

# Digital Evidence

2015

**Jeffrey B. Welty**



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# Preface

This is a new book about a relatively new topic: digital evidence. It's a topic of personal interest to me, perhaps because it allows me to count surfing the Internet for information about new technologies as "work." But it's also a topic of increasing importance to the criminal justice system. I am grateful to work at the School of Government, an institution that encourages faculty members to create new resources to address emerging legal issues that matter to the courts.

It's strange to write an old-fashioned paper book about a high-tech topic like digital evidence. However, recent surveys conducted by the School of Government suggest that our client groups still value this format for legal resources. Perhaps future editions will be available in electronic form.

Although my name is on the cover, this book was a team effort. It would not have been possible without the research assistance of Christopher Tyner, funded in part by an IBM faculty development grant. The book is much better as a result of the comments I received from my colleagues Bob Farb, Jessie Smith, Shea Denning, and Jamie Markham. The writing is clearer and the footnoting more complete thanks to the work of Melissa Twomey. More fundamentally, the book would not have existed at all were it not for the questions I have received over the years from officers, lawyers, and judges about various aspects of the law as it relates to digital evidence. Thanks to everyone who has contributed to this book, whether named above or not.

I have worked hard to make the book useful, but I am sure that it could be better. If you think that I have omitted an important topic, missed a significant case, erred in my analysis, or made other mistakes, please let me know so that future editions may benefit from your insight. I may be reached at (919) 843-8474 or by email at [welty@sog.unc.edu](mailto:welty@sog.unc.edu).





# Introduction

This is a book about digital evidence in criminal cases. It addresses how such evidence may be obtained and the rules that govern its introduction in court. As discussed below, it was written mainly for North Carolina judges, lawyers, and officers, though it may be of use to officials in other states as well.

## I. Digital Evidence as an Emerging Issue

For years, courts and commentators have viewed digital evidence as an important emerging issue in criminal cases.<sup>1</sup> It has now emerged. Consider the following data:

- Courts across the country issued opinions in more than 1,500 criminal cases involving searches of digital devices in the past three years.<sup>2</sup> The volume of such decisions is up more than threefold from

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1. See, e.g., Orin S. Kerr, *Digital Evidence and the New Criminal Procedure*, 105 COLUM. L. REV. 279, 280 (2005) (arguing that “the use of computers in criminal activity has popularized a new form of evidence, digital evidence” and that “the new methods of collecting digital evidence should . . . lead to reforms in the law of criminal procedure”); U.S. DEP’T OF JUSTICE, CRIM. DIV., COMPUTER CRIME & INTELLECTUAL PROP. SECTION, SEARCHING AND SEIZING COMPUTERS AND OBTAINING ELECTRONIC EVIDENCE IN CRIMINAL INVESTIGATIONS xii (3d ed. 2009), available at [www.justice.gov/criminal/cybercrime/docs/ssmanual2009.pdf](http://www.justice.gov/criminal/cybercrime/docs/ssmanual2009.pdf) (hereinafter SEARCHING AND SEIZING COMPUTERS) (stating that “[c]omputer crime investigations raise many novel issues”); Tara McGraw Swaminatha, *The Fourth Amendment Unplugged: Electronic Evidence Issues & Wireless Defenses*, 7 YALE J.L. & TECH. 51, 53 (2004–2005) (discussing “unsettled” law regarding “novel electronic evidence issues”); *State v. Jones*, 102 A.3d 694, 702 (Conn. 2014) (noting the “issues raised by the ever increasing prevalence of digital evidence”).

2. The author submitted a Westlaw query for “search! /5 (computer cell! laptop!)” on February 3, 2015, and limited the results to state and federal criminal cases, resulting in 1,632 responsive cases.

a decade ago.<sup>3</sup> North Carolina has also seen an increase in such cases.<sup>4</sup>

- There has been an even sharper increase in the number of opinions in criminal cases that address GPS tracking. Westlaw contains just thirty-seven such opinions from the state and federal courts in 2004, while the database contains 702 such opinions from 2014, nearly a twenty-fold increase.<sup>5</sup> North Carolina has also seen an increase in GPS tracking cases.<sup>6</sup>
- Court opinions referring to the Stored Communications Act,<sup>7</sup> the principal federal statute regulating law enforcement access to email and other electronic communications, have also ballooned in number.<sup>8</sup>

These written opinions are just the tip of the iceberg. Most criminal cases, particularly in state court, do not result in any written orders—certainly none that are selected for inclusion in Westlaw. In cases large and small, courts are seeing more disputes about how the evidence rules apply to digital evidence, magistrates are seeing more search warrant applications targeting digital devices, and law enforcement officers are obtaining digital evidence more often. The *New York Times* reported that officers requested data from cell phone service providers more than a million times in 2012.<sup>9</sup>

This explosion in the collection of, and litigation over, digital evidence is a direct result of the ever-increasing role that digital devices play in our society. Criminals, crime victims, witnesses, and others use digital devices every day and leave digital trails that may contain critical evidence. More than 80 percent of American households, and more than 90 percent of

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3. In 2004 there were only 174 such cases, while in 2014 there were 598.

4. In 2004, North Carolina's appellate courts issued five opinions in criminal cases matching the search criteria, while in 2014, there were eleven such opinions.

5. The author submitted a Westlaw query for "GPS" on February 3, 2015, and limited the results to state and federal criminal cases.

6. In 2004, North Carolina's appellate courts did not issue any opinions in criminal cases in which the term "GPS" was used. In 2014, the appellate division issued ten such opinions.

7. 18 U.S.C. §§ 2701 *et seq.*

8. The results of a Westlaw query revealed that in 2004 there were just three cases nationwide that contained the phrase "Stored Communications Act", while in 2014, there were 118 such cases.

9. Brian X. Chen, *A Senator Plans Legislation to Narrow Authorities' Cellphone Data Requests*, N.Y. TIMES (Dec. 9, 2013), [www.nytimes.com/2013/12/09/technology/a-senator-plans-legislation-to-narrow-authorities-cellphone-data-requests.html](http://www.nytimes.com/2013/12/09/technology/a-senator-plans-legislation-to-narrow-authorities-cellphone-data-requests.html).

households headed by younger adults, contain at least one computer, and a significant majority of Americans have Internet access at home.<sup>10</sup>

In some respects, though, computers are yesterday's technology. Almost all American adults have a cell phone, and among younger adults, almost all have a smartphone. These phones are used to do nearly everything that can be done on a computer, including sending and receiving emails, text messages, and photographs; engaging with social networks; and accessing the Internet.<sup>11</sup> In short, as the United States Supreme Court recently observed, “[c]ell phones have become important tools in facilitating coordination and communication among members of criminal enterprises, and can provide valuable incriminating information about dangerous criminals.”<sup>12</sup>

Of course, it is not just computers and cell phones that have become important to criminal investigations and prosecutions. Websites, peer-to-peer networks, chat rooms, social media, email, text messaging, and a thousand other features of the digital landscape are also relevant.

## II. Purpose and Structure of This Book

This book is a guide to the legal issues presented by the collection and introduction of digital evidence in criminal cases. It does not address civil cases and electronic discovery under the civil procedure rules.

Although there are other resources on the general topic of digital evidence, this book differs from existing works in important ways. For example, the Computer Crime and Intellectual Property Section of the Criminal Division of the United States Department of Justice wrote an influential early manuscript on searching digital devices.<sup>13</sup> The document is available online free of charge, but it was last updated in 2009, focuses exclusively on the federal courts, and is written strictly from a prosecutorial perspective. Professor Wayne LaFave's widely-used treatise on criminal procedure has been revised

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10. THOM FILE & CAMILLE RYAN, U.S. CENSUS BUREAU, *COMPUTER AND INTERNET USE IN THE UNITED STATES: 2013* (Nov. 2014), *available at* [www.census.gov/content/dam/Census/library/publications/2014/acs/acs-28.pdf](http://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-28.pdf).

11. Pew Research Internet Project, *Mobile Technology Fact Sheet*, PEWINTERNET.ORG (last visited Feb. 2, 2015), <http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/>.

12. *Riley v. California*, \_\_\_ U.S. \_\_\_, \_\_\_, 134 S. Ct. 2473, 2493 (2014).

13. *See* SEARCHING AND SEIZING COMPUTERS, *supra* note 1.

to include material on digital searches and seizures,<sup>14</sup> but it is written for an academic audience and does not address the introduction of digital evidence under the evidence rules.

By contrast, this book is intended to address the full sweep of digital evidence issues that arise in criminal cases. Therefore, it covers both how digital evidence may be obtained and the rules that govern the admissibility of electronic evidence.

Furthermore, the book is intended to be more practical than theoretical. It is meant to be useful for three main audiences. First, law enforcement officers must make search and seizure decisions in the field, often under time pressure. This book should help them to do that. Second, lawyers need to raise and litigate issues concerning digital evidence. This book is intended to be a resource that provides valuable information to lawyers on both sides of criminal cases. Third, judges must rule on the issues that lawyers raise, and this book should help them as well.

Although the book is intended to be useful for multiple actors in the criminal justice system, in certain sections it naturally emphasizes certain roles. For example, much of the material about search warrant applications is directed principally to the officers who draft them. Of course, that same material may be of interest to a judge or a magistrate considering such an application, or to a prosecutor or a defense lawyer litigating the validity of a search warrant issued based upon such an application.

As to the organization of the book, it contains this introductory section and the following substantive chapters:

- Chapter 1, concerning search warrants for digital devices
- Chapter 2, concerning warrantless searches of digital devices
- Chapter 3, concerning law enforcement access to and interception of electronic communications, from phone calls to email and text messages
- Chapter 4, concerning GPS tracking
- Chapter 5, concerning the law of evidence and the introduction of digital evidence in criminal trials

The book also contains appendices, in which several frequently referenced statutes are reproduced:

- Appendix A, the Stored Communications Act

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14. WAYNE R. LAFAVE ET AL., *CRIMINAL PROCEDURE* (3d ed. 2007). Chapter 4 of the treatise, entitled “Network Surveillance,” is an example of digital-specific material.

- Appendix B, North Carolina’s wiretapping statutes
- Appendix C, North Carolina’s pen register statutes

In many areas, especially where the law is unclear or still emerging, the book provides summaries of leading cases. The cases often reach different results, and this book usually describes the competing approaches without endorsing any of them. (There are a few exceptions, where the author believes that a particular approach is clearly misguided.) In some instances, virtually every case on an issue is summarized in the text, while for other issues, enough cases exist on a point of law that the book is necessarily selective. The book is generally current through the end of 2014.

### **III. Extent to Which This Book Focuses on North Carolina**

This book is published by the UNC School of Government, where the author is a member of the faculty. The mission of the School is to “improve the lives of North Carolinians by engaging in practical scholarship that helps public officials and citizens understand and improve state and local government.”<sup>15</sup> Because the School’s mission is focused on North Carolina, this book has been written with North Carolina officials in mind. So, for example, the discussion of wiretapping in chapter 3 contains a close analysis of the North Carolina wiretapping statute. And North Carolina cases, where they exist, are given special attention.

However, there are many important issues concerning digital evidence on which there is not yet any North Carolina law, and on which North Carolina courts would be likely to look to out-of-state authorities for guidance. Furthermore, there are legal issues regarding digital evidence that are governed mainly by federal law, such as the Stored Communications Act. Therefore, this book analyzes many statutes, and cites and summarizes many cases, that are not from North Carolina. Because so many of the authorities cited in this book are not from North Carolina, the book may be of interest to some court actors from other jurisdictions, and of course, they are more than welcome to use it.

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15. See UNC School of Government, *About the School: Mission and History*, <http://www.sog.unc.edu/node/257>.