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ESSAY

CRIMINAL-JUSTICE APPS: A MODEST STEP TOWARD DEMOCRATIZING THE CRIMINAL PROCESS

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Substantive criminal law and the criminal-justice process are both famously opaque. Although society expects people to be on notice of the substantive criminal law,¹ the average person has little understanding of the breadth of the penal code and what the legislature has criminalized.² Even for conventional crimes that everyone is aware of (think of drunk driving, speeding, and burglary, to name just a few) the average person likely has no idea what particular elements make up those crimes.³

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¹ See *Atkins v. Parker*, 472 U.S. 115, 130 (1984) (“All citizens are presumptively charged with knowledge of the law.”).

² See Paul H. Robinson & Michael T. Cahill, *The Accelerating Degradation of American Criminal Codes*, 56 *Hastings L. J.* 633, 638 (2005) (“The proliferation of potentially redundant offenses causes several significant problems. First, overstuffed criminal codes make it more difficult for the average citizen to understand what the criminal code commands.”); Paul H. Robinson & Michael T. Cahill, *Can a Model Penal Code Second Save the States From Themselves?*, 1 *Ohio St. J. Crim. L.* 169, 170 (2003).

³ See Michael T. Cahill, *Attempt, Reckless Homicide, and the Design of Criminal Law*, 78 *U. Colo. L. Rev.* 879, 953 (2007) (“Rather than promoting the principle of notice, today’s criminal law creates an impregnable network of prohibitions that no one but a criminal law expert could decipher.”); see also Stephanos Bibas, *Designing Plea Bargaining from the Ground Up: Accuracy and Fairness Without Trials as Backstops*, 57 *Wm. & Mary L. Rev.* 1055, 1075 (2016) (finding that defendants may have difficulty understanding and recognizing

Criminal procedure is similarly a mystery to most of the public.⁴ The average driver has no idea whether she can refuse to let an officer look around her car⁵ or whether she can decline to take a breathalyzer test.⁶ Most famously, almost everyone waives their *Miranda* rights⁷—even after specifically being told that they do not have to talk—because they do not really understand their options. Once arrested, the process of getting out of custody and retaining a lawyer is confusing.⁸ Arraignments, bail determinations, preliminary hearings, and motions to suppress are also likely befuddling to the average individual.⁹

The procedural confusion is compounded by the sheer practical difficulty of exercising constitutionally protected rights. For instance, defendants have a right to a fair trial, yet large numbers of defendants are handicapped by being unable to make bail.¹⁰ These individuals often waive their trial rights and plead guilty simply to get out of custody.¹¹ And for defendants who can afford to hire lawyers, finding the right attorneys and making time to consult with them is enormously difficult.

In short, the criminal justice system affords suspects and defendants considerable statutory and constitutional protections. Yet, as in many other areas of our democracy, these individuals, especially vulnerable members of the population, lack the necessary information and ability to take advantage of these legal protections.

technical doctrines, such as mens rea and accomplice liability, and evaluating the elements of crimes).

⁴ See Stephanos Bibas, Transparency and Participation in Criminal Procedure, 81 N.Y.U. L. Rev. 911, 913 (2006).

⁵ See Alafair S. Burke, Consent Searches and Fourth Amendment Reasonableness, 67 Fla. L. Rev. 509, 526 (2015).

⁶ Practically speaking, the answer is “yes,” as it is impractical for an officer to physically force an individual to blow into a tube. But the Supreme Court recently gave states the green light to criminalize refusal to take a breathalyzer (though not a warrantless blood draw). See *Birchfield v. North Dakota*, 136 S. Ct. 2160, 2163–65 (2016).

⁷ See Richard A. Leo, Inside the Interrogation Room, 86 J. Crim. L. & Criminology 266, 276 (1996) (finding that approximately seventy-eight percent of respondents waived their *Miranda* rights).

⁸ See Mark D. Killian, Survey Looks at How People Choose Lawyers, Fla. B. News, May 15, 2001, at 19.

⁹ See Bibas, *supra* note 4, at 924 (“[L]egalese, jargon, euphemism, and procedural complexities garble court proceedings.”).

¹⁰ See Samuel R. Wiseman, Pretrial Detention and the Right to Be Monitored, 123 Yale L.J. 1344, 1360 (2014).

¹¹ See Jenny Roberts, The Innocence Movement and Misdemeanors, 98 B.U. L. Rev. 779, 832 (2018) (“The most significant predictor of whether a defendant enters a guilty plea is his custodial status.”).

Technology is slowly starting to make the criminal-justice system more understandable and beginning to help even the playing field for disadvantaged groups. In recent years, lawyers, activists, and policymakers have introduced cell phone applications—what I will call “criminal-justice apps”—that are slowly beginning to democratize the criminal-justice system. These apps fall into a variety of categories: (1) apps that teach individuals about the law; (2) apps that help suspects and defendants connect with lawyers; (3) apps that help defendants navigate confusing court systems; and (4) what we might think of as reform apps or paradigm-shifting apps that seek to bring systemic changes to the criminal justice system.

To be sure, many of these apps were created by lawyers out of self-interest in order to generate business. But a few apps have emerged purely as a public service, in order to enhance the power of suspects and defendants who have been historically disadvantaged in the criminal-justice system. Whether these apps were designed with a profit motive or as a public service, they serve a democratizing function. Criminal-justice apps make it (at least somewhat) easier for individuals to be informed about the criminal-justice system and to navigate it on a more equitable basis.

Using apps focused on DWIs, bail, stop-and-frisk, and recording of the police as illustrative examples, this essay explores how apps are democratizing criminal justice. While many of the apps are exciting, this essay concludes with a cautionary note: Unlike other technological breakthroughs, criminal-justice apps will likely lead to only modest change at a modest pace.

I. APPS THAT TEACH LAW:

One of the greatest barriers to a more egalitarian criminal justice system is simply lack of knowledge. Law is complicated. Criminal codes are massive, and most citizens do not have more than a cursory knowledge about what has been criminalized.¹² Nor do most individuals know much about their criminal-procedure rights.¹³ Apps in a few select areas have begun to narrow this information deficit.

¹² See *supra* notes 1–3 and accompanying text.

¹³ See *supra* notes 4–9 and accompanying text; Craig M. Bradley, Two Models of the Fourth Amendment, 83 Mich. L. Rev. 1468, 1472 (1985) (“[T]he fundamental problem with fourth amendment law is that it is confusing.”).

A. DWI Apps Are Increasingly Common

The most common type of criminal-justice app is the DWI (Driving While Intoxicated/Impaired) app. Numerous criminal-defense attorneys—no doubt in an effort to acquire clients—have created apps with information for drivers who are about to find themselves in legal trouble.

Some of the DWI apps provide considerable legal information. For example, the colorfully named “Oh Crap! App” has a section on “Basic Rights” that includes information on the right to record police, the right to refuse to answer a police officer’s questions, the right to a lawyer, and an explanation of how police cannot search without a warrant or consent.¹⁴ The app also offers defense-oriented guidance on how to answer an officer’s questions about whether you have been drinking to avoid incriminating responses.¹⁵ Likewise, the app has a section on consenting to field sobriety tests and correctly notes that “[y]ou cannot be forced to submit to field sobriety tests in the State of Virginia.”¹⁶ It further opines that the walk and turn test and one leg stand test “are almost impossible to perform to law enforcement standards in a stressful situation whether alcohol has been consumed or not.”¹⁷ While the claims about the unfairness of the field sobriety tests may be exaggerated,¹⁸ they nevertheless provide drivers with a coherent set of advice on their rights and how they can respond to law enforcement.

While the Oh Crap! App tries to steer individuals away from confessions and field sobriety tests, it also offers wise and accurate advice about when to cooperate with law enforcement. The app advises that police do have the authority to demand a driver’s license and registration and to order the driver out of the vehicle.¹⁹

¹⁴ See Oh Crap! App, [https://perma.cc/SC4Z-WZK3] (last visited Nov. 10, 2018).

¹⁵ See id. (“The answer to this question can be incriminating, thus, you have the right not to answer it when asked by law enforcement.”).

¹⁶ Id.; Whitestone Young, *Is it Mandatory to Take a Field Sobriety Test in Virginia?*, [https://perma.cc/DU3V-ENE6] (last visited Jan. 4, 2019).

¹⁷ See Oh Crap! App, *supra* note 14.

¹⁸ Three prominent studies on the Standardized Field Sobriety Test found that police officers’ arrest decisions based on such tests were accurate, that is the drivers had measured BAC of 0.008% or higher, in over 86% of cases. See Steven J. Rubenzer, *The Standardized Field Sobriety Tests: A Review of Scientific and Legal Issues*, 32 *L. & Hum. Behav.* 293, 297 (2007). But, because of the potential for confounding variables that are present at many DWI stops, the validity of the experimental design and results of the aforementioned studies has recently been questioned. *Id.* at 306.

¹⁹ See Oh Crap! App, *supra* note 14. The app also provides valuable information on the right to consult with an attorney, breathalyzer refusals, and evidence preservation. See *id.*

Other DWI apps provide even more information. For instance, the “DWI Defense” app, designed by a Missouri law firm, offers advice on how to avoid being pulled over in the first place.²⁰ It also offers strategic advice to help the possibly intoxicated avoid being arrested, such as keeping with the flow of traffic, rolling down the window to vent smells in the vehicle, and not saying things such as “I just had one beer with dinner.”²¹ While some might see this advice as an objectionable effort to help people engage in drunk driving, the overall thrust of the information is to help individuals be more knowledgeable about how drunk-driving laws operate.

Other DWI apps try to simplify the relevant rules of criminal law, procedure, and investigation as much as possible for users with no legal background. A DWI app from a Texas lawyer provides “12 Rules for Dealing with Police.”²² The twelve rules include many of the points made above, but they also wisely caution people to ask to see an actual warrant before allowing a blood draw.²³

In addition to providing legal information, some of the DWI apps also have valuable functions designed to prevent drunk driving in the first place. For instance, a number of apps have a blood-alcohol content calculator that allows a user to estimate whether their blood-alcohol level might exceed the legal limit of 0.08.²⁴ The more sophisticated apps also seek to help individuals avoid legal trouble by including icons that allow the user to call nearby taxi services.²⁵

The DWI apps are still a relatively modest part of the legal landscape. Each year, more than a million people are arrested for driving while intoxicated.²⁶ Likely only a small percentage of those individuals consulted a DWI app before leaving a bar or while an officer was in the process of investigating them on the road. Still, the apps have become

²⁰ See DWI Defense, iTunes App Store, [https://perma.cc/5LNK-VPP7] (last visited Nov. 10, 2018) (“If you speed, roll through a stop sign, forget to signal, drive with a burned-out light, or fail to place new registration tags on your license plate, you risk getting pulled over.”).

²¹ *Id.*

²² See ATX DWI, iTunes App Store, [https://perma.cc/YPR2-QXWE] (last visited Nov. 10, 2018).

²³ *Id.*

²⁴ See, e.g., Oh Crap! App, iTunes App Store, [https://perma.cc/SC4Z-WZK3] (last visited Jan. 25, 2019); The Dude, iTunes App Store, [https://perma.cc/N3WC-WSYB] (last visited Nov. 10, 2018).

²⁵ See Oh Crap! App, *supra* note 24.

²⁶ See Impaired Driving: Get the Facts, Centers for Disease Control and Prevention [https://perma.cc/4EXE-63ZJ] (last visited Nov. 10, 2018).

prevalent. The lawyer who created the Oh Crap! App estimates that it has been downloaded over 100,000 times since it was created in 2013.²⁷ With such a large number of downloads, some arrestees surely consulted the app in the moments before they were being arrested.²⁸ And even those who did not consult it at the moment of arrest likely internalized some of the information from prior review. Of course, while I recognize that more information does not always mean better information, in the case of DWI stops where most citizens have limited knowledge of the law and are at a power imbalance with the police, the apps may be very valuable.

II. APPS TO CONNECT DEFENDANTS WITH LAWYERS

In addition to a lack of legal knowledge, a key problem for many criminal defendants is finding the right lawyer. App designers have created mechanisms to find, contact, and compare attorneys. Not surprisingly, all of the aforementioned DWI apps also provide ways to directly communicate with the lawyer who created the app. Some DWI apps enable the user to immediately call a lawyer²⁹ or send a pre-filled email to an attorney.³⁰ Some apps also provide an icon to contact a bail bondsman in addition to a lawyer.³¹

Beyond the DWI area, there are also websites that connect individuals with lawyers for other types of offenses. For instance, one website enables individuals to upload traffic tickets, receive competing offers from lawyers, and then hire an attorney.³²

²⁷ See Telephone Interview with Robert Rehkemper, Managing Partner, Gourley, Rehkemper & Lindholm, PLC (Aug. 2, 2018) (interview conducted by Elizabeth Brightwell).

²⁸ Using a DWI app during a traffic stop does carry a risk. If an individual is fiddling with a phone after being pulled over, there is some chance that an officer will confuse the cell phone with a weapon.

²⁹ See, e.g., The Dude, *supra* note 24 (displaying a “call me now” button); Buffalo DWI Lawyers, iTunes App Store, [https://perma.cc/UT4S-T4B5] (last visited Nov. 14, 2018) (providing a defense attorney’s phone number); Louisiana DWI Defense: Glynn Delatte, Jr., iTunes App Store, [https://perma.cc/WG62-4NN4] (last visited Nov. 14, 2018) (displaying a “call me now” button).

³⁰ See, e.g., DWI Arrest Phone Apps, Lipsitz Green Scime Cambria LLP, [https://perma.cc/P85J-C8YB] (last visited Nov. 14, 2018) (describing features of the law firm’s DWI & Arrest Guide App, including an “I’m Being Arrested!!!” button that sends a prefilled email to the firm).

³¹ See, e.g., Oh Crap! App, *supra* note 14.

³² See How it Works, Bernie Sez [https://perma.cc/EQ3D-FF7J] (last visited Nov. 14, 2018). The app is also able to connect DWI defendants with attorneys. Speeding/DUI Info, Bernie Sez, [https://perma.cc/94NY-9PGD] (last visited Nov. 14, 2018).

Another app—“Got My Legal Help”—identifies the user’s location, when prompted, and immediately puts the user in touch with an attorney licensed in the relevant jurisdiction and with expertise in the applicable area of law.³³ This app is valuable not just to individuals who have no prior experience with lawyers, but also to well-connected individuals who happen to be away from home when they are arrested.

Of course, we should be cautious in extolling the virtue of “find a lawyer” apps. These are early-generation apps with limited functionality. More worrisome, the lawyers have a profit motive. And most troubling is the possibility that some of the lawyers who acquire clients by apps may not be the most capable or cost-effective attorneys.³⁴ In short, clients may be drawn to attorneys who are less skilled and more expensive than they otherwise would have hired. Of course, problems with lawyer advertising have always existed.³⁵ Mobile apps at least move the ball forward by helping those with no legal contacts find attorneys, helping others find the right *type* of attorney, and making it easier to begin getting legal advice by breaking down some of the existing communication barriers.³⁶

Moreover, there is vast potential for future apps that connect individuals to lawyers. Think of TripAdvisor and Yelp, which provide individuals with the opportunity to rate and compare hotels, destinations, and restaurants. Engineers could create a similar app where previous clients rate lawyers, describe the kind of case the lawyer handled, and the result of the proceeding. A criminal defendant without the first idea whom to hire could scroll through such an app and make a more informed decision about their representation. Of course, all of the information might not be accurate—much as there are both self-serving and unfair reviews on Yelp and TripAdvisor—but the defendant would have far more information than she would without the app. And lawyers who know they will be publicly reviewed will have an incentive to provide good service to their clients in order to avoid bad reviews.

³³ See Got My Legal Help, iTunes App Store, [<https://perma.cc/4BVF-AKWH>] (last visited Nov. 14, 2018).

³⁴ Cf. Gene W. Murdock & John White, Does Legal Service Advertising Serve the Public’s Interest?, 8 J. Consumer Pol’y. 153, 162 (1985) (finding that “lower quality lawyers are more prone to use Yellow Pages advertising”).

³⁵ See John B. Attanasio, Lawyer Advertising in England and the United States, 32 Am. J. Comp. L. 493, 496–97 (1984).

³⁶ On the lack of information available to consumers in selecting a lawyer, see Linda Morton, Finding a Suitable Lawyer: Why Consumers Can’t Always Get What They Want and What the Legal Profession Should Do About It, 25 U.C. Davis L. Rev. 283, 284–85 (1992).

III. APPS THAT HELP INDIVIDUALS NAVIGATE THE LEGAL SYSTEM

The legal process is obviously confusing. In theory, an attorney helps individuals navigate the complicated process. But not all criminal defendants have attorneys.³⁷ And even for those who have legal representation, it is sometimes hard to get a timely and thorough answer to legal questions from an overburdened defense attorney.³⁸ In a very small number of courts, there are apps to help individuals decipher the legal issues and procedures in the court system.

For example, following a conviction, many defendants are obligated to pay restitution or fines.³⁹ Failure to do so leads previously released individuals to be taken back into custody.⁴⁰ To make this process easier for federal defendants, courts are beginning to create apps that enable individuals to pay fines from their phones. The United States District Court for the District of Minnesota created an app—“MND Debt”—that enables users to “make payments for restitution, fines, and assessments from anywhere with no additional charge.”⁴¹ In Hawaii, individuals can use the “Hawaii Courts Mobile” app to access records, find court forms, and also pay fines.⁴²

Once cases are finalized, many convicted individuals seek to expunge their criminal records, but find the process to be complicated. Multiple jurisdictions have apps that assist people in trying to expunge their criminal records. For instance, the “Expunge.io” app provides attorney referral assistance for individuals with a juvenile record in Cook County, Illinois.⁴³ The “ExpungeMaryland” app provides “an assessment of an

³⁷ See Adam M. Gershowitz, *The Invisible Pillar of Gideon*, 80 *Ind. L.J.* 571, 572, 591 (2005).

³⁸ See generally Mary Sue Backus and Paul Marcus, *The Right to Counsel in Criminal Cases*, 86 *Geo. Wash. L. Rev.* 1564 (2018) (documenting the various problems facing indigent criminal defendants who rely on underfunded and overworked public or appointed defense attorneys).

³⁹ See Neil L. Sobol, *Charging the Poor: Criminal Justice Debt and Modern-Day Debtors’ Prisons*, 75 *Md. L. Rev.* 486 (2016).

⁴⁰ Katherine Beckett & Alexes Harris, *On Cash and Conviction: Monetary Sanctions as Misguided Policy*, 10 *Criminology & Pub. Pol’y* 509, 523–26 (2011).

⁴¹ See MND Debt: Pay US Court, iTunes App Store, [https://perma.cc/CAB9-B4LY] (last visited Nov. 15, 2018).

⁴² See Hawaii Courts Mobile, iTunes App Store, [https://perma.cc/DL77-4DUJ] (last visited Nov. 15, 2018).

⁴³ See Jason Tashea, *A Good Name Is Hard To Clear: A National Report of Digital Expungement Applications*, SIMLab (Sept. 1, 2016), [https://perma.cc/Z4C8-3G8P].

individual's eligibility for expungement" and "referrals to pro bono legal groups."⁴⁴

In 2014, California enacted a law that downgraded some crimes from felonies to misdemeanors.⁴⁵ The downgrade was significant for defendants who had already served their sentences but were saddled with felony convictions that hindered their employment opportunities. However, utilizing the new law to clear felonies from their record proved difficult for some individuals. Each California county adopted its own procedure to implement the law, and there was limited staffing to help individuals complete the paperwork.⁴⁶ Reformers thus created an app—"Clear My Record"—that helps individuals apply across counties to have their convictions reduced.⁴⁷ There are also other expungement apps that are "attorney facing" and that enable lawyers and law school clinics to import data and populate form documents much faster.⁴⁸

In civil cases, there are a few apps to help pro se litigants navigate the court system. For instance, the "Florida Courts HELP" app seeks to help Floridians who represent themselves in family-law cases.⁴⁹ The app provides access to nearly 200 family-law forms that can be filled out on the device, contact information for help centers, user-friendly instructions about how the process works, lawyer referrals, and a glossary that explains dozens of legal terms.⁵⁰

The Legal Services of Northern Virginia has likewise created an app, with funding by the Legal Services Corporation, to help individuals navigate the court system. Their app—"Legal Case Navigator"—assists individuals in Northern Virginia by providing links to legal forms, a map of the local courthouse, lawyer referral phone numbers, and basic information about individuals' legal rights.⁵¹ It even enables the individual to access information about their own pending case.⁵²

⁴⁴ Id.

⁴⁵ See What You Need to Know About Proposition 47, Calif. Dep't of Corr. and Rehab., [<https://perma.cc/SBZ7-W3WJ>] (last visited Jan. 4, 2019).

⁴⁶ See Jason Shueh, Code for America's Clear My Record App Gives Ex-Convicts a Second Chance, *State Scoop* (Dec. 2, 2016), [<https://perma.cc/FL69-VE36>].

⁴⁷ See id.

⁴⁸ See Tashea, *supra* note 43.

⁴⁹ See Florida Courts HELP App, Florida Courts Help, [<https://perma.cc/5BAG-8766>] (last visited Jan. 4, 2019) (discussing the app's features).

⁵⁰ See id.

⁵¹ See Legal Case Navigator, iTunes App Store, [<https://perma.cc/G976-RBMG>] (last visited Jan. 4, 2019).

⁵² See id.

Although the Florida and Northern Virginia apps are focused on civil issues such as family law, consumer law, elder law, expungements, and housing law, the concept could easily be expanded to the criminal-justice context. For instance, as noted above, the Florida Courts HELP app includes a glossary of dozens of legal terms that average citizens otherwise may not understand. Criminal-law terminology can be just as confusing, and a criminal-courts app would be similarly valuable in translating concepts for a lay audience.

IV. APPS AIMED AT REFORMING THE CRIMINAL JUSTICE SYSTEM

While most of the criminal-justice apps were created by lawyers seeking to generate business, there are also apps designed by nonprofits that seek to reform the criminal-justice system.

A. Bail Apps Seeking to Change the System

Scholars and criminal-justice reformers have turned their attention to the bail system in recent years. Most arrestees are poor and do not have thousands or even hundreds of dollars in discretionary funds to pay bail.⁵³ Arrestees therefore turn to bail bondsmen, who typically require the suspect to pay ten percent of the bail amount.⁵⁴ Many defendants cannot even afford the ten percent, and must remain in jail pending trial.⁵⁵ Unable to show up for work, some will lose their jobs, which causes a cascade of other financial and basic life problems. Detainees who were in drug treatment programs or homeless shelters may lose their beds in such facilities.⁵⁶ They might even suffer violence while incarcerated. And, perhaps most significantly, the biggest indicator that a defendant will plead guilty is whether he is detained pending trial.⁵⁷

⁵³ See Cherise Fanno Burdeen, *The Dangerous Domino Effect of Not Making Bail*, *The Atlantic* (Apr. 12, 2016), [<https://perma.cc/FB8V-3RPU>].

⁵⁴ See Wayne R. LaFare et al., *Criminal Procedure* §12.1(b), at 650 (4th ed. 2004).

⁵⁵ See Burdeen, *supra* note 53 (“More than 60 percent of people locked up in America’s jails have not yet been to trial, and as many as nine in 10 of those people are stuck in jail because they can’t afford to post bond.”).

⁵⁶ See Yale Law Sch. Allard K. Lowenstein Int’l Human Rights Clinic, “Forced into Breaking the Law”: *The Criminalization of Homelessness in Connecticut* 18 (2016), [<https://perma.cc/2YPU-KMLF>].

⁵⁷ See Roberts, *supra* note 11, at 832.

Although there have been some successful reform efforts through litigation,⁵⁸ the money bail system is still one of the biggest obstacles to creating an egalitarian criminal-justice system in the United States.⁵⁹ Reformers are creating apps to tackle the problem.

In late 2017, engineers launched “Appolition,” an app that links to users’ bank accounts and rounds up the spare change on debit and credit card purchases and donates the money to grassroots groups that post bail for incarcerated misdemeanor suspects.⁶⁰ In the first month, Appolition raised \$18,000 to post bail for pretrial detainees;⁶¹ as of January 23, 2019, the app has raised around \$200,000 and bailed over fifty people out of jails across the United States.⁶²

Similarly, consider “Bail Bloc,” a blockchain-based bail app, also launched in late 2017, which “allocates a small percentage of the operating device’s excess computing power to mine cryptocurrency.”⁶³ The Bail Bloc app converts the cryptocurrency to dollars and donates the proceeds to The Bronx Freedom Fund, which then donates it to pretrial detainees. In the first two months after launch, the app raised about \$5,000.⁶⁴

An app backed by rapper and entrepreneur Jay-Z—“Promise”—aims to provide local criminal-justice systems with an alternative to pretrial incarceration and the conventional bail process.⁶⁵ The app (which is currently in the design stage) would “monitor and support participants”

⁵⁸ See Eli Rosenberg, Judge in Houston Strikes Down Harris County’s Bail System, N.Y. Times (Apr. 29, 2017), [https://perma.cc/F75T-G6G7].

⁵⁹ See Shima Baradaran Baughman, *The Bail Book: A Comprehensive Look at Bail in America’s Criminal Justice System* 1–11 (2018).

⁶⁰ See Victoria Law, This App Collects Spare Change to Bail People Out of Jail, *Wired* (Jan. 2, 2018, 7:00 AM), [https://perma.cc/RGC8-9L7F]; see also Frequently Asked Questions, Appolition, [https://perma.cc/Z6AD-P583] (last visited Jan. 4, 2019) (describing how the app works).

⁶¹ Law, *supra* note 60.

⁶² Allana Akhtar, A Movement Is Underway to End Cash Bail in America. This App Found an Ingenious Way to Help, *Money* (Jan. 23, 2019), <http://money.com/money/55-09560/a-movement-is-underway-to-end-cash-bail-in-america-this-app-found-an-ingenious-way-to-help/>; see also @blackwomangaze, Twitter (June 16, 2018, 10:00 AM), [https://perma.cc/F3EL-K8Q3] (retweeted by Appolition’s Twitter profile on June 16, 2018) (claiming that the app raised \$140,000 within six months of launch).

⁶³ See Arvind Dilawar, You Can Download an Easy Blockchain App to Help Poor People Make Bail, *Quartz* (Jan. 23, 2018), [https://perma.cc/924Z-SSKT].

⁶⁴ See *id.*; see also *infra* Part VI for a discussion of whether these apps will be successful.

⁶⁵ See Jenna Amatulli, Jay-Z’s Roc Nation Partners With App Aiming To Better Criminal Justice System, *Huffington Post* (Mar. 19, 2018, 4:20 PM), [https://perma.cc/7RXN-KUPK].

by generating a calendar of obligations such as court appearances, drug testing, and substance-abuse counseling, and then remind users to attend these obligations.⁶⁶ The app would also provide referrals and support for job training, counseling, housing, and other needs.⁶⁷ The Promise app would enable case managers to “monitor compliance with court orders and better keep tabs on people via the app.”⁶⁸ As of March 2018, the app was being tested in one county and the designers were in talks with other counties to offer the service as an alternative to pretrial detention in county jails.⁶⁹

There are also profit-based apps designed to help individuals make bail. For instance, when people have been pulled over and think they will be arrested they can utilize the “Arrest SOS” app.⁷⁰ The app sends a message to an attorney and bail-bond agent in the ZIP code where the arrest occurs, and the bail bondsman immediately begins the bail process.⁷¹ The idea is not only to speed up the process of making bail, but also to help arrestees whose cell phones have been impounded and cannot remember phone numbers to call a friend or relative during the booking process.⁷² A similar app—“iGotBerries”—operates on a fifteen-minute delay so that an individual can tap the app immediately after being pulled over, but still cancel the request if she is released at the scene rather than being arrested.⁷³

Of course, these bail apps have yet to make a dent in the massive multi-billion-dollar bail industry.⁷⁴ Nevertheless, they signal how app developers are seeking to disrupt the traditional bail paradigm and

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ See Megan Rose Dickey, *Bail Reform’s Complex Relationship with Tech*, TechCrunch (May 20, 2018), [<https://perma.cc/VF5C-T43K>].

⁶⁹ See Amatulli, *supra* note 65.

⁷⁰ See *The App That Gets You Out of Jail, Arrest SOS*, [<https://perma.cc/3F36-RVNT>].

⁷¹ *Id.*

⁷² See *id.*; see also *United States v. Edwards*, 415 U.S. 800, 807 (1973) (“[O]nce the accused is lawfully arrested and is in custody, the effects in his possession at the place of detention that were subject to search at the time and place of his arrest may lawfully be searched and seized without a warrant.”).

⁷³ See *iGotBerries: DWI SOS App & Police SOS*, Google Play Store, [<https://perma.cc/K2ZB-X2ZF>] (last visited Nov. 18, 2018).

⁷⁴ Ten issuers underwrite fourteen billion dollars in bail bonds, resulting in two billion dollars of annual profit. Gillian B. White, *Who Really Makes Money Off of Bail Bonds?*, *The Atlantic* (May 12, 2017), [<https://perma.cc/G4P3-LXQT>]. Compare the size of this industry to the roughly \$200,000 raised by Appolition, see *supra* note 62, and the \$5,000 raised by BailBloc. See *supra* note 64.

empower individuals to deal more effectively with the criminal-justice system.

B. Apps That Record and Report on Police Interactions

In 2012, the New York affiliate of the American Civil Liberties Union (ACLU) introduced the “Stop and Frisk Watch” app. The app enables users to record footage and then immediately send it to the New York Civil Liberties Union (NYCLU) and report on incidents they observed but did not film.⁷⁵ The app also alerts users when people near their location are being stopped by the police.⁷⁶ Finally, the app has a “know your rights” feature that informs users about their rights to film the police.⁷⁷

After the release of the NYCLU Stop and Frisk Watch app, other ACLU chapters followed suit with a “Mobile Justice” app that provides users with the same general functionality as the Stop and Frisk Watch App.⁷⁸ The Mobile Justice app is available in seventeen states and the District of Columbia.⁷⁹

III. UNTAPPED POTENTIAL: THE *MIRANDA* APP

The Supreme Court’s *Miranda* doctrine is supposed to help suspects avoid being coerced into making confessions.⁸⁰ Yet, scholars have documented for decades how most suspects illogically waive their *Miranda* rights and confess, even after receiving *Miranda* warnings.⁸¹ The reason may be that being confronted by a police officer is inherently

⁷⁵ See Stop and Frisk Watch App, N.Y. Civ. Liberties Union, [https://perma.cc/PHD3-YK3N] (last visited Nov. 18, 2018); see also Azi Paybarah, Civil Libertarians Introduce a Stop-and-Frisk App, Politico (June 6, 2012, 2:15 PM), [https://perma.cc/Z6JP-TYDH] (describing the intended function of the app prior to its release in 2012).

⁷⁶ Stop and Frisk Watch App, supra note 75.

⁷⁷ Id.

⁷⁸ See ACLU Apps to Record Police Conduct, Am. Civ. Liberties Union, [https://perma.cc/5HVQ-9E6L] (last visited Jan. 7, 2019).

⁷⁹ See id. Notably, many of the DWI apps discussed in Part I.A. above also have a recording function that enables the user to record the traffic stop and turn it over to the attorney. See, e.g., The Dude, supra note 24.

⁸⁰ See *Berkemer v. McCarty*, 468 U.S. 420, 433 (1984) (“The purposes of the safeguards prescribed by *Miranda* are to ensure that the police do not coerce or trick captive suspects into confessing.”) (emphasis omitted).

⁸¹ See, e.g., Leo, supra note 7, at 276 (finding that approximately seventy-eight percent of suspects waived their rights, even after having the *Miranda* warning read to them).

coercive.⁸² Or it could be that the warnings go by so quickly⁸³ and are sometimes read incorrectly by police, such that the suspects do not truly understand them and waive their rights as a result. Or perhaps some suspects are visual learners and do not really process information that is provided verbally.⁸⁴ Others may simply think remaining silent in the face of accusations is unnatural and makes them look guiltier.⁸⁵

Professors Andrew Guthrie Ferguson and Richard Leo recently proposed a *Miranda* app that would solve many of these problems.⁸⁶ The *Miranda* app would be free for all devices and would present individuals' Fifth Amendment rights in formats for both visual and oral learners.⁸⁷ Moreover, providing the *Miranda* rights on an app would enable the suspect to review the law in a "slow, clear, and repetitive manner."⁸⁸ If a suspect were confused, he could go back and review the options more than once.⁸⁹ The app "could even offer individuals a choice of programs that might be more culturally relevant to their particular circumstance."⁹⁰

The *Miranda* app is certainly a good idea. Suspects would benefit from a clearer explanation and understanding of their *Miranda* warnings. And some police officers would benefit by having a clear statement of the *Miranda* warnings available at the touch of a button. Indeed, in the past, Apple's App Store sold a *Miranda* app that was created by a police officer

⁸² I do not mean to suggest here that the police behaved illegally. A suspect can internally feel compelled to answer, even though the police followed proper procedure. See Lawrence Rosenthal, *Against Orthodoxy: Miranda Is Not Prophylactic and the Constitution Is Not Perfect*, 10 *Chap. L. Rev.* 579, 594–601 (2007).

⁸³ See George C. Thomas III & Richard A. Leo, *The Effects of Miranda v. Arizona: "Embedded" in Our National Culture?*, in 29 *Crime and Justice: A Review of Research*, 203, 247, 250 (Michael Tonry ed. 2002).

⁸⁴ See Jayne Elizabeth Zanglein & Katherine Austin Stalcup, *Te(a)chnology: Web-Based Instruction in Legal Skills Courses*, 49 *J. Legal Educ.* 480, 488 (1999).

⁸⁵ See Albert W. Alschuler, *Miranda's Fourfold Failure*, 97 *B.U. L. Rev.* 849, 890 (2017).

⁸⁶ See Andrew Guthrie Ferguson & Richard A. Leo, *The Miranda App: Metaphor and Machine*, 97 *B.U. L. Rev.* 935 (2017).

⁸⁷ *Id.* at 950–51 ("[B]ecause the medium of an App allows for digital innovation, we envision video, graphics, and animations adding explanatory power to the design. Written descriptions of legal terms could be accompanied by visual explanations through images, graphics, animations, or hyperlinks. Videos of real people, avatars, or a combination of the two could be used to capture the attention of viewers. A narrator (available in multiple languages) would guide users through the process of understanding *Miranda* warnings and obtaining a valid waiver or acknowledging the invocation of rights.")

⁸⁸ *Id.* at 951.

⁸⁹ *Id.*

⁹⁰ *Id.*

and which listed all of the warnings and translated them into Spanish.⁹¹ The American Bar Association (ABA) recently started a pilot program in New Orleans in which police officers “provide a *Miranda* translation using Spanish phrasing that has been approved by certified translators with plain language pictographic images and audio.”⁹² Although not yet an app, the ABA program utilizes some of the same reforms outlined by Professors Ferguson and Leo and could easily be converted to a more technologically sophisticated cell phone or iPad application.

While an app would effectuate the spirit of the *Miranda* decision, unfortunately there are substantial obstacles to widespread adoption. Police departments have a disincentive to create and adopt a *Miranda* app that does a thorough job of helping suspects understand their *Miranda* rights; confused suspects are more likely to waive their rights and confess, and police departments like to get confessions.⁹³ Moreover, police officers face minimal repercussions if they read the warnings incorrectly. Except in rare cases,⁹⁴ courts will reject *Miranda* challenges based on the argument that the officers misread the warnings.⁹⁵

In sum, under the current legal regime, police departments do not have an incentive to create a *Miranda* app or adopt one created by a third party; they may actually think they are strategically better off without one. Not surprisingly, the New Orleans Police Department, which is testing *Miranda* warnings with Spanish translation and pictographic images, is doing so while under a consent decree with the United States Department

⁹¹ Eugene Nielsen, Law Enforcement iPhone Apps, Part 1, Hendon Media Group [<https://perma.cc/L4RC-V49H>] (last visited Jan. 11, 2019) (describing the “Police Miranda Warning” app); see also *Miranda Warnings/ Rights*, Google Play Store, [<https://perma.cc/TU8Q-RFNW>] (last visited Jan. 7, 2019) (providing a quick reference guide to assist law enforcement and security officers in providing the *Miranda* warning).

⁹² See *Innovative Miranda Tools Being Tested by New Orleans Police in Effort to Broaden Access to Justice*, Am. B. Ass’n (July 27, 2018), [<https://perma.cc/QFC2-BWSW>].

⁹³ See William J. Stuntz, *Miranda’s Mistake*, 99 Mich. L. Rev. 975, 983 (2001).

⁹⁴ See, e.g., *United States v. Street*, 472 F.3d 1298, 1312 (11th Cir. 2006) (holding warnings inadequate because the suspect “was not told that anything he said could be used against him in court”).

⁹⁵ See Michael D. Cicchini, *The New Miranda Warning*, 65 SMU L. Rev. 911, 914 (2012) (“The reality is that lower courts have created ‘countless exceptions and loopholes’ to label nearly any imaginable version of the warning as legally adequate—even if it miserably fails to convey anything resembling *Miranda’s* substance.”); see also *Duckworth v. Egan*, 492 U.S. 195, 200–05 (1989) (explaining that as long as the warning reasonably conveys to a suspect his rights, the warning need not be in the exact form described in *Miranda*).

of Justice.⁹⁶ Without comparable pressure on most police departments, it may be a long road to implementing a widely used *Miranda* app.

V. DEMOCRACY AND CRIMINAL-JUSTICE APPS

What are we to make of the proliferation of criminal-justice apps? Will the apps described in this essay revolutionize criminal justice the way cell phones and internet technology have altered so many other areas of life? Today, people use their cell phones for music, email, texting, photography, podcasts, traditional news, and, perhaps most significantly, social media. Platforms such as Facebook and Twitter (which are predominantly used as cell phone apps⁹⁷) have played a significant role in everything from overthrowing foreign dictatorships⁹⁸ to quite possibly altering the outcome of the 2016 presidential election.⁹⁹ Is criminal justice next?

The case for cell phone applications being a democratizing force is straightforward. Criminal-justice apps put more information in the hands of the individuals who need it and help them to exercise their constitutional and statutory rights.¹⁰⁰ For instance, in the past, an average person with no legal education who was pulled over for DWI had no idea whether he had the legal right to refuse a breathalyzer or where he would find a lawyer with the special expertise to help him.¹⁰¹ Now, his cell phone can tell him what the police are legally permitted to do and it can immediately direct him to a lawyer specializing in DWI defense.¹⁰²

⁹⁶ Emily Lane, NOPD Sets “Ambitious Goal” To Exit Consent Decree by 2020, Chief Says, NOLA (Aug. 5, 2017, updated May 31, 2018), [<https://perma.cc/GWA2-V5KZ>]; see also *supra* note 92 and accompanying text.

⁹⁷ See Brian R. Fitzgerald, Data Point: Social Networking Is Moving on From the Desktop, Wall St. J. (Apr. 3, 2014, 12:07 PM), [<https://perma.cc/KL9D-J6UR>] (observing that more than eighty-five percent of Twitter use in 2014 was on mobile devices).

⁹⁸ See Maeve Shearlaw, Egypt Five Years On: Was It Ever a ‘Social Media Revolution’?, Guardian (Jan. 25, 2016, 7:35 AM), [<https://perma.cc/PTM8-87PL>].

⁹⁹ See Danielle Kurtzleben, Did Fake News on Facebook Help Elect Trump? Here’s What We Know, NPR (Apr. 11, 2018, 7:00 AM), [<https://perma.cc/WW7X-6CJB>].

¹⁰⁰ See Renee Newman Knake, Democratizing the Delivery of Legal Services, 73 Ohio St. L.J. 1, 3–4 (2012) (“Access to the law — that is, facilitating and delivering legal services — goes to the very heart of First Amendment concerns and values by contributing to Justice Holmes’ marketplace of ideas, acting as a checkpoint on government action, facilitating individual development, and cultivating political discourse.”).

¹⁰¹ See *supra* note 6 and accompanying text.

¹⁰² See discussion *supra* Part I.A.

Not that long ago, a person who knew he was about to be arrested might have resigned himself to languishing in jail over the weekend. Today, he can tap on a cell phone app that will contact a bail bondsman and initiate the process to post bail before the arrest occurs.¹⁰³ Moreover, because poor people who cannot make bail face an increased risk of conviction, criminal-justice apps that raise and distribute bail money can help the poor have the same chance at justice as the more affluent.¹⁰⁴

When an arrestee needs to find the right lawyer to help defend herself, criminal-justice apps can help her to effectuate her Sixth Amendment right to counsel.¹⁰⁵ Later in the process, criminal-justice apps can help a suspect navigate the court process and even expunge his conviction.¹⁰⁶

In short, criminal-justice apps are democratic because they directly convey valuable information and help individuals overcome monetary obstacles in order to exercise their constitutional rights.

At present, of course, criminal-justice apps serve a limited audience. Although the number of apps is growing, the total number of downloads (i.e., the utilization) is not huge. To put it in perspective, the Appolition app raised \$140,000 in its first six months.¹⁰⁷ That money likely had a huge impact in the lives of the pretrial detainees who received the money and were thus extricated from pretrial incarceration, but the United States has a multi-billion-dollar bail industry,¹⁰⁸ making \$140,000 a tiny sum by comparison.

While criminal-justice apps presently have a modest footprint, it is not difficult to envision how they could grow. For a point of comparison, consider a driver looking for a coffee shop on an unfamiliar highway using an early generation iPhone map. The early iPhone map certainly constituted progress—our driver no longer had to completely guess where to exit the highway—though it still was not easy for the driver to quickly find a coffee shop. Today, however, there are apps that not only identify which highway exits have coffee shops,¹⁰⁹ but corporate-designed apps that direct drivers to the closest store. Our driver can tap on her Starbucks

¹⁰³ See *supra* notes 31 & 70–74 and accompanying text.

¹⁰⁴ See discussion *supra* Part IV.A.

¹⁰⁵ See discussion *supra* Part II.

¹⁰⁶ See *supra* notes 43–48 and accompanying text.

¹⁰⁷ See *supra* note 62 and accompanying text.

¹⁰⁸ See White, *supra* note 74.

¹⁰⁹ See, e.g., iExit Interstate Exit Guide, [<https://perma.cc/E6F3-SRG9>] (last visited Jan. 8, 2019).

app, find the closest location, order her favorite drink, and be directed right to the store—including to a location she has never visited before.¹¹⁰

The question, then, is whether criminal-justice apps will ever progress from their current state—what we might think of as equivalent to the early iPhone map application—and bring us to the point where navigating the legal system is as easy, egalitarian, and ubiquitous as finding a roadside Starbucks and ordering a drink from your phone. The short answer, unfortunately, is likely no.

Law is not simple, neither in doctrine nor in logistics. The complexities of a DWI prosecution cannot be answered in a few simple statements on a cell phone application.¹¹¹ Each criminal case is different, and nuanced analysis is often critical. Nor can the criminal-justice process easily be described in detail on a cell phone application. Lawyers practice for years to become experts in all the procedural steps and motions that can occur in a criminal case. Moreover, even within the same courthouse, there are procedural variations from judge to judge. In short, criminal law and procedure cannot be simplified in a cell phone application, except at a very high level of generality.

Nor is the quality of criminal-defense lawyers easily reduced to a cell phone rating. Thousands of criminal defense lawyers handle numerous different types of cases. While TripAdvisor can help individuals determine which hotel is the cleanest and quietest, there are simply too many variables in criminal cases to allow for a comparably informative rating system of criminal-defense attorneys. To note the most obvious variable, the strength of criminal charges varies by defendant. Some criminal cases are so strong that Perry Mason could not help the defendant, while in other cases the charges are so weak that even a terrible attorney could win at trial or negotiate a favorable plea bargain. Most Yelp users can agree which restaurants have the best pizza and fastest service because the same food (at least by and large) is being served to all the patrons. Criminal cases are far more individualized.

¹¹⁰ See David Oragui, *The Success of Starbucks App: A Case Study*, Medium (June 12, 2018), [<https://perma.cc/CF39-Q55N>] (“Using the geo-location feature, a user can see where the closest Starbucks locations are, the menu at each location, and even place an order that can be ready upon arrival.”).

¹¹¹ There are multi-volume treatises devoted to the complex law of driving while intoxicated. See, e.g., Richard E. Erwin, & Leon A. Greenberg, *Defense of Drunk Driving Cases: Civil—Criminal* (Matthew Bender ed., 3d ed. 1971).

While criminal-justice apps can serve a democratizing purpose, our expectations for the *scope* and *speed* of change should be modest. Americans have grown accustomed to rapid technological change. For example, in 1998, most people watched movies by driving to a video store (often a Blockbuster Video) to rent physical copies of movies. In less than a decade, Blockbuster was in free fall, and Netflix took over the market by first cost-effectively delivering movies directly to consumers' homes¹¹² and, only a few years later, shifting to a highly successful streaming-based model.¹¹³ Technology revolutionized the home movie market—twice—in a very short period of time.

The speed of the Netflix revolution (or that of Twitter, Facebook, Instagram, or other platforms, for that matter) simply is not likely in the criminal-justice space. The criminal-justice system is made up of thousands of diversified systems. Most cases are not handled at the federal level, or even at the state level for that matter. The criminal-justice “system” is actually thousands of different counties with their own prosecutors, defense attorneys, and judges.¹¹⁴ The variety of procedural and substantive rules across jurisdictions would make it incredibly difficult to develop a nationwide application.

Furthermore, there are no large institutional players. The large institutional players that cross county lines—think of the ABA, the ACLU, and the National Association of Criminal Defense Lawyers (NACDL)—do not have the market power to affect rapid technological change. Additionally, they are not powerhouse technology players and they are not likely to become them. Perhaps most importantly, they do not have the singular focus of Silicon Valley companies. The ABA, ACLU, and NACDL (and other organizations like them) have diverse sets of priorities. Cell phone applications that are attempting to democratize criminal justice are not even close to the top of their lists. Of course, the future could bring a new criminal-justice player that we are not presently aware of. There was no Netflix during the Blockbuster era, and it was not

¹¹² See A Timeline: The Blockbuster Life Cycle, *Forbes* (Apr. 7, 2011, 2:23 PM), [<https://perma.cc/W28U-GRP9>].

¹¹³ See Seth Fiegerman, *Netflix Hits 125 Million Subscribers*, *CNN* (Apr. 16, 2018, 6:48 PM), [<https://perma.cc/YR8H-4X8L>]; Ashley Rodriguez, *Ten Years Ago, Netflix Launched Streaming Video and Changed the Way We Watch Everything*, *Quartz* (Jan. 17, 2017), [<https://perma.cc/H4GY-89EC>].

¹¹⁴ See Steven W. Perry & Duren Banks, Bureau of Justice Statistics, *NCJ 234211, Prosecutors in State Courts, 2007 – Statistical Tables (2011)* (identifying 2,330 state prosecutors' offices).

that long ago that we lived in a world without behemoths like Amazon, Facebook, and Twitter. Without a profit motive, however, it is difficult to see a disruptive force like those companies revolutionizing the criminal-justice space.

In short, criminal-justice apps serve a democratizing purpose. They educate the citizenry and further the exercise of constitutional rights. Criminal-justice apps will bring change to the system, but they are not likely to be game changers. Instead, we should anticipate that criminal-justice apps will bring modest change at a modest pace.

VI. CONCLUSION

The criminal-justice system is confusing. Most people do not have a good grasp of either the substantive criminal law or criminal procedure. Moreover, the system appears to be stacked against those who do not understand their rights and those who are too poor to afford bail. In recent years, lawyers, activists, and policymakers have introduced cell phone apps that are very slowly beginning to democratize the criminal-justice system. These criminal-justice apps teach individuals about the law, help suspects and defendants connect with lawyers, assist defendants in navigating the judicial system, and undertake reform efforts by attempting to bring about systemic changes to problematic areas such as the bail process. Criminal-justice apps serve a democratic purpose by conveying valuable information and lessening the financial obstacles defendants face in exercising their constitutional rights.

We should, however, be cautious and not expect too much change. Substantive law is far too complicated and legal processes far too intricate to distill into easy-to-use apps. Moreover, there is no large institutional player driving a revolution of criminal-justice cell phone applications. Criminal-justice apps are therefore likely to be a positive, though modest, democratizing force.