

PUBLISHED

**UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT**

AMERICA ONLINE, INCORPORATED,
Plaintiff-Appellant,

v.

ST. PAUL MERCURY INSURANCE
COMPANY,

Defendant-Appellee.

No. 02-2018

AMERICA ONLINE, INCORPORATED,
Plaintiff-Appellee,

v.

ST. PAUL MERCURY INSURANCE
COMPANY,

Defendant-Appellant.

No. 02-2084

Appeals from the United States District Court
for the District of Virginia, at Alexandria.
Gerald Bruce Lee, District Judge.
(CA-01-1636-A)

Argued: May 6, 2003

Decided: October 15, 2003

Before WILKINSON, NIEMEYER, and TRAXLER, Circuit
Judges.

Affirmed by published opinion. Judge Niemeyer wrote the opinion,
in which Judge Wilkinson joined. Judge Traxler wrote a dissenting
opinion.

COUNSEL

ARGUED: John Edward Heintz, GILBERT, HEINTZ & RANDOLPH, L.L.P., Washington, D.C., for Appellant. James E. Rocap, III, BAKER BOTTS, L.L.P., Washington, D.C., for Appellee. **ON BRIEF:** Donna L. Wilson, Scott N. Godes, GILBERT, HEINTZ & RANDOLPH, L.L.P., Washington, D.C.; John Foster Anderson, RICHARDS, MCGETTIGAN, REILLY & WEST, P.C., Alexandria, Virginia, for Appellant. Mark A. Miller, Christopher T. Stidvent, BAKER BOTTS, L.L.P., Washington, D.C., for Appellee.

OPINION

NIEMEYER, Circuit Judge:

After America Online, Incorporated ("AOL") released to the public its Version 5.0 access software, consumers filed numerous class actions against AOL, alleging that the software had substantial "bugs" in it and was incompatible with their computers' other applications software and operating systems, causing the computers to be damaged. AOL tendered the defense of these actions to its insurers, St. Paul Mercury Insurance Company ("St. Paul"), its primary insurer, and to Underwriters at Lloyd's of London, its professional liability insurer. St. Paul denied coverage mainly because the damages claimed by the consumers were not "property damage" as defined by the relevant provisions of the applicable policy. AOL commenced this action against St. Paul for a declaratory judgment that St. Paul owed AOL a duty to defend and indemnify and for damages.

The district court granted summary judgment to St. Paul on the grounds that the consumers' underlying complaints did not allege physical damage to tangible property and that any damage from loss of use of tangible property fell within a policy exclusion. We affirm.

I

AOL, a Delaware corporation with its principal place of business in Dulles, Virginia, is an Internet service provider whose proprietary

software products enable consumers to access the Internet and AOL's online services, such as e-mail.

In October 1999, AOL released to the public its Version 5.0 access software, and within a few months, consumers began filing class-action lawsuits against AOL in state and federal courts throughout the country, alleging damage from the installation and operation of Version 5.0. These plaintiffs alleged that Version 5.0 was rushed to market after minimal testing to mark AOL's tenth anniversary and, as a result, was not yet free of "substantial bugs and incompatibility with numerous applications and operating systems." They asserted that the software's installation process was "defectively designed and/or unreasonably dangerous," causing "serious injury to their computer system and preexisting software." Specifically, the plaintiffs alleged:

- (1) interference to users' host systems' communications configurations and settings such as non-AOL communications software and online services the plaintiffs are using or might want to use in the future;
- (2) the inability of users to connect to other [Internet service providers], competitors of AOL;
- (3) the inability to run non-AOL e-mail programs, or connect to local networks;
- (4) the addition or alteration of hundreds of files on the users' system, including many essential components of the Windows operating system, which may cause the system to become unstable; and
- (5) the inability of users to remove the AOL 5.0 software completely, so as to restore their computer's communications configuration, so that other competitor online services could be used.

For many of the plaintiffs, "the only reported remedy [was] to reinstall Windows, which may [have] involve[d] the more extreme step of first reformatting the hard drive on their personal computer." In

short, the underlying complaints alleged that Version 5.0 altered the plaintiffs' existing software, disrupted their network connections, caused the loss of stored data, and caused their operating systems to crash.

Forty-three of the lawsuits were consolidated by the judicial panel on multidistrict litigation ("MDL") for pre-trial proceedings in the Southern District of Florida, pursuant to 28 U.S.C. § 1407, and the plaintiffs in those cases filed a consolidated MDL complaint. Certain of the claims, dubbed the "Bermuda Triangle" claims because of their "catch-all" allegations that could not be recreated or explained in laboratory testing, were handled separately from the MDL complaint. The parties to the multidistrict litigation later settled their disputes, and under a court-approved agreement, AOL established a cash fund of \$15.5 million to compensate the plaintiffs.

As the individual class-action suits were filed against AOL, AOL tendered the defense to its insurers, St. Paul and Underwriters at Lloyd's of London. St. Paul denied coverage, explaining:

The claimants do not seek damages for bodily injury or property damage or for any injury or damage that was caused by an event as those terms are defined by the St. Paul [commercial general liability] coverage. The policy language excludes any loss or damage arising out of or caused by intentional or expected acts.

Later, St. Paul particularized this position to state that the plaintiffs' claims "do not allege damage to 'tangible' property and are not property damage as defined by the St. Paul [commercial general liability] policy." Later yet, St. Paul also pointed to its "impaired property" exclusion which denies coverage for loss of use of tangible property that was not physically damaged. In response to the denial of coverage, AOL commenced this action against St. Paul, alleging breach of contract and seeking declaratory judgment that St. Paul was obligated to defend and indemnify AOL. It also demanded defense costs and compensatory damages.

On cross-motions for summary judgment, the district court denied AOL's motions and granted St. Paul's motion, making a distinction

between computer software and computer hardware and concluding that the underlying suits alleged damage to computer data and systems but did not allege "physical damage to tangible property." Although the court recognized that property damage under the policy also included "loss of use of tangible property" and that the plaintiffs alleged loss of use of their computers, it concluded that coverage for loss of use was excluded by the impaired property exclusion.

From the district court's judgment, AOL filed this appeal, contending (1) that the damages claimed in the underlying complaints amounted to "physical damage to tangible property," and (2) that the complaints alleged "loss of use of tangible property" that was not excluded from coverage by the impaired property exclusion. St. Paul filed a cross-appeal, challenging the district court's conclusion that the underlying complaints alleged "loss of use" of tangible property.

II

Because this diversity action was filed in the Eastern District of Virginia, we apply Virginia choice-of-law rules to determine which state's substantive rules apply. *See Klaxon Co. v. Stentor Elec. Mfg. Co.*, 313 U.S. 487, 496-97 (1941) (holding that a federal court with diversity jurisdiction must apply the choice-of-law rules of the State in which the federal court sits). In this case, the insurance contract between AOL and St. Paul was formed in Virginia and therefore we apply Virginia substantive law. *See Buchanan v. Doe*, 431 S.E.2d 289, 291 (Va. 1993).

Under Virginia law, an insurer's obligation to defend an action "depends on comparison of the policy language with the underlying complaint to determine whether any claims alleged [in the complaint] are covered by the policy." *Superformance Int'l, Inc. v. Hartford Cas. Ins. Co.*, 332 F.3d 215, 220 (4th Cir. 2003) (internal quotation marks and citation omitted). And the obligation to defend is broader than the obligation to indemnify. "The obligation to defend arises whenever the complaint against the insured alleges facts and circumstances, some of which, if proved, would fall within the risk covered by the policy." *Brenner v. Lawyers Title Ins. Corp.*, 397 S.E.2d 100, 102 (Va. 1990) (internal citations omitted); *see also Solers, Inc. v. Hartford Cas. Ins. Co.*, 146 F. Supp. 2d 785, 791 (E.D. Va. 2001). Adher-

ing to the canon of construction that ambiguous terms in insurance agreements are construed against the insurer, Virginia law elaborates:

If the language of an insurance policy is unambiguous, we will give the words their ordinary meaning and enforce the policy as written. On the other hand, because the principal purpose of insurance is protection and insurance policies are drafted by insurance companies, if the language of a policy is capable of different interpretations, we will construe it in favor of coverage or indemnity and against a limitation of coverage.

United Servs. Auto. Ass'n v. Webb, 369 S.E.2d 196, 198 (Va. 1988).

The underlying complaints allege in general that AOL's Version 5.0 access software altered the customers' existing software, disrupted their network connections, caused them loss of stored data, and caused their operating systems to crash. AOL contends that these claims are for physical damage to tangible property as covered by St. Paul's policy, making essentially three arguments in support of this contention. *First*, it argues that because the plaintiffs have alleged damage to "computers," they have alleged "physical damage to tangible property." *Second*, it argues that because software involves the arrangement of atoms on computer disks, software has a physical property and, on that basis, the complaints' allegations of damage to software allege "physical damage to tangible property." *Third*, it argues that, at best for St. Paul, the scope of the policy term "tangible" in defining property damage is ambiguous and, as such, must be construed in favor of AOL.

St. Paul contends that the underlying complaints allege two types of harms: (1) "interference with or reconfiguration of non-AOL software, including communication configurations, networking mechanisms and operating systems" and (2) "the loss of 'data' and 'information.'" St. Paul argues that these injuries are not covered by the policy because computer software and data are not "tangible property." It asserts that computer software and data are "nothing more than information and ideas that happen to be stored in electronic form." Moreover, it maintains that "[t]here are no allegations in the MDL Complaint that hardware — tangible property — was physi-

cally damaged." Finally, St. Paul contends that nothing in the complaints amounts to allegations of loss of use of computer hardware. On the basis of this contention, it has pressed its cross-appeal.

The parties do not dispute the controlling language of the applicable policy. That language provides that St. Paul will "pay amounts [AOL] is legally required to pay as damages for covered . . . property damage." Property damage in turn is defined as

- physical damage to tangible property of others, including all resulting loss of use of that property; or
- loss of use of tangible property of others that isn't physically damaged.

The "impaired property" exclusion in the policy provides that St. Paul is not obligated to cover

property damage to impaired property, or to property which isn't physically damaged, that results from:

- your faulty or dangerous products or completed work; or
- a delay or failure in fulfilling the terms of a contract or agreement.

And the policy defines impaired property as:

tangible property, other than your products or completed work, that can be restored to use by nothing more than:

- an adjustment, repair, replacement, or removal of your products or completed work which forms a part of it; or
- your fulfilling the terms of a contract or agreement.

AOL's first argument, that by alleging damage to *computers*, the consumers have alleged they sustained property damage, fails for its lack of specificity. Because a "computer" consists of hardware (con-

cededly tangible property), an operating system, and applications software, as well as peripheral devices with their own hardware and software, a general allegation that a computer was damaged may refer either to damaged hardware or damaged software. *See* Alan Freedman, *The Computer Glossary: The Complete Illustrated Dictionary* 173, 364 (9th ed. 2001) ("In operation, a computer is both hardware and software. . . . The hardware design specifies the commands it can follow, and the instructions tell it what to do"). But because the underlying complaints ultimately claim damage to the consumers' software, we are brought to AOL's central argument — that damage to software is physical damage to tangible property.

Although AOL acknowledges that software is distinct from hardware and that software provides instructions to the hardware to perform, it argues that the particular physical properties of the hard drive of a computer that contains instructions and data indicate that software can be tangible property:

As stored on a hard drive, data consists of the arrangement "of hundreds of thousands of atoms" of "cobalt, iron, and other magnetic materials" in a perceivable and unique pattern. The data consists of small electromagnets in certain alignments. Once data is stored in a cell of a hard drive, that cell is physically different from a cell without data, and the physical differences between the two cells can be detected through the use of certain tools. Data stored on a hard drive is visible with the use of a microscope.

Because these atoms in the form of cobalt, iron, and other magnetic material are physical, AOL argues, the data and instructions retained on them are tangible property.

Taking "tangible" to have its usual and ordinary meaning, *see American Health Ins. Corp. v. Newcomb*, 91 S.E.2d 447, 451 (Va. 1956) (instructing that contract terms "be given their usual, ordinary and popular meaning'") (citation omitted), we understand the term to mean "capable of being touched: able to be perceived as materially existent esp. by the sense of touch: palpable, tactile," *see* Webster's Third New Int'l Dictionary of the English Language Unabridged 2337 (1993). And, specifically, "tangible property" means "having physical

substance apparent to the senses." *Id.* These common definitions essentially equate the terms "tangible" and "physical" and defeat any sense of ambiguity that AOL attributes to the term "tangible." Thus, employing these ordinary meanings, we conclude that the physical magnetic material on the hard drive that retains data, information, and instructions is tangible property.

But the conclusion that physical magnetic material on the hard drive is tangible property is quite separate from the question of whether the data, information, and instructions, which are codified in a binary language for storage on the hard drive, are tangible property. Certainly the hard drive itself is a medium in which the data, information, and instructions are stored, but the data itself must be considered apart from the medium. Thus, if a hard drive were physically scarred or scratched so that it could no longer properly record data, information, or instructions, then the damage would be physical, affecting the medium for storage of the data. But if the arrangement of the data and information stored on the hard drive were to become disordered or the instructions were to come into conflict with each another, the physical capabilities and properties of the hard drive would not be affected. Such disordering or conflicting instructions would amount to damage to the data and information and to the instructions (i.e., the software) but not to the hard drive. The magnetic material on the hard drive could be reoriented and reordered with reinstallation of the instructions. So it is that we make the distinction between hardware and software.

All data, information, and instructions used in a computer are codified into a binary language, and the binary language is processed by the computer by the operation of switches that are "on" or "off." The unique combination within a group of switches that are on and off forms bytes of codified information representing letters, numbers, and other commands, upon which further operations and processes are built. The switches are configured on or off by electricity. Thus, when the letter "p" is pressed on the keyboard, the electrical pulses transmitted through the switches invoke a code that opens and closes switches in a particular configuration that transmits a "p" to the screen. Once data are created in the processing systems of a computer, they may be stored magnetically on hard drives or disks that record the on-and-off configurations.

Thus, software begins with a set of instructions written by programmers and translated into binary code which is then transmitted to the computer through the electronic charges turning on some but not all switches and creating a configuration of on and off switches. As a result of these configurations, the computer performs the specified tasks of the programmer, and the established configurations are retained magnetically.

With this description, albeit simplified, the distinction between data or instructions and the physical machines that give them meaning becomes apparent. Instructions to the computer and the data and information processed by it are abstract ideas in the minds of the programmer and the user. The switches and the magnetic disks are media, as would be paper and pencil. Loss of software or damage to software thus is not damage to the hardware, but to the idea, its logic, and its consistency with other ideas and logic. Of course, without any code and instructions, the hardware consists simply of millions of electronic switches, circuits, and drives that can be turned on or off but that cannot function as a computer. To a user, such a computer would be "dead." But regardless of whether the software is rendered unusable, the hardware remains available for instructions and recording.

By analogy, when the combination to a combination lock is forgotten or changed, the lock becomes useless, but the lock is not physically damaged. With the retrieval or resetting of the combination — the idea — the lock can be used again. This loss or alteration of the combination may be a useful metaphor for damage to software and data in a computer. With damage to software, whether it be by reconfiguration or loss of instructions, the computer may become inoperable. But the hardware is not damaged. The switches continue to function to receive instructions and the data and information developed on the computer can still be preserved on the hard drive. While the loss of the idea represented by the *configuration* of the computer switches or the *combination* for the lock might amount to damage, such damage is damage to intangible property. It is not damage to the physical components of the computer or the lock, i.e., to those components that have "physical substance apparent to the senses." See Webster's Third New Int'l Dictionary, *supra*, at 2337 (defining "tangible property").

The insurance policy in this case covers liability for "physical damage to tangible property," not damage to data and software, i.e., the abstract ideas, logic, instructions, and information. Thus, while it covers any damage that may have been caused to circuits, switches, drives, and any other physical components of the computer, it does not cover the loss of instructions to configure the switches or the loss of data stored magnetically. These instructions, data, and information are abstract and intangible, and damage to them is not physical damage to tangible property. See *Lucker Mfg. v. Home Ins. Co.*, 23 F.3d 808, 819 (3d Cir. 1994) (holding that where the real value of an anchoring system design "is in the idea, not in the physical plans that memorialize it, any loss in value of the design represents a loss in the value of the idea, which is not a loss of use of tangible property"); *State Auto Prop. & Cas. Ins. Co. v. Midwest Computers & More*, 147 F. Supp. 2d 1113, 1116 (W.D. Okla. 2001) (holding in an insurance context that "[a]lone, computer data cannot be touched, held, or sensed by the human mind; it has no physical substance. It is not tangible property").

The claims in the underlying actions assert that AOL's Version 5.0 software damaged consumers' software, including their preexisting operating system software. They allege that Version 5.0 "ruthlessly modifie[d] or overwr[ote] critical Windows communications files and change[d] many of the default communications settings." They assert that the installation of Version 5.0 cut off non-AOL Internet access and caused computer system instability. Indeed, with a large amount of reconfiguration, the computer could lack any instruction (operating system) and could just "die." But all of these damages are related to the instructions configuring the switches and the data preserved on the hard drive. The physical aspects of the switches and the hard drives were not damaged — they were reconfigured. With yet more recoding, the reconfigurations could be reversed and the initial operating systems and application software reinstalled. Obviously such a process could become costly. As relevant to this suit, however, such software damage and the cost to restore it would not be covered by the policy of insurance issued to AOL by St. Paul. St. Paul covered AOL's liability for *physical* damage to *tangible* property of others.

Going beyond the allegations contained in the underlying complaints, which under Virginia law are determinative of whether St.

Paul is obligated to provide a defense, AOL refers to testimony of consumers in the underlying actions to demonstrate that the damages claimed were for physical damage to tangible property. But even if we review these excerpts, they do not demonstrate that AOL's Version 5.0 caused physical damage to the hardware.

Thus, for example, plaintiff Eric Lloyd answered, in a deposition, that he decided to sue AOL "[a]round the time my computer went haywire, meaning it died entirely." In response to the question whether he was "talking about when [he] couldn't get from DOS into Windows," the plaintiff answered, "Correct." Plaintiff Merk French, who testified that his "keyboard was like the top of this table, it had no effect," elaborated that, after installation of Version 5.0, his computer would not shut down and when he performed a hard boot, the computer was often unresponsive, i.e., the operating system would refuse to recognize commands given through the keyboard. In a similar vein, plaintiff Mark Harken testified that after he installed Version 5.0, his computer froze virtually every time that he logged onto AOL, and he described "freezing" as "you couldn't operate the system." Plaintiff Robert Kerr, Jr., testified that when he was unable to access programs after installing Version 5.0, he could sometimes cure the problem by shutting down the computer and starting it again. And while plaintiff Eddie Jean Harp asserted in her class-action complaint (consolidated in the multidistrict litigation) that her use of Version 5.0 "caused physical injury to her computer and software," her allegations focusing on Version 5.0's effects on "computer systems of the plaintiffs" clarify that the injury was to files, settings, and operating systems — all software.

Even though a few other testimonial complaints are vague enough to suppose initially that the plaintiffs complain of damage to physical property, a closer look at the complaints reveals that the plaintiffs actually complain of damage to software. For example, plaintiff Laurie Bejoian testified that after experiencing problems with Version 5.0, she took her computer to a service center, where she requested a new hard drive. Plaintiff Russell Hightower testified that, sometime after he installed Version 5.0, his computer "developed a malfunction on the motherboard" and that when he took it in for repairs, he was told "it was damaged and not repairable." Plaintiff Eric Lloyd testified that his computer "died entirely." And Alice Patricia Carrick testified

that after she installed Version 5.0, her computer began making clicking noises when she entered a command through the computer's touch pad. At best for AOL, these excerpts contemplate computer damage broadly, suggesting damage to both hardware and software. But the fact that a service center replaced a hard drive or a motherboard is no more indicative of a hardware problem than a software problem, even though replacement of the hardware might have been less expensive than attempting to reconfigure or adapt the software. And this vague deposition testimony of a few plaintiffs complaining of the general failure of their computers must be viewed alongside the hundreds of claims of the other plaintiffs, whose allegations reflect a common complaint about damage to *software* resulting from the installation of Version 5.0. As the consumers have generally alleged, AOL's Version 5.0 had "substantial bugs and incompatibility with numerous applications and operating systems," and that the software's installation process was "defectively designed and/or unreasonably dangerous." These are all software problems that do not amount to physical damage to tangible property.

III

AOL contends that even in the absence of physical damage to tangible property, it was exposed to property damage claims because "property damage" is defined by the policy to include *loss of use* of tangible property of others. It notes that the consumers' underlying complaints allege loss of use of their computers and computer peripherals because of the installation of AOL Version 5.0. The district court agreed with AOL's characterization of the underlying claims that loss of use was alleged in the complaint, but it denied any coverage because such damage was excluded by the "impaired property" exclusion contained in St. Paul's policy. AOL argues that the district court erred in construing the impaired property exclusion to bar coverage for loss of use.

The relevant portions of the impaired property exclusion read as follows:

We won't cover property damage to impaired property, or to property which isn't physically damaged, that results from:

- your faulty or dangerous products or completed work;

* * *

Impaired property means tangible property, other than your products or completed work, that can be restored to use by nothing more than:

- an adjustment, repair, replacement, or removal of your products or completed work which forms a part of it

AOL argues that this exclusion cannot be applied because the underlying consumer complaints "allege physical damage to and loss of use of computers that could not be fixed simply by repairing, removing, or replacing AOL Version 5.0, thus taking the claims outside the definition of impaired property."

This argument, however, fails to address the relevant portion of the exclusion, which reads in edited form:

We won't cover property damage [including loss of use of tangible property] . . . to property which isn't physically damaged, that results from . . . your faulty . . . products.

The straightforward meaning of this exclusion bars coverage for loss of use of tangible property of others that is not physically damaged by the insured's defective product. This exclusion places a limitation on the coverage of consequential damages, restricting coverage to loss of use of other persons' properties *that are physically damaged*. Without the limitation, St. Paul's risk would have been much greater and the premiums for such a policy undoubtedly would have been more expensive. St. Paul would have been asked to defend claims, for example, that because the computer was rendered defective because of the faulty Version 5.0, the store could not operate its computers, and because the store could not operate its computers, it had to close, causing loss of use of the premises and the business. The limitation imposed by the impaired property exclusion is designed specifically to deny coverage for this broader risk. *See Seagate Tech., Inc. v. St. Paul Fire & Marine Ins. Co.*, 73 F.3d 370 (Table), 1995 WL 759217,

at *1 (9th Cir. Dec. 22, 1995) (finding no duty to defend based on impaired property exclusion where loss of use of inventory that was not physically damaged was caused by insured's faulty product or failure to fulfill terms of contract).

As has been demonstrated in Part II, *ante*, the faulty Version 5.0 software caused damage to other software, including operating systems. But there has been no demonstration or claim that the *physical* or *tangible* components of any computer were damaged. In the absence of property that is physically damaged, AOL's arguments for covering loss of use must be rejected.

Because we conclude that the impaired property exclusion applies, we need not address St. Paul's issue on cross-appeal — whether the underlying complaints allege loss of use.

IV

For the reasons given, the judgment of the district court is affirmed.

AFFIRMED

TRAXLER, Circuit Judge, dissenting:

Whether computer software should be considered tangible or intangible property is a difficult question that has yet to be definitively answered by the state courts. In my view, however, it is unnecessary to even reach that question, because the allegations of the underlying complaint sufficiently allege damage to the computers themselves, thus bringing the claims against AOL within the scope of the policy's coverage for claims of "physical damage to tangible property of others." Accordingly, I respectfully dissent.

I.

States have been considering the question of whether computer software is tangible or intangible property for many years. Most of the cases have arisen in the tax context, with states considering whether computer software is subject to sales tax, ad valorem taxes, and the

like. No real consensus view has emerged, although there has perhaps been a somewhat recent shift in the states' approach to the issue. Most of the earlier cases concluded that computer software is intangible property. *See, e.g., James v. Tres Computer Sys., Inc.*, 642 S.W.2d 347, 348-49 (Mo. 1982) (en banc) (concluding that computer software contained on magnetic tapes is not tangible property for purposes of use tax imposed on out-of-state purchases of tangible property); *First Nat'l Bank of Springfield v. Department of Revenue*, 421 N.E.2d 175, 179 (Ill. 1981) (same); *First Nat'l Bank of Fort Worth v. Bullock*, 584 S.W.2d 548, 550 (Tex. App. 1979) (concluding that computer software is not tangible property for purposes of sales tax); *Commerce Union Bank v. Tidwell*, 538 S.W.2d 405, 407 (Tenn. 1976) (concluding that computer software is not tangible personal property: "What is created and sold here is information, and the magnetic tapes which contain this information are only a method of transmitting these intellectual creations from the originator to the user. It is merely incidental that these intangibles are transmitted by way of a tangible reel of tape. . . ."); *District of Columbia v. Universal Computer Assocs., Inc.*, 465 F.2d 615, 618 (D.C. Cir. 1972) (concluding that software embodied in punch cards is not tangible property: "It is the information derived by the machine from the cards which stays in the computer, and which is employed repeatedly by the machine when it is used by Universal. What rests in the machine, then, is an intangible—'knowledge'—which can hardly be thought to be subject to a personal property tax."). In the more recent cases, however, the courts have tended to treat computer software as tangible property. *See, e.g., First Data Corp. v. State*, 639 N.W.2d 898, 903-04 (Neb. 2002) (concluding that computer software is tangible property for purposes of a special sales-tax exemption); *Wal-Mart Stores, Inc. v. City of Mobile*, 696 So. 2d 290, 291 (Ala. 1996) (computer software is tangible personal property for purposes of tax on gross receipts); *South Cent. Bell Tel. Co. v. Barthelemy*, 643 So. 2d 1240, 1244 (La. 1994) (concluding that computer software is "corporeal property" and thus tangible property subject to sales and use tax); *Comptroller of the Treasury v. Equitable Trust Co.*, 464 A.2d 248, 261 (Md. 1983) (concluding that computer software is tangible property subject to Maryland's sales tax: "A meaningful sequence of magnetic impulses cannot float in space.")*.

*The applicability of the tax cases to the insurance question before this court is less than clear. In the tax arena, courts are typically considering

The relatively few courts to have considered the tangible-intangible question in the context of determining coverage or a duty to defend under a commercial general liability policy have reached differing results. See *State Auto Prop. & Cas. Ins. Co. v. Midwest Computers & More*, 147 F. Supp. 2d 1113, 1116 (W.D. Okla. 2001) ("Alone, computer data cannot be touched, held, or sensed by the human mind; it has no physical substance. It is not tangible property."); *American Guarantee & Liab. Ins. Co. v. Ingram Micro, Inc.*, No. 99-185 TUC ACM, 2000 WL 726789, *2-3 (D. Ariz. April 18, 2000) (concluding that computer system that lost stored data and functionality was physically damaged within the meaning of a liability insurance policy); see also *Computer Corner, Inc. v. Fireman's Fund Ins. Co.*, 46 P.3d 1264, 1266 (N.M. Ct. App. 2002) (noting district court's unappealed ruling that computer data stored on a hard drive is tangible property); *Retail Sys. Inc. v. CNA Ins. Cos.*, 469 N.W.2d 735, 737 (Minn. Ct. App. 1991) (concluding that loss of computer tape containing valuable data fell within scope of liability policy covering claims involving physical injury or destruction of tangible property because, in part, "[t]he data on the tape was of permanent value and was integrated completely with the physical property of the tape").

The question in this case, of course, is how computer software should be characterized under Virginia law. See, e.g., *Liberty Mut. Ins. Co. v. Triangle Indus., Inc.*, 957 F.2d 1153, 1156 (4th Cir. 1992) (explaining that "a federal court sitting in diversity has a duty to apply the operative state law as would the highest court of the state in which the suit was brought"). Unfortunately, there is no Virginia law on point, nor have I found any analogous cases that suggest how the Virginia courts would resolve the issue. Given the absence of controlling Virginia law, the lack of consensus among the courts that have con-

the tax consequences of a particular transaction involving computer software. Such an inquiry involves very specific statutory language and often requires the courts to determine things like the "ultimate object" of the transaction or the "essence of the transaction," *Tres Computer Sys.*, 642 S.W.2d at 349, issues that do not arise in the contract-based insurance arena. Thus, the fact that computer software has (or has not) been treated as tangible property for taxation purposes does not necessarily mean that software should (or should not) be treated as tangible property for purposes of this insurance dispute.

sidered the issue, and the increasing importance of computers and computer software to every aspect of our daily lives, I would be inclined to certify the issue to the Supreme Court of Virginia if resolution of the question was necessary in this case. *See Grattan v. Board of Sch. Comm'rs*, 805 F.2d 1160, 1164 (4th Cir. 1986) ("A federal court's certification of a question of state law to that state's highest court is appropriate when the federal tribunal is required to address a novel issue of local law which is determinative in the case before it."). As I explain below, however, I do not believe that this case turns on the question of whether computer software and data is tangible or intangible property.

II.

Because the issue in this case is whether St. Paul was obligated to provide a defense to AOL, our focus must be on the allegations of the underlying complaint. *See Lerner v. General Ins. Co. of America*, 245 S.E.2d 249, 251 (Va. 1978) ("[A]n insurer's obligation to defend is broader than its obligation to pay, and arises whenever the complaint alleges facts and circumstances, *some of which would*, if proved, fall within the risk covered by the policy.") (emphasis added). An insurer can avoid its duty to defend "[o]nly when it appears clearly the insurer would not be liable under its contract for *any* judgment based on the allegations." *Parker v. Hartford Fire Ins. Co.*, 278 S.E.2d 803, 804 (Va. 1981) (per curiam) (internal quotation marks and alteration omitted).

The district court believed that the claims against AOL really involved damage not to computer hardware, but to computer software, the "'brains' of the computer." *America Online, Inc. v. St. Paul Mercury Ins. Co.*, 207 F. Supp. 2d 459, 469 (E.D. Va. 2002). Thus, the district court concluded that "[t]he allegations of injury to the computer itself are more properly characterized as a loss of use of the computer." *Id.* AOL contends that the district court's interpretation of the MDL complaint is impermissibly narrow. According to AOL, the complaint, properly read, alleged damage to the computer itself, not just to computer software. Because a computer is tangible property, AOL contends that the allegations of the MDL complaint were sufficient to trigger St. Paul's duty to defend. I agree with AOL that the

allegations of the MDL complaint are sufficient to bring the claims within the scope of the St. Paul policy.

The underlying MDL complaint alleged that when AOL Version 5.0 was installed, it

cause[d] serious injury to [the plaintiffs'] computer system and preexisting software. The default options provided by AOL 5.0 . . . modif[ied], add[ed] or alter[ed] over 200 files on the user's computer system, primarily Windows systems files, many of which are essential components of Windows' operating and networking systems. The installation of version 5.0 results in a user unknowingly creating multiple versions of the same essential system files, which results in system instability and/or non-operability.

J.A. 145 (emphasis omitted). Throughout the complaint there are allegations that version 5.0 caused things like "corrupt[ion of] the computer systems," J.A. 130, "complete operating system failure," J.A. 161; "system crashes and computer freezes," J.A. 165; alteration and reconfiguration of the computers, J.A. 165; and "complete system failure." J.A. 169. Given that the computer itself is, of course, tangible property, I believe that these allegations are sufficient to trigger St. Paul's duty to defend against claims involving "physical damage to tangible property of others."

These allegations clearly indicate the MDL plaintiffs' belief that the installation of version 5.0 caused actual damage to their computer hardware. While the plaintiffs might not have been able to prove that version 5.0 caused physical damage to their computers, the ultimate inability to prove a claim is not relevant to the duty-to-defend inquiry. *See Virginia Elec. & Power Co. v. Northbrook Prop. & Cas. Ins. Co.*, 475 S.E.2d 264, 266 (Va. 1996) ("The insurer has the obligation to defend the insured in such circumstances even though the obligation to pay is not ultimately invoked. . . . Stated differently, the insurer has a duty to defend against risks covered by the policy even though the defense successfully litigates the issue of its lack of obligation to pay the claim."); *cf. Centennial Ins. Co. v. Applied Health Care Sys., Inc.*, 710 F.2d 1288, 1290 (7th Cir. 1983) (concluding that complaint alleging loss of computer data because of malfunctioning "controllers"

potentially sought damages within scope of liability policy covering claims for "physical injury to or destruction of tangible property").

The MDL complaint alleged that AOL version 5.0 caused serious injury to the plaintiffs' computer systems and hardware by re-writing the code or "instructions" that allowed the computers to operate. As AOL points out, these instructions leave a physical imprint on the computer hard drive. *See* Brief of Appellant at 11-12 ("Once data is stored in a cell of a hard drive, that cell is physically different from a cell without data, and the physical differences between the two cells can be detected through the use of certain tools. Data stored on a hard drive is visible with the use of a microscope."). While it may be that version 5.0 merely re-arranged, rather than destroyed, the instructions on the user's hard drive, that re-arrangement of the instructions changed the physical structure of the computer hardware. And in my opinion, a change in the physical structure of the computer that renders the computer inoperable must be viewed as physical damage to the computer itself.

In one sense, most of what we think of as typical physical damage to tangible property is merely the re-configuration of parts of that property. Few would dispute that a car with a dented door is physically damaged, but all that has happened is that the metal making up the door has been re-configured in a way not intended by the manufacturer. The car is still able to function exactly as it did before the unfortunate dent, and another re-configuration of the metal will put the car back into its original condition. But during the time the car door was configured to include a dent, the car was physically damaged. This analogy, of course, is a rough one, and I do not mean to suggest that questions about whether a computer has been physically damaged can necessarily be resolved as easily as the same questions about a car. Nonetheless, this example does help bring home the point that property can be physically damaged even though no part of the property is destroyed and even though it can be fixed by simply putting its parts back in the intended order.

If the MDL complaint is read as potentially stating a claim for physical damage to the computer hardware, as I believe it should be, then the question of whether computer software in the abstract is tangible or intangible simply is not relevant. The policy provides cover-

age for claims of physical damage to tangible property, not *tangible* physical damage to tangible property. Therefore, even if, as the district court concluded, computer software is not tangible because it is not "capable of being touched or perceptible to the senses," *America Online, Inc.*, 207 F. Supp. 2d at 467, St. Paul still has a duty to defend because the allegations of the MDL complaint could support the conclusion that the intangible software worked physical damage on the tangible computer hardware. *See Parker*, 278 S.E.2d at 804 ("We cannot say that Turpin's pleadings clearly show that any recovery against the Parkers would not have been covered by the insurance policy. While some of the language of the pleadings is couched in terms of intentional trespass[, which would not be covered by the policy], the pleadings, without amendment, could have supported a judgment of unintentional trespass[, which would be covered by the policy].").

In sum, I believe that the MDL complaint includes allegations of physical damage to computers themselves, not just computer software, thus triggering St. Paul's duty to defend against claims of "physical damage to tangible property." By construing the MDL complaint to allege damage to computer software and data only, I believe that the district court read the complaint too narrowly. *See Fuisz v. Selective Ins. Co. of America*, 61 F.3d 238, 242 (4th Cir. 1995) ("If a complaint, however ambiguous, may be read as premising liability on alternative grounds, and either ground states liability potentially or arguably covered by the policy, the insured is entitled to a defense.") (quoting *Donnelly v. Transportation Ins. Co.*, 589 F.2d 761, 767 (4th Cir. 1978)). Because I believe that St. Paul had a duty to defend AOL against the allegations asserted in the MDL complaint, I respectfully dissent from the majority's affirmance of the district court's order.