

[J-51-2022]
IN THE SUPREME COURT OF PENNSYLVANIA
MIDDLE DISTRICT

BAER, C.J., TODD, DONOHUE, DOUGHERTY, WECHT, MUNDY, BROBSON, JJ.

COMMONWEALTH OF PENNSYLVANIA,	:	No. 93 MAP 2021
	:	
Appellee	:	Appeal from the Order of the
	:	Superior Court dated January 8,
v.	:	2021, re-argument denied March 10,
	:	2021, at No. 2427 EDA 2019
	:	affirming the Montgomery County
JAMAL WALLACE,	:	Court of Common Pleas, Criminal
	:	Division, judgment of sentence
Appellant	:	dated May 23, 2019 at No. CP-46-
	:	CR-0004008-2018.
	:	
	:	ARGUED: September 15, 2022

OPINION

CHIEF JUSTICE TODD

DECIDED: February 22, 2023

Pennsylvania Rule of Evidence 801 defines hearsay as an out-of-court statement made by a declarant, which is offered into evidence to prove the truth of the matter asserted. Pa.R.E. 801.¹ This type of evidence is generally inadmissible at trial unless it falls into an exception to the hearsay rule. See *generally* Pa.R.E. 803 (setting forth hearsay exceptions). In this discretionary appeal, we consider whether Global Positioning System (“GPS”) data (hereinafter, “GPS data” or “GPS records”), compiled from a GPS monitoring device on a parolee, is inadmissible hearsay. For the reasons that follow, we hold that the challenged evidence is not hearsay because it does not constitute a

¹ See *also* Pa.R.E. 801(a) (defining a statement as “a person’s oral assertion, written assertion, or nonverbal conduct, if the person intended it as an assertion”); Pa.R.E. 801(b) (explaining that a declarant is “the **person** who made the statement”) (emphasis added).

statement made by a declarant, as outlined in Rule 801, as it is not an assertion (or the nonverbal conduct) of a person. Accordingly, we affirm the Superior Court.

I. Background

On April 6, 2018, Kamaal Dutton was shot and critically injured in the vicinity of Spruce and Willow Streets in Norristown, Montgomery County. Responding officers from the Norristown Police Department found Dutton a few blocks away, where he was observed on the ground, bleeding from the head.

As part of their investigation into the shooting, officers surveyed the area and discovered that several local businesses near where the shooting occurred had video surveillance systems. Police were able to recover videos which depicted, *inter alia*, two adult males, later identified as Mason Clary and Appellant Jamal Wallace, together in the area during the hours leading up to the shooting. Of significance, video captured Clary and Appellant walking in and out of a local deli, and, at one point, Appellant is seen retrieving a firearm from a vehicle parked just outside. Appellant concealed the firearm in his waistband, although there is a visible bulge on his right side. Eventually, the two men connected with a third individual, later identified as C.S., a minor, who was a neighbor of Clary who lived nearby.

Together, the trio walked to Willow and Spruce Streets, passing Dutton as they approached the intersection. The men then suddenly turned, confronted Dutton, and began to assault him. During the altercation, Appellant retrieved the gun from his waistband, pointed it at Dutton in full view of his companions, and, as Dutton began to flee, chased him while firing multiple shots. The men then fled the scene together, leaving Dutton bleeding on the ground. Dutton sustained a gunshot wound to the side of his face, behind his ear. He was transported to a local hospital for treatment and survived. Initially,

Dutton told police that he could not identify the men that attacked him. Later, however, he identified Appellant as one of his assailants.

Through their investigation, police learned that, at the time of the shooting, Clary was wearing a GPS monitoring device on his ankle.² Data extracted from this device aided investigating officers in piecing together the whereabouts of Clary and, in turn, Appellant, during the relevant time. Ultimately, both men were arrested and charged with a litany of offenses related to the shooting. Specifically, Appellant was charged with two counts of aggravated assault and one count each of criminal conspiracy, persons not to possess a firearm, and carrying a firearm without a license. See 18 Pa.C.S. § 2702(a)(1), *id.* § 2702(a)(4), *id.* § 903, *id.* § 6105(a)(1), and *id.* § 6106(a)(1).³

Prior to trial, Clary filed a motion *in limine*, seeking, *inter alia*, the exclusion of the GPS data collected by police on the basis that the evidence constituted hearsay, which was compiled in anticipation of litigation, see Clary's Motion in Limine, 2/25/2019, at 4, and the trial court held a hearing. At that time, Appellant's counsel presented an oral motion regarding the GPS data from Clary's ankle monitor, informing the court that, if the Commonwealth attempted to introduce this evidence at trial, he would lodge a hearsay objection. N.T., 3/4/2019, at 86. Counsel also explained that it was his understanding that the Commonwealth did indeed plan to present this evidence at trial and that, in response to any objection, it would attempt to introduce the data under the business

² Clary was on parole. As a condition of his supervision, he was required to wear a GPS monitoring device on his ankle, which tracked his movements.

³ C.S. was also charged for his role in the conspiracy and assault. Eventually, C.S.'s case was decertified to juvenile court, and he entered an admission to conspiracy to commit aggravated assault. During the investigation, C.S. cooperated with law enforcement, identifying Appellant and Clary as the two men with whom he conspired to attack Dutton, and admitting that the trio acted in concert to assault him.

records exception.⁴ It was counsel's position that the records did not meet this exception. *Id.* at 86-87 (contending that the GPS records "are kept for the purpose of litigation"). Following the hearing, the trial court disposed of the majority of Clary's motions, but informed the parties that any hearsay objections would be addressed contemporaneous to the time they were made during trial. *Id.* at 87-88.

A joint trial for Appellant and Clary began the next day. Relevantly, as part of its case-in-chief, the Commonwealth sought to introduce the GPS records. At that time, consistent with their pre-trial motions, both Appellant and Clary objected to the introduction of the records, reasserting that they were inadmissible hearsay and, as such, that the Commonwealth was obligated to establish, through a records custodian, that the data was kept in the ordinary course of business pursuant to Pa.R.E. 803(6).

⁴ This exception permits the introduction of

[a] record (which includes a memorandum, report, or data compilation in any form) of an act, event or condition if:

(A) the record was made at or near the time by--or from information transmitted by--someone with knowledge;

(B) the record was kept in the course of a regularly conducted activity of a "business", which term includes business, institution, association, profession, occupation, and calling of every kind, whether or not conducted for profit;

(C) making the record was a regular practice of that activity;

(D) all these conditions are shown by the testimony of the custodian or another qualified witness, or by a certification that complies with Rule 902(11) or (12) or with a statute permitting certification; and

(E) the opponent does not show that the source of information or other circumstances indicate a lack of trustworthiness.

Pa.R.E. 803(6).

In response, the trial court excused the jury and the Commonwealth presented the testimony of Harry Gaab, Clary's parole officer, and David Dethlefsen, an employee with Attenti, the company that contracted with the Pennsylvania Board of Probation and Parole ("Parole Board") to supply electronic monitoring equipment.⁵ Gaab explained that the primary purpose of placing a parolee on GPS monitoring is to verify the parolee's whereabouts for curfew purposes.⁶ Gaab added that, when a parolee under his supervision violates their curfew or disregards any of the other parole conditions, he will receive an email or text message and will then follow up with the parolee regarding the alleged violation or consult the GPS records, to which he has access at all times.⁷ With respect to Clary, Gaab testified that he received an email sometime after the shooting informing him that Clary committed a violation of his parole by cutting off his ankle monitor. N.T., 3/5/2019, at 121.

Dethlefsen, an account manager at Attenti, testified that he oversees the Parole Board's account and that, for each of Attenti's accounts, in addition to providing the electronic tracking equipment such as ankle monitors, the company maintains records generated from the monitors. Dethlefsen explained that Clary's monitor had a unique serial number and that it tracked his location by utilizing the cellular network. *Id.* at 132.

⁵ Before the jury, Gaab was identified only as an employee of the Commonwealth. In an attempt to shield the jury from the exact nature of Gaab's employment or his relation to Clary, the trial court held the hearing on the GPS records outside of the presence of the jury.

⁶ Earlier, Gaab testified that he was familiar with Clary and aware that he was wearing an ankle monitoring device on the day in question, and that he turned over data created from the electronic device to the Norristown Police Department. Gaab added that the data from the device placed Clary at the corner of Willow and Spruce Streets "at two or three points at the time of th[e] shooting." N.T., 3/5/2019, at 111.

⁷ Gaab testified that, although he has unlimited access to the records, he is not considered the "keeper" of those records. Rather, Attenti stores the data. N.T., 3/5/2019, at 124.

According to Dethlefsen, the collected data was automatically saved on Attenti's mainframe, without any human involvement or intervention, and the compilation of the data is an activity that is done as a regular practice of Attenti, and is not stored merely for litigation purposes. *Id.* at 136-38.

At the conclusion of Dethlefsen's testimony, the Commonwealth moved for admission of the GPS data, asserting that it had established the records as business records, authenticated by a custodian. *See id.* at 145-46 (contending that Dethlefsen, as an employee of Attenti with full access to the records, is a custodian thereof). In response, Clary's counsel, joined by Appellant's attorney, argued that the records were not admissible under the business records exception because: (1) the records were prepared solely for the purpose of litigation; and (2) Dethlefsen was not "the appropriate person to testify as custodian." *Id.* at 147.

The trial court disagreed with counsel's claims, opining that the Commonwealth established that the challenged evidence fell within the business records exception to the hearsay rule. *Id.* at 148. Accordingly, the court overruled the objection and permitted the Commonwealth to enter the records in their entirety.

Appellant was found guilty of aggravated assault—serious bodily injury, aggravated assault—attempting to cause serious bodily injury, criminal conspiracy, and carrying a firearm without a license.⁸ On May 23, 2019, he was sentenced to an aggregate term of 32 to 65 years of imprisonment.

On June 3, 2019, Appellant filed a post-sentence motion contesting the sufficiency and weight of the evidence to sustain his convictions, as well as requesting that the trial court reconsider the sentence imposed. The trial court denied Appellant's motion.

⁸ At a separate bench trial, Appellant was also found guilty of persons not to possess a firearm.

Appellant timely filed a notice of appeal, raising several issues. Germane to this appeal, Appellant challenged the trial court's decision to admit the GPS records from Clary's device into evidence, contending that they were hearsay and did not fall with the business records exception under Pa.R.E. 803(6).

In its opinion pursuant to Pa.R.A.P. 1925(a), the trial court maintained that the GPS records were properly admitted as business records, reiterating its finding during trial that the Commonwealth established, through a proper custodian, that the records, automatically generated and stored electronically without any human intervention, were not created and maintained for the purposes of litigation but, rather, were preserved for purposes of supervision and, potentially, sanctions for those found in violation of their parole conditions. Trial Court Opinion, 10/21/2019, at 15-16.

The trial court opined in the alternative that, even if the evidence at issue did not meet the requirements necessary to fall within the business records exception, Appellant would still not be entitled to relief because the records were not hearsay, as they were "computer generated and d[id] not constitute an assertion made by a person." *Id.* at 16. Although acknowledging that this was an issue of first impression in Pennsylvania, the court found that decisions from other jurisdictions, which "ruled that GPS data cannot be hearsay because it is not an assertion made by a person," supported its alternative holding. *See id.* ("For example, the Supreme Court of Wisconsin [in *State v. Kandutsch*, 799 N.W.2d 865 (Wis. 2011) (*superseded by statute on other grounds*),] concluded that a computer-generated report is not hearsay 'when it is the result of an automated process free from human input or intervention.'").

As in the Wisconsin case, the trial court emphasized that, here, the record established that Clary's GPS records were computer records that were generated and automatically stored electronically, as opposed to records created by Attenti or the Parole

Board. Thus, the court concluded that the records were produced free from human input or intervention and, consequently, were not an assertion by a person.

On appeal to the Superior Court, Appellant reiterated his argument that the trial court erred in admitting the data from Clary's GPS monitor into evidence, contending the records constituted inadmissible hearsay. In setting forth his argument, Appellant claimed that there is a "national split on whether GPS records qualify as hearsay records," an issue which he conceded has yet to be directly addressed by this Court. Appellant's Brief to Superior Court at 7. Although aware of the competing views on GPS data as it relates to hearsay, Appellant relied heavily on a case from Florida, *Channell v. State*, 200 So.3d 247 (Fla. Dist. Ct. App. 2016). Therein, the Florida court held that GPS data created from the defendant's electronic monitoring bracelet was hearsay.⁹ Appellant urged the Superior Court to "adopt Florida's position and hold that GPS records qualify as hearsay."¹⁰ Appellant's Brief to Superior Court at 8.

The Superior Court affirmed Appellant's judgment of sentence in a published opinion authored by Judge Anne Lazarus and joined by Judges John Bender and Correale Stevens. *Commonwealth v. Wallace*, 244 A.3d 1261 (Pa. Super. 2021). In

⁹ See also *Ruise v. State*, 43 So.3d 885, 886 (Fla. Dist. Ct. App. 2010) (holding that "GPS data is clearly hearsay because it purports to show [an offender's] locations ... and it is being offered for the truth of the matter asserted, *i.e.*, to prove that [the offender] was in the locations away from his residence reflected in the GPS data").

Florida's Evidence Code defines hearsay as "a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted[.]" see Fla. Stat. Ann. § 90.801(1)(c), and a "statement" as, *inter alia*, "[a]n oral or written assertion," *id.* § 90.801(1)(a)(1).

¹⁰ Alternatively, Appellant asked the intermediate court to reject the trial court's determination that the challenged GPS records fell within the business record exception to the hearsay rule. See Appellant's Brief to Superior Court at 8 (reasserting his position that the GPS records presented in this case were created in anticipation of litigation and, thus, could not be considered business records for the purpose of Rule 803(6)).

addressing Appellant's claim concerning the admissibility of the GPS records, the intermediate court noted that, while "Pennsylvania courts have not ruled on whether GPS records are hearsay[,] . . . some state and federal courts have ruled that computer-generated GPS data cannot be deemed hearsay because it is an assertion made by a machine, not an assertion made by a person." *Wallace*, 244 A.3d at 1271 (citing, *inter alia*, *United States v. Lizarraga-Tirado*, 789 F.3d 1107, 1109 (9th Cir. 2015) ("[a] tack placed by the Google Earth program and automatically labeled with GPS coordinates isn't hearsay"); *United States v. Khorozian*, 333 F.3d 498, 506 (3rd Cir. 2003) (header of fax bearing the transmission date was not hearsay because, under the Federal Rules of Evidence, "a statement is something uttered by 'a person' [and thus,] nothing 'said' by a machine . . . is hearsay"); *People v. Rodriguez*, 16 Cal. App. 5th 355, 381 (Cal. App. 2017) ("The computer-generated report of the GPS data generated by defendant's ankle monitor did not consist of statements of a person as defined by the Evidence Code, and did not constitute hearsay as statutorily defined." (emphasis omitted))).

That said, the court explained it was aware that, in *Channell*, the Florida District Court of Appeal held that GPS records are hearsay. However, the panel emphasized that, in relying on this case, Appellant failed "to acknowledge that the relevant definitions framing the hearsay analysis are materially different under the Florida Evidence Code and the Pennsylvania Rules of Evidence." See *id.* at 1271-72 (comparing Fla. Stat. Ann. § 90.801(1)(a)(1) (defining a statement as "[a]n oral or written assertion") with Pa.R.E. 801 (explaining that a statement for the purposes of hearsay is a written or oral assertion of a person)). Thus, the Superior Court determined that, in order to adopt Florida's position on GPS data, it would "have to ignore the evidentiary definitions of Pennsylvania law," something it was not permitted to do. See *id.* at 1272.

Accordingly, the Superior Court rejected Appellant's claim because, "as it stands, GPS data automatically generated by a computer, free from interference by any person, does not constitute a 'statement,' and therefore, cannot qualify as hearsay."¹¹ *Id.*

We granted review to address whether the Superior Court erred in this determination. See *Commonwealth v. Wallace*, 270 A.3d 428 (Pa. 2021) (order). In resolving this question, we are tasked with deciding whether GPS data, collected from Clary's electronic monitor device, is hearsay and, thus, was inadmissible at Appellant's trial. This is an evidentiary question, for which our standard of review is well settled: "Questions concerning the admissibility of evidence are within the sound discretion of the trial court, and this Court will not reverse the trial court's decision absent an abuse of that discretion." *Commonwealth v. Laich*, 777 A.2d 1057, 1060 (Pa. 2001); see also *Commonwealth v. Smith*, 681 A.2d 1288, 1290 (Pa. 1996) (explaining that "[d]iscretion is abused when the course pursued [by the trial court] represents not merely an error of judgement, but where the judgement is manifestly unreasonable or where the law is not applied or where the record shows that the action is a result of partiality, prejudice, bias or ill will" (internal citation omitted)).

II. Parties' Arguments

Appellant asserts that the Superior Court erred in finding that computer-generated data is exempt from the hearsay rule. Highlighting that the court's affirmation of the trial court's evidentiary ruling was based upon a theory that was never pursued by the

¹¹ Given the intermediate court's determination that GPS data is not hearsay, it did not address whether the challenged evidence fell within an exception to the rule against hearsay. However, the court did not discount the possibility, in a future case, of excluding such evidence on another basis, such as where an opponent questioned the procedure for generating the data, or argued that the data produced by the machine or software was erroneous.

Commonwealth at trial,¹² Appellant contends that the lower court “usurped this Court’s role in the rule-making process by concluding that any time a witness, no matter how unqualified, claims that some data or some result was generated by a computer, that item becomes admissible evidence without any further thought.” Appellant’s Brief at 25. Appellant insists that this holding is not only unsupportable by our Rules of Evidence and related case law, but is also contrary to decisions from other jurisdictions.

For example, acknowledging that this Court has not directly addressed whether data collected from a GPS ankle monitor constitutes hearsay, Appellant cites *Commonwealth v. Le*, 208 A.3d 960 (Pa. 2019) (in addressing challenge to admissibility of cell phone, determining that Le was not entitled to relief because his claim on appeal was waived), and *Commonwealth v. Carter*, 932 A.2d 1261 (Pa. 2007) (holding that the trial court did not abuse its discretion in admitting a state laboratory report, which indicated the presence of cocaine in materials seized from Carter, pursuant to the business records exception). Appellant claims that, in these cases, this Court “recognized that comparable items such as cell phone location data and other cell phone records are hearsay which must be introduced under an exception to the rule against hearsay” and, thus, supports a determination that GPS records are hearsay statements, which must meet an enumerated exception for them to be admissible. Appellant’s Brief at 27-28.

Appellant argues that the GPS data introduced at his trial “plainly constitute[d] a statement under this Court’s existing precedent,” and that Superior Court herein neither offered “justification for such a dramatic change in the rules of evidence,” nor considered the above-cited cases when conducting its analysis. *Id.* at 30-31; *see also id.* at 30 (emphasizing that, until the intermediate court issued its opinion in this case,

¹² As noted *supra*, at trial, Appellant sought to exclude the GPS records as hearsay. In response, the Commonwealth maintained that the records were admissible under the business records exception to the hearsay rule.

“Pennsylvania had not adopted a ‘computer-generated document exception’ to the rule against hearsay,” nor did any party in this matter argue below that such an exception existed).

Additionally, Appellant criticizes the manner in which the Superior Court interpreted the Florida decision in *Channell*, *supra*. Although recognizing that there is no national consensus on whether GPS data falls within the rule against hearsay, and conceding that some states have found that computer-generated data is not hearsay, *see e.g., Lizarraga-Tirado*, 789 F.3d at 1109 (satellite image and GPS coordinates where Lizarraga-Tirado was arrested were not hearsay), Appellant asserts that the Superior Court’s attempt to distinguish Florida’s hearsay rule at issue in *Channell* from Pennsylvania’s was based on an incorrect reading of Florida’s definition of hearsay. *See* Appellant’s Brief at 34-35 (noting that Florida’s hearsay rule refers to a statement made by a “declarant” and defines a “declarant” as a person). Moreover, in Appellant’s view, *Channell*’s analysis “makes sense” because computers are “programmed by people,” *id.* at 37, and he emphasizes that, even if we determine that GPS data is hearsay, in many cases, computer-generated data will be admissible as a business record, or through expert testimony, *id.* at 39-40.¹³

However, with respect to the instant matter, Appellant maintains that, in addition to concluding that GPS data is hearsay, we should also find that the data introduced at trial in this case was not admissible under the business records exception. In his view, the records failed to meet the requirements of this exception as they were both unreliable and prepared for the purposes of litigation. *Id.* at 41-42. More specifically, Appellant asserts that “the records show a lack of trustworthiness” because Dethlefsen, the Attenti

¹³ Appellant further asserts that “Florida’s concerns about trial-by-algorithm are justified,” asserting that, in the present case, inputting the coordinates produced by the ankle monitor revealed a different location in Google Maps than what was reported by the data sheet generated by Attenti. Appellant’s Brief at 36-37.

employee, and Gaab, Clary's parole officer, both of whom testified on behalf of the Commonwealth, were unaware of how the GPS system worked. *Id.* at 46-47. He also views these records as having been created in anticipation of litigation, because GPS monitoring is part of a court-ordered process, and when an individual required to wear an ankle monitor fails to comply with his requirements, the records produced from the bracelet are used to prove that a violation has occurred. *Id.* at 43-45; *see also id.* 45-46 (insisting that GPS records "are used to monitor parolees on behalf of a court, . . . they are regularly brought into parole board hearings and courts of law when agents need to testify to parole violations," and there "is no purpose for these records other than litigation").¹⁴

¹⁴ Both the Pennsylvania Association of Criminal Defense Lawyers, together with the Defender Association of Philadelphia (collectively, "Defense *Amici*") and Philadelphia Legal Assistance ("PLA") filed *amicus* briefs in favor of Appellant. (PLA is a legal aid program which assists low-income individuals residing in Philadelphia with civil legal issues.) PLA agrees with Appellant that GPS data should be considered hearsay because, in its view, machines "are not infallible," and information generated by a computer, such as GPS technology, is not "untouched by human error" but, rather, qualifies as statements, as a person had a role in programming "certain assumptions and procedures that impact the outputted data." PLA's *Amicus Curiae* Brief at 7-8. PLA also explains that it has particular interest in this issue because the use of GPS data is not limited to criminal matters but is used in a variety of proceedings, including employment litigation, as employers "use electronic tracking, including GPS, to monitor and control workers, and often use such data to support disciplinary action, including discharge." *Id.* at 4. In essence, PLA believes that "[r]equiring that GPS data and calculations be evaluated under the hearsay rule is paramount to protecting the rights of workers in unemployment proceedings, the vast majority of whom are *pro se*." *Id.* at 5; *see also id.* at 6 ("Under the holding of the Superior Court, a fact finder could rely on GPS data to disqualify a claimant from receiving unemployment benefits without important context about the reliability of that data."). This is because, PLA asserts, GPS data is not always accurate. *Id.* at 12-13.

Similarly, Defense *Amici* assert that, regardless of whether computer-generated evidence, such as GPS data, is deemed to be hearsay, such evidence must meet a threshold determination of reliability before it is admitted in a criminal proceeding. *See* Defense *Amici's* Brief at 4 (explaining that, while they take no position on whether GPS data constitutes hearsay, because such information is increasingly used in criminal (continued...))

In response, the Commonwealth asserts that the Superior Court properly found that GPS records are not hearsay and that Appellant's claim to the contrary, supported nearly exclusively by Florida law, is meritless. The Commonwealth emphasizes that Pennsylvania's hearsay rule requires an assertion by a person, whereas, "under Florida's evidentiary definition of what constitutes a 'statement,' any oral or written assertion qualifies as such no matter who or what is making that assertion." Commonwealth's Brief at 10 (comparing Fla. Stat. § 90.801 (defining a "statement" as either: (1) an oral or written assertion; or (2) nonverbal conduct of a person) with Pa.R.E. 802(a) (explaining that a statement is "a person's oral assertion, written assertion, or nonverbal conduct")). Accordingly, the Commonwealth contends that to adopt Florida's position, as espoused in cases such as *Channell*, would require us to ignore the language of our own Rules of Evidence. See *id.* at 12 ("As it stands, under the plain language of Pennsylvania's Rules of Evidence, an automatically generated GPS record such as the record at issue in this case does not constitute a statement, and therefore cannot qualify as hearsay.").¹⁵

The Commonwealth also challenges Appellant's claim that previous decisions from this Court and the intermediate courts validate his position that GPS records are statements. Rather, the Commonwealth submits that the cited cases did not involve a question of whether device-generated records constituted statements under Rule 801(a), but, rather, that it was merely assumed they did. For example, the Commonwealth explains that, in *Le, supra*, in addressing the admissibility of cell phone records, this Court

prosecutions, this Court should "render its decision cognizant of the need for GPS and other data evidence to meet the threshold of reliability").

¹⁵ The Commonwealth argues that adopting Florida law would be inappropriate in the context of this case, as it relied on the Rules of Evidence, as written, when presenting the GPS data as evidence in Appellant's trial. Commonwealth's Brief at 26-27. Rather, in its view, if we conclude that a change is warranted, "the most appropriate course of action" would be for us to refer this issue to the rules committee for consideration. *Id.* at 28.

stated that “the trial court permitted the introduction of the cell phone records, admittedly hearsay, pursuant to the ‘business records’ exception.” See *Le*, 208 A.3d at 970. However, the Commonwealth emphasizes that there was no challenge in that case to whether the contested evidence was hearsay, and this Court upheld the admission of the records based on waiver: “Thus, the question of whether such records are actually hearsay under the Rules of Evidence was never [] litigated in that case.” Commonwealth’s Brief at 14.

Further, the Commonwealth contends the fact that humans create computer programs is irrelevant to Rule 801’s “person” requirement. See *id.* at 22 (arguing that, according to Appellant’s reasoning, “the instant brief would be a statement by Bill Gates and Microsoft, since the undersigned used a Microsoft program to write the brief”). Simply put, the Commonwealth insists that device-generated information is nothing more than data and, thus, is not a person’s assertion.¹⁶ *Id.* at 23.

Finally, the Commonwealth maintains that any concern regarding the accuracy of computer-generated records is not encompassed in the question presented to this Court. Rather, the Commonwealth argues, “questions of accuracy and reliability are determined under Pa.R.E. 901, a different part of the Pennsylvania’s Rules of Evidence altogether.”¹⁷ Commonwealth’s Brief at 20; see also *id.* at 25 (maintaining that while it is “entirely

¹⁶ Because the only question before this Court is whether the Superior Court erred in concluding that GPS records are not hearsay, the Commonwealth states that it declined to respond to Appellant’s argument that the trial court erred when it admitted the GPS data under the business records exception to the hearsay rule. Commonwealth’s Brief at 8.

¹⁷ Rule 901 sets forth the requirements of authenticating or identifying evidence. In particular, the rule provides that, “to satisfy the requirement of authenticating or identifying an item of evidence, the proponent must produce evidence sufficient to support a finding that the item is what the proponent claims it is.” Pa.R.E. 901(a).

reasonable to question the programming of a system under [Rule] 901” that issue is not before us).¹⁸

III. Discussion

This Court has acknowledged that, “[a]t times, the line that divides hearsay from non-hearsay can be difficult to discern.” *Commonwealth v. Fitzpatrick*, 255 A.3d 452, 458 (Pa. 2021). Nevertheless, generally speaking, “[t]o constitute hearsay, a statement first must be uttered out-of-court, and then it must be offered in court for the truth of the matter asserted in the statement.” *Id.* We accord special scrutiny to hearsay because a “hearsay statement lacks guarantees of trustworthiness fundamental to the Anglo-American system of jurisprudence.” *Heddings v. Steele*, 526 A.2d 349, 351 (Pa. 1987); *see also id.* (“Perhaps such a statement’s most telling deficiency is it cannot be tested by cross-examination.”).

In Pennsylvania, hearsay is a statement that: “(1) the declarant [did] not make while testifying at the current trial or hearing; and (2) a party offers in evidence to prove the truth of the matter asserted in the statement.” Pa.R.E. 801(c)(1)-(2). Key to our analysis herein is whether the challenged evidence is a “statement” offered for the truth

¹⁸ The Office of the Attorney General of Pennsylvania (“OAG”) has filed an *amicus* brief in support of the Commonwealth. In particular, the OAG agrees with the Commonwealth that GPS data is not hearsay under the plain language of Rule 801 “because a computer is not a ‘person’ and therefore cannot be a ‘declarant’ who makes a hearsay ‘statement’ under the plain language” of Rule 801. OAG’s *Amicus Curiae* Brief at 2. It further asserts that Appellant’s claim that computer programs are created by humans and, thus, the resulting data constitutes a statement made by a person, fails because the “people who created the GPS software at issue, potentially years ago, were not specifically involved in tracking Clary’s GPS movements in this case,” nor “could a human being even physically make such a ‘statement’ of raw GPS data, as no human has the brain power to pinpoint another person’s precise GPS location without the aid of a computer.” *Id.* at 12-13. In addition, the OAG argues, even assuming *arguendo* that GPS data is hearsay, it would still be admissible under several exceptions to the hearsay rule, including the business records exception. *Id.* at 15-17.

of the matter asserted.¹⁹ As noted *supra*, our Rules of Evidence define a “statement” as “a person’s oral assertion, written assertion, or nonverbal conduct, if the person intended it as an assertion,” and define a “declarant” as “the person who made the statement.” Pa.R.E. 801(a)-(b).

With this in mind, we turn to the question before us. As acknowledged by the parties and lower courts, this Court has yet to directly address whether data collected from a GPS ankle monitor constitutes hearsay. However, upon review, we find that the language in Rule 801 is clear: a statement is a written or oral assertion of *a person*. Here, the relevant assertion – the GPS location data – was not made by a person but collected electronically by the GPS monitoring device attached to Clary’s ankle. Thus, by definition, this evidence cannot constitute hearsay. *Cf. Commonwealth v. Davis*, 168 N.E.3d 294, 310 (Mass. 2021) (holding that, because “[c]omputer-generated records are created solely by the mechanical operation of a computer and do not require human participation[,] . . . they cannot be hearsay”).

In that regard, we find unavailing Appellant’s argument that computer-generated data constitutes a statement for hearsay purposes because a person created the computer program that produced the data. Indeed, we find Appellant’s citations to cases from this Court, which he suggests indicate our recognition of similar evidence as hearsay, to be unpersuasive. This is so because, in each of the cases cited, the contested evidence was merely *presumed to be* hearsay for the purposes of analyzing a hearsay exception. See *Le*, 208 A.3d at 970-71 (assuming that cell phone records were hearsay when considering whether the Commonwealth properly introduced them at trial under the business records exception but never reaching the merits of the claim); *Carter*, 932 A.2d

¹⁹ None of the parties dispute that the GPS data was offered for the truth of the matter asserted – i.e., to establish Clary’s location.

at 1262 (reviewing a state police laboratory report, created by a forensic scientist, under the business record exception to the hearsay rule). At best, the portion of the cases upon which he relies constitute *dicta*. See *Williams v. United States*, 289 U.S. 553, 568 (1933) (deeming expressions *obiter dicta* on grounds that they did not involve the question under consideration, which “may be respected, but ought not to control the judgment in a subsequent suit, when the very point is presented for decision” (internal quotation marks omitted)).

Rather, we agree with the Superior Court that, to adopt Appellant’s (and Florida’s) position regarding GPS records, “we would have to ignore the evidentiary definitions of Pennsylvania law.” See *Wallace*, 244 A.3d at 1272. Moreover, our determination comports with the decisions of other jurisdictions, which, when interpreting similar evidentiary rules, have reached the same conclusion. For example, in *Lizarraga-Tirado*, *supra*, the Ninth Circuit held that GPS coordinates on a satellite image from a Google Earth program were not hearsay because, under the applicable federal evidentiary rule, a “statement” must be made by a person and, in that case, the relevant assertion was made by a computer program. See *Lizarraga-Tirado*, 789 F.3d at 1110 (“Though a person types in the GPS coordinates, he has no role in figuring out where the tack will be placed” and, therefore, because “the program makes the relevant assertion—that the tack is accurately placed at the labeled GPS coordinates—there’s no statement as defined by the hearsay rule”). Similarly, in *Rodriguez*, *supra*, a California appellate court addressed a claim that GPS data generated from a defendant’s ankle monitor was inadmissible hearsay. Like the Ninth Circuit in *Lizarraga-Tirado*, the *Rodriguez* court concluded that “data that is automatically generated by a computer is not hearsay because it is not a statement of a person.” *Rodriguez*, 16 Cal. App. 5th at 379; see also *City of LaVergne v. Gure*, 2022 WL 3709387, at *3 n.2 (Tenn. Ct. App. 2022) (“[g]enerally speaking, machines

are not declarants” (citations and internal quotation marks omitted)); *Davis*, 168 N.E.3d at 310 (noting that, under Massachusetts Guide to Evidence, a “statement” is a person’s oral assertion, written assertion, or nonverbal conduct, and, because the contested evidence was “computer generated[,]” it did not “contain a statement”).

That said, arguably, Appellant’s best argument is that there is a lack of consistency on this issue nationwide. *See, e.g., Channell, supra; R.L.G. v. State*, 322 So.3d 721, 724 (Fla. Dist. Ct. App. 2021) (explaining that, in Florida, “GPS records of third parties have traditionally been treated as hearsay and thus ordinarily admissible only under the business records exception to the hearsay rule”); *State v. Lawson*, 154 N.E.3d 658, 664 (Ohio App. Ct. 2020) (noting that, under the relevant Ohio evidentiary rule, a “statement” is an oral or written assertion and, thus, “GPS data constitutes an out-of-court ‘statement’” for hearsay purposes). Indeed, before this Court, Appellant relies almost exclusively on cases from Florida, which, as indicated *supra*, have held that GPS records are hearsay, and he suggests that this Court should follow suit.

In response to Appellant, the Commonwealth argues that a comparison of Florida’s hearsay rule against our own reveals a flaw in Appellant’s position. Specifically, the relevant Florida evidentiary rule describes hearsay as an out-of-court statement and defines “statement” as either: “(1) [a]n oral or written assertion; or (2) [n]onverbal conduct of a person if it is intended by the person as an assertion.” Fla. Stat. § 90.801(a)(1)-(2) and (c).²⁰ In contrast, the Commonwealth observes, our hearsay rule defines a “statement” as “a *person*’s oral assertion, written assertion, or nonverbal conduct, if the person intended it as an assertion.” Pa.R.E. 801(a) (emphasis added).

²⁰ Ohio, in which courts have also held that GPS data constitutes an out-of-court statement, similarly defines a “statement” under its hearsay rule. *See* Ohio Evid. R. 801.

While the Commonwealth points out that Florida's definition of "statement" arguably is broader than our own, we observe that Florida nevertheless defines hearsay as a "statement, other than one made by the declarant," and defines "declarant" as "a *person* who makes a statement." See Fla. Stat. § 90.801(a)-(c) (emphasis added). Thus, the Commonwealth's distinction is not entirely persuasive. Regardless, it is well settled that "decisions of sister states are not binding precedent on this Court," see *Commonwealth v. Nat'l Bank & Tr. Co. of Cent. Pennsylvania*, 364 A.2d 1331, 1335 (Pa. 1976), and, most critically, we note a logical lapse in the decisions from Florida that Appellant relies so heavily upon. Indeed, the courts in those cases did not discuss, or explicitly declined to address, the "person" requirement in Florida's hearsay rule which we have just discussed.

For example, in *Channell*, the court cited Florida's hearsay rule but did not address the person requirement in Fla. Stat. § 90.801(b), nor did any party therein argue that the at-issue data should be considered non-hearsay because it was created by a machine as opposed to a statement uttered by an individual. Likewise, in *Ruise, supra*, the court cited to its hearsay rule and determined that the GPS data was "clearly hearsay" because it purported to show Ruise's locations on a certain date, and was "being offered for the truth of the matter asserted[.]" See *Ruise*, 43 So.3d at 886. However, the court did not acknowledge the person requirement, nor did it explicitly address how the data, created by a machine, fell within the definition of hearsay, and focused instead on the State's argument that the GPS data was admissible under the business records exception to the hearsay rule. *Id.*; see also *Lawson, supra* (same); *R.L.G.*, 322 So.3d at 725-26 (declining to address the State's argument that the location information was not hearsay because the evidence constituted statements by machines and not persons, as the claim was raised for the first time on appeal and the record before it was insufficient to resolve

whether the location information was generated entirely without human input). Thus, we are unpersuaded by these decisions.²¹

Finally, our conclusion that GPS data is not hearsay comports with the purpose of the rule against hearsay, especially as it pertains to a defendant's right to confrontation. In that regard, we agree with the observation of the Eleventh Circuit in *United States v. Lamons*, 532 F.3d 1251 (11th Cir. 2008): "Although the right to subject witnesses to the crucible of cross-examination has some symbolic purpose in promoting the 'perception as well as the reality of fairness,' . . . [t]hese purposes are ill-served through confrontation of the machine's human operator." *Id.* at 1264-65. That is, hearsay statements are generally inadmissible because their introduction robs a defendant of his ability to cross-examine the declarant to test his truthfulness or challenge his statements – but a machine cannot be cross-examined. Accordingly, "[t]he best way to advance the truth-seeking process with respect to such 'statements' is not through cross-examination of the machine

²¹ Justice Wecht interprets our analysis of these cases as suggesting that we deem these courts to have "simply ignored the clear textual commands of federal and state rules" when analyzing computer-generated evidence. See Concurring Opinion (Wecht, J.) at 5. To the contrary, we observe instead that these cases did not acknowledge or address the person requirement of the implicated hearsay rule, presumably because it was deemed unnecessary to do so in resolving the matter on the business records exception, for example. It is common practice for courts to forego addressing what might be viewed as a more difficult legal question – especially in the absence of briefing or argument – where it may be resolved on an alternative basis. Indeed, many of the cases relied on by the concurrence appear to have used this same analytical approach. See *e.g. Kilgore v. State*, 763 S.E.2d 685 (Ga. 2014) (addressing whether the trial court erred in admitting cell phone records pursuant to the business records exception, without addressing the threshold hearsay issue); *Commonwealth v. McEnany*, 732 A.2d 1263, 1273 (Pa. Super. 1999) (concluding that "the trial court properly exercised its discretionary power, within the Uniform Business Records Act, regarding the admission of the phone records" without addressing the threshold hearsay issue); *U.S. v. Bonomolo*, 566 Fed. Appx. 71 (2nd Cir. 2014) (reviewing the admission of evidence under the business records exception without first considering whether the evidence constituted hearsay under the rule). We eschew construing such cases as having "*sub silentio* endorsed" Appellant's position on the hearsay question before us. See Concurring Opinion (Wecht, J.) at 6.

operator, but through the process of authentication.” *Id.* (internal quotation marks added); see also *United States v. Espinal-Almeida*, 699 F.3d 588, 610 (1st Cir. 2012) (assessing the authenticity of GPS data under Rule 901, “Authenticating or Identifying Evidence,” and stating that “evidence derived from the operation of a machine or instrument normally depends for its validity on the premise that the device was in proper working order” (citation omitted)). Indeed, to prove that “the proffered evidence is what it purports to be,” see Concurring Opinion (Wecht, J.) at 7-8, a proponent may be asked to prove that a machine or process produces an accurate result. See Pa.R.E. 901(9) (detailing that evidence about a “process or system” can be authenticated with “[e]vidence describing a process or system and showing that it produces an accurate result”); see also *United States v. Washington*, 498 F.3d 225, 231 (4th Cir. 2007) (“Any concerns about the reliability of such machine-generated information is addressed through the process of authentication not by hearsay or Confrontation Clause analysis. When information provided by machines is mainly a product of mechanical measurement or manipulation of data by well-accepted scientific or mathematical techniques, reliability concerns are addressed [under F.R.E. 901(9)] by requiring the proponent to show that the machine and its functions are reliable, that it was correctly adjusted or calibrated, and that the data . . . put into the machine was accurate” (citation and internal quotation marks omitted)).

Appellant seemingly acknowledges as much, contending that computer programs are susceptible to error and, thus, computer-generated data can be inaccurate and unreliable. Appellant’s Brief at 23-24. Here, however, an authentication challenge was not raised by Appellant before the Superior Court and, accordingly, to the extent one is presented now, it is waived. See Pa.R.A.P. 302 (issues not raised in the lower court are waived and cannot be raised for the first time on appeal). Consequently, while this Court can foresee issues arising with regard to the reliability and authentication of computer-

generated evidence, we take no position on the merits of Appellant's assertion with respect to the instant matter.

In conclusion, we hold that GPS data does not constitute hearsay under the plain language of Rule 801 because it does not constitute a statement as defined therein.²² We leave for another day whether, and under what circumstances, such evidence may be challenged on reliability, authentication, or other grounds.

For these reasons, we affirm the order of the Superior Court.

Justices Donohue, Dougherty, Mundy and Brobson join the opinion.

Justice Wecht files a concurring opinion.

The Late Chief Justice Baer did not participate in the decision of this matter.

²² We have no quarrel with the concurrence's well-founded concern that advancements in software systems may eventually call into question the efficacy of our hearsay and perhaps other evidentiary rules. However, in our view, the appropriate response is to amend those rules, and not to stretch the common sense meanings of oral or written statements under Rule 801 to include the output of any human-created machine.