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Litigation and The Internet of Things (IoT)

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The Internet of Things (IoT) has been defined as the the network of physical devices, vehicles, home appliances, and other items embedded with electronics, software, sensors, actuators, and connectivity which enables these things to connect, collect, and exchange data. Put simply, the IoT is a term meant to represent all of the “smart” electronic devices around us that gather, store, and/ or transmit data and information. As the IoT continues to grow in popularity and prevalence, it is important that trial lawyers understand its uses and implications in litigation. This article covers a brief overview of the IoT, as well as the IoT’s importance when preparing and trying a case.

To begin, a brief history of the IoT. Although sources vary, many people trace the concept of the IoT to Carnegie Mellon in 1982. Basically, engineers at the university became frustrated at the fact that sometimes they would get a warm soda out of the Coke machine, and sometimes they would get a cold soda out of the Coke machine. So, they wrote a code to keep tabs on how long each bottle had been in the machine. Before selecting a soda, they would check the code program to see

which quadrants of the machine had been recently loaded (more likely to be warm) and which quadrants of the machine had sodas that had been cooling for longer (more likely to be cold). The concept of this Carnegie Mellon code was the basic concept of the IoT as it exists today, i.e. machines gathering and transferring information rather than humans gathering and transferring information.

The term “Internet of Things” was not coined until 1999 by a man named Kevin Ashton, who had been commissioned by MIT to study radiofrequency identification (also known as “RFID”). Mr. Ashton was interested in how RFID could create, track and count data and increase efficiencies in the world of commerce and production. He referred to the overall concept as the Internet of Things, and described it as follows:

“If we had computers that knew everything there was to know about thing using data they gathered without any help from us—we would be able to track and count everything, and greatly reduce waste, loss and cost. We would know when things needed replacing, repairing or recalling, and whether they were fresh or past their best.”

From 1999 on, the IoT continued to grow. According to a study by Cisco Systems, somewhere between 2008 and 2009, was the point at which “more things or objects were connected to the Internet than people.” In 2010, Cisco Systems found that the “people to thing” ratio was 1.84 or, in other words, for each person there were 1.84 devices connected to the IoT.

So what kind of devices are included in the IoT? Many are familiar such as the iPhone, Apple Watch, Google Home, Amazon Alexa, or Nest security and home thermostat systems. Others are more obscure. For example, there is a device called “Foobot” which measures and records data related to ambient air quality. There is a \$6,000 “smart” refrigerator called “Family Hub” that is essentially a computer within a refrigerator, complete with a calendar, messaging capability, internet capabilities, etc. There are also IoT devices in many vehicles, including commercial trucks. These include GPS systems, smart braking systems, driver assist systems, and data recording systems. Unlike traditional “black boxes,” many of these systems are not only capable of storing data, but also transmitting data to centralized repositories.

So, why is the IoT important in litigation?

The first reason is spoliation. Spoliation is implicated when a party destroys, alters, or fails to retain potentially relevant evidence at a point where it is reasonable to expect litigation. Sanctions for spoliation can be significant, including an adverse jury instruction that the jury is to presume the spoliated evidence would have been harmful to the party guilty of the spoliation and, conversely, helpful to the opposing party. Traditionally, spoliation was most often seen when physical documents or

tangible items were destroyed, such as videotape, letters, or audio recordings. However, the potential scope of spoliation is far wider in the IoT age. Now more than ever before, the “things” around us are collecting data. It is crucial that lawyers – and their clients – are aware of all these “things,” what data they collect, and how to retrieve and preserve such data.

For example, an Apple Watch could have sleep data that could yield evidence regarding whether a driver in a car accident case was likely drowsy at the time of the accident. An iPhone could reveal information on where the driver was coming from due to the GPS features of the iPhone. The car’s GPS and/or navigation systems could have gathered and sent positioning or performance data that could have a limited retention period. Relevant data could be collected after the accident, as well. Say the plaintiff in an auto accident case complains of permanent disability. Smart devices such as a FitBit, Apple Watch, and/or iPhone could lend relevant information related to physical activity, heart rate, miles walked, stairs climbed, etc. All of this information is relevant and should be retained.

Aside from spoliation, the IoT is critical in supporting or disproving a witness’s memory of key events. Memory is encoded by what a person pays attention to, their expectations, and their emotional state. Memory gets integrated with other information as time passes. Memory erodes. The re-telling of a memory is shaped partly by whom one is talking to and the purpose of remembering the event. Lawsuits present obvious incentives to lie for monetary gain. However, IoT devices collect objective data. They can support your client’s version of events, if questioned, and they can disprove your opponent’s version of events.

Again, as an example, a plaintiff in a personal injury case claims he or she can barely walk and is basically confined to the couch. Discovery of IoT data from an iPhone or a FitBit may show otherwise. A party claims he or she was travelling 45 MPH, but discovery from IoT data may show otherwise. A party claims he or she was well-rested at the time of a crash, but IoT data may show he or she was at a local bar until 1:00 the morning before and had only gotten 5 hours of sleep. All of this is potentially relevant information that can be used to develop your case.

So, as takeaways, you must be aware of the IoT, the types of devices that are prevalent in today’s society, and the types of data that can be collected and stored. You must identify and preserve all good data because it could help your case. You must identify and preserve all bad data because – if not properly retained – it could hurt your case. Before your client makes any statements or provides any testimony, he or she should be aware of all the potential IoT data related to the case.

Electronic evidence, if used properly, will expose inconsistencies and lead to the truth.



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