

No. 11-796

In the Supreme Court of the United States

VERNON HUGH BOWMAN,

Petitioner,

v.

MONSANTO COMPANY, ET AL.,

Respondents.

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

**BRIEF OF BSA | THE SOFTWARE ALLIANCE
AS *AMICUS CURIAE* IN
SUPPORT OF RESPONDENTS**

ANDREW J. PINCUS
Counsel of Record

PAUL W. HUGHES
Mayer Brown LLP

*1999 K Street, NW
Washington, DC 20006*

(202) 263-3000

apincus@mayerbrown.com

Counsel for Amicus Curiae

TABLE OF CONTENTS

Table of Authorities.....	ii
Interests of the <i>Amicus Curiae</i>	1
Summary of Argument.....	2
Argument.....	4
I. Balanced Patent Protection Is Essential To Enable America’s Technology Sector To Continue To Benefit The Nation’s Economy.	4
A. A Vibrant Technology Sector Is Important To The Nation’s Economy.....	5
B. Appropriate Patent Protection Is Critical To The Continued Growth Of The Technology Industry.....	7
II. The Federal Circuit Properly Concluded That Sale Of First Generation Seeds Does Not Exhaust A Patent Owner’s Rights In Second Generation Seeds.....	10
A. There Is No “Self-Replicating Technology” Exception To The Standards Governing Patent Exhaustion.	10
B. Any Exception To Conventional Exhaustion Standards For Self- Replicating Seeds Should Not Extend To Other Contexts, Such As Computer Software.	13
III. The Court Should Reaffirm <i>Quanta’s</i> Strict Limits On The Conditional Sale Doctrine.	16
Conclusion	25

TABLE OF AUTHORITIES

CASES

<i>Adams v. Burke</i> , 84 U.S. (17 Wall.) 453 (1873).....	11, 18
<i>Aro Mfg. Co. v. Convertible Top Replacement Co.</i> , 365 U.S. 336 (1961).....	12
<i>Asgrow Seed Co. v. Winterboer</i> , 513 U.S. 179 (1995).....	12
<i>Bilski v. Kappos</i> , 130 S. Ct. 3218 (2010).....	4, 13
<i>Blue Chip Stamps v. Manor Drug Stores</i> , 421 U.S. 723 (1975).....	9
<i>eBay Inc. v. MercExchange, L.L.C.</i> , 547 U.S. 388 (2006).....	8, 9
<i>Jazz Photo Corp. v. Int’l Trade Comm’n</i> , 264 F.3d 1094 (Fed. Cir. 2001).....	12
<i>KSR Int’l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	9
<i>MAI Systems Corp. v. Peak Computer, Inc.</i> , 991 F.2d 511 (9th Cir. 1993).....	16
<i>Monsanto Co. v. McFarling</i> , 302 F.3d 1291 (Fed. Cir. 2002).....	17
<i>Monsanto Co. v. Scruggs</i> , 459 F.3d 1328 (Fed. Cir. 2006).....	17
<i>Quanta Computer, Inc. v. LG Electronics, Inc.</i> , 553 U.S. 617 (2008).....	<i>passim</i>
<i>United States v. Univis Lens Co.</i> , 316 U.S. 241 (1942).....	11
<i>Vernor v. Autodesk, Inc.</i> , 621 F.3d 1102 (9th Cir. 2010).....	13, 18

TABLE OF AUTHORITIES—continued

STATUTES

17 U.S.C. § 117(a).....	13, 15
17 U.S.C. § 117(c)	16

OTHER AUTHORITIES

Robert D. Atkinson & Andrew S. McKay, <i>Digital Prosperity: Understanding the Economic Benefits of the Information Technology Revolution</i> , Info. Tech. & Innovation Found., Mar. 2007, http://tinyurl.com/yv5jnw	6
James Bessen & Michael J. Meurer, <i>The Direct Cost from NPE Disputes</i> , Boston University School of Law Working Paper No. 12-34, (June 25, 2012), http://tinyurl.com/b7uhf8r	9
BSA, <i>Patent Reform: The Verdict Is In</i> (2007), http://tinyurl.com/nraoaf	6
BSA, <i>Shadow Market, 2011 BSA Global Piracy Study</i> (9th ed. 2012).....	16
Julie E. Cohen & Mark A. Lemley, <i>Patent Scope and Innovation in the Software Industry</i> , 89 Cal. L. Rev. 1 (2001)	7
Wesley M. Cohen et al., <i>Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (or Not)</i> , Nat'l Bur. Econ. Research Working Paper No. 7552 (Feb. 2000), http://tinyurl.com/a9cqtrq	9
Kyle M. Costello, <i>The State of the Patent Exhaustion Doctrine, Post-Quanta v. LG Electronics</i> , 18 Tex. Intell. Prop. L.J. 237 (2010)	23

TABLE OF AUTHORITIES—continued

Fed. Trade Comm’n, <i>To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy, Executive Summary</i> (Oct. 2003), http://tinyurl.com/6wk4p	8
Shubha Ghosh, <i>Carte Blanche, Quanta, and Competition Policy</i> , 34 J. Corp. L. 1209 (2009)	22
Bronwyn H. Hall & Rosemarie Ham Ziedonis, <i>The Patent Paradox Revisited: An Empirical Study of Patenting in the U.S. Semiconductor Industry, 1979–1995</i> , 32 Rand J. Econ., No. 1, 101 (2001)	8
Robert W. Holleyman, BSA President and CEO, <i>Testimony before the United States House of Representatives Committee on Energy and Commerce, Subcommittee on Commerce, Manufacturing and Trade</i> (Mar. 16, 2011), http://tiny.cc/p3nlow	5
H.R. Rep. No. 551, 105th Cong., 2d Sess. 27 (1998)	16
Herbert Hovenkamp, <i>Post-Sale Restraints & Competitive Harm: The First Sale Doctrine in Perspective</i> , 66 N.Y.U. Ann. Surv. Am. L. 487 (2011)	22, 23
David Kappos, Keynote Address at Center for American Progress, <i>An Examination of Software Patents</i> (Nov. 20, 2012), http://tiny.cc/33zfow	7

TABLE OF AUTHORITIES—continued

Donald D. Kim <i>et al.</i> , U.S. Bureau of Economic Analysis, Annual Industry Accounts, Advance Statistics on GDP by Industry for 2011 (May 2012), http://tinyurl.com/ab46ywj	5
Nat'l Sci. Bd., Science and Engineering Indicators (2012), http://tinyurl.com/amb2uao	6
U.S. Census Bureau, U.S. International Trade in Goods and Services, FT-900 Supplement November 2012 (2013), http://tinyurl.com/ytoeb2	5
U.S. Congress, Office of Technology Assessment, <i>Finding a Balance: Computer Software, Intellectual Property and the Challenge of Technological Change</i> (1992)	7
U.S. Economy, Industries in Focus (2012), http://tinyurl.com/bmc88vu	8
U.S. PTO, U.S. Patent Statistics Chart, http://tinyurl.com/33fd4rz	8
Yuichi Watanabe, <i>The Doctrine of Patent Exhaustion: The Impact of Quanta Computer, Inc. v. LG Elecs., Inc.</i> , 14 Va. J.L. & Tech. 273 (2009).....	22

**BRIEF OF BSA | THE SOFTWARE ALLIANCE
AS *AMICUS CURIAE* IN
SUPPORT OF RESPONDENTS**

INTERESTS OF THE *AMICUS CURIAE*

BSA | The Software Alliance is an association of the world's leading software and hardware technology companies. On behalf of its members, BSA promotes policies that foster innovation, growth, and a competitive marketplace for commercial software and related technologies. BSA members pursue patent protection for their intellectual property and as a group hold a significant number of patents. They also manufacture several creative products that are frequently subject to unjustified patent infringement claims. Because patent policy is vitally important to promoting the innovation that has kept the United States at the forefront of software and hardware development, BSA members have a strong stake in the proper functioning of the U.S. patent system.¹

The members of the BSA include Adobe, Apple, Autodesk, AVEVA, AVG, Bentley Systems, CA Technologies, CNC/Mastercam, Dell, IBM, Intel, McAfee, Microsoft, Minitab, Oracle, Parametric Technology Corporation, Progress Software, Quest Software, Rosetta Stone, Siemens PLM, Symantec, TechSmith, and The MathWorks.

¹ Pursuant to Rule 37.6, *amicus* affirms that no counsel for a party authored this brief in whole or in part and that no person other than *amicus* and its counsel made a monetary contribution to its preparation or submission. The parties' letters consenting to the filing of this brief have been filed with the Clerk's office.

SUMMARY OF ARGUMENT

Although the patent law issues in this case arise in the context of agricultural seeds, this Court’s resolution of those issues could have a significant effect on other parts of the economy, particularly technology companies:

- Computer software, whose use often involves the creation of temporary additional copies of the software program, could be characterized as “self-replicating,” although software programs obviously differ in critical ways from agricultural seeds. A legal rule eliminating patent protection for “self-replicating” seeds that had the same result with respect to temporary copies of software programs would facilitate software piracy on a broad scale.
- As this Court’s decision in *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U.S. 617 (2008), recognized, a “conditional sales doctrine” that broadly allowed patent owners to invoke infringement remedies against downstream purchasers, notwithstanding a prior authorized sale of the article embodying the patent, would harm innovation by imposing significant burdens on product creators and consumers.

A vibrant technology sector is vital to the U.S. economy. Computer hardware and software creators drive exports, produce substantial private investment in research and development, and provide millions of high-paying American jobs.

Properly balanced patent protection is critical to the continued growth of this industry. Computer hardware and software companies are among the

Nation's leading innovators, obtaining many high-quality patents that protect their valuable intellectual property. At the same time, these companies are frequently subject to abusive patent litigation, because it often can be easy to assert a patent infringement claim that—regardless of its merits—will be enormously expensive to defend. For these reasons, the technology industry is uniquely situated in recognizing the need for calibrated patent laws that reward innovation but do not unduly restrict those who make and consume technology products.

With respect to the first issue posed by the parties, the Federal Circuit properly held that petitioner's planting of second-generation seeds constitutes patent infringement. Patent exhaustion turns on whether the particular item embodying the patent was subject to a sale authorized by the patentee. Here, there is no dispute that the second-generation seeds were not the subject of an authorized sale. Petitioner's effort to apply an expanded version of the exhaustion doctrine to "self-replicating" items both lacks any foundation in patent exhaustion cases and threatens to eviscerate all patent protection for these items.

To the extent that the Court reaches a contrary conclusion, it should do so based on the particular self-replicating nature of seeds and confine any such expanded exhaustion rule to the factual context before the Court. The circumstances surrounding other technologies, like computer software, are fundamentally different from agricultural seeds. This is therefore a situation in which the Court should decide the matter "narrowly" "[r]ather than adopt[] [a] categorical rule[] that might have wide-ranging and unfore-

seen impacts.” *Bilski v. Kappos*, 130 S. Ct. 3218, 3229 (2010).

With respect to the second legal issue addressed by the parties, the “conditional sale doctrine,” the Court should reject respondents’ invitation to eliminate the strict limitations recognized in the recent unanimous decision in *Quanta Computer*. There, the Court concluded that once a product undergoes an authorized first sale, the patent holder may not enforce additional, patent-based limitations with respect to that item. Any exception to this rule should be limited to the particular situation presented here, in which the condition attaches only to copies of the article embodying the patent that were not themselves subject to an authorized sale.

ARGUMENT

I. Balanced Patent Protection Is Essential To Enable America’s Technology Sector To Continue To Benefit The Nation’s Economy.

The technology industry, which includes creators of both computer hardware and software, is a significant driver of the modern U.S. economy. It accounts for a substantial and growing portion of the national GDP, U.S. trade exports, and research and development spending, as well as millions of high-paying jobs.

Properly balanced patent protection is essential to the continued growth of this industry. Members of BSA, for example, obtain thousands of high-quality, valuable patents every year. At the same time, technology companies create complex hardware and software products, making them frequent victims of unjustified patent infringement claims. It is thus critical to the industry that patent law provides ap-

propriate incentives to innovators while also protecting manufacturers and consumers against unjustified claims of infringement.

A. A Vibrant Technology Sector Is Important To The Nation's Economy.

The technology industry is essential to the modern economy; it has, for example, played a critical role in the recovery from the recent recession. Thus, the Bureau of Economic Analysis estimates that the technology, information, and communications sector (which includes computer hardware and software) grew by 6.9% in 2011, which accounted for approximately 20% of total national GDP growth that year. Donald D. Kim *et al.*, U.S. Bureau of Economic Analysis, Annual Industry Accounts, Advance Statistics on GDP by Industry for 2011, at 16-17 tbls. 3 & 3A (May 2012), <http://tinyurl.com/ab46ywj>. And in 2010, the industry grew by 14.7%, which again accounted for roughly 20% of total economic growth. *Ibid.*

Moreover, U.S. technology companies are among the nation's leading exporters of products, significantly strengthening the U.S. economy. Between January and November 2012, U.S. companies exported nearly \$113 billion of computers and electronic products—about 8% of total U.S. exports. U.S. Census Bureau, U.S. International Trade in Goods and Services, FT-900 Supplement November 2012, at 1 Ex. 1 (2013), <http://tinyurl.com/ytoeb2>. And software products contribute approximately \$36 billion in annual exports. See Robert W. Holleyman, BSA President and CEO, *Testimony before the United States House of Representatives Committee on Energy and Commerce, Subcommittee on Commerce, Manufacturing and Trade*, at 2 (Mar. 16, 2011), <http://tiny.cc/p3nlow>.

Investment in the technology industry reflects its critical importance to the American economy. In 2008, companies invested approximately \$46.9 billion in research and development for software and computer-related services—approximately 16% of total industrial research and development expenditures for the Nation. Nat'l Sci. Bd., *Science and Engineering Indicators*, at 4-21 & 4-23 (2012), <http://tinyurl.com/amb2uao>. And companies invested about \$45 billion in research for the computer and electronic products sector in 2008. *Ibid.* Together, hardware and software account for roughly 31% of total spending by businesses on research and development. *Ibid.* BSA member companies each year spend in excess of \$32 billion on research and development to expand their innovation portfolios. See BSA, *Patent Reform: The Verdict Is In* 4 (2007), <http://tinyurl.com/nraoaf>.

Technology firms also are leading innovators. Between 2006 and 2008, 77% of companies engaged in software development “report[ed] the introduction of a new product or service compared to the 7% average for all nonmanufacturing industries.” Nat'l Sci. Bd., *supra*, at 6-47. Computer manufacturers likewise far outstrip the national average for innovation, with over 50% of companies in the hardware market reporting the innovation of a new product or service. *Id.* at 6-47 fig. 6-37.

It therefore is not surprising that the information technology industry has been described as “the key factor responsible for reversing the 20-year productivity slow-down from the mid-1970s to the mid-1990s and in driving today’s robust productivity growth.” Robert D. Atkinson & Andrew S. McKay, *Digital Prosperity: Understanding the Economic Benefits of the Information Technology Revolution*, Info.

Tech. & Innovation Found., Mar. 2007, at 10, <http://tinyurl.com/yv5jnw>.

The technology industry also contributes to the economy by creating a substantial number of high-paying American jobs. Currently, software companies and related services employ approximately 2 million U.S. workers, paying salaries that are roughly 195% of the national average. Testimony, *supra*, at 2. The Bureau of Labor Statistics predicts that the number of computer and mathematical scientists will increase by 25.6% between 2008 and 2018. Nat'l Sci. Bd., *supra*, at 3-13, tbl. 3-A. A vibrant technology industry is thus key to the continued growth of the American workforce.

B. Appropriate Patent Protection Is Critical To The Continued Growth Of The Technology Industry.

Patent protection provides a critical incentive for innovation by technology companies. Software firms, for example, patent their products in order to protect their ability to reap the benefits of their creative work. See Julie E. Cohen & Mark A. Lemley, *Patent Scope and Innovation in the Software Industry*, 89 Cal. L. Rev. 1, 5 (2001). Indeed, as early as 1992, congressional reports recognized that “patent protection is of importance to the U.S. software industry, both domestically and in the global market.” U.S. Congress, Office of Technology Assessment, *Finding a Balance: Computer Software, Intellectual Property and the Challenge of Technological Change*, at 23 (1992). As PTO Director David Kappos recently noted, because software is “a form of innovation that is increasingly critical to technological advancement,” protecting software via patents is essential. David Kappos, Keynote Address at Center for Ameri-

can Progress, *An Examination of Software Patents* (Nov. 20, 2012), <http://tiny.cc/33zfow>.

Likewise, patents provide essential protection for computer hardware innovations. The PTO has calculated that computer technology is one of the most patent intensive industries. U.S. PTO, Intellectual Property and the U.S. Economy, Industries in Focus, at 8 tbl.1 (2012), <http://tinyurl.com/bmc88vu>.

Although technology companies rely on patents to protect their products, they also are frequently subject to opportunistic infringement suits. It is fundamental to technology that “computer hardware and software contain an incredibly large number of incremental innovations.” Fed. Trade Comm’n, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy, Executive Summary*, at 6 (Oct. 2003) (FTC Report), <http://tinyurl.com/6wk4p>. See also Bronwyn H. Hall & Rosemarie Ham Ziedonis, *The Patent Paradox Revisited: An Empirical Study of Patenting in the U.S. Semiconductor Industry, 1979–1995*, 32 *Rand J. Econ.*, No. 1, 101, 110 (2001) (“a given semiconductor product * * * will often embody hundreds if not thousands of ‘potentially patentable’ technologies”).

Given the enormous number of patents in force and the hundreds of thousands granted every year (the PTO granted 224,505 patents in 2011 alone, see U.S. PTO, U.S. Patent Statistics Chart, <http://tinyurl.com/33fd4rz>), it takes little effort for a plaintiff to allege that a hardware or software product infringes a patent. This is compounded by the behavior of “non-practicing entities,” the “industry [that] has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees.” *eBay Inc. v. MercEx-*

change, L.L.C., 547 U.S. 388, 396 (2006) (Kennedy, J., concurring). One study reports that in 2011 NPEs sued 2,150 unique companies, forcing 5,842 separate defenses. James Bessen & Michael J. Meurer, *The Direct Cost from NPE Disputes*, Boston University School of Law Working Paper No. 12-34, at 4 (June 25, 2012), <http://tinyurl.com/b7uhf8r>.

Even meritless infringement claims can impose enormous costs. See Bessen & Meurer, *supra*, at 29 tbl. 2 (median cost of defending an NPE suit is \$560,000, while the mean cost is \$7,910,000). These costs create substantial incentives for a company to settle a claim rather than litigate, regardless of the actual merits of the suit. See Wesley M. Cohen et al., *Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (or Not)*, Nat'l Bur. Econ. Research Working Paper No. 7552, at 27 (Feb. 2000), <http://tinyurl.com/a9cqtrq>; cf. *eBay Inc.*, 547 U.S. at 396 (Kennedy, J., concurring) (threat of injunction used as “bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent”); *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 740-743 (1975) (recognizing the risk of unjustified settlements).

In sum, patent protection is critical to the industry, but patent abuse stifles innovation. The rights of all stakeholders must be balanced appropriately. See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007) (if not properly calibrated, “patents might stifle, rather than promote, the progress of useful arts”).

It is with this sense of balance that BSA approaches this case. The decision below is correct insofar as it applies traditional principles of patent ex-

haustion to conclude that the sale of the first-generation seed did not exhaust respondents' rights in the second-generation seeds at issue here. Affirmance is therefore warranted. But this Court should maintain the strict limits on the "conditional sale" doctrine in *Quanta*, in order to protect against significant adverse consequences for the technology industry.

II. The Federal Circuit Properly Concluded That Sale Of First Generation Seeds Does Not Exhaust A Patent Owner's Rights In Second Generation Seeds.

The Court should affirm the decision below because there was no patent-exhausting first sale of the second-generation seeds. Petitioner's use of those seeds in a manner that practices respondents' patents constitutes infringement. There is no exception to conventional patent exhaustion standards for technology that "self replicates." Holding otherwise would, as the court below found, eviscerate all meaningful patent protection for these items.

To the extent that the Court entertains petitioner's invitation to create a special, more expansive exhaustion rule for the sale of first-generation seeds, there is no basis for applying such a rule in other contexts. A decision resting on unique features of seeds should be narrowly confined to avoid creating uncertainty with respect to other, settled areas of patent law—such as computer software.

A. There Is No "Self-Replicating Technology" Exception To The Standards Governing Patent Exhaustion.

The "longstanding doctrine of patent exhaustion" provides that "the initial authorized sale of a pa-

tented item terminates all patent rights to that item.” *Quanta*, 553 U.S. at 625. See also *United States v. Univis Lens Co.*, 316 U.S. 241, 251 (1942) (“the purpose of the patent law is fulfilled with respect to *any particular article* when the patentee has received his reward for the use of his invention *by the sale of the article*”) (emphases added); *Adams v. Burke*, 84 U.S. (17 Wall.) 453, 456 (1873) (patent owner who sells a machine or instrument has “received all the royalty or consideration which he claims for the use of his invention *in that particular machine or instrument*”) (emphasis added). An authorized sale of seeds therefore would exhaust the patent rights *in the particular seeds that were sold*.

But the question here involves second-generation seeds that were *not* the subject of an authorized sale. As the court of appeals correctly concluded, “once a grower, like [petitioner], plants the commodity seeds that contain Monsanto’s Roundup Ready® technology and the next generation of seed develops, the grower has created a newly infringing article.” Pet. App. 14a.

Petitioner cannot persuasively argue that he did not “make” the next generation of seeds. Cf. Pet. Br. 37-42. Certainly there is no reason that one action cannot simultaneously “use” a patented good and “mak[e]” another patented article.

Similarly, petitioner is wrong in contending (Br. 35) that, because the self-replication of the first-generation seeds is a consequence of their normal use, petitioner may use the *second-generation* seeds, based on an analogy to this Court’s determination in *Quanta* that the authorized sale of a product exhausts a patent when the “only reasonable and intended use” of the article sold “was to practice the

patent.” 553 U.S. at 631. To begin with, the question in *Quanta* involved the use of an article acquired through an authorized sale; here, the question relates to a new copy of the patented article.

Moreover, the court below correctly concluded that there were uses of second-generation seed (soybeans) *other* than practicing the patent—namely that they may be used as a commodity for feed or food. Pet. App. 14a. See also *Asgrow Seed Co. v. Winterboer*, 513 U.S. 179, 188 (1995) (“Farmers generally grow crops to sell.”). There simply is no argument that planting is the “only reasonable and intended use” of the second-generation seed copies resulting from the planting of the first-generation seeds.

The repair and reconstruction doctrine confirms the correctness of this analysis. It is well established that one who owns a patented article may repair it, but not reconstruct it. A “true reconstruction” that results in the making of “a new article” constitutes patent infringement. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 346 (1961). See also *Jazz Photo Corp. v. Int’l Trade Comm’n*, 264 F.3d 1094, 1102 (Fed. Cir. 2001) (“the ownership of a patented article does not include the right to make a substantially new article”). Thus a “prohibited reconstruction occur[s]” (*Jazz Photo*, 264 F.3d at 1104-1105) when “a new article” is made after the patented article, “viewed as a whole, has become spent.” *Aro Mfg.*, 365 U.S. at 346.

When planted, the initial generation of seeds has—in the words of *Aro Mfg.*—“become spent.” Likewise, the second-generation seeds qualify as a wholly “new article.” Because the second-generation seeds were not the subject of an authorized sale, petitioner’s use of those seeds constitutes infringement.

B. Any Exception To Conventional Exhaustion Standards For Self-Replicating Seeds Should Not Extend To Other Contexts, Such As Computer Software.

To the extent the Court concludes, contrary to our submission, that conventional exhaustion standards do not apply to self-replicating seeds—and that an authorized sale of first-generation seeds exhausts the patent owner’s rights with respect to all seeds resulting from the planting of the first-generation seeds—that holding should be confined to the particular factual context presented here. As the Court has recognized in analogous circumstances, it is important to decide the issue presented in this case “narrowly” “[r]ather than adopt[] [a] categorical rule[] that might have wide-ranging and unforeseen impacts.” *Bilski*, 130 S. Ct. at 3229.

Petitioner’s argument rests largely on the particular features of soybean seeds. Thus, he emphasizes that the self-replication of the seeds is a “natural occurrence.” Pet. Br. 42. And he argues that when he purchased commodity seeds from a grain elevator, he had no notice that they contained respondents’ patented features. *Id.* at 50-51.

The use of computer software typically results in creation of a temporary additional copy (or copies) of some or all of the software program in the computer’s short-term memory. *Vernor v. Autodesk, Inc.*, 621 F.3d 1102, 1109 (9th Cir. 2010) (“In order to use a software program, a user’s computer will automatically copy the software into the computer’s random access memory.”), cert. denied, 132 S. Ct. 105 (2011); see also 17 U.S.C. § 117(a). Although the creation of such copies could in some very general sense be la-

beled “self-replication,” the relevant factual context is light years away from that of soybean seeds.

To begin with, the creation of the temporary copies is not a “natural” phenomenon. Rather it is a result of the interaction between the software and the computer being used.

Moreover, petitioner asserts that use of seeds to produce more seeds is their only reasonable use. We have explained, however, that the same is not true of the second-generation seeds, which may be sold as feed.

In the software context, the argument regarding uses other than self-replication is dramatically stronger than it is for seeds. The intended and only reasonable use of the temporary software copies is to facilitate the operation of the “first-generation” software program. Whatever the merits of petitioner’s argument with respect to seeds, temporary software copies plainly have as the principal purpose something other than self-replication—making the software program function. Their purpose obviously is *not* self-replication.

Finally, because a software user virtually always acquires the legal right to use the software through a license, not an authorized sale, questions regarding possible infringement as a result of creation of temporary copies are addressed in the software license, which invariably authorizes the creation and use of such copies in connection with the licensee’s use of the licensed software.

Indeed, Congress has addressed this precise issue in the context of the copyright law, enacting a statute providing that it is not copyright infringement if “a new copy or adaptation is created as an

essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner.” 17 U.S.C. § 117(a). By protecting an authorized user of software against copyright infringement liability in this strictly limited situation—provided that the “new copy” is “used in no other manner”—Congress precluded any argument that rights in the temporary copies are exhausted for all purposes. The same result should apply under the patent law.

As the government explains in its merits-stage amicus brief (at 17), Congress’s adoption of this provision “would have been unnecessary if the copyright exhaustion doctrine * * * already provided such a defense.” And Congress’s express decision to provide only a limited exception to copyright infringement liability precludes a revision of the patent exhaustion doctrine to eliminate all of a patent owner’s rights in temporary software copies.²

² For the reasons just discussed, the American Antitrust Institute (AAI) is wrong in asserting (at 15) that affirming the decision below would mean that “disks containing software seemingly would be incapable of use without also violating the patent holder’s right to ‘make’ the patented software.” The software license will address that issue, making clear that the creation and use of temporary copies in connection with the use of the licensed software does not constitute infringement—otherwise the licensee would not be able to use the software that he or she had licensed. If a license did not include such terms, a court might find that in the narrow and targeted statutory limitation of copyright infringement liability the basis for a similarly narrow and targeted limitation of patent infringement liability. But certainly there would be no basis whatever for a broader limitation of patent rights.

A contrary result (*i.e.*, application of petitioner’s theory for seeds to the context of software) would open the door to massive software piracy. Piracy already constitutes a substantial scourge on the economy—costing an estimated \$63.4 billion in 2011 alone. BSA, *Shadow Market, 2011 BSA Global Piracy Study*, at *1 (9th ed. 2012). It would be intolerable for a construction of the Patent Act that would have the predictable effect of enabling grossly more piracy.

There is no basis to work a fundamental change to the rights of software manufacturers in the course of resolving a case about soybean seeds. Any creation of a specific rule for seeds due to their natural ability to “self-replicate” should be confined narrowly to the unique characteristics of those products.

III. The Court Should Reaffirm *Quanta’s* Strict Limits On The Conditional Sale Doctrine.

The court of appeals did not rely on the conditional sale doctrine in upholding respondents’ claim

Moreover, Congress’s actions in the copyright context demonstrate that it can and will intervene if judicial decisions threaten to render software unusable. An example proves the point. When the court in *MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993), held that a service provider engaged by a software licensee lacked authority to make the temporary software copies necessary to operate a computer program, and therefore could not provide repair and maintenance services, Congress enacted a new exemption from liability, in Section 117(c), for copies made solely for the purpose of maintenance and repair when the copying is authorized by the “owner or lessee of a machine.” See H.R. Rep. No. 551, 105th Cong., 2d Sess. 27 (1998). There accordingly is no need for this Court to adopt unjustified restrictions on patent rights based on AAI’s imagined, but entirely unsubstantiated, threats to the usability of software programs.

that the patent rights in the second-generation seeds were not exhausted. But respondents did invoke that doctrine in the court below, arguing that “licensed growers’ sales of second-generation seeds to grain elevators as commodity seeds did not exhaust Monsanto’s patent rights in those seeds because of the express condition in the Technology Agreement that the progeny of licensed seed never be sold for planting.” Pet. App. 11a-12a (alterations & quotation omitted).

And the Federal Circuit did favorably cite its prior decisions in *Monsanto Co. v. Scruggs*, 459 F.3d 1328 (Fed. Cir. 2006), and *Monsanto Co. v. McFarling*, 302 F.3d 1291 (Fed. Cir. 2002)—both of which applied (prior to this Court’s ruling in *Quanta*) a conditional sale theory. See *Scruggs*, 459 F.3d at 1336 (“The doctrine of patent exhaustion is inapplicable in this case. There was no unrestricted sale because the use of the seeds by seed growers was conditioned on obtaining a license from Monsanto.”); *McFarling*, 302 F.3d at 1298-1299 (“The restrictions in the Technology Agreement are within the scope of the patent grant.”).

In this Court, respondents place primary reliance on the inherent limitations of the patent exhaustion doctrine discussed above. But they advance as an alternative argument the claim that—even assuming that petitioner obtained the first-generation seeds pursuant to an authorized sale—petitioner’s use of the second-generation seeds in violation of the technology agreement’s prohibition on the planting of second-generation seeds constituted patent infringement. Resp. Br. 33-51.

The Court should reject respondents’ invitation to abandon the Court’s unanimous holding in *Quan-*

ta. To the extent the Court is inclined to permit a conditional sale in this context, it should do so only on the basis of the unique facts presented here—permitting invocation of patent remedies with respect to an article that was not itself the subject of an authorized sale.

As a threshold matter, it is important to emphasize that a sale of the article in question is a critical predicate for both petitioner’s argument against the enforceability of any conditions on sales and for respondents’ argument that such conditions may be enforced in certain situations. Where there is no sale, and the patent owner instead licenses the use of a product, the patent owner has broad freedom to limit the scope of the license, and a sale or use in violation of the license terms, whether by the licensee or by a third party purporting to have obtained rights from the licensee, is actionable as patent infringement. See Resp. Br. 34-37, 46-47, 50; Pet. Br. 26-29; *Vernor*, 621 F.3d 1102 (applying that rule in the context of software licensing transactions).

The question here involves only whether the patent owner may impose such restrictions, and enforce them via the patent law, when title to the article is transferred pursuant to an authorized sale. That is because the basis for limiting the patent owner’s ability to impose post-sale conditions enforceable under the patent law is the exhaustion doctrine, and that doctrine applies only where there has been an authorized sale. “[W]hen the patentee * * * sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use.” *Adams*, 84 U.S. (17 Wall.) at 456. See also *Quanta*, 553 U.S. at 635-

636 (“Exhaustion is triggered only by a sale authorized by the patent holder.”).

The scope of respondents’ argument is not completely clear. Respondents contend that the Court’s decisions “do not establish [a] *per se* rule against enforcing reasonable conditions following a sale,” at least if that condition is included in the license agreement with the article’s manufacturer. Resp. Br. 37, 43-44. Later in their argument, however, respondents advance a much narrower argument, contending that practical considerations preclude the use of a license, and require a sale—because the seeds are consumed upon their use and can be produced only through propagation and cross-breeding—and that those considerations provide the justification for finding an exemption to the exhaustion rule that ordinarily applies once an article is sold. Resp. Br. 46-47.

Both of these contentions run headlong into this Court’s recent decision in *Quanta*.

The *Quanta* Court began its analysis by stating that “[t]he longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item.” 553 U.S. at 625. See also *id.* at 628 (“the traditional bar on patent restrictions following sale of an item applies when the item sufficiently embodies the patent—even if it does not completely practice the patent—such that its only and intended use is to be finished under the terms of the patent”).

The Court first held that this fundamental principle applies to method patents: “methods * * * may be ‘embodied’ in a product, the sale of which exhausts patent rights.” *Quanta*, 553 U.S. at 628. See

also *id.* at 629-630 (“Patentees seeking to avoid patent exhaustion could simply draft their patent claims to describe a method rather than an apparatus. * * * By characterizing their claims as method instead of apparatus claims, or including a method claim for the machine’s patented method of performing its task, a patent drafter could shield practically any patented item from exhaustion.”).

Next, the Court addressed whether the items that were the subject of the authorized sale—certain microprocessors produced by Intel pursuant to a license from the patentee, LGE—sufficiently embodied LGE’s patent rights to trigger exhaustion. Finding that the Intel products’ “only reasonable and intended use was to practice the patent” and “they ‘embodie[d] essential features of [the] patented invention,’” the Court concluded that the governing standard was satisfied. *Quanta*, 553 U.S. at 631.

Finally, the Court determined that the sale by Intel was authorized, pointing out that “[n]othing in the License Agreement restricts Intel’s right to sell its microprocessors and chipsets to” businesses such as Quanta, and that although the license required Intel to give its customers a notice stating that LGE had not licensed those customers to practice its patents, “Intel’s authority to sell its products embodying the LGE Patents was not conditioned on the notice or on Quanta’s decision to abide by LGE’s directions in that notice.” *Quanta*, 553 U.S. at 636-637.

Respondents’ broadest argument—that there is no *per se* rule against enforcement of post-sale conditions—is simply wrong. *Quanta* expressly recognized just such a *per se* rule: that “the initial authorized sale of a patented item terminates all patent rights to that item.” 553 U.S. at 625.

Next, respondents contend that the sale exhaustion doctrine can be circumvented by framing the condition as a limitation on the right to sell the article embodying the patent. Here, respondents point to the *Quanta* Court’s determination that “[n]o conditions limited Intel’s authority to sell products substantially embodying [the LGE] patents.” 553 U.S. at 637. But that fact was irrelevant in determining whether Intel’s sale to Quanta was an authorized sale. As long as the sale was authorized—the sale did not violate a limitation in the license agreement—the patent rights were exhausted.

Respondents advance a much broader argument here, claiming that a condition on the licensee’s right to sell does not just limit the licensee, but also limits the patent rights of all downstream purchasers from that licensee so that violation of the condition constitutes patent infringement. Even if the sale is authorized, respondents contend that the purchaser remains subject to the condition included in the license agreement between the patent owner and the manufacturer.

Not surprisingly, respondents cite no authority for that expansive proposition. It would reduce the entire sale exhaustion doctrine to a default contract rule, easily avoided by proper drafting of a license agreement.

And it would open the door to all of the adverse consequences that the sale exhaustion doctrine was designed to prevent. By limiting the effect of patent exhaustion and thus controlling the downstream uses of a patented item, the patent owner would be able to assert a right to seek *additional* royalties from subsequent purchasers of the product.

“[A]ny downstream purchasers using or reselling the patented article would literally be infringers,” and “the patentee would be able to collect royalties or damages from all of them.” Yuichi Watanabe, *The Doctrine of Patent Exhaustion: The Impact of Quanta Computer, Inc. v. LG Elecs., Inc.*, 14 Va. J.L. & Tech. 273 (2009). See also Shubha Ghosh, *Carte Blanche, Quanta, and Competition Policy*, 34 J. Corp. L. 1209, 1224 (2009) (“Once it is recognized that a patent owner can condition a transfer of patented technology and that this condition prevents the exhaustion of the patent owner’s rights, then the patent owner logically has the ability to bring patent infringement claims against anyone who obtains the technology from the first purchaser and violates the contractual condition.”).

The consequences of this rule would be severe. Because of the enormous number of patents in force, it is impossible for a downstream purchaser to identify all patent licenses that could be implicated by any particular product. FTC Report, Ch. 2, *supra*, at 28. And license agreements between a patentee and a manufacturer are rarely public. It is thus inevitable that firms will spend substantial time and resources designing products that combine patented components without knowledge of underlying license agreements. This raises a substantial prospect that, if the licensee has purported to place a downstream limitation on a particular patented item, the licensee can bring an infringement action *after* these significant costs have been sunk. And “[i]f the patentee can catch downstream violators by surprise it will be in a position to extract much higher royalty rates than it could if the infringement notification were more timely.” Herbert Hovenkamp, *Post-Sale Restraints &*

Competitive Harm: The First Sale Doctrine in Perspective, 66 N.Y.U. Ann. Surv. Am. L. 487, 517 (2011).

Taking the circumstances of *Quanta*, one commentator described the problem: “For example, computer assemblers selecting components from Intel without notice of the conditional sale from LG to Intel would make that choice on the premise that all IP rights necessary for the use of such products traveled with the sale.” Hovenkamp, *supra*, at 517. “That would affect their decision to use Intel components rather than those of a rival. However, they might find out later that they owe another royalty to LG, only after they have made structural commitments to Intel’s technology.” *Ibid.* Such a strategy imposes substantial, unjustified costs on technology manufacturers. There is little doubt that patent exhaustion “is necessary” in these circumstances from a “practical standpoint.” Watanabe, *supra*, at 273.

“The exhaustion doctrine constructs the legal framework on which the transactions and markets for patented goods are built.” Kyle M. Costello, *The State of the Patent Exhaustion Doctrine, Post-Quanta v. LG Electronics*, 18 Tex. Intell. Prop. L.J. 237, 263 (2010). Absent the *Quanta* rule, “a patentee could impose restrictions on the subsequent use and sale of patented articles,” and “the aggregation of such restrictions, through multiple downstream transactions, would create vast uncertainty and greatly impede the flow of commerce.” *Id.* at 263-264.

The Court should reject the dramatic change in the sale exhaustion doctrine proposed by respondents. Patent owners may not “draft around” the

standard set forth in *Quanta*—if the article is sold in an authorized sale, the exhaustion rules apply.³

Finally, respondents claim that an exception to the sale exhaustion doctrine should be recognized because the nature of their invention—in particular the fact that the product is consumed during its use—makes it impossible to employ a licensing model. But permitting the application of exhaustion doctrine to turn upon such a fact-based claim will inject significant uncertainty into patent law. Other patentees will find reasons why a licensing model does not fit their situation and advance similar claims, or threaten to do so in order to extort unjustified royalty payments from downstream purchasers. The certain result is a huge increase in litigation, with little benefit to anyone other than patent lawyers.

To the extent a modification of the sale exhaustion doctrine is warranted, it would make better sense to focus on the unique, easily identifiable fact that is present here—that all that respondents are seeking is to exclude from the sale exhaustion doctrine an article that was never subject to an authorized sale. Permitting patentees to enforce restrictions against downstream purchasers in the very limited situation in which use of the article sold produces a new copy of the patented article would have the virtue of clear application—the situations in which the modification applies should be easily identifiable.

³ As the Court noted in *Quanta*, the patent exhaustion doctrine “does not necessarily limit [a patentee’s] other contract rights.” 553 U.S. at 637 n.7. Even in the absence of an action for patent infringement, there may still exist a remedy through “a breach-of-contract claim.” *Ibid.*

Moreover, it would recognize that the sale exhaustion doctrine rests on the conclusion that the sale of an article reflects the value of the patent with respect to *that article*; it does not reflect the value of the myriad copies of the article produced as a result of self-replication. And it targets a situation in which the patentee (and the patent law itself) have an extraordinary interest in limiting the actions of downstream purchasers, because the unconstrained ability to sell the “new copies” would quickly eviscerate the value of the patent.

In sum, the Court should reaffirm the clear limits on the sale exhaustion doctrine recognized in *Quanta*. Any exception to those principles should be limited to what is truly unique about respondents’ situation—the self-replicating nature of its product.

CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted.

ANDREW J. PINCUS
Counsel of Record
PAUL W. HUGHES
Mayer Brown LLP
1999 K Street, NW
Washington, DC 20006
(202) 263-3000
apincus@mayerbrown.com

Counsel for Amicus Curiae

JANUARY 2013