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 9 REALNETWORKS, INC. and
 REALNETWORKS HOME
 10 ENTERTAINMENT, INC.

11 UNITED STATES DISTRICT COURT
 12 NORTHERN DISTRICT OF CALIFORNIA

14 REALNETWORKS, INC., a Washington
 Corporation; and REALNETWORKS HOME
 15 ENTERTAINMENT, INC., a Delaware
 16 corporation,

17 Plaintiffs and Counterclaim
 18 Defendants,

19 v.

20 DVD COPY CONTROL ASSOCIATION, INC.,
 a Delaware nonprofit corporation, DISNEY
 21 ENTERPRISES, INC., a Delaware corporation;
 PARAMOUNT PICTURES CORP., a Delaware
 22 corporation; SONY PICTURES ENTER., INC., a
 Delaware corporation; TWENTIETH CENTURY
 23 FOX FILM CORP., a Delaware corporation;
 NBC UNIVERSAL, INC., a Delaware
 24 corporation; WARNER BROS. ENTER., INC., a
 25 Delaware corporation; and VIACOM, Inc., a
 Delaware Corporation.

26 Defendants and Counterclaim
 27 Plaintiffs.

CASE NO: C 08 04548 MHP

**DECLARATION OF TIMOTHY F.
 BRESNAHAN IN OPPOSITION TO
 DEFENDANTS' APPLICATION
 FOR TEMPORARY RESTRAINING
 ORDER AND ORDER TO SHOW
 CAUSE RE; PRELIMINARY
 INJUNCTION**

**Date: October 7, 2008
 Time: 2:00 p.m.
 Courtroom 15, 18th Floor**

1 **I. QUALIFICATIONS**

2 1. I am the Landau Professor in Technology and the Economy in the Department of
3 Economics at Stanford University, and a Senior Fellow at the Stanford Institute for Economic
4 Policy Research (SIEPR). At SIEPR, I have served as the Director of the Center for
5 Employment and Economic Growth and as the Director of the Technology and Economic
6 Growth Program. I am also a Senior Fellow at the National Bureau of Economic Research,
7 participating in the Productivity and the Industrial Organization Programs that study technical
8 progress and competition. While on leave from Stanford, I have served as Deputy Assistant
9 Attorney General for Economic Analysis in the United States Department of Justice.

10 2. My areas of specialization include Industrial Economics, particularly the
11 economics of high technology industries and the demand for new products. I have written
12 books, book chapters and peer-reviewed articles on the economics of technological change. I
13 have been involved in studies of competition in a number of industries and in studies of
14 competition, innovation and user needs in high technology industries. A focus of my research
15 has been on properly measuring changing product quality, characterizing competition in product-
16 differentiated industries and analyzing the demand for high technology products and services.

17 3. Since the 1980s, my research has centered on innovation and demand for
18 computer-related technologies. A substantial portion of my academic research has focused on
19 how consumers and businesses purchase and use these technologies. As part of that research
20 effort, I have closely followed the trade press and data on the pricing, products and sales of both
21 hardware and software. In the 1990s, I had a leadership role in the Stanford Computer Industry
22 Project, one of the industry study centers funded by the Sloan Foundation, most recently as the
23 Director. This large project involved faculty and graduate students from Stanford's engineering
24 and business schools and the Economics Department.

25 4. I have served as an expert witness and provided written and oral testimony in
26 prior matters, most of which are related to claims related to new technologies. For example, I
27 have served as an expert for IBM in *SCO Group Inc v. IBM*, for Hewlett Packard in *Schultz et al.*
28

1 *v. Hewlett Packard*, and for Intel in *Neubauer et al. v. Intel et al.* A complete list of recent
2 testimony appears in my Curriculum Vitae attached as Appendix A.

3 5. I am being compensated at the rate of \$750 per hour for my work on this matter.

4 **II. ASSIGNMENT AND MATERIALS CONSIDERED**

5 6. I have been retained by counsel for Real Networks to assess the claim made by
6 the Studios that the presence of RealDVD in the market would cause harm to the plaintiffs in this
7 matter (the "Studios").

8 **III. SUMMARY**

9 7. I understand that the Studios have claimed that the presence of RealDVD in the
10 market will lead to reduced sales and rentals of DVDs.¹ Based on my research to date and my
11 knowledge of economics, I have reached the following conclusions:

- 12 • Distribution of the RealDVD product will not increase pirating of copyrighted
13 materials
- 13 • Distribution of the RealDVD product will raise, not lower, the demand for purchased
14 DVDs.
- 14 • Distribution of the RealDVD product will not harm the Studios' legitimate economic
15 interest in introducing new products.

16 8. My conclusion that the RealDVD product will not increase pirating of
17 copyrighted materials follows from an economic analysis, presented in detail below, of the
18 demand for RealDVD by different types of consumers. The RealDVD product will be used by
19 consumers to make backup or convenience copies of DVDs they have purchased. The RealDVD
20 product will not be demanded by consumers who choose to steal copyrighted materials.
21 Consumers who choose to steal copyrighted material currently have access to and use cheaper
22 and, from their unlawful perspective, better, products to unlawfully obtain and distribute
23 copyrighted material.

24 9. My conclusion that distribution of the RealDVD product will raise, not lower, the
25 demand for DVDs follows from an economic analysis of the demand for RealDVD and for
26 DVDs by consumers. In the language of economics, using RealDVD and buying DVDs are not

27
28 ¹ See Counter-Complaint, Declaration of Michael Dunn.

1 substitutes, they are complements. Using RealDVD raises the consumer's value of DVDs and
2 thus raises demand for DVDs.

3 10. My conclusion that distribution of the RealDVD product will not harm plaintiffs'
4 legitimate economic interests in introducing new products is based on an economic analysis of
5 the markets in which the new products compete and of the distinct market in which RealDVD
6 competes.

7 **IV. THE REALDVD PRODUCT AND DVD COPYING TECHNOLOGY**

8 11. Based on my personal experience and having reviewed the declarations of Dr.
9 Edward F. Felten and others in this case, I see that there are many technologies currently
10 available that copy DVDs. Unlike RealDVD, many of these technologies make copies that can
11 be freely recopied because they remove the CSS encryption. Unlike RealDVD, many of these
12 technologies permit consumers to play copies on various platforms, including computers and
13 mobile devices like iPods. In contrast, RealDVD creates an encrypted copy that can be played
14 only from the hard drive on which it was initially copied and then solely by the RealDVD
15 software licensed to the RealDVD account holder.² Furthermore, many of the technologies that
16 are available and used to make DVD copies are available at no cost. RealDVD, in contrast, must
17 be purchased. See Declaration of Edward F. Felten, Exhibit 3 to Declaration of Gordon Klein.

18 12. I understand that there is a debate about whether the act of creating an encrypted
19 copy of a DVD one owns is lawful. For the purpose of my analysis, I have assumed that a
20 consumer's making an encrypted copy of a purchased DVD for convenience or backup is lawful.

21 **V. THE DEMAND FOR REALDVD VS THE DEMAND FOR UNLAWFUL RIPPING**

22 13. The economy contains both consumers who abide by the law with regard to
23 copyrighted materials and other consumers who steal copyrighted materials, sometimes through
24 networks of thieves. As an economist, I think of products as a bundle of attributes that are
25 assessed by potential purchasers. These attributes include the price of the product and its
26 technological and aesthetic characteristics, for example. One product attribute is whether the
27

28 ² See Declaration of Jeffrey Buzzard, Declaration of Edward F. Felten.

1 service provided by the product is lawful. Consumers have different tastes, tastes that lead them
2 to place different values on a product's attributes. Just as consumers differ in how value color,
3 portability or ease of use, they differ in how they value a product's compliance with the law.

4 14. Many consumers choose to purchase and/or rent copyrighted DVDs and refrain
5 from making unlawful copies even though the technology to do so is readily available on the
6 market. The presence of another technology, RealDVD, that enables them to play DVDs without
7 the disc present, is unlikely to change their taste for respecting copyrights. Instead, some of
8 these consumers may choose to purchase RealDVD because this software offers them a number
9 of benefits for their own content.

10 15. The consumer benefits of RealDVD, as indicated on the RealDVD website,
11 include:

12 Go anywhere: Play any of your DVDs straight from your authorized laptop or
13 portable hard drive.

14 Protect your discs: Using RealDVD keeps your discs safe — no more scratches,
15 skips, blips, or lost titles.

16 Watch everything: Save your entire DVD collection to your PC or portable hard
17 drive, then play them back without the discs.

18 Become a film buff: Dig deeper into your movies with detailed plot synopses and
19 cast lists. Plus get more info and photos via links to Film.com.

20 Never lose your place: RealDVD remembers where you are, so you can stop, shut
21 down and come back later without losing your spot in the movie.

22 Save Battery Power: RealDVD saves up to 12% of your battery power versus
23 watching a movie that's spinning in your laptop.

24 Let your kids play: Parental Controls allow you to control the types of movies
25 children can access.³

26 16. One benefit comes from having a backup of the DVD. The original DVD could
27 be damaged or lost. If there is a copy of the content on computer, the consumer will still be able
28 to watch the movie he has purchased. Another benefit is convenience. A user who buys many
DVDs and stores them all on her laptop could, for example, manage her DVD collection on her

³ See <http://www.realdvd.com/features>.

1 computer instead of keeping a stack of DVDs. Similarly, she could choose to watch the movie
2 of her choice even if she is away from her stack of DVDs.

3 17. Like the backup benefit, the convenience benefit increases the value of purchased
4 DVDs to the consumer. This creates a relationship of complementarity between purchased
5 DVDs and the RealDVD product. Because RealDVD will make purchased DVDs more
6 valuable, it will increase the demand for purchased DVDs.

7 18. Finally, these law abiding consumers will value the fact that RealDVD provides
8 them with a lawful way to achieve these benefits. In addition, parents may value the RealDVD
9 feature that enables parental controls to prevent children from watching inappropriate content.

10 19. Other consumers place little value on respecting copyright protection. For these
11 consumers, RealDVD offers no benefit that is not already available to them. Indeed, compared
12 to the product already on the market, RealDVD offers no benefit to those who place no value on
13 respecting copyrights. As pointed out by the Studios, there are many ways to steal DVD content
14 and to steal it in ways that make it easy to share it with others. The software, not RealDVD, that
15 strips away the CSS encryption allows consumers to play the DVD anywhere on any device,
16 share it electronically with others and make as many copies as they like. These are features
17 valued by the people who choose to "rent, rip and return" DVDs or to "borrow, rip, and return"
18 DVD. RealDVD does not enhance their ability to engage in this activity. Indeed, RealDVD is,
19 from the unlawful copier's perspective, an inferior product to many alternatives as a way to
20 begin piracy.

21 20. Indeed, in a PC Magazine review of RealDVD, the reviewer concluded that:

22 Unfortunately, the resulting [RealDVD] movie files are locked up tighter than
23 Hannibal Lecter; you can play them on up to five licensed PCs, but you can't watch
24 them on your iPod or other device. As such, RealDVD doesn't really give users
25 what they want: a way to put their purchased movies on their PCs and move them
26 to iPods, iPhones, PSPs, and network attached devices...Essentially, we want the
27 same freedom with DVDs that we have with CDs, and there are lots of DVD-
28 ripping and file-converting tools online that give users that freedom. Many of the
best ones are free or accept donations..."⁴

27 ⁴ Monson, Kyle, "7 Tools for Ripping Your DVDs," 9/11/08, PC Magazine, accessed 9/25/08,
28 http://www.pcmag.com/print_article2/0,1217,a%253D231870,00.asp

1 21. Further, the “lock down” features of RealDVD, e.g. (a) locked to drive; (b) locked
2 to user account; and, (c) because it is encrypted, it can’t be shared or distributed over the
3 internet.⁵

4 22. The Studios claim that RealDVD should be blocked from the market because it
5 will lead to an increase in piracy. As I have pointed out, the flaw in this argument is that there
6 are technologies already on the market that enable piracy and do so much more effectively than
7 RealDVD can. In addition, the Studios are introducing technologies that enable copying. If the
8 introduction of additional technologies of this type inevitably leads to an increase in piracy, as
9 they claim, the Studios would have no incentive to supply these technologies. The Studios’
10 decision to supply these technologies is yet another piece of evidence that RealDVD will not
11 increase the amount of piracy that occurs.

12 **VI. DISTRIBUTION OF THE REALDVD PRODUCT WILL NOT HARM THE**
13 **STUDIOS’ LEGITIMATE ECONOMIC INTEREST IN INTRODUCING NEW**
14 **PRODUCTS.**

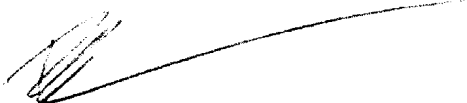
15 23. The Studios have described a number of new digital media products, such as
16 movies distributed in a “Digital Copy version” (Dunn Decl., ¶ 17) movies distributed with a
17 “Burn-to-DVD feature,” (Dunn Decl., ¶ 18) and movies distributed on Blu-ray disks and
18 potentially on DVDs with a “Managed Copy” capability, and movies distributed on flash media.
19 The Studios assert that the distribution of RealDVD will undercut their legitimate economic
20 interest in selling these products. Indeed, they characterize Real Networks as making an
21 “attempt to usurp for itself the value of the growing digital marketplace” (Dunn Decl., ¶ 26).
22 The Studios’ claims in this regard are incorrect.

23 24. The new products described by the Studios are all new ways to distribute, or new
24 features associated with the distribution of, movies. RealDVD is not a new way to distribute
25 movies and instead, it is a complement to movies purchased on DVD by the user. For example,
26 RealDVD does not enable transfer to portable devices like iPods, it does not enable file

27
28 ⁵ See Declaration of Jeffrey Buzzard, Declaration of Edward F. Felten.

1 compression or conversion to transportable digital formats. What RealDVD does is enable the
 2 consumer to exercise what I understand is her legitimate "fair use" right to a backup or a
 3 convenience copy of movies she has purchased. Enabling the consumer to exercise her legal
 4 rights may be inconvenient for plaintiffs, but it does not harm the Studios' legitimate economic
 5 interest in introducing new products.

6 I declare under penalty of perjury under the laws of the United States that the foregoing is
 7 true and correct. Executed this 6th day of October, 2008 in Palo Alto, California.

8 
 9 _____

10 Timothy F. Bresnahan
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APPENDIX A

CURRICULUM VITAE

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Date of Birth January 4, 1953
Citizenship U.S.A.
Marital Status Married, 2 Children

Education Haverford College, B.A. 1975 (Economics, German)
Princeton University M.A. 1978, Ph.D., 1980 (Economics)

Employment 2004-present, Chair, Department of Economics, Stanford
2002-present Landau Professor in Technology and the Economy
1991-present Professor of Economics, Stanford
2000-2002 Gordon and Betty Moore Seminar Fellow, SIEPR
1999-2000 Deputy Assistant Attorney General and Chief
Economist, Antitrust Division, USDOJ
1997-present Senior Fellow, SIEPR.
1994-1998 Stanford Computer Industry Project: (Associate
Director, Co-Director, Director), Information
Technology in Use Module (Co-Director, Director)
1989-present Technology and Economic Growth Program,
Employment and Growth Center (Associate
Director, Co-Director, Director)
1993-1994 Visiting Professor, Instituto de Analisis Economico
1986-1991 Associate Professor of Economics, Stanford
1989-1990 Visiting Scholar, Hoover Institution
1988-1989 Associate Chair, Department of Economics
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1986-1987 Marvin Bower Fellow and Visiting Associate
Professor, Graduate School of Business
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1979-1986 Assistant Professor of Economics, Stanford

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1. Comments on "Reforming European Meyer Review: Targeting Problem Areas in Policy Outcomes," in Journal of Industry Competition and Trade: Special Merger Issue Hingham, December 2002. Vol. 2, Iss. 4, pp 379.
2. Comments on "Valuation of New Goods Under Perfect and Imperfect Competition" by Jerry Hausman, his chapter in The Economics of New Goods. Available at <http://www.stanford.edu/~tbres/>

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3. Comments on "Valuation of New Goods Under Perfect and Imperfect Competition" by Jerry Hausman, his chapter in The Economics of New Goods. Available at <http://www.stanford.edu/~tbres/>
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10. Review of The Dynamics of Company Profits: An International Comparison, Dennis C. Mueller, ed., in Journal of Economic Literature, vol. XXIX (December 1991).
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13. Review of The Future of the Automobile: The Report of MIT's International Automobile Program, Alan Altschuler, et al., in Journal of Economic Literature, vol. XXIV (no. 1, March), pp. 128-129, 1986.
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Working Papers and Work in Progress

1. "The Apple-Cinnamon Cheerios War: Valuing New Goods, Identifying Market Power, and Economic Measurement" Available at <http://www.stanford.edu/~tbres/>
2. (with Thomas N. Hubbard) "The Commercialization of Information Technologies".
3. (with Paul David) "The Diffusion of Automatic Teller Machines Across U.S. Banks," in The Diffusion of New Technologies, Paul David and Giovanni Dosi, eds., (New York: Oxford University Press), forthcoming.
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Editorial

Co-Editor, Associate Editor

RAND Journal of Economics (1984-1998)

Associate Editor

Journal of Industrial Economics (1992-1997)

Quarterly Journal of Economics (1986-1990)

Rand Journal of Economics (1985-1988)

American Economic Review (1984-1994)

Editor

(with Richard Schmalensee) Journal of Industrial Economics, Special Issue, June 1987.

(with John Vickers) original editors, Handbook of Industrial Organization, Volume III.

(with Robert E. Porter) RAND Journal of Economics, Special Issue in Honor of Richard E. Quandt.

Other Professional Activities

Sloan Foundation Fellowship Board, 2005-Date

Stanford University Humanities and Sciences PPAC, 2005—Date

Stanford University Humanities and Sciences Chairs' Council Steering Committee, 2005-Date

Stanford University Committee on Research; 2001-2003

Stanford C-ACIS and SAC 2002-2004

Deans' Subcommittee on Indirect Cost Policy, 1988-1989

Member, AEA Honors and Awards Committee, 1996, 1997, 1998, 2000.

Member, Program Committee, AEA Annual Meeting, 1996, 1997.

Marsh O'Neil Award Committee, 1995.

Fellow, American Academy of Arts and Sciences.

Fellow, Econometric Society, 1990 to present.

Member, Program Committee, Econometric Society World Congress, 1995.

Ph.D. Placement Director, 1994 to 1995.

Member, Appointments and Promotions Committee, School of Humanities and Sciences, 1994 to 1996

Member, Faculty Senate, many years, Steering Committee, 2003-2004

Steering Committee, Industrial Organization Program, National Bureau of Economic Research, 1990 to present.

Research Associate, National Bureau of Economic Research, 1985 to present.

Member, American Economics Association Advisory Committee to the Bureau of the Census, 1985 to 1990; Chair, 1988 to 1989.

Member, Federal Economics Statistics Advisory Committee, 2000-2004.

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Project Leader, Project on Firm and Industry Dynamics, National Bureau of Economic Research, 1988 to 1990.

Member, National Science Foundation, Economics Panel, December 1987 to December 1989.

Member, Program Committee, Econometric Society Summer Meetings, 1987.

Member, Program Committee, Econometric Society World Congress, 1985.

Member, Program Committee, Econometric Society Winter Meetings, 1985.

Economic Advisory Committee, ICPSR.

Frisch Medal Committee, Econometric Society.

Dean's Award for Excellence in Teaching, Stanford University, 1992.

American Economic Association Program Committee, 1995.

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Recent Deposition and Courtroom Testimony of Timothy Bresnahan

FTC Docket No. 9297 In the Matter of Schering-Plough Corporation, Upsher-Smith Laboratories, and American Home Products Corporation, where I was called by FTC complaint counsel in 2001. (Deposition and Courtroom.)

Neubauer et al vs. Intel et al. filed in in the Third Judicial Circuit in Madison County, Illinois in 2002, where I was called by counsel for Intel Corporation in 2004. (Deposition.)

2003 NPM Adjustment Proceeding before an Economics Consulting Firm Pursuant to Master Settlement Agreement Section IX(d)(1)(C) where I was called by counsel for Phillip Morris USA (Deposition.)

(2006) Penny schultz on behalf of herself, and all persons similarly situated, Plaintiffs, vs. Hewlett-Packard company, a Delaware Corporation, and DOES 1 through 100, inclusive Defendants (Declaration.)

(2006) The SCO Group, Inc. v. IBM in the U.S. District Court, Northern District of Utah, where I was called by counsel for IBM. (Deposition)

(2007) Gray v. Ford and other consolidated cases in the Superior Court of the State of California, Sacramento County, where I was called by counsel for Ford Motor Company. (Deposition and Trial Testimony.)