No. 15-927

IN THE

Supreme Court of the United States

SCA HYGIENE PRODUCTS AKTIEBOLAG AND SCA PERSONAL CARE, INC.,

Petitioners,

v.

FIRST QUALITY BABY PRODUCTS, LLC, FIRST QUALITY HYGENIC, INC., FIRST QUALITY PRODUCTS, INC., AND FIRST QUALITY RETAIL SERVICES, LLC,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

BRIEF OF THE ELECTRONIC FRONTIER FOUNDATION AND PUBLIC KNOWLEDGE AS AMICI CURIAE IN SUPPORT OF RESPONDENTS

CHARLES DUAN PUBLIC KNOWLEDGE 1818 N Street NW, Suite 410 Washington, DC 20036 (202) 861-0020 cduan@publicknowledge.org VERA RANIERI Counsel of Record ELECTRONIC FRONTIER FOUNDATION 815 Eddy Street San Francisco, CA 94109 (415) 436-9333 vera@eff.org

Counsel for amici curiae

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INTEREST OF AMICI CURIAE

The Electronic Frontier Foundation¹ ("EFF") is a nonprofit civil liberties organization that has worked for over 25 years to protect consumer interests, innovation, and free expression in the digital world. EFF and its more than 26,000 dues-paying members have a strong interest in helping the courts ensure that intellectual property law serves the public interest.

Public Knowledge is a non-profit organization that is dedicated to preserving the openness of the Internet and the public's access to knowledge, promoting creativity through balanced intellectual property rights, and upholding and protecting the rights of consumers to use innovative technology lawfully. Public Knowledge advocates on behalf of the public interest for a balanced patent system, particularly with respect to new and emerging technologies.

The Electronic Frontier Foundation and Public Knowledge have previously served as *amici* in patent cases. *E.g., Halo Elecs., Inc. v. Pulse Elecs., Inc.,* 136 S. Ct. 1923 (2016); *Alice Corp. Pty. Ltd. v. CLS Bank Int'l,* 134 S. Ct. 2347 (2014); *Nautilus, Inc. v. Biosig Instruments, Inc.,* 134 S. Ct. 2120 (2014); *Octane Fitness, LLC v. Icon Health & Fitness, Inc.,* 134 S. Ct. 1749 (2014).

¹Pursuant to Supreme Court Rule 37.3(a), all parties received appropriate notice of and consented to the filing of this brief. Pursuant to Rule 37.6, no counsel for a party authored this brief in whole or in part, and no counsel or party made a monetary contribution intended to fund the preparation or submission of the brief. No person or entity, other than *amici*, their members, or their counsel, made a monetary contribution to the preparation or submission of this brief.

SUMMARY OF ARGUMENT

In the library of this Court sits a small volume, a gift to the Honorable Learned Hand, that opens with a proposition: "The element of time . . . pervades the entire patent law structure." Joseph V. Meigs, *Time: The Essence of Patent Law* vii (1940). There can be little doubt of this truth. A patent is awarded to the applicant who is first in time, and no patent may issue on an invention that was earlier in time patented, described, or known to the public. In advancing the inventions of the future, patent law constantly relies on evidence of the past to determine which patents are valid.

That temporal dimension is why patent law should retain the equitable doctrine that encourages timeliness. Laches is and ought to be available in patent infringement cases because it helps to ensure that patent validity, a concern central to the patent system and highly sensitive to time delay, is fully and fairly adjudicated. In patent law as in others, the doctrine of laches serves to abate the possibility that the passage of time may obscure evidence of invalidity. The fact that "testimonial evidence is frequently critical to invalidity defenses" supported the Federal Circuit's retention of laches in *A.C. Aukerman Co. v. R.L. Chaides Construction Co.*, 960 F.2d 1020, 1035 (Fed. Cir. 1992), and it counsels strongly toward retaining the defense now.

1. In patent infringement actions, evidentiary prejudice created by the passage of time disproportionately harms those accused of infringement. Patent invalidation often depends on fact- and time-specific evidence such as what products were available as of a particular date, the time and conditions of an article's publication, and knowledge at a given point in the past—evidence that is easily lost or forgotten over time. In case after case, including cases that have come before this Court, those accused of patent infringement have proffered evidence of invalidity, but the difficulty in procuring facts from the past prevented those defendants from meeting the clear-andconvincing evidence burden required for patent invalidation.

Internet architecture and software industry norms have exacerbated the rate of loss of technological prior art. Ordinary fast-paced software industry practices are not conducive to the meticulous documentation of prior invention that the patent system demands. Furthermore, the Internet is notorious for losing information over time, heightening the likelihood of loss of evidence needed today.

When time delay frustrates a charge of patent invalidity, the injury is not merely to the party to the lawsuit the injury falls upon the entire public, who now must pay licensing fees that may not have been required if the patent had been timely adjudicated and invalidated.

Delay in bringing suit over patent infringement thus creates a unique harm: it fades away evidence that might otherwise have invalidated the patent at issue. Laches in patent cases is necessary to avoid this possibility to the largest extent possible.

Not all delay is due to laches, and many of the examples of the harms of delay described below cannot be addressed by laches. But laches has never been intended to cure all the harms of delay; the doctrine's more modest *raison d'être* has always been to discourage a limited class of inequitable and prejudicial delays. *See, e.g., Nat'l R.R. Passenger Corp. v. Morgan*, 536 U.S. 101, 122 (2002). That the laches defense will at least in some cases deter the serious harms described herein is reason enough to preserve that defense.

2. Besides pointing to strong reasons why laches serves necessary purposes of the patent system, invalidity evidence concerns render the copyright precedent, *Petrella v. Metro-Goldwyn-Mayer, Inc.*, 134 S. Ct. 1962 (2014), inapplicable to the patent context. First, invalidity is rarely disputed in copyright cases; *Petrella* had little occasion to contemplate whether laches was needed to facilitate copyright invalidity defenses. By contrast, invalidity is often the central focus of patent cases; insofar as the availability of laches could strongly affect patent invalidity outcomes, considerations outside the scope of *Petrella* must be considered here.

Second, *Petrella* relied in part on a view that copyright claimants and defendants would be equally harmed by delay, rendering the incentive effect of laches unnecessary. But patent law provides a strikingly different context. While the nature of invalidity defenses renders alleged patent infringers greatly prejudiced by delay, patent owners rarely need to offer evidence of the past. A prima facie case of patent infringement can be made by comparing information in the four corners of a patent to a product on a store shelf; little to no historical investigation is needed. This asymmetry in evidentiary burdens demands a different result in application of laches in the patent context.

ARGUMENT

I. LACHES IN PATENT CASES IS NECESSARY TO PROMOTE FAIRNESS IN VALIDITY DETERMINA-TIONS

By encouraging timeliness in bringing patent infringement cases, laches promotes fairness in patent validity determinations. Invalidity defenses often rely on evidence that is attenuated or lost over time. Undue delay thus makes invalidity harder to prove, unfairly harming both the accused infringer and the public at large. By deterring undue delay, laches mitigates these harms.

A. EVIDENCE OF INVALIDITY IS SUSCEPTIBLE TO LOSS AFTER DELAY

Those accused of infringement regularly raise the defense of patent invalidity along three avenues: anticipation by prior art, obviousness over prior art, or insufficient description or enablement. The effect of delay on evidence of each of these avenues to invalidity is described in turn.

1. ANTICIPATION

A patent is invalid as anticipated by prior art if its invention was "described in a printed publication, or in public use, on sale, or otherwise available to the public" before the relevant filing date of the patent. 35 U.S.C. § 102(a)(1).² Because of the backward-looking nature of this defense, laches can hinder proof of anticipation.

²Patents based on applications filed prior to March 16, 2013 are subject to a different anticipation requirement, though similar in relevant substance. *See* America Invents Act, Pub. L. No. 112-29, sec. 3(n)(1), 125 Stat. 284, 293 (2011).

1. For example, a key defense against improperly granted patents is showing that the invention was "in public use, on sale, or otherwise available to the public." *Id.* In just the last few years, the Federal Circuit has considered numerous cases involving potentially invalidating public use, including a recent significant en banc case; district courts have heard many more.³ Thus, contrary to the suggestions of one other *amicus*,⁴ invalidity disputes over public use are a critical and frequent occurrence in patent law.

Proving invalidity based on prior public use is much more difficult after delay. The defense often turns on exacting showings of the precise times of invention. *See*, *e.g.*, *Pfaff v. Wells Elecs.*, *Inc.*, 525 U.S. 55, 67 (1998) (requiring evidence of when invention is "ready for patenting"); *Egbert v. Lippmann*, 104 U.S. 333, 336–37 (1881) (relying on time when garment was first worn in public as evidence of public use). That evidence, by definition not

³See, e.g., Meds. Co. v. Hospira, Inc., No. 14-1469, -1504, 2016 WL 3670000, at *8 (Fed. Cir. July 11, 2016) (en banc); Merck & Cie v. Watson Labs., Inc., 822 F.3d 1347, 1351–52 (Fed. Cir. 2016); TransWeb, LLC v. 3M Innovative Props. Co., 812 F.3d 1295, 1299, 1301–03 (Fed. Cir. 2016) ("The primary issues are whether sufficient corroborating evidence exists to support the finding of prior public use"); Delano Farms Co. v. Cal. Table Grape Comm'n, 778 F.3d 1243, 1247– 48 (Fed. Cir. 2015); Hamilton Beach Brands, Inc. v. Sunbeam Prods., Inc., 726 F.3d 1370, 1375–79 (Fed. Cir. 2013); Unwired Planet, LLC v. Apple Inc., 106 F. Supp. 3d 1083, 1099–100 (N.D. Cal. 2015), vacated on other grounds, No. 15-1725, 2016 WL 3947839 (Fed. Cir. July 22, 2016); see also Tesco Corp. v. Nat'l Oilwell Varco, LP, 804 F.3d 1367, 1369–70 (Fed. Cir. 2015) (relating to invalidity determination based on on-sale bar).

⁴See ABA Br. 14 & n.15, July 22, 2016. Even if ABA were correct that invalidity disputes often turn on printed publications, time delay remains a concern in light of evidence necessary for that prior art as well. See Section I.A.1(2) infra p. 7.

recorded in printed publications, is not the type typically archived by libraries and is thus notoriously susceptible to loss or deterioration over time. Indeed, the Federal Circuit is so concerned with quality of public use evidence that it demands a "heavy burden when establishing prior public knowledge and use based on long-past events," and requires corroboration of oral testimony. Woodland Trust v. Flowertree Nursery Inc., 148 F.3d 1368, 1373 (Fed. Cir. 1998).⁵ This "burden" was justified by the Federal Circuit, in part, based on its belief that "in modern times, by the ubiquitous paper trail of virtually all commercial activity" would mean that it would be "rare indeed that some physical record . . . does not exist." Id. Without laches, however, that "heavy burden" of corroboration becomes increasingly heavy, and eventually, especially "in modern times," likely insurmountable. See Section I.B infra p. 11.

2. Even patent invalidation based on printed publications is made more difficult after delay. In order for a printed publication to serve as prior art under § 102, the proponent must prove that the publication was "sufficiently accessible to the public interested in the art." In re Cronyn, 890 F.2d 1158, 1160 (Fed. Cir. 1989) (quoting Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1568 (Fed. Cir. 1988)). That may involve showing the time that the relevant document was indexed for searching, see, e.g., Blue Calypso, LLC v. Groupon, Inc., 815 F.3d 1331, 1349–50 (Fed. Cir. 2016), or demonstrating that the forum or journal of publication was of sufficient renown

⁵The Federal Circuit's corroboration requirement is asymmetric: patent challengers seeking invalidity must provide corroboration, but patentees rebutting invalidity charges need not. *See i4i LP v. Microsoft Corp.*, 598 F.3d 831, 847 (Fed. Cir. 2010), *aff'd*, 131 S. Ct. 2238 (2011).

to those in the relevant technical field, *see*, *e.g.*, *Voter Verified*, *Inc. v. Premier Election Solutions*, *Inc.*, 698 F.3d 1374, 1380–81 (Fed. Cir. 2012).

Evidence of whether a document was "sufficiently accessible" is easy to lose over time. At least three cases have turned on detailed facts regarding whether procedures for indexing and cataloging library holdings meant that a dissertation qualified as prior art. See Cronyn, 890 F.2d at 1161; In re Hall, 781 F.2d 897, 899 (Fed. Cir. 1986); In re Bayer, 568 F.2d 1357, 1361 (C.C.P.A. 1978). These are facts that are unlikely to be retained. Indeed, evidence of library procedures in two of these cases depended on the memory and testimony of librarians. See Hall, 781 F.2d at 897–98; Bayer, 568 F.2d at 1358.

In other cases, a document's status as a printed publication has depended on such facts as the number of people attending a conference, *Mass. Inst. of Tech. v. AB Fortia*, 774 F.2d 1104, 1109 (Fed. Cir. 1985), professional norms and expectations about copying or taking notes when the document is presented, *see In re Klopfenstein*, 380 F.3d 1345, 1351 (Fed. Cir. 2004), and the technical operations of online database services at a particular point in time, *see In re Lister*, 583 F.3d 1307, 1317 (Fed. Cir. 2009). These are all ephemeral facts, often left unrecorded and likely to escape memory.

Thus, for both public use and printed publications, time delay can erase necessary evidence of what might have been a strong case for invalidity by anticipation.

2. Obviousness

Time delay also interferes with proving patent invalidity for obviousness under 35 U.S.C. § 103. Determination of obviousness of patent claims is based on a four-part inquiry into (1) "the scope and content of the prior art," (2) "differences between the prior art and the claims at issue," (3) "the level of ordinary skill in the pertinent art," and (4) "secondary considerations" that may serve as "indicia of obviousness or nonobviousness." *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Because obviousness turns on prior art, time delay hinders proof of obviousness in all the ways that delay hinders proof of anticipation, as described above. And delay attenuates evidence of a further element of obviousness, namely the determination of the "level of ordinary skill in the pertinent art."

The relevant level of skill in the art is that as of "the effective filing date of the claimed invention." 35 U.S.C. § 103.⁶ Assessment of that level "requires the oft-difficult but critical step of casting the mind back to the time of the invention." *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). Experts are often called on to both discuss the state of the prior art as of the priority date and mentally exclude any post-priority advances in a field. *See, e.g.*, Rebecca S. Eisenberg, *Obvious to Whom? Evaluating Inventions from the Perspective of PHOSITA*, 19 Berkeley Tech. L.J. 885, 899 (2004). That feat of mental gymnastics only becomes more difficult as time elapses.

Furthermore, this Court recognized not long ago that the obviousness inquiry must also consider the common sense inferences that the skilled artisan⁷ would reach.

⁶Prior to the America Invents Act, § 103 used the language "the time of the invention." The difference is inconsequential for purposes of the argument here.

⁷Rather than the lengthy phrase "person having ordinary skill in the art," courts and litigants use short forms such as "PHOSITA." This brief uses the more readable "skilled artisan." *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2130 (2014).

See KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 420–21 (2007). Envisioning the scope of common sense at a particular time in history is difficult, and that difficulty is multiplied as the time gap increases.

Difficulty in assessing the skilled artisan's past knowledge tends to disfavor those seeking invalidation by obviousness. The difficulty of "casting the mind back" has led the Federal Circuit to be hypervigilant for hindsight bias and to reject obviousness determinations where the knowledge of a skilled artisan might be in question. See, e.g., W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983); In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig., 676 F.3d 1063, 1073 (Fed. Cir. 2012); Glynn S. Lunney, Jr. & Christian T. Johnson, Not So Obvious After All: Patent Law's Nonobviousness Requirement, KSR, and the Fear of Hindsight Bias, 47 Ga. L. Rev. 41, 42-43 (2012) (noting dramatic decrease in success of obviousness defenses following creation of Federal Circuit). Evidentiary difficulties in determining obviousness, in practice, have resulted in fewer patents being determined obvious.

3. INSUFFICIENCY OF THE SPECIFICATION

Time delay may also diminish evidence of a patent's invalidity for failure to meet the statutory requirements for the written specification. Under 35 U.S.C. § 112, a patent must satisfy three primary requirements: it must include a written description demonstrating possession of the patented invention, § 112(a), it must enable one of ordinary skill in the art to practice the invention without undue experimentation, id., and it must include claims specifying the patent's exclusionary right with sufficient definiteness, § 112(b).

Each of these three requirements is measured with respect to a skilled artisan. Under the written description requirement, the patent must "clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed." Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (quoting Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563 (Fed. Cir. 1991)) (internal alterations omitted). Under enablement, the oft-cited factors of In re Wands include "the relative skill of those in the art." 858 F.2d 731, 737 (Fed. Cir. 1988). And definiteness of claims "is to be evaluated from the perspective of someone skilled in the relevant art." Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2128 (2014).

As explained above with respect to obviousness determinations, determination of the knowledge of a skilled artisan at the time of the invention is a fact-specific inquiry that often involves evidence susceptible to loss over time. That possibility of lost evidence means that time delays can impede determinations of whether a patent satisfies § 112. Because patents are statutorily presumed valid, *see* 35 U.S.C. § 282, and may only be invalidated over clear and convincing evidence, *Microsoft Corp. v. i*4*i LP*, 131 S. Ct. 2238, 2243 (2011), any deficiency in evidence will tend to disfavor invalidation. Thus, as with anticipation and obviousness, a delay in litigating a patent will increase the difficulty of proving invalidity under § 112.

B. CASES AND BUSINESS PRACTICES SHOW THE EFFECT OF DELAY ON INVALIDITY DEFENSES

It is not mere theory that delay impedes proof of invalidity. The negative effect of delay on invalidity defenses is both seen in past cases and made more likely by industry-standard business practices.

1. Cases demonstrate that delay can make invalidity defenses harder or even impossible to prove.

In Odetics, Inc. v. Storage Technology Corp., the patent owner asserted a patent on data backup systems against a manufacturer of such systems. See 919 F. Supp. 911, 916 (E.D. Va. 1996), vacated on other grounds, 116 F.3d 1497 (Fed. Cir. 1997) (unpub. tbl. op.). Contesting the validity of the patent, the manufacturer argued that it had invented the backup systems before the patent owner. See id. at 922 & n.17. But the patentee had delayed bringing suit for over six years. Id. at 921. In the interim, the manufacturer had destroyed 600-800 documents that might have proven invalidity, and the manufacturer's patent counsel had forgotten he had ever represented the manufacturer. See id. at 922. The loss of those facts due to the patentee's delay, said the district court. had rendered the manufacturer's ability to raise its invalidity defense "somewhat less than 'full and fair.'" Id. at 923 (quoting A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1033 (Fed. Cir. 1992)).

Absent a laches defense, delay in bringing suit in *Odetics* may very well have rendered a practicing manufacturer liable for patent infringement *for a product that it invented first*.

Similarly, *i*4*i LP v*. *Microsoft Corp.* involved a patent on a method of displaying and editing certain special computer files using word processing software, and the patent owner alleged that the word processing program Microsoft Word infringed the patent. *See* 598 F.3d 831, 839–40 (Fed. Cir. 2010), *aff*[']d, 131 S. Ct. 2238 (2011). Microsoft contended that the patent was invalid because the patentee had sold a product called S4 before the relevant date of the patent. *See id.* at 846.

A factual dispute ensued, which could have easily been resolved with a single piece of evidence: the source code of S4.⁸ But the litigation was filed fourteen years after S4's creation, and the patentee had destroyed S4's source code "years before this litigation began." *Id.* With only circumstantial evidence of the S4 program, Microsoft was unable to meet the threshold of clear and convincing evidence to invalidate the patent. *See id.* at 847– 48.

2. The document losses observed in both *Odetics* and *i*4*i* are not idiosyncratic to those cases, but reflective of ordinary business practices. Company records are regularly destroyed pursuant to standard document retention policies. *See, e.g., Arthur Andersen LLP v. United States*, 544 U.S. 696, 704 (2005) (noting document destruction policies to be "common in business" and "not wrongful").⁹ Indeed, document destruction may sometimes be legally required.¹⁰

Patent applicants, owners, and attorneys regularly destroy patent-related records in this manner, even though the records may become relevant to patent as-

⁸Source code is a set of written instructions that a computer can interpret (possibly through a translational step called "compilation") to perform desired operations. All computer programs originate from a software developer writing source code.

⁹See also Ass'n of Records Managers & Adm'rs, Generally Accepted Recordkeeping Principles 9 (2014), URL supra p. viii; LexisNexis, Elements of a Good Document Retention Policy 3 (2007), URL supra p. ix.

¹⁰See, e.g., 34 C.F.R. § 99.31(a)(6)(iii)(B) (requiring school contractors to destroy educational records when no longer needed).

sertion later.¹¹ Of course, the interest of patent owners and their attorneys is to destroy potentially harmful documents and to retain helpful ones,¹² an interest that has on occasion been followed so zealously that it led to sanctionable conduct. *See Micron Tech., Inc. v. Rambus Inc.*, 645 F.3d 1311, 1325–26 (Fed. Cir. 2011) (patentee held "shred days" before imminent litigation).¹³ Delay in bringing suit could leave patent infringement defendants without key documents that would have been present had the lawsuit been timely filed.

These cases and practices show how delay affects evidence of patent invalidity: key documents are destroyed, and memories fade. Where delay in bringing suit is excusable, such losses may be written off as the unfortunate uncertainties of litigation.¹⁴ But where it is within the power of the patentee to avoid the prejudice of delay, the law ought strongly to encourage early filing of lawsuits to give parties a fuller, fairer opportunity to litigate questions of invalidity. Laches is the well-established tool for encouraging that behavior, and it ought to be retained.

¹¹See David W. O'Brien, Discovery of Draft Patent Applications: Considerations in Establishing a Draft Retention Policy, 2 Tex. Intell. Prop. L.J. 237, 255–56 (1994).

¹²Helpful documents might include, for example, evidence that the inventor on a patent conceived of an invention at an earlier time than the filing date of the application. *See Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1578 (Fed. Cir. 1996).

¹³It is worth considering whether, if the patentee in *Micron* had engaged in laches after destroying the documents, the accused infringer would have had any evidence left to prove that the unlawful destruction had occurred.

¹⁴In *i*4*i*, for example, the district court ultimately found the patentee's delay excusable. *See i*4*i LP v. Microsoft Corp.*, 670 F. Supp. 2d 568, 603–05 (E.D. Tex. 2009).

C. INTERNET-RELATED PRIOR ART IS PARTICU-LARLY SENSITIVE TO LOSS OVER TIME

Ties between the Internet and prior art render discouraging delay through the laches defense even more important today than ever before. Increasingly, prior art that can be used to invalidate patents can be found on the Internet, either because it is published on that network or because it is software built for that network. But software technology lifecycles outpace the level of documentation needed for prior art purposes and the Internet is notoriously unreliable as a long-term archive.

1. Software development happens at a fast pace, often in a context of intense competition. It is an iterative process that must rapidly respond to user needs and feature requests.¹⁵ The processes are often decentralized, and the formal development tools are optimized for collaboration and efficiency rather than litigation record keeping. Moreover, disclosure of new features and innovations to the public often occurs by releasing new versions, rather than through patents or traditional printed journals. The community mantra is, as one veteran software developer put it: "Release early. Release often. And listen to your customers." Eric S. Raymond, *The Cathedral and the Bazaar: Musings on Linux and Open Source by an Accidental Revolutionary* 29 (rev. ed. 2001).

In seeking to please a demanding user base with rapid improvements, software developers rarely take the time to chronicle all the details of their work at each release time. The conventional avenue of documenting prior art, namely filing a patent application, is rarely undertaken in

¹⁵See, e.g., Tom Warren, Windows 10: The Top 10 Most Requested Features, The Verge (Oct. 17, 2014), URL supra p. xi (Microsoft soliciting feature requests for its Windows operating system).

the software industry: multiple studies have found that "most venture-backed software firms did not acquire any patents."¹⁶ And historical versions of the software itself often go unarchived, because software users are regularly encouraged to update immediately to the latest and greatest versions.¹⁷

The fast pace of software creation often means that software developers have little time to extensively document their progress. Release notes, if prepared at all, are often written in sparse shorthand, which make searching difficult.¹⁸ Often software developers forgo detailed, timestamped documentation of their work because they

¹⁷Indeed, because many software updates address security flaws and vulnerabilities, many companies strongly *discourage* users from retaining old versions. *See, e.g.*, Stefan Lueders, *Computer Security: Mac Security: Nothing for Old Versions*, CERN (July 7, 2016), URL *supra* p. x. Certainly some developers keep old versions in archival programs, or code repositories, that keep track of a software project over time. Those software archives are sometimes even publicly available, in the case of open source software. *See generally* Raymond, *supra*. But mere availability of old software does not necessarily render it useful prior art. Searching myriad repositories for relevant computer code is often an exercise in futility. *See* Christina Mulligan & Timothy B. Lee, *Scaling the Patent System*, 68 N.Y.U. Ann. Surv. Am. L. 289, 300 (2012). Locating the right art in a software repository will often depend on the memories of users and authors of that software—memories subject to loss over time.

¹⁸See, e.g., Davin Granroth, *How to Write Release Notes* (Mar. 3, 2010), URL *supra* p. ix ("Release notes are often little more than a bullet list of updates, and that's fine."); Jennifer Cloer, *10 Years of Git:* An Interview with Git Creator Linus Torvalds, Linux Found. (Apr. 6, 2015), URL *supra* p. viii (discussing difficulties with producing good

¹⁶Ronald J. Mann & Thomas W. Sager, *Patents, Venture Capital,* and Software Start-Ups, 36 Res. Pol'y 193, 197 (2007); see also Stuart J.H. Graham et al., *High Technology Entrepreneurs and the Patent* System: Results of the 2008 Berkeley Patent Survey, 24 Berkeley Tech. L.J. 1255, 1278–79 (2009).

believe—rightly—that the practice is error-prone: for a frequently updated program, out-of-date documentation can do more harm than good.¹⁹ And to the extent that company-internal documentation is generated, that documentation may very well be destroyed in the ordinary course of business. *See* Section I.B(2) *supra* p. 13.

The likelihood of loss of primary evidence of software prior art is further emphasized by how often patent litigators rely on circumstantial evidence such as mailing list postings and product brochures. See, e.g., Suffolk Techs., LLC v. AOL Inc., 752 F.3d 1358, 1361–65 (Fed. Cir. 2014) (Internet newsgroup posting); *i*4*i*, 598 F.3d at 847 (letter to investors); Amazon.com, Inc. v. Barnesandnoble.com, Inc., 73 F. Supp. 2d 1228, 1233–34 (W.D. Wash. 1999) (retailer advice book mentioning relevant software). This circumstantial evidence is presumably offered only because the more direct evidence, such as source code or detailed documentation, is unavailable.

And it is not just that material from software firms is prone to loss—the firms themselves often disappear, taking relevant prior art with them. Many "dotcom bubble" companies in the early 2000s quickly failed, but similar technologies are now used by modern, profitable companies.²⁰ Documents and code from defunct startups, if they

¹⁹See Frederick P. Brooks, Jr., *The Mythical Man-Month: Essays* on Software Engineering 169 (1975) (noting "folly of trying to maintain independent files [e.g., software code and documentation] in synchronism"); Peter Vogel, *Why You Shouldn't Comment (or Document) Code*, Visual Studio Mag. (June 27, 2013), URL supra p. xi.

²⁰See Robert McMillan, *Turns Out the Dot-Com Bust's Worst Flops Were Actually Fantastic Ideas*, Wired (Dec. 8, 2014), URL *supra* p. x (describing Pets.com). The ABA brief's assertion (at 14 n.16) that dotcom-era *patents* from the 1990s are in large part expired

commit messages and other documentation when using GitHub, a Git repository hosting service).

even existed in the first place, are unlikely to remain after the companies cease to exist. But those documents and code could easily be relevant prior art to patents that are asserted today. When a software patent owner engages in laches, a firm with key prior art could very well go bankrupt during the delay period, making that prior art impossible to find or authenticate.

Rapid, iterative development in software and Internet technologies positions alleged infringers poorly, often through no fault of their own, to fight patent infringement suits after delay. Absent the risk of laches, patent owners can exploit these realities to more easily assert patents that would be invalidated but for the practical inability to find and establish cognizable evidence of invalidity.

2. The Internet further exacerbates the problems caused by delay, because Internet-published documents such as websites and online articles are subject to greater loss. The problem, sometimes generally referred to as "link rot," is that information on a website can be moved, altered, or even deleted at the website operator's whim, making that information difficult or impossible to find later. See Jonathan Zittrain et al., Perma: Scoping and Addressing the Problem of Link and Reference Rot in Legal Citations, 127 Harv. L. Rev. F. 176, 176 (2014).²¹

Studies confirm the prevalence of link rot. One survey found that websites cited in scientific literature had

⁽even though they are not, *see*, *e.g.*, *VirnetX*, *Inc. v. Cisco Sys.*, *Inc.*, 767 F.3d 1308 (Fed. Cir. 2014) (involving 1998 patents)) is entirely irrelevant to concerns about loss of dotcom-era *non-patent prior art*. That prior art is frequently necessary to invalidate patents filed well after that era.

²¹As just one example of link rot, citations in this very brief had to be modified from those referenced in the brief *amici* filed at the Federal Circuit, in part because several of the links no longer worked.

a median lifespan of only 9.3 years—less than half of ordinary patent term. See Jason Hennesey & Steven Xijin Ge, A Cross Disciplinary Study of Link Decay and the Effectiveness of Mitigation Techniques, 14 (Supp. 14) BMC Bioinformatics S5, 3 (2013), available at URL supra p. ix; 35 U.S.C. § 154(a)(2). Another found that URL references in three major law journals over a 17-year window worked only about 30% of the time, with the balance returning errors or incorrect data. See Zittrain et al., supra, at 184.

Services like the Internet Archive's "Wayback Machine" seek to ameliorate link rot.²² But even that service, which periodically archives and timestamps the contents of the Internet, cannot solve this problem. The Internet is large and archivists struggle to collect it all: the survey described above found that only 62% of links studied were saved on the Internet Archive. *See* Hennesey & Ge, *supra*, at 3.

More importantly, services like the Internet Archive generally do not (and likely cannot) store interactive content like database query results or programmed Internet scripts. See Comments of ABA Section of Intellectual Property Law 2, Prior Art Resources for Use in the Examination of Software-Related Patent Applications, 79 Fed. Reg. 644 (USPTO Apr. 23, 2014), available at URL supra p. viii (web pages "including certain JavaScript enabled links and instructions may not be archived").²³ Those services thus fail to archive the in-

²²See generally Jill Lepore, *The Cobweb: Can the Internet Be Archived?*, New Yorker, Jan. 26, 2015, at 34, *available at URL supra* p. ix (describing the Internet Archive and related services). The Internet Archive itself is currently accessible at https://archive.org/.

²³Those comments, as with other examples of gaps in Internet archiving, are difficult to resolve with the ABA *amicus* brief, which

formation perhaps most useful to prove software patent invalidity, especially where the patented technologies involve databases and interactive programs.

Indeed, this Court itself has observed the depth of the link rot problem. Responding to criticisms that almost half of website links in Supreme Court opinions no longer worked,²⁴ the Court adopted a new policy of archiving and making available copies of Internet content it cites.²⁵

Link rot shows that the Internet, as useful as it may be, is a poor archive of historical information. To the extent that online information is necessary prior art for invalidating a patent, then, time delay will severely diminish the availability of that information. In an age where the Internet is more and more the central hub of publication, discouragement of time delay through the laches doctrine is only more essential.

D. THE PUBLIC AT LARGE IS HARMED WHEN LACHES FRUSTRATES PROOF OF INVALIDITY

The evidentiary harm to invalidity defenses caused by undue delay does not merely affect one defendant to a patent lawsuit. It affects the entire public, and the gravity of that widespread effect strongly counsels toward retaining legal disincentives to delay.

contends without relevant citation that services like the Wayback Machine "capture and preserve nearly everything published on the internet." ABA Br. 14, July 22, 2016.

²⁴See Megan Garber, 49% of the Links Cited in Supreme Court Decisions Are Broken, The Atlantic (Sept. 23, 2013), URL supra p. ix; Adam Liptak, In Supreme Court Opinions, Web Links to Nowhere, N.Y. Times, Sept. 24, 2013, at A13; Zittrain et al., supra, at 186–87.

²⁵Lyle Denniston, No Subs for Lawyers in Court Lines, SCOTUSblog (Oct. 5, 2015), URL supra p. viii.

An issued but invalid patent is a public evil, and invalidation of that patent is a public good. Because it imposes a restraint on all people subject to the laws of the United States, every patent "by its very nature is affected with a public interest." Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co., 324 U.S. 806, 816 (1945); see also Medtronic, Inc. v. Mirowski Family Ven*tures*, *LLC*, 134 S. Ct. 843, 851–52 (2014). Where a patent owner possesses a statutorily defective but nonetheless issued patent, "the public may continually be required to pay tribute to would-be monopolists without need or justification." Lear, Inc. v. Adkins, 395 U.S. 653, 671 (1969). As a result, this Court has many times "emphasized the importance to the public at large of resolving questions of patent validity." Cardinal Chem. Co. v. Morton Int'l, Inc., 508 U.S. 83, 100 (1993); see also Pope Mfg. Co. v. Gormully, 144 U.S. 224, 234 (1892) (it is "important to the public that competition should not be repressed by worthless patents").

A defense of invalidity of a patent is often the best, and sometimes the only,²⁶ way to reap that public good. A judicial determination works to collaterally estop a patentee from making future accusations of infringement. *See Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.,* 402 U.S. 313, 350 (1971). Thus, the result of patent invalidation is "the creation of a public good enjoyed by society as a whole, not just the party who challenged the patent."

 $^{^{26}}$ Although there exist several administrative avenues to challenge patent validity, each is limited to certain types of challenges. *See, e.g.*, 35 U.S.C. § 311(b) (*inter partes* review, limited to printed publication prior art); 35 U.S.C. § 321(c) (post-grant review, limited to 9 months after patent issuance). Only district court litigation allows every type of validity challenge.

Megan M. La Belle, *Patent Litigation, Personal Jurisdiction, and the Public Good*, 18 Geo. Mason L. Rev. 43, 61 (2010).

Where undue delay renders what would have been a successful invalidity defense unprovable due to loss of evidence, that public good is lost.²⁷ Unjustified tribute to would-be monopolists must be paid not only by one law-suit defendant, but also by the entire population.

That broad harm defeats the foundational premise of the patent system itself. The "primary object" of the patent monopoly is its benefit to the public and community at large. Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 511 (1917). Public disclosure of new and useful inventions is the "centerpiece of federal patent policy," because disclosure both makes innovation publicly accessible and demarcates the limited monopoly right. Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 157 (1989). And no less important to the patent system is "substantially free trade" in publicly known, unprotected conceptions so the public can build on prior knowledge. Id. at 155. Permitting patent owners to impede invalidity determinations by unreasonably delaying litigation would undermine these fundamental principles.

²⁷Certainly laches as a defense is personal to the asserting party. See Holmberg v. Armbrecht, 327 U.S. 392, 396 (1946) (laches is "founded upon some change in the condition or relations of the property or the parties") (quoting Galliher v. Cadwell, 145 U.S. 368, 373 (1892)). But the incentive effect of the laches defense is not so limited: it produces a benefit that accrues to the entire public.

II. PATENT-SPECIFIC CONCERNS OF INVALIDITY EVIDENCE MAKE *PETRELLA* INAPPLICABLE

Based on a detailed statutory analysis of the Copyright Act, *Petrella v. Metro-Goldwyn-Mayer, Inc.* rejected the defense of laches in copyright cases. *See* 134 S. Ct. 1962, 1974 (2014). But that copyright-specific analysis renders *Petrella* distinguishable due to the patentspecific concerns regarding invalidity defenses discussed above, for at least two reasons. First, validity challenges in patent cases have no significant counterpart in the copyright context. Second, *Petrella* relied on the premise that plaintiffs and defendants in copyright cases are equally harmed by delay, but that premise fails to carry over to patent law, where defendants are uniformly more harmed.

A. IN STARK CONTRAST TO PATENT VALIDITY, Copyright Validity Is Rarely Contested

Although a valid copyright is required to make a claim for copyright infringement, validity is often not contested in copyright matters. See, e.g., Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 574–75 (1994) (validity not at issue, as it was "uncontested" that defendant's acts "would be an infringement" but for fair use). A database search of all copyright cases pending as of January 2009 shows that only 2.7% of judgment events resulted in a finding of a lack of ownership/validity of the copyright at issue, with a further 6.4% percent of judgment events finding ownership/validity.²⁸

²⁸These values were computed based on data from the online service *Lex Machina*, as of April 20, 2015. Among 3019 judgment events recorded there, 193 found that the copyright was valid and that the party asserting it had the right to do so, and 84 found the opposite.

In contrast, defendants in patent cases commonly challenge the validity of the patent at issue, often based on the lack of novelty under § 102 or nonobviousness under § 103. One study found that, of cases filed in 2008-2009, motions for summary judgment on invalidity were filed in roughly 45% of cases, of which 70% related to anticipation or obviousness. John R. Allison et al., *Understanding the Realities of Modern Patent Litigation*, 92 Tex. L. Rev. 1769, 1778, 1784–85 (2014).

That distinction, in turn, presents patent defendants with evidence-gathering challenges that copyright defendants rarely face. For example, as discussed above, anticipation and obviousness invalidity defenses require prior art predating the priority date of the patent. Thus patent defendants must frequently rely on evidence from many years prior to the filing of a lawsuit in order to make their prima facie case.

In addition, patent validity is directly affected by the actions of third parties. Third parties have evidence that defines the scope and content of the prior art, and those third parties likely give little thought, if any, to maintaining records for use by others in patent infringement actions. Copyright defendants, in contrast, often defend allegations of infringement using their own materials. *See, e.g., Campbell,* 510 U.S. at 582 (lyrics of defendant's own song established parody defense); *Graham v. James,* 144 F.3d 229, 235–38 (2d Cir. 1998) (discussing use of license as defense to copyright infringement).

A further distinction lies in the burdens of proof. In both copyright and patent litigation, an alleged infringer

Judgment events include the following: default judgment, consent judgment, judgment on the pleadings, summary judgment, trial, and judgment as a matter of law.

can raise invalidity as a defense. Compare 17 U.S.C. \$410(c) (copyright registration carries presumption of validity), with 35 U.S.C. \$282(b)(2) (defenses to patent infringement include patent invalidity). However, patent defendants, unlike their copyright counterparts, must establish invalidity with "clear and convincing" evidence. Compare i4i, 131 S. Ct. at 2251–52, with Lamps Plus, Inc. v. Seattle Lighting Fixture Co., 345 F.3d 1140, 1144 (9th Cir. 2003) (copyright defendant "must simply offer some evidence or proof" to rebut presumption of validity). Thus, stale evidence risks prejudices not faced by defendants in copyright infringement litigation.

B. UNLIKE COPYRIGHT OWNERS, PATENTEES DO NOT GENERALLY REQUIRE EVIDENCE SUBJECT TO LOSS OVER TIME

In reasoning that lackes should not apply in copyright cases, *Petrella* relied in part on a view that evidentiary prejudice from delay would be "at least as likely" to harm copyright owners as alleged copyright infringers. 134 S. Ct. at 1977. That strongly distinguishes *Petrella* from the patent context, because patentees generally *do not* rely on evidence that is likely to be lost due to delay.

1. The most important time-sensitive evidence that a copyright owner must show is proof of copying. See Mazer v. Stein, 347 U.S. 201, 218 (1954) ("Absent copying there can be no infringement of copyright."); Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991). A copyright owner that delays filing suit may find it difficult to gather evidence of copying; indeed the briefs opposing laches in Petrella repeatedly emphasized this point to show that "laches is unnecessary to protect copyright defendants" from undue delay.²⁹ And it is true: proof of copying generally requires either direct evidence of the copying act or a showing of access and substantial similarity to the copyrighted work. *See, e.g., Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp.,* 562 F.2d 1157, 1162 (9th Cir. 1977). A tardy plaintiff may be hard-pressed to obtain that evidence of direct copying or access to the original work.³⁰

In contrast, copying "is of no import on the question of whether the claims of an issued patent are infringed." *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1351 (Fed. Cir. 2002).³¹ Indeed, from the patent owner's perspective, the facts needed to maintain an infringement action can be found within the four corners of a patent on file with the United States Patent and Trademark Office, along with evidence from the alleged infringer showing

²⁹Brief for Petitioner at 54, *Petrella*, 134 S. Ct. 1962 (Nov. 15, 2013) (No. 12-1315); *see also* Brief of Amicus Curiae the California Society of Entertainment Lawyers in Support of Petitioner at 10–11, *Petrella*, 134 S. Ct. 1962 (Nov. 21, 2013) (No. 12-1315).

³⁰Cf. Art Attacks Inc, LLC v. MGA Entm't Inc., 581 F.3d 1138, 1143–45 (9th Cir. 2009) (discussing level of evidence needed to prove access); 4 Melville B. Nimmer & David Nimmer, Nimmer on Copyright § 13.01[B] (2016) (element of "copying" includes "the factual question [of] whether the defendant, in creating its work, used the plaintiff's material as a model, template, or even inspiration.").

³¹Actual copying is potentially relevant to enhancement of damages under 35 U.S.C. § 284. See Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1929 (2016) (citing Topliff v. Topliff, 145 U.S. 156, 174 (1892)). But allegations of copying are very rare in patent litigation. See Christopher A. Cotropia & Mark A. Lemley, Copying in Patent Law, 87 N.C. L. Rev. 1421, 1443, 1452 (2009) (finding that of cases examined in dataset, only 10.9% of cases included an allegation of copying, and only 1.76% of cases had an established case of copying).

each element of the patent claim at issue. While a copyright owner might have to look to decades-old evidence of an initial act of copying, the patent owner need go no further than buying the accused product at a store and comparing it to the patent.³²

2. Patent owners do on occasion rely on evidence of so-called "secondary factors" to rebut an obviousness contention. Those factors include "commercial success, long felt but unsolved needs, failure of others," and the like, and tend to show that a patented invention was not obvious to those of skill in the art at the time of the invention. *Graham*, 383 U.S. at 17–18; *see Mintz v. Dietz & Watson*, *Inc.*, 679 F.3d 1372, 1378 (Fed. Cir. 2012).

Evidence of secondary considerations might seem to be sensitive to time delay, but this evidence of validity is far less sensitive to time than evidence of invalidity. For one thing, many of these secondary considerations, like industry praise, commercial success, and copying by others, occur *after* the time of the invention, as opposed to invalidating prior art which by definition must be created *before* that time. That differential in time means that evidence rebutting invalidity will less likely be lost than evidence favoring invalidity.

Also, the patent owner has the advantage of knowing in advance what evidence to seek out and preserve to prove these secondary considerations. The patentee who delays bringing suit can spend the years of delay gathering evidence of secondary considerations; by contrast, the accused infringer generally is ignorant to what patents

³²To the extent that the patent owner needs proof of past infringement, 35 U.S.C. § 286 limits the necessary look-back period to six years.

may be asserted in the future and thus cannot preemptively gather evidence of invalidity. The end result, when the lawsuit is filed after long delay, is a case that tilts only farther from a full and fair hearing, and only farther from the necessary task of ensuring that the public is burdened only by valid patents.

And in any event, multiple empirical studies confirm that "secondary considerations play a very insignificant role in nonobviousness jurisprudence." Christopher A. Cotropia, Nonobviousness and the Federal Circuit: An Empirical Analysis of Recent Case Law, 82 Notre Dame L. Rev. 911, 946 (2007); Gregory N. Mandel, Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational, 67 Ohio St. L.J. 1391, 1423 (2006) (secondary considerations relevant to obviousness determination in "only one to two percent of reported cases" considered). Comparing loss of evidence of secondary considerations to loss of evidence of overall invalidity as a practical matter, then, it cannot at all be said that plaintiffs are "at least as likely" to be harmed as defendants, as was found in Petrella.

Thus, while a delay in suit may be "at least as likely" to harm plaintiffs as defendants in copyright cases, the balance of evidentiary prejudice is very different under the Patent Act. The substantial differences in the causes of action and defenses condone, even demand, a substantial difference in the application of the doctrine of laches.

III. SECTION 286 DOES NOT DETER EVIDEN-TIARY DELAY

The six-year look-behind period for damages provided in 35 U.S.C. § 286 is inadequate to deter the prejudice that would result from a patent owner's delay in bringing suit, and instead may actually *encourage* delay.

Six years of past damages can be substantial. For example, in *Carnegie-Mellon University v. Marvell Technology Group*, a patent owner learned of a manufacturer that was possibly infringing, but then waited five years and eleven months—one month shy of the § 286 limit—to bring suit. *See* No. 09-CV-290, 2014 WL 183212, at *19 (W.D. Penn. Jan. 14, 2014). The district court found that the delay period had caused real prejudice to the manufacturer: lab notebooks and emails of key witnesses had been lost, evidence that "may have been relevant to [the manufacturer]'s invalidity defenses." *See id.* at *32. Unclean hands³³ prevented the manufacturer from using the defense of laches, though, meaning that the patent owner was awarded damages for the full five year, eleven month period, an award of \$1.45 billion.³⁴

Carnegie-Mellon exemplifies conventional wisdom: six years of patent damages is no small amount, and yet six years is plenty of time to cause evidentiary prejudice. The § 286 limitation thus will not deter patent owners from delaying and causing harms to the patent system.

³³Specifically, the district court found that the manufacturer had engaged in copying the patented technology. See id. at *37. This is a unique and unusual situation, as copying is very rare in patent cases. See note 31 supra p. 26. While the manufacturer in Carnegie-Mellon thus was on notice of the patent and thus could have avoided prejudice, most accused infringers will be unaware of the patent and thus unable to adequately protect against evidentiary prejudice. See discussion supra p. 27.

³⁴The Federal Circuit reduced this amount to \$278 million and ordered a new trial on the balance, based on an unrelated issue of extraterritoriality. *See Carnegie-Mellon Univ. v. Marvell Tech. Group*, 807 F.3d 1283, 1302 (Fed. Cir. 2015).

By waiting until the end of patent terms, patent owners may be able to maximize potential damages as well as maximize the chances that evidence relating to the important defense of invalidity will be lost. But patent law has never prioritized patent holders' interests over the interests of the general public in granting patents only where truly deserved and only to the extent necessary to encourage disclosure and creation of new inventions. *See, e.g., Kendall v. Winsor*, 62 U.S. 322, 327–28 (1858) ("It is undeniably true, that the limited and temporary monopoly granted to inventors was never designed for their exclusive profit or advantage; the benefit to the public or community at large was another and doubtless the primary object in granting and securing that monopoly.").

Laches, especially when viewed within the broader goals of patent law, has an important role to play in encouraging patent owners to bring suits earlier, making it less likely that the mere passage of time allows an illegitimate monopoly. "[L]aches does not result from a mere lapse of time but from the fact that, during the lapse of time, changed circumstances inequitably work to the disadvantage or prejudice of another if the claim is now to be enforced." William Q. de Funiak, Handbook of Modern Equity § 24, at 41 (1956). As demonstrated, the "changed circumstances" caused by the passage of time result in evidentiary prejudice that not only prejudices defendant, but also the general public. Limiting damages to only six years prior to suit does not compensate for the fact that accused infringers may have to pay tribute to someone who did not, in fact, disclose any invention to the public.

CONCLUSION

For the foregoing reasons, this Court should affirm the Court of Appeals.

Respectfully submitted,

VERA RANIERI Counsel of Record ELECTRONIC FRONTIER FOUNDATION 815 Eddy Street San Francisco, CA 94109 (415) 436-9333 vera@eff.org

CHARLES DUAN PUBLIC KNOWLEDGE 1818 N Street NW, Suite 410 Washington, DC 20036 (202) 861-0020 cduan@publicknowledge.org

Counsel for amici curiae

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