen a copy of a web page, and I
3 have seen some of the covers and some of the pages
4 that were reproduced from a download.

5 Q. And have you been asked to give any
6 opinions concerning those pages?

7 A. I have not.

8 Q. Have you formed any opinions concerning
9 those pages?

10 A. I have.

11 Q. Are you going to give them?

12 A. Are you going to ask me?

13 Q. No, I'm not going to ask you unless
14 you're going to offer them.

15 MR. RICH: He will not be offering any
16 on our behalf.

17 A. I mean I'm sorry. I'm not trying to be
18 obtuse, but my understanding of the rules is that
19 you ask me a question, and I answer it.

20 Q. Of course. That's perfectly
21 appropriate. I'm being obtuse. You're not.

22 Now, you mentioned earlier that when you
23 negotiated one of your book contracts, you put in a
24 provision about electronic delivery of your
25 manuscript; is that correct?

1 van Dam

2 A. Yes.

3 Q. And do you recall which book that was?

4 A. That would have been the second edition
5 of Foley, van Dam, Hughes, and Feiner, Computer
6 Graphics: Principles and Practice.

7 Q. And on your CV you have a 1990 date for
8 that.

9 A. That's right.

10 Q. Is that the second edition or the first
11 edition?

12 A. That is the second edition. The first
13 edition was 1980, and it was just with Foley.

14 Q. Because you have Computer Graphics:
15 Principles and Practice in 1990, and then you have
16 Computer Graphics: Principles and Practice Second
17 Edition in 1995 on this list.

18 A. It is a very slight variation in which
19 we switched the language from Pascal to C, but the
20 text is fundamentally unaltered anyplace where it
21 doesn't involve programs. So the Principles and
22 Practice was called the second edition for
23 marketing reasons by the publisher.

24 Q. When it came out in '95?

25 A. When it came out. In the marketing

1 van Dam

2 literature, they described it as the second edition

3 of Foley and van Dam.

4 Q. The only thing I'm trying to pin down is

5 when was it that you had the discussion about your

6 book -- electronic manuscript?

7 A. That would have been in the 80's when we

8 signed the contract for the 1990 book.

9 Q. So it would have been the late 80's?

10 A. Probably mid-80's.

11 Q. The mid-80's. You signed a contract,

12 and did you specifically put a clause in the

13 contract about electronic --

14 A. That's my recollection, but I haven't

15 had occasion to look at that contract in almost

16 twenty years, so -- I know that we delivered the

17 manuscript electronically, intended to do so, that

18 we were doing many of the illustrations ourselves,

19 and wanted to save money by doing all that work

20 ourselves.

21 Q. And was that something that you raised,

22 that you wanted to deliver it that way?

23 A. I don't recall who raised it, but it was

24 agreed upon by all parties as the fastest and most

25 accurate and cheapest way to produce manuscript.

1 van Dam

2 Q. Did you have any conversations about any
3 other thing concerning computers with respect to
4 any of your books when you did your publishing
5 contracts?

6 MR. RICH: Object to the form.

7 MS. ZACK: Yes.

8 Q. That's a lousy question. Let me restate
9 it since everything about your books is about
10 computers. Did you have any discussions about
11 electronic rights or anything of that nature in any
12 of your publishing contracts --

13 A. I don't think so.

14 Q. -- in connection with any of your
15 publishing contracts?

16 A. I don't think so.

17 Q. I may have asked you this already, but I
18 apologize if I did. Have you personally purchased
19 something that you consider to be an eBook on-line
20 at any time?

21 A. I have purchased neither hand-held
22 devices called eBooks, nor the electronic text of
23 any document, also called eBook.

24 Q. So you have never purchased that?

25 A. I have never purchased them.

1 van Dam

2 Q. Have you ever been given one?

3 A. I have.

4 Q. And when was that, the first time?

5 A. That was something like a year or so ago
6 by my colleagues at Microsoft who wanted me to have
7 the reading experience of the Rocket Book, and they
8 downloaded multiple pieces of literature.

9 Q. So that was the first time you were
10 given an e Book; is that right?

11 A. First time I was given a device labeled
12 "eBook."

13 Q. What about were you ever given an eBook
14 that was not in a device, but in the memory of your
15 computer?

16 A. A published work of fiction?

17 Q. Yes.

18 A. No.

19 Q. How about a published textbook?

20 A. No. I have received freebie textbooks
21 from manufacturers that included floppies and CD
22 ROM's with ancillary material, but I would not call
23 those the full books. Those were supplementary
24 material, laboratory exercises, demonstrations, and
25 so on.

1 van Dam

2 Q. Would it be fair to say that you were
3 one of the early pioneers of computer textual
4 retrieval, storage and retrieval?

5 A. Yes.

6 Q. How many other people would you say in
7 academia were on the same par level with you in
8 terms of their understanding of this issue in the
9 1960's?

10 A. Count the fingers of one hand. It was
11 not an established field when I started in it.
12 There were people in what is called information
13 retrieval at that time, but they were not
14 interested in document, document preparation
15 systems, let alone hypertext.

16 Q. So in the 60's there were only a few of
17 you?

18 A. That's right.

19 Q. Even in academia; right?

20 A. Especially in academia. Brown was the
21 first center in which any academic dealt with
22 hypertext and concepts of eBooks in any form.

23 Q. What about in the 70's?

24 A. Still very rare.

25 Q. And the 80's?

1 van Dam

2 A. Ramping up in interest. That doesn't
3 mean that there wasn't a lot of activity, but it
4 wasn't so much in academe. You're asking me
5 strictly about academe, and I'm answering you in a
6 very narrow sense. There were a lot of people
7 concerned with text processing already in the 60's
8 for commercial purposes.

9 Q. Which people were those?

10 A. People producing typesetting software,
11 for example. People producing information
12 retrieval software.

13 Q. Which companies?

14 A. IBM, CDC, Atex, who I mentioned earlier.
15 Multiple other companies were in business to market
16 what are now called word processing systems, in
17 those days were called text processing systems.

18 Q. Word processing systems; right? What
19 about text storage and retrieval systems?

20 A. They're very much related. It depends
21 upon exactly what you mean. If the emphasis is on
22 the retrieval based on key words, for example, that
23 would be quite a different set of issues from the
24 ones how you enter text, how do you revise it, how
25 do you display it, how do you print it out.

1 van Dam

2 Q. Let's talk about retrieval through key

3 words.

4 A. Okay. One of the pioneers in that area

5 was Hans Peter Luhm who worked at IBM and who

6 produced at least two systems that I personally am

7 familiar with. One was Key Word in Context, which

8 was a way of automatically abstracting articles

9 using an approved list of key words and then

10 essentially listing all the words in the title in a

11 word by word rotation so that any word in the title

12 would appear in its appropriate alphabetic

13 position. That was Key Word in Context, and there

14 was later on a Key Word Out of Context variant.

15 He also produced something called

16 selective dissemination of information, again based

17 on key wording, where you could register your

18 interest in various topic areas, and then articles

19 would be automatically examined and sent to you if

20 there was a hit. So that was an early set of

21 pioneering projects.

22 Q. That was when?

23 A. 50's and 60's.

24 Q. What was so revolutionary about what you

25 did at Brown in 1976?

1 van Dam

2 A. You're referring to the poetry

3 experiment?

4 Q. Right.

5 A. Those information retrieval systems that

6 I mentioned were almost exclusively oriented

7 towards batch, you would get printouts, whereas my

8 community was on-line reading, commenting, arguing,

9 Talmudic disputation all on-line and recorded

10 on-line in the record. That was new. And Doug

11 Engelbart was doing similar things in a different

12 context at the same time. I don't mean to suggest

13 that the idea of working on-line was new at Brown

14 in 1976. The two earliest systems were Doug's and

15 mine.

16 Q. And Doug was where? I'm sorry.

17 A. SRI. Stanford Research Institute. So

18 he was not an academic.

19 Q. He's not an academic?

20 A. No. That's why I said in answer to your

21 much earlier question about how many people were

22 working on this, I couldn't talk about Doug even

23 though he is, in some sense, the giant of our

24 field, because he never was in academe.

25 Q. I see. And he did something similar to

1 van Dam

2 what you were doing at Brown?

3 A. Um-hmm.

4 Q. When was that?

5 A. He started active work on the system in

6 the early 60's, and he had preliminary versions of

7 his system by the mid-60's, '65, '66. He gave a

8 very public demo in 1968, which I attended, of his

9 system, of which I still have video. And there

10 were thousands of people in the audience in

11 San Francisco who saw that demo.

12 Q. And that was what type of a system?

13 A. It was a system very much like mine. It

14 was a text and hypertext system designed for

15 creation and browsing and commenting and sharing

16 electronic documents. They weren't called

17 electronic books because they contained all manner

18 of information, not just books. Technical manuals,

19 conversations, opinions, diagrams, and this

20 gigantic set of networks of interconnected

21 material. His system and my system are linear

22 descendants of the Memex idea that Bush talked

23 about, but implemented not on microfilm,

24 implemented using the computer.

25 Q. Did you say "linear descendants?" What

1 van Dam

2 do you mean by "linear descendants"?

3 A. You can trace the genesis of the ideas
4 of such storage and retrieval devices for storing
5 your work and your conversations and your
6 annotations to the lovely poetic description in "As
7 We May Think." Long on poetry, short on
8 engineering implementation, but immensely valuable.

9 Q. And in view of all that you've testified
10 about, why do you think that commercial market for
11 eBooks has just begun in the 90's?

12 MR. RICH: Object to the form. You can
13 answer.

14 A. The commercial market for eBooks in the
15 90's seems to be primarily focused on fiction,
16 rather than, say, technical documentation. As
17 such, people who purchase those kinds of books do
18 it on the basis of discretionary income. Until it
19 gets to be cheap enough and easy enough and good
20 enough, there is no compelling need for it. The
21 systems we were working on in the 60's and 70's
22 would have been too expensive for novel reading,
23 although I recall vividly doing a half hour
24 television show at WGBH followed by Julia Child --
25 one of the reasons I remember it -- in which we

1 van Dam

2 talked, my students and I, about hypertext fiction
3 to be created and read purely on screens, 1967 or
4 '68. But it wouldn't have been practical. Storage
5 was far too expensive. Computers were far too
6 expensive. You really have to wait for engineering
7 evolution to make devices sufficiently cheap that
8 you can get a complete computer, screen, controls,
9 and software, for \$300, which is what these eBooks
10 typically cost these days. It wasn't possible
11 until recently. Now, people have had laptop
12 computers for displaying technical documentation
13 much earlier, because they're expensive, people,
14 and if you can save their time by giving them their
15 documentation on-line rather than in traditional
16 paper form, then that is worth something to
17 somebody.

18 Q. Well, you talk about fiction. Are you
19 aware that there was a market for trade books in
20 eBook form in the 1980's?

21 A. Yes.

22 Q. Which publishers were publishing trade
23 books in eBook form in the 1980's?

24 A. I'm not aware of that. I can't cite you
25 any specific examples.

1 van Dam

2 Q. Can you cite me examples of publishers
3 who were publishing trade books in eBook forms in
4 the 1970's?

5 A. Negative.

6 Q. Or before the 70's?

7 A. No.

8 Q. Why don't we stop now. I appreciate
9 your attendance.

10 MR. RICH: Why don't we take two minutes
11 just to see if we have any questions.

12 MS. ZACK: Okay.

13 (Recess)

14 MR. RICH: We have no questions of the
15 witness.

16 BY MS. ZACK:

17 Q. I'm sorry. I neglected to ask you
18 something I should have asked you, which is, what,
19 if any, documents did you review before you signed
20 your affidavit in connection with this case?

21 A. One was a brief blurb on Project
22 Gutenberg giving the name of the guy who did it and
23 when it started, a quick blurb on the genesis of
24 time-sharing systems, CTSS, Project Mac. And I
25 looked at several of the affidavits that our

1 van Dam

2 colleagues here prepared, for example, to see what
3 the Rosetta web page looks like and what one of the
4 Rosetta delivered books looks like. That's it.

5 MS. ZACK: Okay. Have the blurbs been
6 produced?

7 MR. RICH: Yes.

8 MS. ZACK: Because I'm not fully
9 familiar with everything that has been
10 produced.

11 MR. RICH: Those materials have been
12 produced.

13 MS. ZACK: Thank you very much.

14 THE WITNESS: You're welcome.

15 (Time noted: 12:45 p.m.)

16

17

18

19 _____
ANDRIES VAN DAM

20

21 Subscribed and sworn to before me

22 this day of _____, 2001.

23 _____

24

25

1

2 C E R T I F I C A T E

3 STATE OF NEW YORK)

4 : ss.

5 COUNTY OF NEW YORK)

6 I, JOAN WARNOCK, a Notary Public within

7 and for the State of New York, do hereby

8 certify:

9 That ANDRIES VAN DAM, the witness

10 whose deposition is hereinbefore set forth,

11 was duly sworn by me and that such

12 deposition is a true record of the testimony

13 given by the witness.

14 I further certify that I am not

15 related to any of the parties to this action

16 by blood or marriage, and that I am in no

17 way interested in the outcome of this

18 matter.

19 IN WITNESS WHEREOF, I have hereunto

20 set my hand this 29th day of March, 2001.

21

22

23

JOAN WARNOCK

24

25

1

2 ----- I N D E X -----

3 WITNESS EXAMINATION BY PAGE

4 Mr. van Dam Ms. Zack 5

5

6 ----- INFORMATION REQUESTS -----

7 DIRECTIONS: NONE

8 RULINGS: NONE

9 TO BE FURNISHED: NONE

10 REQUESTS: 8

11 MOTIONS: NONE

12

13 ----- EXHIBITS -----

14 DEFENDANT'S FOR ID.

15 1 Expert Declaration of 5

16 Andries van Dam

17 2 Curriculum Vitae 6

18 3 Article entitled "As We May Think" 6

19 by Vannevar Bush

20

21

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