

PRESENT: Powell, Kelsey, McCullough, Chafin, and Russell, JJ., and Millette and Mims, S.JJ.

APPIAN CORPORATION

v. Record No. 240736

PEGASYSTEMS, INC.

OPINION BY
JUSTICE WESLEY G. RUSSELL, JR.
JANUARY 8, 2026

FROM THE COURT OF APPEALS OF VIRGINIA

Appian Corporation (“Appian”) appeals from a judgment of the Court of Appeals reversing a jury verdict in its favor against Pegasystems Inc. (“Pega”). Specifically, Appian asserts that the Court of Appeals erred in reversing the circuit court’s decisions regarding two jury instructions and several discovery/evidentiary issues. In addition to defending the Court of Appeals’ judgment on the errors alleged by Appian, Pega asserts cross-error, arguing that the Court of Appeals erred in affirming the denial of its motions to strike and set aside the verdict. For the reasons that follow, we affirm the judgment of the Court of Appeals.

I. BACKGROUND¹

Appian and Pega are software companies that create and sell business process management (“BPM”) platforms, “low-code” software that automates complex multi-step processes for businesses. Appian and Pega are “aggressively direct competitors[,]” often finding themselves competing for the same customers.

Although Pega had entered the BPM marketplace nearly two decades before Appian, by 2012, Appian had achieved higher rankings in certain industry ratings. Alan Treffler, Pega’s

¹ Portions of the record below were sealed by the circuit court. “To the extent that we mention facts found only in the sealed record, we unseal only those specific facts, finding them relevant to our decision in this case. The remainder of the previously sealed record remains sealed.” *Minh Duy Du v. Commonwealth*, 292 Va. 555, 560 n.3 (2016).

CEO, conceded that Appian's ascent in the ratings was upsetting, with other Pega employees contemporaneously describing the news as "catastrophic and unexpected."

A. Pega engages in corporate espionage

In February 2012, Pega's then-head of competitive intelligence, John Petronio, sought to improve Pega's industry standing vis-a-vis Appian. Petronio hired the professional staffing and solutions firm KForce to find and hire an "Appian Developer who has extensive experience with BPM Tools" to aid in a "competitive analysis project[.]" The prospective developer needed "access to [Appian's] systems" but "should not have worked directly for Appian." KForce's notes also included instructions from Petronio that KForce was to "make sure" that the developer was not "loyal" to Appian "because [Petronio] doesn't want it getting back to Appian that Pega is doing this work."

These recruitment efforts led Pega to Youyong Zou, a software developer employed at the time by Serco, a government contractor. Critically, Zou's role within Serco gave him access to Appian's BPM platform, which Serco licensed from Appian. As an employee of an Appian business partner, Zou also had access to Appian Forum, a password-protected website where Appian employees, customers, and business partners could access Appian product documentation, download Appian software, and participate in discussion threads regarding Appian products.

Zou started moonlighting as a consultant for Pega in early 2012. The purpose of his work for Pega was to get access to Appian's "software [and] documentation" and then pressure-test and conduct experiments within the platform in order to identify its strengths and weaknesses. Zou's status as an expert in Appian software, and more importantly his status as someone with access to Appian's documentation and software, made him valuable to Pega.

Zou's role as an outside contractor was key: Appian had no interest in sharing information regarding its platform with a direct competitor. Pega employees repeatedly acknowledged in depositions and at trial that Appian's "internal workings" were a "black box," Appian was "very guarded about their technology," and the company "would not have sold [Pega] a license" to use its software. As a result, in its internal communications, Pega characterized Zou as its Appian "spy."

Zou provided intelligence to Pega in three primary ways: (1) preparing video tutorials of himself building applications in Appian to assist Pega in "find[ing] weaknesses [Pega] can exploit" and strengths to incorporate in its products; (2) participating in live presentations with Pega employees to the same effect; and (3) downloading and sharing confidential Appian documentation saved in Appian Forum with Pega.

Appian identified numerous tutorial videos created by Zou to assist Pega. Zou's video presentations to Pega employees were geared toward demonstrating user experience and answering Pega employee questions, including by describing the architecture of Appian's social interface. Zou's presentations also involved visiting Pega's headquarters in Massachusetts twice to meet with senior leadership and other employees.

Pega went to great lengths to conceal Zou's identity during his presentations to Pega employees. Pega leadership "spent hours and hours removing (blurring) [Zou's] name from the videos" he had prepared and requested that he "change his name on the screen and the ownership of the assets (within Appian)" ahead of a presentation to keep himself anonymous. In fact, Pega employees often referred to Zou as "Matt" or "the other 'Matt'" internally—a tongue-in-cheek reference to Matt Calkins, Appian's CEO—to keep him from being "outed" as Pega's "spy."

The documentation Zou shared with Pega included Appian’s “High Availability and Disaster Recovery Configurations,” architecture diagrams that “reveal[ed] how Appian handle[d] high performance[,]” as well as key documentation relating to Appian’s mobile and social features. Petronio testified that “the information from Mr. Zou was folded into documents for sales, including internal strategy documents and external documents that they could . . . use with a customer or give to the customer.” Zou’s tutorials and Appian’s documents were “used to educate [Pega’s] sales teams and help them form competitive strategies[,]” and multiple Pega employees testified to the way Zou’s insights were parlayed into briefs deployed by Pega when competing against Appian.

Between 2013 and 2021, Pega was in direct competition with Appian over 200 times. A member of Pega’s sales team told others in 2013 that, “[i]f your team is competing against Appian anywhere, please get in touch with . . . John Petronio ASAP to get a briefing on where you should attack Appian[.]” Evidence at trial also established that Pega incorporated Appian’s internal information and processes into its own platform in order to improve it. As a result, Appian’s product change expert, Dr. Richard Marshall, identified “striking similarities” between the two companies’ products.

Zou continued his work for Pega until he lost access to Appian’s server in 2014. Despite the loss of its “spy,” Pega continued to attempt to access Appian’s systems surreptitiously. Specifically, Pega employees used aliases and non-Pega credentials to try to access Appian’s free trials. Pega’s own Chief Technology Officer conceded that such efforts were not appropriate and regretted his failure to take steps that would have prevented the activities.

Appian learned of Pega’s attempts at corporate espionage in 2020 from an ironic source. Petronio, who had been laid off by Pega in 2015, was hired by Appian, eventually becoming its

Senior Director of Market Intelligence and Strategy. In 2020, Petronio disclosed the work he had done at Pega with Zou to Appian’s counsel. Appian subsequently filed several claims against Pega and Zou, including claims for misappropriation of trade secrets under the Virginia Uniform Trade Secrets Act (“VUTSA”), Code § 59.1-336 *et seq.*²

B. The fruits of Pega’s corporate espionage

Dr. Marshall, Appian’s product change expert, identified “five illustrative improvements” in Pega’s platform that he traced back to information supplied to the company by Zou:

- (1) “smart services” – an invention that allows ordinary users to automatically carry out “complex, dynamic actions” without needing to know how to code;
- (2) “ease of editing” – a feature that allows programmers who make a mistake to “go straight back into the editing environment without having to go back through complex series of navigations”;
- (3) “custom data types” – a feature allowing developers to group related pieces of data together;
- (4) “out-of-the-box” social – an “innovative single interface” that brings “collaboration into the work context” and gives centralized access to work lists and tasks all in the same place; and
- (5) “out-of-the-box” mobile – a feature allowing applications to run on both desktop and mobile devices without additional coding or effort.

Although Pega might have known “what” these Appian features were, Zou provided the “how”—the “architecture and design behind that ‘what.’” At trial, Dr. Marshall walked the jury through each of these features, explaining what they were and how they had been implemented into Pega’s platform, tracking the changes between Pega software versions 6.3 and 7.1. From his

² Appian’s complaint also alleged violations of the Virginia Computer Crimes Act (“VCCA”) and included counts for tortious interference with Appian’s business expectancies, statutory business conspiracy, and common law conspiracy. All but the VUTSA and VCCA claims were resolved prior to the jury’s verdict.

review of Zou’s videos, the documentation Zou provided Pega, and Pega’s internal communications, Dr. Marshall concluded that Pega looked at the architecture of these Appian features to create Pega analogues that were then implemented into its own software, beginning with version 7.1.

Appian also argued that Zou’s information revealed product weaknesses that Appian did not want to be revealed to customers and that Pega incorporated into its marketing efforts when competing against Appian. Specifically, Dr. Eric Cole, one of Appian’s other experts, identified seven “weaknesses” as trade secrets: (1) concurrent development and locking of process model; (2) weak reporting tools and chart types available; (3) web services returning only a Process ID; (4) specifics on unified management tools available; (5) star schema/reporting on external data; (6) configuration and customization of checkpointing; and (7) topology specifics, including information from experimentation. As existing strategy documents were supplemented with the intelligence gathered by the spying efforts, a Pega employee exclaimed: “We should never lose against Appian!”

As noted above, Zou was able to download and share Appian documentation, such as the user manual, because of his access to Appian Forum. Appian Forum’s terms, however, did not allow those with access to share Appian’s proprietary information with competitors. In pertinent part, authorized users were informed:

Use of Documents

. . . You may download, view, copy, and print the Documents subject to the following: (a) the Documents may be used only for personal, informational, and non-commercial purposes, and (b) the Documents may not be modified or altered in any way. Except as set forth above, you may not use, download, upload, copy, print, display, perform, reproduce, publish, license, post, transmit, or distribute any Documents, in whole or in part, without Our express, prior written consent.

and

Use of Software

. . . Any Software You download or access through the Site is the copyrighted work of Appian or its licensors. Use of the Software is subject to the terms of the separate software license agreement between You and Appian which governs Your use of the Software (“Software License Agreement”) and which triggered Your receipt of a username and password to access the Site. To the extent you do not have a separate license agreement with Appian for the Software, you are prohibited from downloading, accessing or using the Software without Appian’s express prior written consent.

Dr. Cole testified that many of the documents on the Appian Forum were labeled “confidential”—as was the server *all* of the documents were housed in—and marked and controlled in a way indicating that they were trade secrets. Zou also was a signatory of Serco’s “Employee Proprietary and Confidential Information Agreement,” which included several provisions against sharing confidential information learned by Zou during his employment at Serco.³

C. Discovery and other disputes and their effect at trial

The hypercompetitive relationship between Appian and Pega was not limited to business dealings; it was evident in how the parties approached discovery and other pretrial obligations.

³ At trial, Pega offered evidence that Appian’s licensees were allowed to install Appian software in order to “[m]arket, promote and demonstrate the Appian Software to prospective customers.” These licensees—often playing the role of “resellers”—were not required to secure confidentiality agreements from prospective customers who received demonstrations, and these customers could take pictures and videos of the demonstrations provided by the licensees. The demonstrations, however, required supervision by the Appian business partner, who was “prohibited from offering potential customers unsupervised access to the Appian Software over the internet[.]” Customers could also apply for free trials from Appian, but were subject to “clickwrap” terms and conditions when registering for the trials. *See, e.g., Valiente v. Nexgen Global, LLC*, 2025 U.S. App. LEXIS 29465, at *18 (11th Cir. Nov. 10, 2025) (explaining that “[a] clickwrap agreement is created when users assent to terms by clicking a button near a disclosure referencing those terms” and that “a clickwrap agreement may be formed when . . . users are required to click on an ‘I agree’ box after being presented with a list of terms and conditions of use” of a website or software) (citing *Lamonaco v. Experian Info. Sols., Inc.*, 141 F.4th 1343, 1347 (11th Cir. 2025) and *Nguyen v. Barnes & Noble Inc.*, 763 F.3d 1171, 1175 (9th Cir. 2014)).

A review of the record reveals that the parties took aggressive positions in discovery, which led to multiple pretrial disputes resulting in several pretrial and trial rulings that are issues in this appeal.

1. The number of people with access to Appian's trade secrets

Rather than simply identifying the number of authorized users of its platform, Appian filed a motion *in limine* to exclude any evidence and argument regarding the distribution of licenses to the platform, arguing that “[t]he number of licenses that Appian distributed or the amount, if any, that Appian charged for licenses is irrelevant to any claims or defenses in this case.” Pega argued that the number of people who had access to Appian's platform through free trials was relevant to a trade secrets defense because it showed that Appian did not take reasonable measures to protect its so-called “secrets.” It proffered that, if allowed to explore this issue at trial, witnesses “would have testified that Appian's records reflect close to 45,000 registrations between 2012 and 2021 for Appian Forum; over 1,800 free trial registrations [between] 2012 and 2017; and over 12,000 [free trial] registrations between 2017 and 2020.”

The circuit court granted Appian's motion, ruling that “Pegasystems cannot offer mere numbers as a way of showing that . . . these are not Appian's trade secrets.” Pega was free to put into evidence testimony “concerning the security that Appian attached to its licensees[,]” but it could not “just offer sheer numbers as a way to show that Appian was not maintaining the secrecy of its alleged trade secrets.”

Throughout the trial, Appian and Pega repeatedly clashed over this ruling, with Appian objecting that Pega was eliciting testimony or presenting evidence that improperly went to the number of free licenses Appian offered. At an April 20, 2022 hearing on jury instructions, Appian offered a curative instruction, Jury Instruction 13-1: “The numbers of users of the

Appian platform and Appian Forum licensees are not relevant to any issue in this case, and any evidence as to those numbers should be disregarded.”

Appian argued that the instruction was necessary, despite the successful motion *in limine*, because “the jury still heard evidence of the number of licensees, the number of users of the Appian platform.” Pega disagreed, arguing that it was “unnecessary” and “not a neutral instruction.” Moreover, Pega “couldn’t find any support for an extraneous instruction like this one that talks about the number of users or the number of people who had access, instructing the jury not to consider that fact.” The circuit court gave the instruction.

2. Pega’s production of its software in discovery

The parties also clashed over the manner in which Pega produced its software pretrial, how Pega identified the software as an exhibit as required by the pretrial order, and whether the software could be shown to the jury. Central to Appian’s case was its claim that Pega had incorporated Appian’s trade secrets into software beginning with version 7.1, improving the software when compared to version 6.3, which predated Zou’s activities.

During discovery, Pega produced an 8-gigabyte laptop with the relevant software versions on it. In turn, Appian provided it to its expert, Dr. Marshall. When Dr. Marshall reviewed the various software versions (and subversions), he identified some “vagaries,” “limited corruption,” and “leftovers” in version 7.1.8 of Pega’s platform. Nonetheless, he was able to test “all of the key points” of the various versions, including the corrupted one. Dr. Marshall noted that the software Pega provided during discovery was “server software” not designed to run on an 8-gigabyte laptop; admitted that he had taken the software off of the production laptop and moved it to an external drive in order to conduct his analysis; and testified using demonstratives derived from material he reviewed from that external drive.

Consistent with its obligations under the pretrial order to identify exhibits prior to trial, Pega identified as an exhibit the software it had produced on the laptop in discovery. Specifically, Pega listed exhibits DX-1575 and DX-1576, “Pega Laptop Containing Version 6.3 and subversion (Physical Object)” and “Pega Laptop Containing Version 7.1 and subversions (Physical Object)[.]”

At trial, Pega sought to introduce copies of Pega software versions 6.3 and 7.1 during its cross-examination of Appian’s witness, Dr. Marshall. In doing so, Pega did not seek to use the laptop that it had produced in discovery, but rather, sought to use a different laptop. Appian objected on the grounds that the laptop Pega sought to use was not the same “[p]hysical [o]bject” as the laptop it had provided to Appian during discovery and there was no guarantee that it contained the same exact software that had been produced in discovery.

Appian argued that because Dr. Marshall had not examined Pega’s new laptop, he could not confirm that the software on it was the same as the software he had reviewed. If Pega had wanted to introduce a new laptop, it “had every opportunity to provide timely notice to set that up to take a notice of inspection, but given where we are now” in trial, Appian insisted that Pega should have to use the laptop it had produced in discovery. The circuit court agreed, sustaining Appian’s objection and requiring that Pega use the laptop it produced in discovery when cross-examining Dr. Marshall. Ultimately, that laptop, whether due to age, unsuitability for the function, or some other reason, proved inoperable. When Pega requested the option of substituting the software “for a more legible copy” the circuit court declined, saying: “No. We are done with this issue. We are going to bring the jury in and we’re going to get this case moving.”

This would not be the last time this issue arose, and Pega clashed both with Appian’s counsel and the circuit court on this topic several times before the trial was done. Pega offered to have one of its witnesses, Stephen Bixby, authenticate the software versions on the newer laptop on the stand. It proffered that Bixby—the development lead at Pega—would “testify about how that software is kept in the course of time and whether or not this is the same thing that was given to Dr. Marshall.” Moreover, Pega also proffered that Bixby would testify that he was responsible for the team that built the software and “would have shown the jury how the software existed in Version 6.3 versus 7.1, and explained why, in his percipient knowledge, the changes to the software had nothing at all to do with Mr. Zou’s input[.]”

The circuit court refused to allow Bixby to authenticate the software on the new laptop and again sustained Appian’s objection to Pega introducing the software, stating:

Let me make my position very, very clear because apparently Pega is not grasping it. That computer is not coming into evidence one way or another. It is not the same computer that was provided. If Pega wanted to use a computer in evidence, they should have provided one that worked a little bit better than apparently the one that was provided . . . that computer is not coming in to evidence. *The fact that this upcoming witness may be able to authenticate what’s on there, we’re not doing that. We’re not having a trial within a trial to authenticate that.* That’s something that should have been dealt with pre-trial during discovery.

(Emphasis added.)

The circuit court further noted that counsel was revisiting arguments that had been made before, and “[t]his case is dragging, and it’s dragging much more than it should.” When Bixby did take the stand, he was allowed to *testify* to aspects of Pega 6.3 and 7.1, but not to *demonstrate* those aspects to the jury using Pega’s software evidence.

3. Pega's discovery responses relating to damages

The parties also engaged in contentious discovery regarding any damage that Appian claimed to have suffered as a result of Pega's alleged theft of its trade secrets. Appian served Interrogatory #17, which sought information detailing the revenue Pega had received from identified customers over a specified time period, and Interrogatory #18, which reads:

Interrogatory No. 18: Identify all revenues received by Pegasystems for each fiscal year from 2012 through 2021 relating to Pega 6.3, Pega 7.0 and any subsequent version broken out by year and version of the software; and identify the costs and expenses Pegasystems incurred in order to realize those revenues.

In response, Pega filed an October 29, 2021 motion for a protective order, arguing that the interrogatories were part of an "improper effort to obtain in this case discovery unrelated to the claims pled in Appian's long-pending Complaint[.]" and instead related to a then-unapproved Amended Complaint. Appian filed a motion to compel Pega to answer Interrogatory #17, but did not move to compel a response to Interrogatory #18, noting instead in a footnote that Interrogatory #18 "is already before the Court on Pegasystems' motion for a protective order[.]" and it "expects a prompt response as to that interrogatory upon denial of Pegasystems' motion." At a November 4, 2021 hearing, Pega withdrew its motion for a protective order but not its objections to Interrogatory #17. After further back-and-forth, the circuit court entered a "CONSENT ORDER" on November 8, 2021, resolving Appian's motion to compel an answer to Interrogatory #17. The consent order provided "that Pegasystems' objections to Interrogatory are overruled. Pegasystems will fully answer Appian's Interrogatory 17 no later than November 15, 2021." The consent order made no mention of Interrogatory #18.

On November 15, 2021, Pega provided both objections and answers to Interrogatory #17 and Interrogatory #18. In its response, Pega continued to object to Interrogatory #18 as

“overbroad, unduly burdensome, and seeking irrelevant information”—claiming it “seeks information about ‘all revenues’ relating to certain products, not limited to those opportunities (if any) where Pegasystems allegedly used information obtained improperly to convince a particular customer to buy or license that Pegasystems product or service in preference to an Appian product.” The objection continues by noting that “Pegasystems derived revenue from the above products that was wholly unrelated to any competitive situation with Appian, and such revenue is not relevant to Appian’s claims.” Pega went on to respond to the Interrogatory with the following:

Notwithstanding the foregoing objections, Pegasystems will provide revenue information by producing data obtained from business records maintained in the ordinary course of its business pursuant to Va. Sup. Ct. R. 4:8(f).^[4] Pegasystems does not record or report revenue, or any associated costs and expenses incurred by Pegasystems, based on the “version” of the product sold (e.g., Pega 6.3, Pega 7.0). There is no mechanism or process by which Pegasystems is able to determine these revenue, cost and expense amounts. As a result, Pegasystems’ financial results (including

⁴ Rule 4:8(f) provides that

[w]here the answer to an interrogatory may be derived or ascertained from the business records, including electronically stored information, of the party upon whom the interrogatory has been served or from an examination, audit or inspection of such business records, or from a compilation, abstract or summary based thereon, and the burden of deriving or ascertaining the answer is substantially the same for the party serving the interrogatory as for the party served, it is a sufficient answer to such interrogatory to specify the records from which the answer may be derived or ascertained and to afford to the party serving the interrogatory reasonable opportunity to examine, audit or inspect such records and to make copies, compilations, abstracts or summaries. A specification must be in sufficient detail to permit the interrogating party to locate and to identify, as readily as can the party served, the records from which the answer may be ascertained. A specification of electronically stored information may be made under this Rule if the information will be made available in a reasonably usable form or forms.

total revenue and all associated costs and expenses) for each applicable fiscal year as reported to the SEC in Pegasystems' annual Form 10-K filings and quarterly Form 10-Q filings are attached as Schedule 3.

During trial, Pega attempted to adduce evidence that some of its revenue was earned from the sale of non-BPM platform products that had no connection to the alleged corporate espionage. Appian consistently objected to these attempts, arguing that, because Pega had provided its total corporate financial statements without any attempts at differentiation between products in its response to Interrogatory #18, Pega was precluded from offering such differentiation at trial. Appian buttressed its interpretation of the response to Interrogatory #18 with deposition testimony from Pega's CFO that the "Pega Platform" accounts for "90 percent or above" of Pega's revenue, and software applications and programs that are not tied to the Pega Platform are only a "small part" of Pega's business. Pega countered, arguing that Interrogatory #18 did not seek a revenue breakdown with respect to the different "end products" Pega produced, but rather, only asked for revenues related to two "versions" of Pega's BPM platform. The fact that Pega did not track revenue by version of a single product—its BPM platform—did not mean that it did not track revenue by product line.

The circuit court held that Pega's answer to Interrogatory #18, "strongly suggests . . . that the revenue related to these platforms is *the* revenue" at issue, and Pega could not "breakdown [its] revenue based on lines of business." (Emphasis added.) As a result, it had "essentially given up" any defense that it had earned significant revenue from non-BPM platform products. Pega proffered that if Appian's objection had been overruled, Pega CEO Alan Trefler would have testified that there were multiple non-BPM platform product categories at Pega; "more than 50 percent of Pega's revenue [was] derived from customers for these other products" during the relevant period; and Appian and Pega did not compete regarding these other products.

Additional testimony from Pega's CTO would have established that a portion of Pega customers "bought things that Appian didn't sell." Similarly, Simon Platt, Pega's damages expert, was prevented from testifying that Appian did not compete with Pega regarding certain Pega products and lines of business, and Pega was kept from pressing James Malackowski, Appian's damages expert, on whether his damages calculations included non-BPM platform products sold by Pega for which there was no connection to the alleged espionage.

4. Who bears what burden on damages

A final area of contention between the parties that is pertinent to this appeal revolved around the allocation of the burden of proof on damages. Drawing from the Restatement (Third) of Unfair Competition, § 45 cmt. f, Appian argued that while the burden of production initially lay with Appian to establish Pega's sales of products tainted by Pega's alleged misappropriation of trade secrets, the burden on damages should shift once that threshold showing had been made. Specifically, Appian contended that if the jury determined that Pega had sold tainted products, it became Pega's obligation to demonstrate that any portion of those sales should not be attributed to the misappropriation of trade secrets. Pega objected, arguing that Appian's position was essentially "proximate cause isn't required" and that Virginia law did not provide for burden-shifting in this scenario. The circuit court ultimately agreed with Appian and gave the jury

Instruction #14, which, in pertinent part, reads:

If you find that plaintiff Appian has proved by greater weight of the evidence its claim for misappropriation of trade secrets against defendant Pegasystems, you must find your verdict for Appian and decide the issue of damages as to Pegasystems. You may award the amount of unjust enrichment caused by misappropriation.

For unjust enrichment, Appian is entitled to recover Pegasystems' net profits. Appian has the burden of establishing by greater weight of the evidence Pegasystems' sales; *Pegasystems has the burden of establishing by greater weight of the evidence any*

portion of the sales not attributable to the trade secret or trade secrets and any expenses to be deducted in determining net profits.

(Emphasis added.)

At the close of trial—which ran for seven weeks—the jury found for Appian. It awarded Appian damages in the amount of \$2,036,860,045 from Pega and \$5,000 from Zou for the VUTSA violation. Pega moved to set aside the verdict, but the circuit court denied the motion.

Pega appealed to the Court of Appeals, first arguing that the circuit court erred in entering judgment on the jury’s verdict because the evidence was insufficient to establish that Pega had misappropriated the trade secrets of Appian. *Pegasystems Inc. v. Appian Corp.*, 81 Va. App. 433, 448-49 (2024). Alternatively, Pega contended that it was entitled to a new trial based on the circuit court erroneously granting Instruction #14 regarding burden-shifting, *id.* at 476, erroneously limiting the damages evidence Pega could offer based on the circuit court’s reading of Pega’s response to Interrogatory #18, *id.* at 488, erroneously prohibiting Pega from authenticating and introducing copies of its software at trial, *id.* at 492, and erroneously concluding that the total number of people who had access to the allegedly misappropriated trade secrets was “not relevant” to any issue in the case. *Id.* at 501.

In a detailed and thorough opinion, the Court of Appeals “reject[ed] Pega’s claim that Appian failed to establish misappropriation of any trade secret as a matter of law.” *Id.* at 507. However, the Court of Appeals ultimately reversed the judgment of the circuit court, concluding that the circuit court “erred in granting Instruction 14,” erred in limiting the damages evidence Pega could adduce based on Pega’s response to Interrogatory #18, erred in “refusing to permit Pega to attempt to authenticate its software evidence and, as a consequence, by excluding Pega’s software . . . on the basis that it was on a different laptop than provided in discovery[,]” and erred in instructing the jury that the number of people with access to Appian’s platform is “not

relevant” to the issues before the jury. *Id.* at 507-08. Accordingly, the Court of Appeals reversed the judgment of the circuit court and remanded the matter for a new trial on Appian’s VUTSA claims. *Id.* at 508.

Appian filed a petition for appeal in this Court. Appian asserts that the Court of Appeals erred in concluding that the circuit court erred in: (1) giving Instruction #14; (2) excluding certain evidence as a result of Pega’s response to Interrogatory #18; (3) precluding Pega from authenticating versions of its software by means other than the laptop it had produced in discovery thereby preventing the software’s admission at trial; and (4) giving Instruction #13-1 informing the jury that the number of people with access to Appian’s alleged trade secrets was irrelevant to any issue before the jury. Pega advanced assignments of cross-error, effectively asserting that Appian had failed to establish that any trade secrets had been misappropriated, and therefore, both the circuit court and the Court of Appeals had erred in their conclusions regarding Pega’s motions to strike and to set aside the verdict. Having granted review on both parties’ assignments of error, we now address their respective arguments.

II. ANALYSIS

A. Standard of review

“Armed with a jury verdict approved by the circuit court,” Appian “occupies the ‘most favored position known to the law.’” *RGR, LLC v. Settle*, 288 Va. 260, 283 (2014) (quoting *Bennett v. Sage Payment Solutions, Inc.*, 282 Va. 49, 54 (2011)). Accordingly, Appian “is entitled to have the evidence, and all the inferences that may reasonably be drawn from it, viewed in the light most favorable to” it. *Norfolk Southern Ry. Co. v. Sumner*, 297 Va. 35, 47 (2019). Therefore, as to factual questions, we presume the judgment below to be correct and are

bound by it “unless it is plainly wrong or without evidence to support it.” *Dixon v. Sublett*, 295 Va. 60, 66 (2018) (internal quotation marks and citation omitted).

We also owe deference to the circuit court regarding its decisions about the admission or rejection of evidence and regarding any limitations it imposed upon a party as a result of how that party met (or failed to meet) its discovery obligations, including compliance with the pretrial scheduling order. We may only disturb such rulings if they constitute an abuse of discretion. *See, e.g., Palmyra Assocs., LLC v. Commissioner of Hwys.*, 299 Va. 377, 384 (2020) (applying abuse of discretion standard to a circuit court’s decision to admit or exclude evidence); *Galloway v. City of Northampton*, 299 Va. 558, 563 (2021) (applying abuse of discretion standard to issues related to discovery/pretrial order compliance). The abuse of discretion standard recognizes that a decisionmaker has been granted “a range of choice,” and we will not set aside that choice “unless the court’s discretionary decision exceeded the outermost limits of the range of choice available.” *Palmyra Assocs.*, 299 Va. at 384 (internal quotation marks and citations omitted). In general, a circuit court abuses its discretion by failing to consider “a relevant factor that should have been given significant weight”; by considering “an irrelevant or improper factor” and giving that factor “significant weight”; or “when all proper factors, and no improper ones are considered” but the circuit court’s weighing of those factors constitutes “a clear error of judgment.” *AV Auto., LLC v. Gebreyessus*, 301 Va. 321, 329 (2022) (quoting *Galiotos v. Galiotos*, 300 Va. 1, 11 (2021)).

We owe no deference, however, to a circuit court’s resolution of questions of law. *See Commonwealth v. Holman*, 303 Va. 62, 70 (2024) (citing *Amin v. County of Henrico*, 286 Va. 231, 235 (2013)). “[W]hether a jury instruction accurately states the relevant law is a question of law[.]” *Hawthorne v. VanMarter*, 279 Va. 566, 586 (2010). Accordingly, we review *de novo*

whether the challenged jury instructions given by the circuit court were accurate statements of Virginia law. *Id.*

B. The evidence was sufficient to support Appian’s claim that Pega misappropriated Appian’s trade secrets

In its assignments of cross-error, Pega asserts that its motions to strike and set aside the verdict should have been granted because the evidence failed to establish that Appian’s trade secrets were misappropriated. Specifically, Pega argues that Appian failed to identify with sufficient specificity its alleged trade secrets, failed to establish that the “alleged trade secrets qualified as trade secrets” under VUTSA, and failed to establish that it “took reasonable efforts to maintain the secrecy of its alleged trade secrets[.]” Both the circuit court and the Court of Appeals rejected these arguments. For the reasons that follow, we agree with the lower courts and affirm the judgment of the Court of Appeals regarding Pega’s assignments of cross-error.

1. Trade secrets under VUTSA

For the purpose of VUTSA, a “trade secret” is any

information, including but not limited to, a formula, pattern, compilation, program, device, method, technique, or process, that:

1. Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and
2. Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Code § 59.1-336.

The statutory definition of “trade secret” that the General Assembly adopted in VUTSA is a broad one extending “far beyond the layperson’s conception of secret formulas.” 1 Kent Sinclair, *Virginia Remedies* § 29-1[A] (5th ed. 2024). By the unambiguous terms of Code

§ 59.1-336, a “trade secret” includes *any* information that provides actual or potential economic value to those who rightfully possess it and that is not “readily ascertainable” through legitimate means by others “who can obtain economic value from . . . disclosure or use” of the information, so long as the rightful possessor of the information has taken “reasonable” steps under the circumstances to maintain the secrecy of the information.

Reasonable minds may differ as to whether a particular piece of information provides actual or potential economic value to its owners, whether such information is publicly available, or whether those seeking the information for their own benefit are required to use improper means to obtain it. Code § 59.1-336.

Similarly, reasonable minds may differ as to whether a piece of information is “secret” for the purposes of VUTSA. Although we have recognized that “[t]he crucial characteristic of a trade secret is secrecy,” we also have recognized that such “secrecy need not be absolute; the owner of a trade secret may, without losing protection, disclose it to a licensee, an employee, or a stranger, if the disclosure is made in confidence, express or implied.” *Dionne v. Southeast Foam Converting & Packaging, Inc.*, 240 Va. 297, 302 (1990) (citing *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 475 (1974)). Determining whether the owner of information has engaged in “efforts that are reasonable under the circumstances to maintain its secrecy[,]” Code § 59.1-336, will depend on the specific facts.

As a result, whether a piece of information constitutes a trade secret under VUTSA “often is not obvious and” will “require[] an ad hoc evaluation of all the surrounding circumstances. For this reason, the question of whether certain information constitutes a trade secret ordinarily is best resolved by a fact finder after full presentation of evidence from each side.” *MicroStrategy Inc. v. Li*, 268 Va. 249, 264 (2004) (internal quotation marks and citations

omitted). Accordingly, “the determination whether a trade secret exists ordinarily presents a question of fact to be determined by the fact finder from the greater weight of the evidence.” *Id.*

2. Rational jurors could conclude that Pega misappropriated trade secrets

Pega contends that Appian failed to identify sufficiently the trade secrets allegedly stolen and that the information it learned from its efforts was not, in fact, a trade secret. Given the deference we owe the jury’s verdict, *Settle*, 288 Va. at 283, Pega has a heavy burden on appeal. Pega can prevail on its motion to strike/motion to set aside the verdict arguments only if, after we view “the evidence . . . and all the inferences that may reasonably be drawn from it . . . in the light most favorable to” Appian, *Sumner*, 297 Va. at 47, no rational jury could have concluded as this jury did.

At the outset, it is important to recognize that, even though the two companies here are software companies, the trade secrets at issue did not have to be a specific line or lines of computer code. VUTSA applies to *any* information that meets the statutory definition, whether that be computer code, a marketing plan, or even undisclosed and not publicly ascertainable strengths and weaknesses of a product.

Here, the evidence at trial was sufficient to identify the information that Appian claimed Pega misappropriated. Both Dr. Marshall and Dr. Cole testified to specific information about how Appian’s platform worked and its weaknesses that was obtained by Zou and then disclosed to Pega. As the Court of Appeals correctly summarized, this testimony and other evidence specifically identified “(1) functions of Appian’s platform that Appian accused Pega of copying; (2) knowledge relating to weaknesses of Appian’s platform which Pega used to its own advantage; and (3) access to Appian’s confidential documentation such as its user manual which assisted Pega in copying Appian’s strengths and exploiting its weaknesses.” *Pegasystems*, 81

Va. App. at 452. Although not as specific as a particular line of computer code, Appian's allegations and the evidence at trial were sufficient to identify the pieces of its valuable information that it contended constituted trade secrets and that were misappropriated by Pega.

Turning to Pega's contention that the information identified by Appian did not constitute trade secrets, the question is whether a rational factfinder could have concluded from the evidence that the information was a trade secret under VUTSA. The first part of that inquiry required the jury to determine whether Appian "[d]erive[d] independent economic value, actual or potential, from" the information "not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use[.]" Code § 59.1-336.

Although other evidence also supports the jury's determination that the information at issue fell within this statutory definition, the actions and statements of Pega itself provided a sufficient basis for concluding that the information did so. It is undisputed that Pega hired what it described as a "spy" in Zou, went to great lengths to conceal his identity, utilized the information he provided for its own financial benefit, and, when he lost access, engaged in efforts to trick Appian into granting it access to the information through its employees' use of aliases and non-Pega credentials. It is not much of an inference to conclude that Pega would not have engaged in such activities if the information did not have economic value to both Appian and Pega.⁵ Similarly, it is not an impermissible logical leap for a factfinder to conclude that

⁵ Standing alone, a Pega employee stating that, once Pega possessed Zou's information, it "should never lose against Appian" for a contract again provides a sufficient basis for a rational jury to conclude that the information provided actual or potential economic value to both companies.

Pega would not have engaged in the undisputed acts of corporate espionage for information that was “readily ascertainable” by it without the need to employ improper means.⁶

Pega next contends that the information could not constitute a trade secret under VUTSA because Appian did not take sufficient steps to protect the information. Specifically, Pega argues that the information ceased to be a potential trade secret because “Appian broadly exposed its BPM platform—and thus every capability it now claims is secret—to thousands of developers and countless prospective customers” without obtaining express contractual assurances that those with access would not share the information. According to Pega, by sharing the information and not requiring such express contractual assurances, “Appian extinguished any trade-secret protection it may have had as a matter of law.” We disagree.

Although VUTSA does require the entity claiming trade secret protection to have taken steps to maintain the secrecy of the information, the language of the statute and our prior cases make clear that such secrecy need not be absolute. As we previously have explained, the holder of a trade secret “may, without losing protection, disclose it to a licensee, an employee, or a stranger, if the disclosure is made in confidence, *express or implied*.” *Dionne*, 240 Va. at 302 (emphasis added). Thus, merely sharing information with others does not preclude it from being a trade secret. Similarly, the failure to obtain express assurances from those with whom the

⁶ VUTSA defines “improper means” as including “theft, bribery, misrepresentation, use of a computer or computer network without authority, breach of a duty or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means.” Code § 59.1-336. On appeal, Pega does not expressly challenge that it used improper means to obtain Appian’s information, so we need not explore the outer limits of the statutory definition. Suffice it to say that a reasonable jury could conclude that Pega hiring someone it characterized as its corporate “spy” and engaging in other efforts that its own CTO conceded were inappropriate falls well within the definition.

information is shared is unnecessary to maintain trade secret protection so long as the facts and circumstances imply that the information is to be held in confidence.

The statute only requires that the holder of the trade secret engage in “efforts that are *reasonable* under the circumstances to maintain its secrecy.” Code § 59.1-336 (emphasis added). As a leading commentator has observed, by adopting the reasonableness standard, the General Assembly made clear that VUTSA requires neither “bank vault” nor “‘armed guard’ style protection” to maintain trade secret protection. 1 Kent Sinclair, *Virginia Remedies* § 29-1[A] (5th ed. 2024). The efforts to maintain secrecy need only be reasonable. Whether efforts are reasonable in a given set of circumstances generally is a jury question. *Cf. Johnson v. Wilmoth*, 209 Va. 82, 85 (1968); *Merchants & Miners Transp. Co. v. L. J. Upton & Co.*, 127 Va. 406, 412 (1920).

Here, the evidence demonstrated that Appian took at least some efforts to maintain the secrecy of its information. For example, the terms of use for people given access to the Appian Forum limited what users could do with the information obtained, and a reasonable juror reviewing those terms of use could conclude the terms prohibited Zou’s disclosures here. Furthermore, as Dr. Cole testified, many of the documents on the Appian Forum were labeled “confidential”—as was the server all of the documents were housed in—and marked and controlled in a way indicating that they were trade secrets. Jurors also learned that Appian relied on confidentiality agreements, such as the one between Serco and Zou, that its customers had with their employees who had access to Appian’s information. Furthermore, those who accessed Appian’s software through free trials were subject to “clickwrap” terms and conditions that limited their use or misuse of the information obtained.

The jury concluded from this and other evidence that Appian had taken reasonable steps to keep its information secret within the meaning of VUTSA. As the Court of Appeals noted, this conclusion finds support in the efforts engaged in and the difficulties encountered by Pega in attempting to access the information. *Pegasystems*, 81 Va. App. at 470. The jury reasonably could conclude that Appian had engaged in “efforts that are reasonable under the circumstances to maintain [the] secrecy” of the information at issue, Code § 59.1-336, from the fact that Pega needed to engage in elaborate and improper methods to access the information. Accordingly, the evidence was sufficient to support the jury’s conclusion that Pega misappropriated Appian’s trade secrets, and therefore, we affirm the Court of Appeals’ conclusion that the circuit court correctly denied Pega’s motions to strike and set aside the verdict.⁷

C. The circuit court erred by instructing the jury that Pega bore any burden of proof regarding Appian’s damages claim

At Appian’s request, the circuit court granted Instruction #14 to guide the jury in making its damages determination. The instruction directed the jury that, in determining any damages as a result of Pega’s misappropriation of Appian’s trade secrets, “Appian ha[d] the burden of establishing by greater weight of the evidence Pegasystems’ sales[,]” but that Pega bore the “burden of establishing by greater weight of the evidence any portion of the sales not attributable to the trade secret or trade secrets and any expenses to be deducted in determining net profits.”

⁷ In doing so, we reiterate that the existence of a trade secret under VUTSA and whether a trade secret has been misappropriated represent questions of fact that, in general, are to be resolved by the factfinder. *MicroStrategy*, 268 Va. at 264. Our conclusion that the evidence adduced at trial was sufficient to support the jury’s verdict does not suggest that the evidence compelled that result or that another jury faced with the same evidence necessarily would have reached the same verdict. Rather, we only conclude that, viewing the evidence in the light most favorable to Appian and granting Appian all reasonable inferences that flow from such a view of the evidence, *Sumner*, 297 Va. at 47, the jury’s determination was neither “plainly wrong [n]or without evidence to support it.” *Dixon*, 295 Va. at 66.

The instruction entitled Appian, once it had established that Pega had misappropriated trade secrets and had sales, to all of Pega's sales revenue as damages unless Pega could convince the jury that the sales were unrelated to the misappropriation or were otherwise offset by expenses related to running the company. In effect, Pega was given the burden of proving that portions of its raw sales figures did not represent profits tied to the misappropriation, and thus, did not represent unjust enrichment as a result of Pega's misdeeds.

The Court of Appeals concluded that Instruction #14 was not an accurate statement of Virginia law. For the following reasons, we agree with the Court of Appeals that Instruction #14 was not an accurate statement of Virginia law and that the circuit court erred in giving it.

1. The common law burden of proof on damages and its significance⁸

It long has been a fundamental precept of Virginia law that a plaintiff bears the burden of proving both that he has been harmed by the defendant's wrongful act and that the defendant's wrongful act proximately caused the damages the plaintiff seeks to recover. *See, e.g., Banks v. Mario Indus.*, 274 Va. 438, 455 (2007); *Saks Fifth Ave., Inc. v. James, Ltd.*, 272 Va. 177, 190 (2006); *Shepherd v. Davis*, 265 Va. 108, 125 (2003); *Hale v. Fawcett*, 214 Va. 583, 585 (1974). This concept in Virginia dates to English common law, which required a plaintiff to prove the amount of his damages if he sought anything more than nominal damages. As the Supreme Court of Georgia, with citations to English cases, recently summarized:

a plaintiff at common law had to prove to a sufficient certainty the amount of money that would satisfy that harm. *See Kendrick v. Bartland*, 86 Eng. Rep. 1056, 1056 (2 Mod. 253) (Com. Pl. 1660) (“[The plaintiff] shall have damages for what he can prove[.]”); *Gardiner v. Croasdale*, 97 Eng. Rep. 625, 627 (2 Burr. 904) (KB

⁸ Remedies tied to unjust enrichment damages were well known when the English common law was received in Virginia. *See generally The Intellectual History of Unjust Enrichment*, 133 Harv. L. Rev. 2077 (2020) (tracing the remedy from the Roman civil law through the English courts of law and chancery and, ultimately, to American law).

1760) (“[I]n an action for damages, the plaintiff is to recover his damages, according to his proof[.]”); *Robey v. Howard*, 171 Eng. Rep. 734, 734 (2 Stark. 555) (KB 1819) (“[I]t was incumbent on the plaintiff to prove his damages.”).

Walmart Stores East, LP v. Leverette, 917 S.E.2d 702, 708 (Ga. 2025).

That this long-standing Virginia principle originates in the common law is significant to our resolution of this appeal. Code § 1-200 provides that “[t]he common law of England, insofar as it is not repugnant to the principles of the Bill of Rights and Constitution of this Commonwealth, shall continue in full force within the same, and be the rule of decision, except as altered by the General Assembly.” Accordingly, Virginia courts are not at “liberty to simply disagree with English common law.” *White v. United States*, 300 Va. 269, 278 (2021). If the common law is to be changed, the task belongs to the legislature.⁹ See *Robinson v. Matt Mary Moran, Inc.*, 259 Va. 412, 417-18 (2000).

Because the power to alter common law precepts belongs to the legislature, we may not infer such changes absent the General Assembly adopting language demonstrating that it intended to depart from the common law. “Abrogation of the common law requires that the General Assembly plainly manifest an intent to do so.” *Tvardek v. Powhatan Vill. Homeowners Ass’n*, 291 Va. 269, 276 n.4 (2016) (quoting *Linhart v. Lawson*, 261 Va. 30, 35 (2001)). When the General Assembly enacts a statute, the enforcement of which implicates common law processes and concepts, such as the burden of proof in a suit for damages, the statutory language

⁹ Because of Virginia’s steadfast and explicit commitment to the concept of the separation of powers, see Va. Const. Art. I, § 5 and Art. III, § 1, our deference to the General Assembly’s prerogative in this realm long has been understood to contain a constitutional dimension as well. See 1 St. George Tucker, *Blackstone’s Commentaries: With Notes of Reference to the Constitution and Laws, of the Federal Government of the United States; and of the Commonwealth of Virginia*, Editor’s App. Note E, at 405 (1803) (“In Virginia, it would be a violation of the constitution for the *courts* to undertake to supply all defects of the common law not already supplied by statute. That is the exclusive province of the *legislature*.”).

“must . . . be read along with the provisions of the common law, and the latter will be read into the statute unless it clearly appears from express language or by necessary implication that the purpose of the statute was to change the common law.” *Wicks v. City of Charlottesville*, 215 Va. 274, 276 (1974). Thus, absent a clear manifestation of the General Assembly’s intent to alter a plaintiff’s burden of proof in a suit brought under VUTSA, the burden of proof on damages remains with the plaintiff and the circuit court erred in instructing the jury otherwise.¹⁰

2. VUTSA’s damages provision

Damages under VUTSA are governed by Code § 59.1-338. In pertinent part, that section provides that:

a complainant is entitled to recover damages for misappropriation. Damages can include both the actual loss caused by misappropriation and the unjust enrichment caused by misappropriation that is not taken into account in computing actual loss. If a complainant is unable to prove a greater amount of damages by other methods of measurement, the damages caused by misappropriation can be measured exclusively by imposition of liability for a reasonable royalty for a misappropriator’s unauthorized disclosure or use of a trade secret.

Code § 59.1-338(A). By its express terms, the statute allows a successful VUTSA plaintiff, identified in the statute as “a complainant,” to recover “the actual loss caused by misappropriation and the unjust enrichment caused by misappropriation that is not taken into

¹⁰ In reaching our conclusion, we acknowledge that the General Assembly did intend to alter the common law in some respects when it adopted VUTSA. Code § 59.1-341 provides that, subject to certain exceptions, VUTSA “displaces conflicting tort, restitutionary, and other law of this Commonwealth providing civil remedies for misappropriation of a trade secret.” Thus, VUTSA generally preempts common law causes of action that are based on the misappropriation of a trade secret. This preemption, however, is of the causes of action themselves, not the manner in which any particular cause of action is proved. Because nothing in VUTSA suggests that the General Assembly intended VUTSA to alter the burden of proof for one seeking damages, the common law rule regarding the burden of proof on damages remains in effect. *Wicks*, 215 Va. at 276.

account in computing actual loss” or “a reasonable royalty for a misappropriator’s unauthorized disclosure or use of a trade secret.” No language in Code § 59.1-338 suggests that the General Assembly intended to displace the default, common law rule that a plaintiff bears the burden of proof on damages.

To the contrary, as the Court of Appeals observed, the words of the statute strongly suggest that, as at common law, a VUTSA plaintiff bears the burden of proof on damages without any burdens being shifted to the defendant. *Pegasystems*, 81 Va. App. at 479-80. The language providing for an alternative measure of damages if “a complainant,” i.e., the plaintiff, “is *unable to prove* a greater amount of damages by other methods of measurement,” Code § 59.1-338 (emphasis added), leaves little doubt that the plaintiff has the burden to prove damages. Otherwise, his inability to do so would not require an alternative measure of damages. By providing royalties as an alternative measure of damages when a plaintiff is unable to prove the true amount of his actual loss or unjust enrichment damages, the General Assembly did not shift the burden of proof regarding any aspect of a VUTSA damages claim; rather, it left it where it lay—with the plaintiff.

3. UTSA and the Restatement (Third) of Unfair Competition do not alter our conclusion

Given the lack of language in VUTSA supporting its burden-shifting argument, Appian must convince us that such burden-shifting is necessarily implied by VUTSA. *Wicks*, 215 Va. at 276. Its attempts to do so focus on VUTSA being based on the model Uniform Trade Secrets Act (“UTSA”), which Appian contends incorporates a comment to the Restatement (Third) of Unfair Competition.

a. UTSA

There is no dispute that, when the General Assembly enacted the statute in 1986, VUTSA was based on the 1985 model UTSA statute promulgated by the Uniform Law Commission.

Section 3 of the 1985 version of UTSA addresses damages and provides that

[e]xcept to the extent that a material and prejudicial change of position prior to acquiring knowledge or reason to know of misappropriation renders a monetary recovery inequitable, a complainant is entitled to recover damages for misappropriation. Damages can include both the actual loss caused by misappropriation and the unjust enrichment caused by misappropriation that is not taken into account in computing actual loss. In lieu of damages measured by any other methods, the damages caused by misappropriation may be measured by imposition of liability for a reasonable royalty for a misappropriator's unauthorized disclosure or use of a trade secret.

Unif. Trade Secrets Act. § 3(a) (Unif. L. Comm'n 1985).

Even accepting Appian's premise that, despite the absence of any express burden-shifting language, the 1985 version of UTSA implicitly shifts a portion of the burden of proof on damages to a defendant, it does not follow that VUTSA also contains such an implicit reordering of the burden of proof.

First, UTSA, unlike VUTSA, was not adopted against the backdrop of Virginia's express adoption of the common law. Code § 1-200. Therefore, UTSA does not carry the same presumption that common law principles and precepts "will be read into the statute unless it clearly appears from express language or by necessary implication that the purpose of the statute was to change the common law." *Wicks*, 215 Va. at 276.

Second, and perhaps more importantly, in adopting VUTSA the General Assembly made the conscious choice *not* to adopt the damages provision contained in the 1985 version of UTSA verbatim. Although both acts contain provisions providing for the payment of a royalty for a

misappropriated trade secret, the language implementing those provisions is markedly different. UTSA, without reference to the complainant or his inability to prove damages by other methods, provides that “[i]n lieu of damages measured by any other methods, the damages caused by misappropriation may be measured by imposition of liability for a reasonable royalty for a misappropriator’s unauthorized disclosure or use of a trade secret.” Unif. Trade Secrets Act § 3(a) (Unif. L. Comm’n 1985). In stark contrast, the language of VUTSA ties the availability of royalty damages to a plaintiff’s inability to prove the true amount of his damages by other measures, providing: “*If a complainant is unable to prove a greater amount of damages by other methods of measurement*, the damages caused by misappropriation can be measured exclusively by imposition of liability for a reasonable royalty for a misappropriator’s unauthorized disclosure or use of a trade secret.” Code § 59.1-338 (emphasis added).

As the Court of Appeals correctly observed, the General Assembly’s deviation from the language of the model act is significant. *Pegasystems*, 81 Va. App. at 480. When the General Assembly “deviates from a model, uniform act to add language, we effectuate this ‘deliberate and intentional’ choice.” *Id.* (quoting *Commonwealth, Dep’t of Taxation v. Champion Int’l Corp.*, 220 Va. 981, 992 (1980)). Thus, even assuming that the model act implicitly shifts a portion of the burden of proof when certain prerequisites are met, the different language the General Assembly adopted precludes such an interpretation of VUTSA.

b. Restatement (Third) of Unfair Competition

In its attempt to convince us that Code § 59.1-338 implicitly shifts a portion of the burden of proof on damages to a defendant, Appian also relies upon the Restatement (Third) of Unfair Competition. To determine unjust enrichment damages in trade secret cases, a comment to the Restatement opines that a “plaintiff has the burden of establishing the defendant’s sales; the

defendant has the burden of establishing any portion of the sales not attributable to the trade secret and any expenses to be deducted in determining net profits.” Restatement (Third) of Unfair Competition § 45 cmt. f (Am. L. Inst. 1995). Appian argues that, electing to embrace the view of the Restatement, “[t]he overwhelming majority of other States, many interpreting similar statutes also modeled off the model Uniform Trade Secrets Act, have adopted the burden-shifting framework” embodied in Instruction #14. Appian also relies upon the amicus brief filed by Professor Harvey Perlman, who, in 1989, was appointed by the American Law Institute as one of two Co-Reporters for the Restatement (Third) of Unfair Competition. Although we respect our sister states and the work of both the American Law Institute and Professor Perlman, the views each expresses in and about the Restatement (Third) of Unfair Competition alters neither the text of VUTSA nor the presumption we must follow regarding the common law.

In his amicus brief, Professor Perlman makes a cogent, policy-based argument explaining why the Restatement comment champions adopting a burden-shifting framework. He notes that it often will be difficult, if not impossible, for a plaintiff to learn enough about a defendant’s internal financial workings to prove the exact amount of unjust enrichment. He concludes that a burden-shifting framework, such as was adopted by the circuit court here, is appropriate because it “accords with the general principle that a burden is imposed on the party best able to present the evidence.”

Given our task, the argument misses the mark. To the extent that policy considerations augur in favor of a burden-shifting framework, that is a choice to be made by the General Assembly, not this Court. *See, e.g., Riner v. Commonwealth*, 268 Va. 296, 321 (2004) (recognizing that changes to common law principles based upon public policy arguments are the province of the General Assembly).

As noted above, the text adopted by the General Assembly is inconsistent with the Restatement position advanced by Appian and Professor Perlman.¹¹ The statutory language, providing that a royalty remedy may be utilized “[i]f a complainant is unable to prove a greater amount of damages by other methods of measurement,” Code § 59.1-338, recognizes that the plaintiff bears the burden of proof. It does so while simultaneously recognizing the issue identified by Professor Perlman, that it may be difficult, if not impossible, for a plaintiff to prove unjust enrichment damages. Aware of the potential problem, the General Assembly elected to provide the alternative remedy of a royalty rather than adopt the burden-shifting method preferred by the Restatement, Professor Perlman, and Appian.

For the foregoing reasons, we conclude that the General Assembly did not, explicitly or implicitly, adopt a burden-shifting framework regarding proof of damages when it adopted VUTSA. As a result, Instruction #14 is not an accurate statement of law on the burden of proof

¹¹ Given that our task is to interpret Code § 59.1-338, we find it significant that Professor Perlman does not quote the actual text of Code § 59.1-338 in his amicus brief. We note that a focus on the actual statutory text led a leading academic commentator on Virginia remedies to conclude that the plaintiff bears the burden of proof on damages. *See* 1 Kent Sinclair, *Virginia Remedies* § 29-3[A] (5th ed. 2024). Focused on the text of the Virginia statute and without a mention of burden-shifting, Professor Sinclair concludes that under VUTSA,

[a] plaintiff has the burden to show with reasonable certainty the amount of [its] damages and the cause from which they resulted, [i.e., misappropriation of its trade secret]; speculation and conjecture cannot form the basis of the recovery. In order to make that showing, the plaintiff is thus required to demonstrate a causal connection between the defendant[s’] wrongful conduct and the damages asserted. Furthermore, *the plaintiff must establish the amount of those [alleged] damages by using a proper method and factual foundation for calculating damages.*

Id. (internal quotation marks, footnotes, and citations omitted) (emphasis added).

on damages, and the circuit court erred in giving that instruction to the jury. Accordingly, we affirm the judgment of the Court of Appeals regarding Instruction #14.

D. The circuit court erred in limiting Pega's damages evidence based on the response to Interrogatory #18

Appian argues that the Court of Appeals erred in reversing the circuit court's ruling preventing Pega from arguing that any portion of its gross revenue was not tied to the sales of BPM platform products. Appian contends that the circuit court acted within its considerable discretion when it ruled that Pega's response to Interrogatory #18 meant that it had "essentially given up" any defense that it earned significant revenue from non-BPM platform products. Although we agree with Appian that a circuit court has considerable discretion in making determinations regarding compliance with discovery and the admissibility of evidence, we agree with the Court of Appeals that the circuit court abused its discretion in ruling as it did here.

If the evidence Pega sought to introduce directly contradicted a discovery response, both Appian and the circuit court would stand on much firmer ground. As the Court of Appeals noted, however, the evidence that Pega sought to introduce did not contradict Pega's response to Interrogatory #18.

By the express language of Interrogatory #18, Appian sought an annualized revenue and cost breakdown "from 2012 through 2021 relating to Pega 6.3, Pega 7.0 and any subsequent version broken out by year and version of the software[.]" Interrogatory #18 does not request information regarding revenues Pega may have realized from other product lines or products that did not involve the specific versions of the software mentioned. This is not a distinction without a difference. As the Court of Appeals observed, Interrogatory #18 requested information "about 'versions' of a specific product: Pega's software. Reporting that Pega does not track revenue by software versions is not tantamount to asserting that Pega sells no other products or that Pega

does not track revenue by product or by lines of business.” *Pegasystems*, 81 Va. App. at 489. Because the question was limited to revenue from specific software versions, the circuit court abused its discretion in concluding that the interrogatory response precluded Pega from offering relevant revenue information about the sale of other products and product lines that—although potentially relevant on the question of damages—was not responsive to Interrogatory #18.

Appian challenges the distinction drawn by the Court of Appeals, noting that Pega elected to produce its “financial results (including total revenue and all associated costs and expenses) for each applicable fiscal year as reported to the SEC in Pegasystems’ annual Form 10-K filings and quarterly Form 10-Q filings” in response to Interrogatory #18. Appian argues that this represented a warranty that all of Pega’s revenues were related to the software mentioned and that it learned that Pega claims to derive revenue from other products “for the first time at trial[.]” We find neither argument persuasive.

The argument that Pega’s response to Interrogatory #18 effectively warranted that all its corporate revenue came from the sale of the mentioned software might have more purchase if Pega had simply produced its 10-K and 10-Q filings without saying anything more. The response, however, was not simply a production of those documents. Rather, Pega objected to Interrogatory #18. In its lengthy objection, which referenced the sale of items containing the software as distinct “products,” Pega also asserted that the interrogatory was “overbroad, unduly burdensome, and seeking irrelevant information.” As noted by the Court of Appeals, Appian did not challenge the objection or move to compel a response. *Pegasystems*, 81 Va. App. at 490.

Furthermore, Appian’s contention that it learned that Pega claimed to have revenue from products unrelated to the mentioned software “for the first time at trial” is belied by the record. As the Court of Appeals noted, “long before trial Pega’s damages expert . . . submitted a report

[to Appian] breaking out revenue attributable to various products[,]” 81 Va. App. at 489, leaving no doubt that Pega claimed to sell products that did not involve the software mentioned in Interrogatory #18. Although a party may not use an expert report to effectively amend prior discovery responses and introduce new theories into a case that are contradicted by the party’s prior discovery responses, the information here did not contradict the interrogatory response. To the extent that Appian actually believed that Pega was changing theories midstream and had abandoned what Appian understood the response to Interrogatory #18 to mean, it should have taken action. It did not do so.¹²

In concluding that the circuit court abused its discretion in how it enforced its interpretation of Pega’s response to Interrogatory #18, we do not, in any way, depart from our long-held view that circuit courts enjoy considerable discretion in making determinations regarding compliance with discovery and the admissibility of evidence tied to that compliance (or lack thereof). *See, e.g., Martin & Martin v. Bradley Enters.*, 256 Va. 288, 292-93 (1998). Rather, given these specific circumstances and the fact that Pega’s response to Interrogatory #18 is not contradicted by the information Pega sought to introduce, we only conclude that the decision of the circuit court, which effectively denied Pega the ability to put on its damages defense, “exceeded the outermost limits of the range of choice available.” *Palmyra Assocs.*, 299

¹² Given the facts and circumstances here, it is ultimately immaterial whether Appian did not challenge the objection/response because it was fooled by the answer or because it wholly understood the response and hoped to use it to preclude Pega from placing any revenue figure in front of the jury other than its total revenue. Our conclusion that the circuit court abused its discretion here does not turn on whether Appian, Pega, or both were playing “gotcha” with this particular discovery response.

Va. at 384 (internal quotation marks and citation omitted). Accordingly, we affirm the judgment of the Court of Appeals regarding Interrogatory #18.¹³

E. The circuit court erred in precluding Pega from attempting to authenticate and possibly introduce as evidence the relevant versions of its software

Appian next contends that the Court of Appeals erred in concluding that the circuit court erroneously prevented Pega from authenticating the versions of the software at issue and possibly introducing that software as evidence. Specifically, Appian notes that the circuit court’s decision was tied to its determinations regarding Pega’s compliance with the pretrial order, and thus, represents a “core case-management decision[] that must be left to trial judges.” Although we agree with Appian that trial judges must be given wide latitude in dealing with such issues, *see, e.g., Galloway*, 299 Va. at 563, we agree with the Court of Appeals that, in this case dealing with this issue, the circuit court’s chosen course constituted an abuse of discretion.

Appian’s argument, and the circuit court’s subsequent ruling that precluded Pega from using or introducing the versions of its software at issue, requires a laser focus on only a portion of Pega’s pertinent pretrial identification of exhibits.¹⁴ Appian argues the ruling was reasonable because Pega’s response specifically identified the exhibits by referencing a “laptop” as a

¹³ In concluding that the circuit court abused its discretion by effectively adopting a “nuclear” sanction here, we do not endorse the manner in which Pega approached its discovery obligations. The record can be read as revealing a party that sought to obfuscate rather than disclose, and even a slight change in the facts of this case might have led us to conclude that the sanction adopted by the circuit court fell within its discretion. The discovery process is designed to end the proverbial “trial by ambush”; a party who seeks to evade its discovery obligations in a manner that allows it to do just that does so at its potential peril.

¹⁴ Appian asserts that the circuit court did not expressly preclude Pega from utilizing or introducing the relevant versions of its software at trial. Rather, the circuit court simply required Pega to use the laptop produced in discovery to utilize or introduce the software at trial. Of course, when the laptop would not function, the ruling effectively precluded Pega from utilizing or introducing the software at trial.

“physical object.” From this, Appian argued, and the circuit court agreed, that the laptop itself was the identified exhibit, and therefore, Pega was limited to the laptop.

Such a ruling may have been a reasonable one if all Pega had done to identify an exhibit was to say the “Pega Laptop” was the exhibit; however, its identifications were not limited in this way. The full identifications were “Pega Laptop *Containing Version 6.3 and subversion* (Physical Object)” and “Pega Laptop *Containing Version 7.1 and subversions* (Physical Object).” (Emphases added.) Thus, the language Pega used specifically identified the referenced software versions the laptop contained and not other items on the laptop, such as a file containing Minesweeper or solitaire games, as the exhibits. Given the express language Pega used to identify the software in its disclosure of exhibits and the centrality of the identified software versions to the case,¹⁵ the only fair reading of the identification is that the laptop was the medium on which the software was stored and had been produced in discovery, not that the laptop—as opposed to the software it contained—was the sole exhibit.

To hold otherwise in an era where disputes turn on electronically stored information that must be produced in discovery could lead to disastrous results. It is not hard to imagine electronic data being produced on a thumb drive that, when a lawyer goes to place the thumb drive into a projection device at trial, is dropped and stepped on, rendering it inoperable. Such an occurrence should not end the trial but simply cause the parties to come up with another

¹⁵ This is not to say that a party may evade disclosure or identification requirements by claiming that the item or information that was not disclosed is key to proving a claim or defense. The importance of the information is a factor among many, including potential prejudice to the opponent, that should inform a circuit court’s determination of compliance with a pretrial order and possible sanctions. A complete failure to even suggest that a particular item, such as the software in this case, will be used as an exhibit may, in circumstances not present here, lead to its exclusion no matter how critical it is to a claim or defense.

medium by which the relevant, electronically stored/produced information may be shown to the jury.

The circuit court was, of course, allowed to limit Pega to using only those versions of the software that had been produced in discovery and identified on the exhibit list. When the laptop would not work, Pega sought to establish this by having a witness authenticate the software by testifying that what it sought to use at trial was exactly the same software that had been loaded onto the laptop and produced in discovery. Pega proffered that Bixby was competent to testify that the versions of the software it sought to use and introduce at trial were the exact same versions that Pega had produced on the laptop provided to Appian. Rather than allow Bixby to attempt to authenticate the software in this fashion, the circuit court unreasonably rejected such an attempt altogether. It did so despite expressly recognizing that Bixby very well may have sufficient knowledge to confirm that the software versions Pega sought to use at trial were identical to what was on the laptop that had been produced in discovery.

In arguing that the circuit court's decision to prevent Pega from even attempting to authenticate the software was within the bell-curve of reasonableness that would insulate the circuit court's decision from potential reversal, Appian essentially argues that the problems were caused by how Pega produced the software and that it would have been unfair to force Appian to accept Bixby's testimony that the exact same software versions were being used. Although the manner in which Pega produced the software in discovery was wholly within Pega's control, the remainder of Appian's premise is faulty.

Neither Appian nor the circuit court would have been required to accept Bixby's testimony at face value. Appian would have been free to challenge Bixby's testimony through cross-examination, with the evidence being admitted only if, after hearing the testimony and

Appian’s challenge to it, the circuit court concluded that Pega had established that the software it sought to use at trial was identical to what had been produced.¹⁶ The circuit court retained the discretion to refuse to admit the evidence if it found the authentication testimony unconvincing; what it could not do was deny Pega any opportunity to establish that the software versions were identical.

As noted above, we owe deference to a circuit court’s management of a trial, including its conclusions regarding a party’s compliance with the requirements imposed by a pretrial scheduling order. *Galloway*, 299 Va. at 563. As such, a circuit court confronted with such questions has available to it “a range of choice,” and we will not set aside its choices “unless the court’s discretionary decision exceeded the outermost limits of the range of choice available.” *Palmyra Assocs.*, 299 Va. at 384 (internal quotation marks and citations omitted). Under the facts and circumstances here, the circuit court’s decision to deny Pega the ability to introduce the software at trial—without allowing Pega any chance to demonstrate that it was the exact software that had been produced in discovery—“exceeded the outermost limits of the range of choices available[,]” *id.*, and thus constituted an abuse of the circuit court’s discretion. Accordingly, the circuit court erred in precluding Pega from attempting to authenticate and

¹⁶ Appian claims that the only way to confirm definitively that the software was identical was to subject it to a full forensic review that could take days. Accepting this as true, the circuit court still had numerous options at its disposal short of the drastic option it chose. For example, the circuit court could have allowed the parties to conduct such a review prior to allowing the software to be used. Alternatively, the circuit court, if it had concluded Bixby’s testimony was credible, could have conditionally allowed Pega to utilize the software with a strong admonition that if it proved to be different after Appian’s forensic review, a curative instruction would issue and a significant sanction would be imposed. By employing the ultimate sanction without conducting any review to determine if the software was different than what had been produced, the circuit court abused its discretion.

possibly introduce as evidence the relevant versions of its software, and we affirm the Court of Appeals' judgment to that effect.

F. The circuit court erred in instructing the jury that the number of people with access to Appian's claimed trade secrets was "not relevant"

In granting Appian's motion *in limine* precluding Pega from introducing evidence of the absolute number of people Appian had allowed to access the claimed trade secrets, the circuit court largely adopted Appian's position that "[t]he number of licenses that Appian distributed . . . is irrelevant to any claims or defenses in this case." The circuit court doubled down on its relevancy determination when it instructed the jury that "[t]he numbers of users of the Appian platform and Appian Forum licensees are not relevant to any issue in this case, and any evidence as to those numbers should be disregarded." Although we review a circuit court's evidentiary determinations under the deferential abuse of discretion standard, *Palmyra Assocs.*, 299 Va. at 384, a circuit court abuses its discretion when it erroneously concludes that admissible, relevant evidence is irrelevant. *Commonwealth v. Proffitt*, 292 Va. 626, 636 (2016). For the reasons that follow, the circuit court erred in concluding that the number of people with access to the claimed trade secrets was irrelevant.

The bar for establishing that a piece of evidence is relevant "is exceedingly low[.]"

1 Kent Sinclair, *The Law of Evidence in Virginia* § 6-1 (8th ed. 2025). Evidence is relevant if it has "any tendency to make the existence of any fact in issue more probable or less probable than it would be without the evidence."¹⁷ Va. R. Evid. 2:401. As a result, "[e]very fact, however remote or insignificant, that tends to establish the probability or improbability of a fact in issue is relevant." *Virginia Elec. & Power Co. v. Dungee*, 258 Va. 235, 260 (1999). Relevant pieces of

¹⁷ Subject to certain exceptions, relevant evidence is admissible; irrelevant evidence is inadmissible. Va. R. Evid. 2:402(a).

evidence need not establish the fact in issue conclusively; rather, they are “relevant if [they] ‘tend[] to cast any light upon the subject of the inquiry.’” *Townes v. Virginia State Bd. of Elections*, 299 Va. 34, 53 (2020) (quoting *McNeir v. Greer-Hale Chinchilla Ranch*, 194 Va. 623, 629 (1953)). Accordingly, the question before the circuit court was whether the “numbers of users of the Appian Platform and Appian Forum licensees” had any tendency, however slight, to shed light on the question of whether Appian’s claimed trade secrets were, in fact, trade secrets.

Although we have made clear that sharing information with others does not necessarily remove any trade secret protections that might otherwise apply, *Dionne*, 240 Va. at 302, it does not logically follow that the total number of people with whom the information is shared is irrelevant to the question of whether sufficient secrecy has been maintained. On a commonsense level, the more people who learn of a secret, the less likely it is that it will remain a secret. Therefore, the total number of people with the information may shed light on whether the information can be learned from publicly available sources. More importantly, to maintain trade secret protection for a piece of information, the holder of that information must engage in “efforts that are reasonable under the circumstances to maintain its secrecy.” Code § 59.1-336. A rational factfinder could conclude that certain efforts are reasonable if only five people know the information but are inadequate if 30,000 people know the information. Thus, the total number of people who have been given the information can “cast . . . light upon the subject of the inquiry[,]” *Townes*, 299 Va. at 53, and therefore, the circuit court erred in deeming that number irrelevant and inadmissible. Accordingly, we affirm the judgment of the Court of Appeals on this issue.¹⁸

¹⁸ In concluding that the total number of people who knew of Appian’s purported trade secrets was relevant, we agree wholeheartedly with the Court of Appeals’ observation that “the number of people who can see the secret is not *dispositive* of whether the information” is a trade

III. CONCLUSION

For the foregoing reasons, we affirm the judgment of the Court of Appeals. Accordingly, we remand the matter to the Court of Appeals with instructions to remand the matter to the circuit court for further proceedings consistent with this opinion.

*Affirmed.*¹⁹

secret under VUTSA. *Pegasystems*, 81 Va. App. at 504. Purported trade secrets can be disclosed to a million people and remain protected under VUTSA so long as “the disclosure[s] were] made in confidence, express or implied.” *Dionne*, 240 Va. at 302. Conversely, disclosure of the information to less than a handful of people can remove trade secret protections under VUTSA if the disclosures were not “made in confidence, express or implied[,]” *id.*, causing a factfinder to conclude that the holder of the information did not engage in “efforts that are reasonable under the circumstances to maintain” the secrecy of the information. Code § 59.1-336.

¹⁹ Given that our affirmance of the judgment of the Court of Appeals results in the verdict in the circuit court being set aside, we acknowledge that Code § 8.01-678 requires we engage in harmless error review. *See Commonwealth v. White*, 293 Va. 411, 419-420 (2017). Because of the combination of the errors discussed above and their potential effect on the proceedings in the circuit court, we cannot say that it “plainly appears from the record and the evidence given at the trial that the parties have had a fair trial on the merits and substantial justice has been reached[.]” Code § 8.01-678. Accordingly, we cannot say that the errors committed by the circuit court were harmless.