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OPENING THE VIRTUAL WINDOW: HOW ON-LINE PROCESSES COULD INCREASE ACCESS TO JUSTICE IN THE CRIMINAL LEGAL SYSTEM

Cynthia Alkon* & Amy Schmitz**

I. Introduction

Walk into any courthouse in the United States today and it will look and feel strikingly similar to any courthouse in the 1980s, the 1960s, the 1900s, or the 1880s. Yes, there are computers, telephones, and electricity. But, how courts process cases, for the most part, doesn't reflect the technological revolution that other parts of society have experienced, especially since 2020 and the COVID-19 pandemic. The use of technology has grown in virtually every other sector in the United States ("U.S.") and world, changing how people do their jobs and conduct day-to-day business. Virtual communication is a norm, not an exception, with the widespread use of video platforms, emails, text messages, and even the less frequent telephone calls. People routinely look to the internet for gathering and sharing information. Accordingly, it is no surprise that technology is disrupting the law. At the same time, lawyers, judges, software developers, and policymakers have been exploring ways to use technology to expand access to the courts and access to justice ("A2J").1

Despite these technological tailwinds, criminal courts have been slow to adopt the use of more technology, in part due to constitutional constraints. This is true despite their experimenting with more widespread use of technology during the first two years of

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¹ See generally Amy J. Schmitz, Expanding Access to Remedies through E-Court Initiatives, 67 Buffalo L. Rev. 101–23 (2019)

the COVID-19 pandemic.² The health crisis sparked experimentation out of necessity, but courts have largely moved back towards reliance on in-person interactions. The criminal legal system is generally highly resistant to change. Criminal courts, prosecutor's offices, and public defender's offices also suffer from chronic underfunding which stands in the way of a variety of reforms. Is this resistance a barrier to increasing A2J? Frank Sanders introduced the idea of a multi-door courthouse, that litigants should have the option to go through different doors to access the best process (litigation, mediation, arbitration) for their case.³ As we move towards more online options in a variety of areas, we suggest that what our criminal courts need is not just multiple brick and mortar doors,⁴ but also virtual windows to allow for better A2J through technology.

A2J has many understandings. Generally, it refers to the ability of individuals to effectively navigate and participate in the legal system, regardless of their socioeconomic status, background, or other barriers. The United Nations General Assembly has emphasized that everyone has the right to an effective remedy by competent national tribunals for acts violating fundamental rights per the Universal Declaration of Human Rights ("UDHR").⁵ At the same time, the International Covenant on Civil and Political Rights ("ICCPR") reaffirms A2J in requiring the right to a fair and public hearing by a competent, independent, and impartial tribunal.⁶ This must be inclusive, effective, and accountable, as required under the United Nations Sustainable Development Goals ("SDGs"),⁷ and abide by standards and guidelines, such as access to legal representation and information, as noted per the American Bar Association ("ABA")

² See e.g., Katherine L.W. Norton, Accessing Justice in Hybrid Courts: Addressing the Needs of Low-Income Litigants in Blended In-Person and Virtual Proceedings, 30 Geo J. Poverty L. & Pot'y 499, 499, 502 (2023) (discussing various on-line processes adopted during COVID-19); See also, Cynthia Alkon, Criminal Court System Failures During COVID-19: An Empirical Study, 37 Оню St. J. Disp. Resol., 453, 458–60 (2022) (discussing, in part, the use of technology in the criminal courts during the early months of the pandemic based on reports from a nationwide survey).

³ Frank E.A. Sander, Professor L., Harv. Univ., Varieties of Dispute Processing, Address Delivered at the National Conference on the Causes of Popular Dissatisfaction with the Administration of Justice, 111, 112–13 (Apr. 7–9, 1976).

⁴ Criminal courts now routinely offer specialty courts such as drug courts and mental health courts in addition to the more traditionally available doors of plea bargaining and jury or bench trials. *See e.g.*, Cynthia Alkon & Andrea Kupfer Schneider, Negotiating Crime: Plea Bargaining, Problem Solving, and Dispute Resolution in the Criminal Context 25–28 (2019).

⁵ Universal Declaration of Human Rights, U.N., https://www.un.org/en/about-us/universal-declaration-of-human-rights [https://perma.cc/3C9U-QK9X] (last visited Nov. 16, 2023).

⁶ International Covenant on Civil and Political Rights, U.N., https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights [https://perma.cc/ZC4V-F88Y] (last visited Nov. 16, 2023).

⁷ See Sustainable Development Goals, U.N., https://www.undp.org/sustainable-development-goals [https://perma.cc/3E7N-HH23] (last visited Nov. 16, 2023).

Standards for Access to Justice. Moreover, the World Justice Project Rule of Law Index assesses the rule of law in countries worldwide, including factors related to A2J. Accordingly, any use of technology to open a virtual window should take these elements into account. This A2J lens guides this Article's analysis.

In other sectors, technologies have been used with the goal of increasing A2J, moving from alternative or appropriate dispute resolution ("ADR") to online dispute resolution ("ODR"). ODR includes technology to assist decision-making and communication, as well as online negotiation, mediation, arbitration, court hearings, and variations thereof. Still, ODR has been cabined by some as a term that only refers to Zoom processes or text-based click-andsettle mechanisms. This is a restricted view that should be eschewed for a more creative and expansive vision of ODR that includes any use of technology in preventing and resolving legal problems, managing conflict, and otherwise expanding A2J.¹⁰ When properly constructed, ODR allows individuals to resolve disputes and deal with legal issues more quickly, cheaply, and hopefully, fairly—using technology to facilitate communications and decision-making that leads to resolutions and solutions. For example, when individuals can resolve their disputes using technology as simple as a cellphone, they save significantly on the costs and hassles of in-person processes usually associated with court cases.11

⁸ Human Rights and Access to Justice, A.B.A., https://www.americanbar.org/advocacy/rule_of_law/what-we-do/human-rights-access-to-justice/ [https://perma.cc/H9DX-NS5U] (last visited Nov. 16, 2023).

⁹ WJP Rule of Law Index, World Just. Project, https://worldjusticeproject.org/rule-of-law-index/ [https://perma.cc/VJB7-6XH8] (last visited Nov. 16, 2023). Key elements of A2J emerging from these various sources include the following: (1) Access to Legal Information: A2J begins with providing individuals with accessible, clear and understandable legal information; (2) Legal Representation: A2J requires that individuals have the means to obtain legal representation, whether through private attorneys, legal aid services, or other mechanisms; (3) Fair and Impartial Courts: A crucial aspect of A2J is the existence of fair and impartial courts; (4) Language and Cultural Competency: A2J is not just about physical access but also about understanding and overcoming language and cultural barriers; (5) Timely and Efficient Processes: Policies should focus on streamlining procedures, reducing delays, and ensuring that justice is delivered in a timely and efficient manner; and (6) Protection of Vulnerable Populations: Special attention must be given to the needs of vulnerable populations, such as low-income individuals, minorities, and those with limited access to resources.

¹⁰ Id. See also Amy J. Schmitz & Colin Rule, foreward to The New Handshake: Online Dispute Resolution and the Future of Consumer Protection, 1–12 (A.B.A. 2017); Amy J. Schmitz, Arbitration in the Digital Age: The Brave New World of Arbitration 182–208 (Maud Piers, Christian Aschauer, eds., Cambridge University Press 2018).

¹¹ Ethan Katsh & Colin Rule, *What We Know and Need to Know About Online Dispute Resolution*, 67 S.C. L. Rev. 329, 330. *See also* Ethan Katsh & Orna Rabinovich-Einy, Digital Justice: Technology and the Internet of Disputes 1–25 (Oxford U. Press, 2017).

ODR has gained significant traction in the U.S. and elsewhere.¹² Many states are experimenting with ODR, with some, such as Utah, launching ambitious small claims e-courts seeking to replace in-person hearings all together.¹³ An increasing number of courts offer online processes for case types ranging from traffic tickets to divorce. In many cases, this use of technology has opened new virtual doors to the courthouse for those who cannot afford the time and costs of in-person processes.¹⁴ Some ODR programs may also go beyond facilitating communication to provide problem diagnosis and assist parties in online negotiation empowered by digital advice. Online court systems also encourage fee and judgment payments by incorporating automatic notices and payments into the process.¹⁵ ODR can also be effective in resolving disputes over cryptocurrency and insurance using a blockchain-based system for secure and assured enforcement.¹⁶

With this lens, this article will use a problem-solving functional analysis to identify some of the issues in the criminal legal system, focusing on misdemeanor cases, and then propose some ways that technology could help either lessen or otherwise address those problems, for improved A2J. This article uses a more expansive view of ODR and considers technology as a potential tool in a problem-solving toolbox. This article focuses on misdemeanor cases for three primary reasons: (1) misdemeanors are the dominant criminal cases accounting for approximately 80% of all criminal cases;¹⁷ (2) although misdemeanors matter, the stakes are lower in these cases, which may

¹² Schmitz, *supra* note 1, at 126–39; Rebecca Love Kourlis et al., *Institute for the Advancement of the Am. Legal Sys. A Court Compass for Litigants*, INST. ADVANCEMENT AM. LEGAL SYS. (July 6, 2016), https://iaals.du.edu/publications/court-compass-litigants-2016-convening-report [https://perma.cc/4AFD-FRK3].

¹³ Paul Embley, US Courts and Online Dispute Resolution: International Forum on Online Courts, NCSC (Dec. 3, 2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/761379/US.pdf [https://perma.cc/35DV-JLR8]; see also To Tackle the Unmet Legal Needs Crisis, Utah Supreme Court Unanimously Endorses a Pilot Program to Assess Changes to the Governance of the Practice of Law, UTAH CTs. (Aug. 13, 2020), http://www.utcourts.gov/utc/news/2020/08/13/to-tackle-the-unmet-legal-needs-crisis-utah-supreme-court-unanimously-endorses-a-pilot-program-to-assess-changes-to-the-governance-of-the-practice-of-law/ [https://perma.cc/A8YF-JYE6].

¹⁴ SCHMITZ, *supra* note 10, at 130, 137.

¹⁵ Id. See also Amy J. Schmitz, A Blueprint for Online Dispute Resolution System Design, 21 J. Internet L. 3, 9–10 (2018); Amy J. Schmitz, There's an "App" for That: Developing Online Dispute Resolution to Empower Economic Development, 32 Notre Dame J. L. Ethics & Pub. Pol'y 1 (2018).

¹⁶ SCHMITZ & RULE, *supra* note 10, at 104.

¹⁷ ALEXANDRA NATAPOFF, PUNISHMENT WITHOUT CRIME: HOW OUR MASSIVE MISDEMEANOR SYSTEM TRAPS THE INNOCENT AND MAKES AMERICA MORE UNEQUAL 2 (1st ed. 2018). Misdemeanor cases remain a significant percentage of overall case numbers, but the numbers are decreasing. See Megan T. Stevenson & Sandra G. Mayson, The Scale of Misdemeanor Justice, 98 B.U. L. Rev. 731, 738 (2018) ("[m]isdemeanor arrests are not just declining in the aggregate, they are declining across almost every offense category and in almost every state.").

mean that there will be more flexibility and less resistance to change from judges, prosecutors, and defense lawyers; and (3) misdemeanors move quickly through the legal system with fewer resources devoted to protecting defendants who overwhelmingly enter guilty pleas, often without knowing the serious collateral consequences of the conviction.¹⁸

Importantly, misdemeanor defendants are often not making a "knowing and intelligent" plea, as the law requires. 19 Nonetheless, the consequences are real because misdemeanor convictions, depending on the charge, can impact immigration, licensing for jobs, hiring for jobs, and prevent defendants from getting or keeping a driver's license.²⁰ In addition, any conviction has immediate possible consequences for defendants and even minor misdemeanor offenses can change how a defendant is viewed from that time forward by the criminal legal system because they are no longer a "first time offender."²¹ Police may be more likely to arrest someone with a prior criminal record,²² prosecutors may be more likely to file charges, and plea deals in subsequent cases may be worse.²³ Due to the sheer numbers of cases, increased and creative use of ODR could revolutionize misdemeanor practice in meaningful ways that could increase A2J for the average person pulled into the criminal legal system with these low level cases. Accordingly, misdemeanor courts may also be the best place to pilot new approaches and ultimately build them into routine practices that may then, depending on the process, also be applied in felony cases.

That said, this article is not intended to be an exhaustive discussion of all problems and solutions in criminal cases. The criminal legal system is complex and there are no simple solutions, even when

¹⁸ See, e.g., Jenny Roberts, Why Misdemeanors Matter: Defining Effective Advocacy in the Lower Criminal Courts, 45 U.C. Davis L. Rev. 277, 297–303 (2011) (collateral consequences can be wide-ranging. Lawyers are often unaware of the variety of collateral consequences and unrepresented defendants are at even more of a disadvantage). For a comprehensive listing of collateral consequences, see What Are Collateral Consequences?, Nat'l Inventory Collateral Consequences Conviction, https://niccc.nationalreentryresourcecenter.org/ [http://perma.cc/SM3V-F98Z] (last visited Feb. 29, 2024).

¹⁹ Brady v. U.S., 397 U.S. 742, 749–55 (1970).

²⁰ Nat'l Inventory Collateral Consequences Conviction, *supra* note 18.

²¹ Prior misdemeanor convictions can enhance the punishment on a second or subsequent offense. Driving while intoxicated is a misdemeanor that typically carries no jail time on a first offense. *See, e.g.*, CAL. VEH. CODE \$23536 (West 2017). Each subsequent conviction, within specific time periods, has harsher penalties and at a certain point the offense with enough priors can become a felony. *See e.g.*, CAL. VEH. CODE \$23540 (West 2005); CAL. VEH. CODE \$23546 (West 2005).

²² Lisa Stolzenberg et al., *The Usual Suspects: Prior Criminal Record and the Probability of Arrest*, 24 POLICE Q. 31, 35 (2020) ("a criminal suspect with a prior criminal record is approximately 29 times more likely than a suspect without a criminal record to be arrested by police.").

²³ See e.g., Stacy Barrett, Use of Criminal Records in Charging and Sentencing, AllLaw, https://www.alllaw.com/criminal-law/use-of-criminal-records-in-charging-and-sentencing.html [https://perma.cc/XZ2Q-WBL9] (last visited Feb. 6. 2024).

focusing on misdemeanor cases. Furthermore, this article focuses on technology to expand A2J, but does not make recommendations to increase efficiency in ways that would encourage the filing of more criminal cases and net widening and the use of the criminal legal system when other institutions (such as public health or mental health) may be more appropriate.²⁴ Moreover, the aim of this article is to suggest ideas for use of technology in ways that are realistic given budgetary and other constraints that are common in the criminal legal system. The goal is to engage a conversation about what could be done differently and better in misdemeanor cases. Finally, this article focuses on improving A2J in case processing once criminal cases reach the criminal courts and does not suggest or address the use of technology to improve policing. The article also does not tackle concerns about using algorithms in decision-making, such as in bail decisions, as that is a topic deserving an entire article and is well covered by others.²⁵

This article also acknowledges that a digital divide continues to exist. Not everyone has a cell phone or access to the internet. Most criminal defendants, up to 80%, are poor and may qualify for indigent defense services. This may mean that they are less likely to have smart phones, reliable access to the internet, and computer literacy. Still, the research also shows that most individuals have a mobile device and there are programs to assist those that do not. Most people do have some sort of access to data even if they do

²⁴ NATAPOFF, *supra* note 17, at 218–25 (describing net widening and cautioning about unintended consequences when reforming the criminal legal system).

²⁵ See generally, Mirko Bagaric et. al., The Solution to Pervasive Bias and Discrimination in the Criminal Justice System: Transparent and Fair Artificial Intelligence, 59 Am. CRIM. L. REV. 1 (2022) (discussing advantages of algorithms for decreased bias in bail decisions); Ifeoma Ajunwa, The Paradox of Automation as Anti-Bias Intervention, 41 CARDOZO L. REV. 1671 (2019) (discussing the concern that bias can be embedded in algorithms); Megan T. Stevenson & Christopher Slobogin, Algorithmic Risk Assessments and the Double-Edged Sword of Youth, 96 WASH. U. L. REV. 681 (2018) (considering the "double-edged sword" of youthfulness and how it can distort algorithmic assessments of risk).

²⁶ See e.g., Caroline Wolf Harlow, Ph.D., Defense Counsel in Criminal Cases, Bureau Just. Stat. (Nov. 2000), https://bjs.ojp.gov/content/pub/pdf/dccc.pdf [https://perma.cc/X47H-RGZX]; see also John Gross, Reframing the Indigent Defense Crisis, Harv. L. Rev. (Mar. 18, 2023), https://harvardlawreview.org/blog/2023/03/reframing-the-indigent-defense-crisis/[https://perma.cc/88VX-YSXY].

²⁷ For example, in Ohio, income-eligible individuals can receive a monthly benefit to help ensure that they can afford communications services, either through a participating wireline, wireless, or broadband provider. *Telephone Lifeline Programs in Ohio*, OFF. OHIO CONSUMERS COUNS., https://www.occ.ohio.gov/factsheet/telephone-lifeline-programs-ohio#:~:text=Lifeline% 20programs%20provide%20a%20monthly,%2C%20wireless%2C%20or%20broadband%20provider [https://perma.cc/K36Y-W67J] (last visited Feb. 6, 2024).

not have home Wi-Fi.²⁸ Also, many places now provide free Wi-Fi or a way to get free or low-cost access.²⁹ The internet is becoming a lifeline for so many things. Therefore, it is important to discuss how technology could expand access to information and voice in this area.

This article will proceed as follows. Part II will start by describing how misdemeanor cases are processed and the problems embedded in the criminal legal system that are barriers to justice, including that defendants often have a hard time accessing information and legal counsel. Part III will then examine ways that technology could help in misdemeanor case processing. This section will identify three categories of technology. The first is that which should have a "green light" to proceed as it will expand A2J in the ways noted above and doesn't have serious risks. The second category is technology that falls under a "yellow light" as adopting it should proceed with caution as there are possible benefits but also possible problems, particularly if not adopted with a thoughtful and justice centered approach. Finally, the third category is technology that falls under a "red light" as adopting these changes seriously risks damaging A2J. Part IV will examine the concerns and limitations of these ideas, recognizing that inserting technology into the criminal legal system is not an easy fix, and can present other challenges. Part V will then conclude by encouraging the adoption of "green light" technologies that could improve and enhance A2J in the criminal legal system for misdemeanor cases.

II. CURRENT PRACTICES IN CRIMINAL MISDEMEANOR CASES

A. What is a Misdemeanor?

There is no single definition of a misdemeanor. As Megan Stevenson and Sandra Mayson observed, the "only universal meaning" is that a "'misdemeanor' refers to a criminal offense that

²⁸ Ani Petrosyan, *United States Internet Penetration 2000-2023*, Statista (Feb. 20, 2023), https://www.statista.com/statistics/209117/us-internet-penetration/ [https://perma.cc/FH5A-X3KN] ("[a]s of 2023, approximately 92 percent of individuals in the United States accessed the internet, up from nearly 75 percent in 2012. The United States is one of the biggest online markets worldwide and in 2022, there were nearly 299 million internet users in the country.").

²⁹ Affordable Connectivity Program, FED. COMMC'N COMM'N, https://www.fcc.gov/acp [https://perma.cc/E9YY-GWU3] (last visited Feb. 29, 2024) ("[t]he benefit provides a discount of up to \$30 per month toward internet service for eligible households and up to \$75 per month for households on qualifying Tribal lands . . . [e]ligible households can also receive a one-time discount of up to \$100 to purchase a laptop, desktop computer, or tablet from participating providers if they contribute more than \$10 and less than \$50 toward the purchase price.").

is less serious than a felony."30 There is wide agreement between states that offenses such as petty theft, driving under the influence (or while intoxicated) and simple assault and low level vandalism are misdemeanors.³¹ There are differences in other offenses that some states consider more serious, while others classify them as misdemeanors.³² For example, in 2014, California adopted Proposition 47 which reduced drug possession offenses and theft offenses under \$950 to misdemeanors.33 Drug possession is more commonly a felony.³⁴ States also vary widely in terms of how they treat the least serious of offenses, such as public intoxication.³⁵ Some define them as misdemeanors, some as even less serious offenses that may range from being simply "civil violations," to "misdemeanors," "summary offenses," or "infractions." ³⁶ Marijuana possession is another act that is treated vastly differently, depending on the state with some having legalized it and others considering it a low level infraction.³⁷ A small number of states still consider marijuana possession to be a felony.³⁸

For the purposes of this discussion, it is less important what crimes specifically are considered to be misdemeanors in each state. Instead, what matters is that every state considers a wide variety of offenses to be misdemeanors. What this means is that people are getting arrested and charged with low-level offenses and are having to navigate the criminal legal system to resolve their cases. It also means that courts are having to manage cases that the courts, prosecutors, and defense lawyers consider to be less serious, regardless of which specific acts qualify as misdemeanors.

³⁰ Stevenson & Mayson, *supra* note 17, at 739.

³¹ *Id*.

³² Id.

³³ See Prop 47 Criminal Sentences. Misdemeanor Penalties. Initiative Statute, CAL. SEC'Y ST., https://vigarchive.sos.ca.gov/2014/general/en/propositions/47/ [https://perma.cc/XEV2-6C9X] (last visited Feb. 6, 2024).

³⁴ See, e.g., Every 25 Seconds: The Human Toll of Criminalizing Drug Use in the United States, Hum. Rts. Watch (Oct. 12, 2016), https://www.hrw.org/report/2016/10/12/every-25-seconds/human-toll-criminalizing-drug-use-united-states [https://perma.cc/5CRB-SJNW] (stating that forty-two states treat possession of small amounts of illegal drugs, other than marijuana, "always or sometimes as a felony offense.").

³⁵ Stevenson & Mayson, *supra* note 17, at 739.

³⁶ *Id.*; see also Cal. Penal Code \$16 (West 1968) (classifying "crimes and public offenses" as "[f]elonies, [m]isdemeanors, and [i]nfractions"); see also Cal. Penal Code \$19.6 (West 1989).

³⁷ Jeff Burtka, *Marijuana Possession Laws by State*, FINDLAW (Dec. 29, 2022), https://www.findlaw.com/state/criminal-laws/marijuana-possession-laws-by-state.html [https://perma.cc/89BB-BZV3].

³⁸ *Id*.

B. The Process is the Problem

Getting arrested and charged with any crime can be the beginning of a dehumanizing ordeal for the defendant. As Malcom Feeley observed in his classic book—the criminal process can be, in and of itself, the punishment.³⁹ Misdemeanors far outnumber felonies, and more people are pulled into the criminal legal system on misdemeanor charges because of the wide variety of acts that can be charged as misdemeanors.⁴⁰ Misdemeanors range from jaywalking, "quality-of-life" offenses, low level drug cases, driving while intoxicated, and assault.⁴¹ Alexandra Natapoff has observed that "[s]ometimes misdemeanors don't even look much like *crimes*."⁴² But, once a case is filed, defendants are likely to plead guilty because fighting their case is so difficult. In studying low-level cases, Feely observed that "[i]ronically, the cost of *invoking* one's rights is frequently greater than the loss of the rights themselves, which is why so many defendants accept a guilty plea without a battle."⁴³

Defendants who are out of custody are required to appear in court multiple times, often waiting hours or the better part of a day before their case is called and they have a few minutes in front of a judge. In criminal cases, most criminal defendants are required to personally appear most of the time. Defendants have to take time off from work and are likely not in jobs where they have paid vacation days. 44 Defendants with children need to find childcare or bring their children with them. Criminal courthouses are often in places where defendants do not live. This means they must find and pay for transportation to the courthouse. If they forget a court date or can't make it because they don't have transportation or can't get time off work, a warrant could be issued for their arrest. Defendants who might otherwise want to exercise their constitutional right to go to trial are often so beaten down by the realities of what actually "fighting" their case means that they give up and accept a plea deal.

 $^{^{39}}$ Malcom M. Feely, The Process is the Punishment: Handling Cases in a Lower Criminal Court (1992).

⁴⁰ See, e.g., Sandra G. Mayson & Megan T. Stevenson, *Misdemeanors by the Numbers*, 61 B.C. L. Rev. 971, 982 (2020) (we are using the term "misdemeanor" as a widely recognized catchall term for low-level criminal cases, recognizing that different states and jurisdictions define misdemeanors differently).

 $^{^{41}}$ See, e.g., Natapoff, supra note 17, at 3. See also Stevenson & Mayson, supra note 17, at 739.

⁴² Id.

⁴³ Feely, supra note 39, at 277.

⁴⁴ See, e.g., Bernadette Rabuy & Daniel Kopf, *Prisons of Poverty: Uncovering the Pre-Incarceration Incomes of the Imprisoned*, Prison Pol'y Initiative (July 9, 2015), https://www.prisonpolicy.org/reports/income.html [https://perma.cc/Z5VG-TACM] (finding that incarcerated people had a pre-incarceration income forty-one percent lower than non-incarcerated people of similar ages).

In misdemeanor cases, in-custody defendants are often offered time-served deals while bail is set at unattainable rates. This means that defendants are faced with the choice of staying in jail to fight their case or pleading guilty to be released. Those who remain in custody are more likely to plead guilty and not have weak cases dismissed.⁴⁵ A study in Harris County, Texas, concluded that 17% of those detained pretrial who plead guilty on misdemeanor cases would not otherwise have been convicted due to weaknesses in their cases.⁴⁶ The Harris County study found that defendants detained pretrial on misdemeanor cases were "25% more likely to be convicted and 43% more likely to be sentenced to jail."⁴⁷

Defendants who are in custody and choose to fight their case can also be worn down by the process. The simple act of going from the jail to the courthouse is grueling. The buses leave the jail early in the morning and defendants may not get a hot meal all day (or even much in the way of food). In-custody defendants also do not know when their case will be called and often have only a few minutes, if that, to talk to their lawyer before they go into the courtroom. As with out-of-custody defendants, they will routinely wait hours for their case to be called and then spend only minutes in front of the judge. Beyond the general court process, there are other specific concerns for defendants charged with misdemeanors including accessing their right to legal counsel, the long-term impact of misdemeanor convictions, and the problem that innocent defendants are pulled into the criminal legal system with the only practical way out being to plead guilty.

C. Access to Information

Defendants facing criminal charges are often uninformed about how the criminal legal system works. Even defendants with prior records often do not understand the basic processes, do not know what to expect at particular court appearances, or what their options might be such to show they might get an appointed lawyer. This problem can be even more acute with defendants who do not speak English, are mentally ill, or suffer from cognitive disabilities, or

⁴⁵ Paul Heaton et al., *The Downstream Consequences of Misdemeanor Pretrial Detention*, 69 Stan. L. Rev. 711, 785–86 (2017).

⁴⁶ *Id*.

⁴⁷ *Id.* at 717.

substance abuse problems.⁴⁸ Lack of access to information impacts A2J on a variety of levels.

Defendants whose only experience with the criminal legal system has been watching television may think they are going to have a jury trial, and do not understand the variety of processes that happen before, or instead of, trial. Even defendants with prior court experiences may not understand what is happening or what could happen. Defendants need to understand what an arraignment is, what a bail hearing is, and the variety of pre-trial dates they can expect. If they are in a jurisdiction with strict timeframes for trial, they should know what those are. Often these things are quickly explained at the arraignment. Arraignments can be information overload for defendants, as they may not understand or remember what they are told.

A standard arraignment consists of the defendant being told what the charges are and then they enter a plea of guilty or not guilty. If a plea deal is reached at arraignment, the judge will go through the plea colloquy—pausing at particular places to ask if the defendant agrees and/or if the defendant understands. The defendant is expected to give simple one-word answers (yes or no). If there is no plea deal the defendant will enter a plea of not guilty and the judge will read out standard information about their next court date and what they can or can't do if they are being released from jail (for example, not drink alcohol or not contact a complaining witness). Once again, the judge will pause to ask the defendant a few questions and the defendant is expected to give simple one-word answers (yes or no).

Defendants often leave the courtroom in a form of shellshock. They waited for hours for something to happen, and when it did it was so quick that they didn't have time to absorb it all or ask any meaningful questions. It is also clear that the judge, and the lawyers, do not want them to ask questions when the case is called. They may be given a piece of paper with a few things written down, but they are often unclear about basics like when they need to come back to court. Lawyers often help by writing down future court dates on pieces of paper and giving some additional explanation. The court may also require the defendant to sign something indicating that they know the next court date. But these pieces of paper can get lost, and may not be helpful if the defendant is not literate or does not understand the language that the printed material is written in.

⁴⁸ See, e.g., John P. Petrila & Allison D. Redlich, *Mental Illness and the Courts: Some Reflections on Judges as Innovators*, 43 Cr. Rev. 164, 164 (2008) ("[i]f all mental disorders—including substance abuse disorders—are included, the prevalence of mental disorder in incarcerated populations is over 70%.").

D. Access to Legal Counsel

In misdemeanor cases defendants often struggle to get competent assistance of counsel.⁴⁹ Misdemeanor caseloads are high, and defendants are more likely to go unrepresented and waive their right to a lawyer.⁵⁰ In 1973, the U.S. Department of Justice National Advisory Commission on Criminal Justice Standards and Goals recommended that criminal defense lawyers carry no more than 150 felonies or 400 misdemeanor cases in any given year. 51 However, most public defender offices are unable to enforce these case load limits.⁵² For example, the Department of Justice reported in 2007 that 73% of "county-based public defender offices" nationwide exceeded this limit.⁵³ More recent studies confirm that this is a continuing problem. For example, a 2021 report commissioned by the Illinois Supreme Court found that public defenders in Cook County, Illinois were handling more than 2000 misdemeanor cases per year.⁵⁴ A recent study released by the Rand Corporation revisited the standards set in 1973 for defense lawyer caseloads, and recommended revising that standard to 150 low level misdemeanors per year, or 93 high

⁴⁹ See Jenny Roberts, Why Misdemeanors Matter: Defining Effective Advocacy in the Lower Criminal Courts, 45 U.C. Davis L. Rev. 277, 369, 371 (2011); id. at 287 ("[t]wo ways in which the quality of misdemeanor representation matters more today than ever before merit particular attention: the proliferation of criminal records and the related phenomenon of an explosion in collateral consequences for minor criminal convictions.").

 $^{^{50}\,}$ National Right to Counsel Committee, Justice Denied: America's Continuing Neglect of Our Constitutional Right to Counsel (2009).

⁵¹ Donald J. Farole, Jr., Ph.D., & Lynn Langton, *County-Based and Local Public Defender Offices*, U.S. DEP'T JUST. (2007), https://bjs.ojp.gov/content/pub/pdf/clpdo07.pdf [https://perma.cc/44U4-3ACD] [hereinafter *2007 Census*].

⁵² See Nationwide, Public Defender Offices Are in Crisis, Legal Intelligencer (June 4, 2009, 12:00 AM), https://www.law.com/thelegalintelligencer/almID/1202431211779/ [https://perma.cc/AX9L-TCKY]. For more recent reports, see, e.g., James Queally, With L.A. Courts Paralyzed by COVID-19, Public Defenders Say Caseloads Are 'Unconscionable,' L.A. Times (Dec. 13, 2020, 5:00 AM), https://www.latimes.com/california/story/2020-12-13/los-angeles-courts-covid-public-defender-caseloads-doubled-tripled#:~:text=In%20a%20message%20that%20 reached,workload%2C%20and%20some%20were%20so [https://perma.cc/ATF5-U84J]; Conrad Wilson, American Bar Association Finds Oregon Has Just 1/3 of Needed Public Defenders, OPB (Jan. 20, 2022, 10:08 PM), https://www.opb.org/article/2022/01/20/american-bar-association-finds-oregon-has-just-13-of-needed-public-defenders/ [https://perma.cc/AK3N-3ZMV]; Richard A. Oppel Jr. & Jugal K. Patel, One Lawyer, 194 Felony Cases, and No Time, N.Y. Times (Jan. 31, 2019), https://www.nytimes.com/interactive/2019/01/31/us/public-defender-case-loads.html [https://perma.cc/3TRD-MCRL].

⁵³ Lynn Langton & Donald J. Farole Jr., *Public Defender Offices*, 2007- Statistical Tables, U.S. DEP'T JUST. (2010), https://bjs.ojp.gov/content/pub/pdf/pdo07st.pdf [https://perma.cc/UVW3-PJAG].

⁵⁴ Josh McGhee, *Study: Illinois Public Defenders Struggle with Big Caseloads*, INJUSTICE WATCH (June 13, 2021), https://www.effinghamdailynews.com/news/study-illinois-public-defenders-struggle-with-big-caseloads/article_bc03e6a6-cca3-11eb-9ddd-f774ee1f28b2.html [https://perma.cc/8X99-6CHL].

level misdemeanors per year.⁵⁵ By either measure, public defenders nationwide are routinely exceeding the maximum recommended caseloads.⁵⁶

Defendants who plead guilty without a lawyer, or with a lawyer who does not spend time with them, often do not understand how the criminal process works and what their options are, or the consequences of their guilty plea. These problems can be more acute in misdemeanor cases where there are fewer resources.

Even if a defendant does get a lawyer appointed, caseload pressures and pay structures mean that most appointed lawyers can't take most cases to trial.⁵⁷ This can increase the pressure on defendants to plead guilty. One serious challenge in legal representation is the lack of time to prepare cases. This is more acute in misdemeanor cases where appointed counsel may be paid so little that they "meet and plead" clients within minutes.⁵⁸ The pay structures and limited resources in many jurisdictions create a situation where lawyers do not spend even the minimum amount of time with their clients.⁵⁹

Another serious issue that impacts how lawyers can represent their clients is that it is hard to have basic communication with them. Jails have telephones, but lawyers overwhelmingly do not trust the confidentiality of conversations on jail phones.⁶⁰ Video calls might be available, but the same concerns exist about failure to guarantee confidentiality.⁶¹ When a defendant is in custody, the only reliable forms of confidential communication with their lawyer are in-person visits and snail mail (letters put in the regular mail). Both of these

⁵⁵ See Nicholas M. Pace et al., National Public Defense Workload Study, RAND (July 27, 2023), https://www.rand.org/pubs/research_reports/RRA2559-1.html [https://perma.cc/9SJP-UKJX].

⁵⁶ See, e.g., John Gross, Reframing the Indigent Defense Crisis, HARV. L. REV. (Mar. 18, 2023) https://harvardlawreview.org/blog/2023/03/reframing-the-indigent-defense-crisis/ [https://perma.cc/J6RF-KMCS] ("[i]ndigent defense isn't just part of our criminal justice system, it is our criminal justice system.").

⁵⁷ This can be an acute problem in counties that pay only "flat fees" for each case a lawyer handles. Such pay structures discourage trials and encourage early pleas. John P. Gross, *Part I: Rationing Justice: The Underfunding of Assigned Counsel Systems—a 50-State Survey of Trial Court Assigned Counsel Rates*, Nat'L Ass'n Crim. Def. Laws. (Mar. 2013), http://www.nacdl.org/reports/gideonat50/rationingjustice [https://perma.cc/V2KS-TAV6] (reporting that "at least 20 states" use flat fee contracts or pay a flat rate per case).

⁵⁸ See, e.g., Wilbur v. City of Mount Vernon, 989 F. Supp. 2d 1122, 1124 (W.D. Wash. 2013).

⁵⁹ See, e.g., Justice for a Few? A Punishment for the Poor, Equal Just. U.S., https://ejusa.org/wp-content/uploads/EJUSA-DP-factsheet-defense-1.pdf [https://perma.cc/VDJ8-W6BR] (last visited Feb. 11, 2024); Alexa Van Brunt, Poor People Rely on Public Defenders Who Are Too Overworked to Defend Them, Guardian (June 17, 2015, 7:30 AM), https://www.theguardian.com/commentisfree/2015/jun/17/poor-rely-public-defenders-too-overworked [https://perma.cc/WF6Q-P5U8]; Lisa C. Wood et al., Meet and Plead: The Inevitable Consequence of Crushing Defender Workloads, 42 Litig. 20, 23 (2016); Cynthia Alkon, Plea Bargain Negotiations: Defining Competence Beyond Lafler and Frye, 53 Am. Crim. L. Rev. 377 (2016).

⁶⁰ Alkon, supra note 2, at 490.

⁶¹ Id. at 492.

forms of communication are limited. Lawyers often do not speak to their client until the day of arraignment, especially if the client is in custody and if the case is a less serious misdemeanor.

E. Innocent Defendants

There is no question that innocent people are arrested and plead guilty to crimes they did not commit.⁶² The unknown is how many innocent people are convicted.⁶³ How misdemeanors are handled exacerbates this problem. The rush to process these cases often means that defendants are pressured to plead guilty before the evidence has been fully reviewed by either the prosecution or their own lawyers.⁶⁴ This means defendants may plead guilty before their lawyers have reviewed dash camera or body camera footage or before drugs are tested to determine if they are, in fact, illegal substances.⁶⁵ Defendants who are in custody, or who are out of custody and don't want to keep returning to court, feel the pressure to plead guilty and end the process, despite not having all the information that they need to make an informed decision.

III. How Technology Can Help

The serious concerns and issues around A2J for criminal misdemeanor defendants warrant comprehensive ideation and analysis. There is no quick fix. There is sometimes a rush to adopt technology as the shiny new toy that can address all woes. That is not the case, and this article does not suggest that adding use of technology in new ways for criminal cases will be a golden ticket. Instead, this article hopes to engage in dialogue to creatively consider how technology could help with some problem-solving for criminal misdemeanor processes. The following are some ideas for using technology in criminal cases to assist with problem-solving and A2J-using a green, yellow, and red-light approach. "Green light" ideas are those that pose the least risks for misuse and require

⁶² See, e.g. Alkon & Schneider, supra note 4, at 135–43; See also Innocents Who Plead Guilty, Nat'l Registry Exonerations (Nov. 24, 2015), https://www.law.umich.edu/special/exoneration/Documents/NRE.Guilty.Plea.Article1.pdf [https://perma.cc/42YZ-KTG4].

⁶³ See, e.g., Natapoff, supra note 17, at 89.

⁶⁴ *Id.* at 91–94 (describing a drug conviction due to a guilty plea before the drug tests were returned).

⁶⁵ *Id*.

the least resources. "Yellow light" suggestions are those that may provide promise to help improve A2J, but should be used with caution because of concerns that the particular technology could be used in ways that do not increase justice and are instead harmful to defendants' rights. Finally, "red light" uses of technology in the criminal context should be avoided in the current environment to protect criminal defendants and A2J.⁶⁶ Protecting defendants' rights is at the center of this analysis, noting that technology, depending on what it is, can improve or impede A2J.

A. Green Light: Reasonable Technologies for Criminal Court Adoption in Misdemeanor Cases

i. Auto-notifications for court dates

Hairdressers, dentists, and doctor's offices regularly send out auto-notifications to remind people that they have appointments. They may be text messages, emails, or both. The technology required to send out an auto-notification is minimal and yet, these notifications are not a routine part of criminal case processing in many courts. Defendants who are out of custody could easily be notified and reminded about upcoming court dates. One study found that sending auto-reminders significantly reduced failure to appear rates.⁶⁷ This study found that "simple nudges" can help defendants to prevent failures to appear in court. Courts in a variety of jurisdictions have adopted reminder systems, using different methods ranging from "live callers" to postcards. 68 The live caller systems were adopted by some courts in the late 1990s, and showed how these nudges can reduce failure to appear rates. 69 Text messaging systems are much less resource-intensive than live caller systems and make more sense in today's environment in which many people do not answer calls and screen out robocallers. Auto-notifications will save defendants from having warrants issued for their arrest and will also save courts money in the long run as fewer arrest warrants would be issued (with all the attendant costs). The only caveat is that messaging

 $^{^{66}}$ Thank you to Michael O'Hear for suggesting the "green, yellow, and red light" approach to our analysis in this section.

⁶⁷ Alissa Fishbane et al., *Behavioral Nudges Reduce Failure to Appear for Court*, Sci. (Nov. 6, 2020), https://www.science.org/doi/10.1126/science.abb6591 [https://perma.cc/2JPV-UE7X].

⁶⁸ Use of Court Date Reminder Notices to Improve Court Appearance Rates, Pretrial Justice Brief 10, Pretrial Just. Ctr. Cts. (Sept. 2017), https://www.ncsc.org/__data/assets/pdf_ file/0015/1635/pjcc-brief-10-sept-2017-court-date-notification-systems.ashx.pdf [https://perma. cc/2UQW-KLAX].

⁶⁹ *Id*.

and data rates may apply, and, although on balance, this should not be problematic for most (especially with most cell phone plans providing unlimited texts, and this could be provided at the option of the defendant).

B. Option Support Tools

A2J requires that individuals have access to information, as noted above. Nonetheless, defendants often lack information about their options in terms of how to handle their criminal case, and they also often do not understand how they can access legal services. As mentioned above, the vast majority of defendants, up to 80%, cannot afford to hire a lawyer. In misdemeanors, defendants may not know when they have a right to appointed counsel and the courts may not easily give out that information. Additionally, defendants often do not know that there are alternative courts, such as drug courts, much less that their case may qualify for such a process. Technology could help to give defendants more information about what their options are in terms of how to handle the case itself and how to access legal services.

Provision of information tools should not relieve lawyers of their duty to fully advise their clients or decrease the amount of time lawyers spend with their clients. Instead, the hope is that targeted use of technology to provide information to defendants could help to make attorney-client conversations more meaningful. Armed with information, clients would be more informed so they can ask questions and better engage with their lawyers. Indeed, this use of technology should not be used as justification for cutting spending on defense services. Technology in this context is not a substitute for defense lawyers. However, if done properly, it could be a valuable aid to increase the value of attorney-client interactions. Two immediate ways that option support tools could help defendants are (1) provide information about how to access lawyers and (2) provide information about various alternative processes that might be available for a given case. Providing this sort of information through technology should have a "green light" to move forward. However, there are

⁷⁰ Harlow, *supra* note 26; *See also*, Gross, *supra* note 56.

⁷¹ Emily Hamer & Caitlin Schmidt, 'America's dirty little secret':Thousands of misdemeanor defendants don't get attorneys, WACO TRIB.-HERALD (Sept. 11, 2023), https://wacotrib.com/news/national/america-s-dirty-little-secret-thousands-of-misdemeanor-defendants-don-t-get-attorneys/article_85d59b2d-422d-52e4-9c1c-c36226bdaff6.html [https://perma.cc/WKH5-XJ3R]; See also Gideon v. Wainwright, 372 U.S. 335 (1963); Argersinger v. Hamlin, 407 U.S. 25 (1972) (right to counsel for any offense, whether felony or misdemeanor, where a person may be imprisoned).

also option support tools where more caution should be exercised in terms of when or how to adopt in the future. These will be discussed under the "yellow light" section below.

i. Access to Lawyers

Most people do not have any idea how to find a lawyer much less when they might qualify for the court to appoint a lawyer. This can be even more of an issue in misdemeanor cases where defendants may have less experience with the criminal legal system. Unfortunately, there have been instances where judges have worked to actively subvert the right to counsel by rushing the process or making veiled or overt threats about the outcome being worse if defendants hire a lawyer and refuse the offered deal that day.⁷²

Technology could help to give basic information to defendants about who qualifies for a public defender and what to expect if they do qualify for a public defender in terms of when they might meet their lawyer and whether fees will be assessed after the case is over. In addition, technology could be used to explain to defendants who do not qualify for an appointed lawyer how they might find a lawyer. For example, links could be provided to criminal defense attorneys on the Bar Association member lists. This information could be given to defendants through a simple link to a mobile-friendly webpage with links for gathering further information on each item. The explanations given should include infographics and short videos with narration in multiple languages. This will help defendants who many not have strong literacy skills. It could be as simple as a video narration similar to what airlines provide regarding safety, with links for more information.

Additionally, as noted below regarding decision support tools, courts or public defender offices could also provide expert systems to individuals –noting options for finding attorneys and choosing process options. This could be similar to TurboTax for finding an attorney–filtered through simple questions in an app. In addition, generative AI could be layered with expert systems based on law and created by experts to make the system easier to navigate for anyone with a cell phone or tablet. For example, ChatGPT, GPT4, Bard, and other Large Language Models ("LLMs") digest vast amounts of data and allow for easy manipulation in a "chat style." People of all education levels have found ChatGPT incredibly easy to use, which is why it has quickly become a worldwide phenomenon. As layered systems improve, there may be "chat-style" information tools that

⁷² See, e.g., Rob D'Amico, Defense Denied, Tex. Observer (Feb. 22, 2023), https://www.texasobserver.org/texas-public-defenders-defense-denied/[https://perma.cc/TXH8-HUJG].

could be deployed to assist defense counsel and their clients. The caution here is to make sure that the systems are fully secure and retain no case-sensitive or confidential information. Also, it is wise to begin with top-down, fixed, expert systems to ensure accuracy of information—for example, pre-programmed questions and answers about finding a lawyer and/or the process of having a public defender appointed.

ii. What Courts and Alternative Processes?

Once a defendant has a lawyer, the lawyer will need to spend time talking to their client to help them understand what their options are with their case and to decide what they want to do. As discussed above, lawyers often do not have time to spend with their clients to fully discuss their cases and their options, particularly at arraignment when the case may need to quickly move through the court docket. Technology could help to give defendants better information about not only how the court process works, but also substantively about the possible options for their cases.

Courts around the country have a full array of problem-solving courts including drug courts, mental health courts, and veterans' courts. Courts could give information to all defendants at arraignment about these options and whether their cases might qualify. Problem-solving courts aren't appropriate for every defendant and have limited capacity in terms of how many defendants they can admit, but letting defendants know that these courts exist can be a useful first step for better informed attorney-client conversations. This can help defendants know what to ask their lawyers and in general help them learn what might or might not be possible so they can productively work with their attorneys in making decisions.

Again, this could be coupled with expert systems to help criminal defendants understand how to access legal services and understand their options. For example, a fixed, top-down, system could allow defendants and their counsel to answer a few questions in a simple, mobile-friendly, system to determine what options might be available for their cases. This could be layered with a LLM trained with legal information in the designated jurisdiction to create guided self-help tools that are easily navigable with a simple chat. Even the free ChatGPT can provide self-help tools for individuals navigating a court process. It can provide basic information about a criminal process, explain fundamental legal concepts, provide relevant forms,

⁷³ Suzanne M. Strong, Ramona R. Rantala, & Tracey Kyckelhahn, *Census of Problem-Solving Courts*, 2012, Bureau Just. Stats. (Sept. 15, 2016), https://bjs.ojp.gov/library/publications/census-problem-solving-courts-2012 [https://perma.cc/N9TS-Z8YT] (there are over 3000 problem-solving courts).

and assist in drafting submissions. This empowers individuals to better understand and participate in the resolution process.

Nonetheless, LLMs come with caveats and cautions. They are prone to "hallucinations." As Cyberjustice Laboratory work has emphasized, predictive analytics and AI should be used cautiously, controlled by auditing and transparency rules as well as means for ensuring reliance on accurate and non-discriminatory data. Properly developed and monitored decision support tools have the capacity to assist disputants during a mediation or negotiation but are not appropriate for all cases. Moreover, any decision or option support tools should include the guidance of an attorney to check for false information and to allow for feedback and nuance. The human must remain in the loop to ensure fairness, accuracy, and to reduce bias. Because of these concerns, these tools are better if they are controlled by a public defenders' office or the criminal defense bar and are not controlled through the court system itself.

C. AI to Help Defense Lawyers

In the context of criminal defense, where resource constraints and time limitations often pose significant hurdles, the strategic integration of AI and technology offers a practical way to help defense attorneys provide greater value in less time. Even GPT can generate concise summaries of case materials and generate helpful summaries for public defenders so that they can do more with less time. Furthermore, AI-powered legal research tools can be employed to expedite the information-gathering process. For instance, platforms like Lexis+ AI use layered expert systems trained on legal data to navigate extensive legal databases swiftly and accurately. This enables defense attorneys to access relevant case law, statutes, and precedents efficiently, providing them with crucial insights in less time, helping them to efficiently assess and craft legal strategies. By automating the research phase, attorneys can allocate more time to verifying information, developing compelling arguments and building robust cases for their clients. This could also free up more time for client counseling.

Another concrete application is document preparation. AI-driven tools, such as the legal drafting platform LawGeex, leverage machine learning algorithms to analyze and generate legal

 $^{^{74}}$ Amy J. Schmitz, The Arbitration Conversation: Insights and Wisdom from Experts in the Field 109-11 (A.B.A. 2024).

documents.⁷⁵ These tools can assist defense attorneys in drafting motions, briefs, and other legal paperwork by offering context-specific suggestions, ensuring accuracy, and expediting the drafting process. Lexis and Westlaw now offer quick and accurate means for checking citations, although every use of technology should be verified.⁷⁶ Still, by automating repetitive tasks, attorneys can enhance the precision of their legal documents and devote more attention to the nuanced aspects of their cases.

Moreover, AI can revolutionize case management by introducing advanced systems that optimize organizational workflows. For example, software solutions like Clio provide cloud-based platforms for secure document storage, seamless collaboration, and streamlined case management.⁷⁷ Technological tools also can enable defense teams to collaborate in real time, facilitating efficient communication and resource-sharing among team members. Additionally, AI-powered case management systems can offer predictive analytics, helping attorneys anticipate case developments and make informed decisions. Still, a human should remain in the loop to ensure accurate and safe use of technology.

In essence, the strategic adoption of AI and technology in criminal defense practices provides tangible benefits by addressing specific pain points within the legal process. These advancements could empower defense attorneys to navigate their caseloads more efficiently, offering a potential remedy to the resource constraints they often face in their pursuit of justice for their clients. We say this understanding that private tools can be too expensive for public defender offices and many private defense attorneys. Yet, the fast pace of technological advances should allow for scale and bringing down costs, and increasing availability of lower cost options. Civil attorneys are continually using technologies, with greater advances every day. Criminal defense attorneys should have similar access and training to these technologies.

⁷⁵ Conquer Your Contracts, Lawgeex, https://www.lawgeex.com/#:~:text=We%20act%20as%20an%20extension,with%20increased%20speed%20and%20precision [https://perma.cc/9P54-7CMR] (last visited Nov. 22, 2023).

 $^{^{76}}$ We offer this recommendation understanding that there are public defender offices and private counsel who cannot afford access to Lexis and Westlaw, see discussion below.

⁷⁷ The Industry's Number 1 Legal Software, CLIO, https://www.clio.com/?sem_account_id=7189143421&sem_campaign_id=14548360247&sem_ad_group_id=132484895488&sem_device_type=c&sem_keyword=clio%20software&sem_matchtype=e&sem_ad_id=591328020702&sem_network=g&sem_target_id=kwd-18483245784&sem_feed_item_id=&utm_source=google&utm_medium=cpc&utm_term=clio%20software_e&sem_location_id=9014888&sem_placement=&sem_placement_category=&utm_campaign=BRA:US:Exact:Clio&gad_source=1&gclid=Cj0KCQiA6vaqBhCbARIsACF9M6k6cAlMJHsXu-CwW15fMc60MPMNRJ-ccZ8sPUFjKLyR2Avoip4f-vQaAkdTEALw_wcB [https://perma.cc/A2VF-5ZBR] (last visited Nov. 22, 2023); Industry-Leading Legal Case Management Software and Solutions, MyCase, https://www.mycase.com/ [https://perma.cc/N8E3-2DFC] (last visited Nov. 22, 2023).

One caution here is that use of AI for any sort of predictions or analytic tools may be too complicated to use to inform defendants of sentences and potential sentences and should only be used with verification and with the human in the loop. Unless the tool is entirely controlled by the defense, the defense bar would have legitimate and serious concerns about any tool that requires a defendant to enter information that would be confidential and potentially open them up to greater criminal liability. This tool should only be considered as a way to give defense attorneys information, not as a tool to be provided directly to criminal defendants without attorney input or as an aid for judges in actual sentencing decisions.

D. Case Management

Related to the above discussion, case management software centralizes document storage, deadlines, and case updates, fostering seamless collaboration among defense attorneys, prosecutors, and the court. This technological integration could ultimately result in a more efficient and equitable criminal legal system that caters to the needs of all its participants. Online case management has long been a hallmark of ODR, and companies like Tyler Technologies have been very successful working with courts in order to help digitize their systems and improve efficiency and integration. Case management systems are able to also connect probation officers and other actors in a criminal case, beyond the clerk, attorneys and judges. This may allow for defendants to be connected to services, including some of the tools proposed below.

Online case management also improves the transparency of a process. It allows users to initiate complaints related to their cases, and allows all parties involved to coordinate efforts along the way through a secure platform. Currently, courts may allow e-filing, but often they still collect information manually and fail to coordinate all the individuals involved in a case. Some courts, especially in smaller and rural jurisdictions, still use paper filings. Online case management helps users to see the progress of a process online, continuously access the data, and be aware of timelines they need

⁷⁸ Enterprise Case Management Software, Tyler Techs., https://www.tylertech.com/products/enterprise-justice/enterprise-case-manager [https://perma.cc/3A4T-QB7T] (last visited Nov. 22, 2023).

⁷⁹ Id.

to meet, what documents are required at specific times, and the progress of the case.⁸⁰

Furthermore, as noted above, case management systems should allow for text and calendar updates that populate through users' mobile devices to help them make it to appointments and court dates. Family ODR research showed that these notices, sent directly to mobile devices, help people not miss appointments. A simple app could provide greater access to system information, and next steps in a case process. It could also link individuals to other services, such as rides to court dates or access to food for those who are food insecure. Transparency and provision of appropriate information individually and directly to the defense lawyer and their client could benefit all involved. Again, this could help ease stress and the unknowns that cloak criminal defendants.

E. Yellow Light: Technology the Criminal Legal System Should Consider Adopting with Caution

i. Translation Services

Natural Language Processing ("NLP") and other technologies can be helpful for language translation and interpretation. The use of AI and NLP for translation services in criminal processes could help expand access to translation at lower costs. For instance, the New York Workers' Compensation Board provides translation of all documents and forms that injured employees complete, as well as all board documents that provide general information to injured employees on the process of applying for workers' compensation benefits. The translations are provided in the ten most common non-English languages spoken by individuals with limited-English proficiency in the state of New York. The board also provides interpretation services to injured employees with respect to its provision of services, information, and/or benefits. Furthermore, the board publishes a language access plan that includes a training plan for board employees on its language access policies and how to provide language assistance services.⁸² While it is unclear whether this translation is done by humans or AI, it seems to be currently

 $^{^{80}\} Our\ Solutions,$ Tyler Techs., https://www.tylertech.com/solutions [https://perma.cc/XN84-3DX6] (last visited Apr. 6, 2024).

 $^{^{81}}$ $\it Home\ Page,\ coParenter,\ https://coparenter.com/ [https://perma.cc/CAA7-HMAM]$ (last visited Dec. 9, 2023).

 $^{^{82}}$ Ronald E. Weiss & Ronald Balter, New York Workers' Compensation Handbook \$17-a (Matthew Bender ed. 2023).

done by humans.⁸³ This could expand to more languages with the help of AI.

Most know about the cheap and easy translation services on the internet. For example, Google Translate is one of the most widely used AI-powered translation services.⁸⁴ It supports translation between over 100 languages and uses neural machine translation to improve the accuracy and fluency of translations.⁸⁵ Microsoft Translator is another versatile translation service that supports text, speech, and image translation.⁸⁶ It integrates with various Microsoft products and offers a wide range of language options.⁸⁷ IBM Watson Language Translator similarly supports translation across multiple domains and industries, including healthcare and legal.⁸⁸ It can be integrated into applications and workflows to automate translation processes.⁸⁹

However, caution should be exercised in using these tools. First, it must be certain that confidential information should not be fed into any sort of open system. This already has been noted with respect to some translation software and is especially important with respect to attorney-client communications. We can observe that human interpreters are often essential to capture nuanced understanding of dialects, cultural references, and figures of speech. However, the technology keeps improving, and one cannot predeict how good it may become in the near future.

⁸³ See Language Access, N.Y. St., https://www.wcb.ny.gov/content/main/TheBoard/Translations/language-access-policy.jsp [https://perma.cc/9556-Z79P] (last visited Apr. 12, 2024).

⁸⁴ Shlomit Yanisky-Ravid & Cynthia Martens, From the Myth of Babel to Google Translate: Confronting Malicious Use of Artificial Intelligence—Copyright and Algorithmic Biases in Online Translation Systems, 43 SEATTLE U. L. REV. 99, 103 n.6 (2019) ("Google says the service is used more than a billion times a day worldwide, by more than 500 million people a month.").

⁸⁵ Paula Trzaskawka, Selected Clauses of a Copyright Contract in Polish and English in Translation by Google Translate: A Tentative Assessment of Quality, 33 Int'l J. Semiotics L. 689, 690 (2020).

⁸⁶ See Translator App Features, Microsoft, https://www.microsoft.com/en-us/translator/apps/features/ [https://perma.cc/282D-5GA9] (last visited Apr. 12, 2024).

⁸⁷ Text Translation, Microsoft, https://www.microsoft.com/en-us/translator/business/translatorapi/ [https://perma.cc/63GY-AZAV] (last visited Apr. 12, 2024).

⁸⁸ About Language Translator, IBM CLOUD, https://cloud.ibm.com/docs/language-translator?topic=language-translator-about [https://perma.cc/K55C-N29N] (last visited Apr. 12, 2024).

⁸⁹ Configuring IBM Watson Integrations, IBM, https://www.ibm.com/docs/en/openpages/8.3.0?topic=guide-configuring-watson-integrations [https://perma.cc/25RS-BKQ7] (last visited Apr. 12, 2024).

⁹⁰ See, e.g., Waqas, Global Translation Service Exposed Highly Sensitive Records Online, HACKREAD (July 7, 2023), https://www.hackread.com/global-translation-service-exposed-records/ [https://perma.cc/D4BX-7ZU7].

ii. Online Communication Systems

Technology already is being used in traffic ticket and warrant cases to expand access to the courts in low-level cases. For example, in-person hearings for ticket cases are problematic due to the need to take time off of work and expend resources while wasting hours in court waiting for a judge to hear their defenses for a traffic ticket. Michigan was one of the first U.S. states to launch an ODR pilot program in collaboration with Matterhorn, a private ODR provider, for resolving traffic disputes.⁹¹ The core of the program is an online portal for defendants to submit their cases, including arguments contesting their tickets or explanations for why they cannot pay their fines. Police and prosecutors then review cases through the portal before a judge makes a decision. 92 In this way, the online format provides for the resolution of traffic disputes without the need for face-to-face court appearances. 93 This is especially important for out of state drivers, for whom in-person procedures would be too costly in light of the travel involved.

Another one of the first ODR pilots aimed at addressing problems with access to courts was the Franklin County Municipal Court Dispute Resolution Department's ODR program. It began with a focus on addressing individuals' disputes with the City of Columbus Division of Income Tax. 94 Again, this was the type of dispute for which face-to-face ("F2F") alternatives were inconvenient and costly considering the small sums often at stake. 95 Also, stakeholder leaders stepped in to champion the program and gather research to pave the way for improvements. 96 When one is already having financial troubles, the last thing that they need is to take time off of work and sit in a government building, often paying for parking and childcare. In the Ohio case, the pilot saved everyone time, which ultimately benefitted all involved. 97

⁹¹ John Nevin, Online Ticket Review Helps Make Courts More Accessible and Efficient, MICH.
CTS. (June 8, 2015), https://www.courts.michigan.gov/49c6b5/siteassets/news-releases/online-ticket-review-news-release.pdf [https://perma.cc/PF6Z-FBYU]; Jennifer M. Grieco, Questions Arising from the Push to Change Rule 5.4, 98 MICH. B. J. 12, 12 (2019).

⁹² Id

⁹³ Anna Stolley Persky, Michigan Program Allows People to Resolve Legal Issues Online, A.B.A. J. (Dec. 1, 2016, 3:10 AM), http://www.abajournal.com/magazine/article/home_court_advantage/[https://perma.cc/A223-9V5K].

⁹⁴ FCMC Small Claims, Online Dispute Resolution - Franklin County Municipal Court, YouTube (July 18, 2018), https://www.youtube.com/watch?v=bgMhEpW4MiQ [https://perma.cc/9XKM-BAWN].

⁹⁵ Schmitz, supra note 1, at 109–11.

⁹⁶ Franklin County Municipal Court, FCMC DATA PROJECT, https://sites.google.com/view/fcmcdataproject/about [https://perma.cc/HF47-BFYX?] (last visited Mar. 18, 2021).

 $^{^{97}}$ Franklin County Municipal Court Dispute Resolution Department, ODR 2016-17 Spreadsheet.

All current ODR systems provide communication tools to support some combination of evaluation, conciliation, facilitation, mediation, and negotiation.98 This may include videoconferencing through platforms such as Zoom and TEAMS. However, many are text-based using secure portals for direct communication at any time of the day, as well as virtual spaces for shuttle discussions, where the facilitators can easily separate the parties into different "virtual rooms" and quickly enter/leave rooms to confer with the parties separately. This can be very effective where toxic relationships make it difficult for parties to be in the same room, even if it is virtual. This could aid virtual problem-solving and restorative processes. Furthermore, attorneys could consult with their clients via secure video calls or text-based systems, eliminating geographical constraints and ensuring prompt communication. Again, this must be done with secure video links in order to preserve confidentiality. This aspect will be discussed in more detail below, but bears repeating in order to emphasize confidentiality and privacy in any use of technology in criminal cases.

Additionally, online communication portals can be combined with case management, as noted above. In totality, the technologies may simplify the communication, case tracking, and presentation of evidence. Digital exhibits, documents, videos, and photographs can be easily shared in virtual spaces, streamlining the evidence submission process. This allows for more organized and persuasive presentations and supports real-time fact-checking and expert testimony from various locations. In effect, technology may improve ease and accessibility with respect to the presentation and tracking of evidence in a case. Still, this should be used with caution, as noted in more detail below.

iii. Remote Appearances

Remote appearances are already being used in criminal courts around the country. Some jurisdictions regularly use remote appearances for arraignment of defendants who are in custody. During the pandemic there was widespread use of video technology, such as Zoom, for a range of court appearances, including, in a few

⁹⁸ Amy J. Schmitz and Jan Martinez, *ODR and Innovation in the United States*, in Online Dispute Resolution: Theory and Practice: A Treatise on Technology and Dispute Resolution 611–20 (Mohamed S. Abdel Wahab, Ethan Katsh and Daniel Rainey Eds., Eleven International Publishing, Netherland: The Hague, 2021). *See also* Anvar Aslanov, *Mediation and International Water Disputes: A Strong Marriage? An Analysis of Mediation in the Context of Methods of International Dispute Resolution*, 28 Willamette J. Int'l & Disp. Resol. 121, 177 (2021).

 $^{^{99}}$ Taylor Benninger et al., Stanford L. Sch., Virtual Justice? A National Study Analyzing the Transition to Remote Criminal Court 8 (2021) (survey reporting use of virtual processes, including arraignments).

instances, jury trials. 100 There is no clear data on how many criminal courts continue to use technology for remote appearances, but this is technology that virtually every court in the United States uses in various ways. Accordingly, it may be easier to permanently incorporate remote appearances into misdemeanor processes for defendants who are out of custody. The traditional courtroom model, with its physical presence requirements for defendants, attorneys, and the judiciary, is evolving in response to the capabilities of modern technology. These changes hold the potential to enhance the efficiency of legal proceedings, increase accessibility, and reduce the logistical complexities of managing criminal cases. Secure virtual hearings can be especially beneficial for those who would otherwise face significant travel costs or disruptions to their daily lives. Specifically, remote appearances could be more widely used in limited pre-trial and post-conviction instances as detailed below. Nonetheless, these tools should be at the option of the defendant, and not forced on defendants due to court efficiency or other priorities.¹⁰¹

iv. Pre-Trial Appearances

1. Arraignment

The first appearance, the arraignment, can be quick and presents an opportunity for use of secure video hearings. Generally, the defendant just enters a plea of not guilty, or agrees to accept a plea deal and enters a plea of guilty. Defendants spend more time waiting for their case to be called than in front of the court once the case is called. Some criminal courts before the pandemic did

¹⁰⁰ Jenia I. Turner, *Remote Criminal Justice*, 53, Tex. Tech. L. Rev. 197, 223 (2021); *see also As Pandemic Lingers, Courts Lean into Virtual Technology*, U.S. Cts. (Feb. 18, 2021), https://www.uscourts.gov/news/2021/02/18/pandemic-lingers-courts-lean-virtual-technology [https://perma.cc/SVQ6-C9DJ].

¹⁰¹ Zaria Davis & Alison Bloomquist, *Hold the Line: Impacted Voices on the Use of Video Proceedings in Criminal Court*, NAT'L LEGAL AID & DEF. ASS'N (Sept. 19, 2023), https://www.nlada.org/sites/default/files/Hold%20the%20Line%20NLADA.pdf [https://perma.cc/NSR9-QNCW].

¹⁰² But see Video Bond Hearings: Cook County Ends Unconstitutional TV Bond Hearings, Nw. Pritzker Sch. L.: MacArthur Just. Ctr. (Jan. 15, 2009), https://www.law.northwestern.edu/legalclinic/macarthur/projects/indigent/videobond.html [https://perma.cc/X5ES-KGPX] (video bond hearings were suspended due to finding that there were steep increased in bond amounts, on average 65% higher, as compared to in-person bond hearings).

¹⁰³ See e.g., Feely, supra note 39, at 11 ("... the overwhelming majority of cases took just a few seconds."); Not much has changed in the last three decades. See Issa Kohler-Hausmann, Misdemeanorland: Criminal Courts and Social Control in an Age of Broken Windows Policing, 184–204 (2018) (describing the "procedural hassle" from arraignment and subsequent court dates and how multiple court appearances include long waits for cases to be called)."... [M]ost will... proceed to one of the crowded courtrooms to wait, perhaps for an hour but more likely for several house, for their case to be called." *Id.* at 196–97.

remote arraignments for in-custody defendants. Jurisdictions that used video arraignments generally did so for reasons of efficiency and cost-savings. It can be both expensive and time consuming to transfer defendants from jails to the courtroom and back. But, there are serious concerns about how defendants are treated during these remote appearances. Do they understand the charges? Do they understand their rights? Have they had time to confer with counsel? Is a lawyer even present?

This proposal is not to condone or expand this use of video hearings for defendants in custody. Instead, the focus is on defendants who are not in custody. If the goal is better A2J, remote arraignments might make sense in misdemeanor cases for clients who are not in custody, and only limited to situations where the individual has had an opportunity to discuss the plea with counsel. This would give them an opportunity to enter a not guilty plea, set a future court date, and start the process of obtaining counsel if they are not yet represented—all without the inconvenience of having to personally appear in court. Defendants should be able to elect whether to do an in-person or video arraignment if they are out of custody. Also, remote appearance should not be available for guilty pleas, especially if jail time is a possibility. As we discuss below, there are serious concerns about video arraignments for in-custody clients, placing this use of technology in the "red light" category unless lawyers are physically present with the defendants in the jail.

2. Pre-Trial Appearances

Defendants could have the option to appear remotely for pretrial hearings. This could be an option both for defendants who are in and out of custody. Some courts reported fewer failures to appear with online pre-trial court appearances during COVID.¹⁰⁴ Online court appearances could be used for pre-trial dates that may be scheduled simply for the court to check on whether the case will settle and/or to check in on discovery. These are not substantive processes but are more housekeeping processes for the court and parties. Having the defendant physically present during these processes may accomplish very little. Defendants may prefer to appear remotely during these

¹⁰⁴ Kristina Bryant & Tara Kunkel, *Do Remote Hearings Help—or Hurt—Access to Justice*?, 106 Judicature 2, 4 (2022) ("[i]n some parts of North Dakota, appearance rates for criminal warrant hearings went from 80 percent before the pandemic to nearly 100 percent. New Jersey reported its failure-to-appear rate in criminal cases dropped from 20 percent to 0.3 percent starting the week of March 16, 2020, when courts there began to conduct virtual hearings. Michigan's failure-to-appear rate went from 10.7 percent in April 2019 to 0.5 percent in April 2020."); *see also* Eric Scigliano, *Zoom Court Is Changing How Justice Is Served*, Atlantic (Apr. 13, 2021), https://www.theatlantic.com/magazine/archive/2021/05/can-justice-be-served-on-zoom/618392/ [https://perma.cc/26SY-5QSM].

housekeeping court appearances, so they don't have to spend hours physically waiting for their cases to get called.

The key element here is that defendants should be able to choose whether to appear physically or remotely. For out of custody defendants there are fewer concerns about coercion in the decision. For in-custody defendants there can be all kinds of coercion applied to convince them to "agree" to a virtual court date. For this reason, great caution should be exercised before a decision to allow a virtual pre-trial court date for an in-custody defendant. This is even more true in jurisdictions that do not have firm timelines for criminal cases. If defendants can spend indeterminate amounts of time waiting for trial, they should appear in-person for all pretrial court dates. One reason for this requirement is that defendants in custody often only see their lawyers when they go to court and moving the process online could deprive them of this important time to confer with counsel. Undoubtedly, there should be changes made so that lawyers are able to see their clients more frequently, but any introduction of technology should recognize the current realities and not create further hurdles for attorney-client communications. Another reason to limit the use of virtual pre-trial proceedings for in-custody defendants is to make sure defendants can see and hear what is happening on their case.

3. Post-Conviction Appearances

There are also post-conviction court dates which are often part of probation (often called progress reports). Often called progress reports). Some of these (or most or all) could be done online to minimize the disruption to individual defendant's lives. Often drug testing is part of this—that defendants come into court after having done a drug test—one simple fix could be to not require a defendant to be in-person if all the drug tests are negative. This could apply also to all the other requirements—if community service was completed, if fines were paid etc., there is no need for an in-person hearing. Saving the in-person hearings to those when there is a problem, may be a better use of court time. This could also be better connected with an overall case management system that we discuss below.

4. Electronic Alternatives to Bail

It is also possible to look to technology to provide more economical alternatives to bail or electronic monitoring (commonly called ankle monitors). Currently defendants who are released with

 $^{^{105}}$ Note, parole may also benefit from more online options, but that is beyond the scope of this article as parole is not supervised by the courts.

an ankle monitor are required to pay significant fees for the use of the electronic monitoring system. 106 The charges vary and can add up to a significant amount of money as defendants may wait months for their case to be resolved. One example is a pre-trial electronic monitoring program in St. Louis, Missouri that charged \$10/day. If a defendant's case is pending for six months, that is a total cost of \$2000.¹⁰⁷ This money is not refunded and does not count towards any other costs, such as a potential fine. Electronic monitoring technology often requires a telephone that is a land line and requires that defendants be available to answer the phone to verify that they are where they are supposed to be. 108 Instead of expensive electronic monitoring, GPS could be a low-cost way to monitor defendants. Simple apps, such as "Find My Friends" could be modified for use by probation departments and be offered free to defendants. This could be done much more economically and accomplish the same end: to make sure defendants are where they should be pending the resolution of their criminal case.

Still, caution is necessary. Any use of such an app should be carefully circumscribed to protect personal information and only provide location information to proper authorities. Otherwise, this could put a defendant in danger or otherwise infringe on privacy. Also, there may be individuals who are too great of a flight risk. Policies could be developed to address these cautions.

5. Text-Based Case Settlement

Text-based processes can play a crucial role in mitigating and potentially eliminating biases that often accompany visual assessments of individuals in criminal cases. One key idea is to employ anonymized case documentation and communication, emphasizing objective details and legal arguments over visual cues. By focusing on textual representations of cases, legal professionals can base their judgments solely on the merits of the legal arguments, evidence, and legal precedents, rather than subjective impressions. One prominent application of text-based processes in Michigan is in the adjudication of traffic violations. By relying on electronic documentation and communication, courts can process cases without considering the visual characteristics of the involved individuals, such as their race or appearance. This can help to reduce the potential for racial or other

¹⁰⁶ Electronic Monitoring Fees: A 50 State Survey of the Costs Assessed to People on E-Supervision, Fines & Fees Just. Ctr. (Sept. 2022), https://finesandfeesjusticecenter.org/content/uploads/2022/09/FFJC-Electronic-Monitoring-Fees-Survey-2022.pdf [https://perma.cc/9CKP-SDDX] ("43 states have statutes or rules explicitly authorizing fees for electronic monitoring.").

¹⁰⁷ *Id.* at 7.

¹⁰⁸ *Id.* at 3.

biases during traffic stops, citations, and court proceedings, aligning with principles of fairness and equity.

For example, Michigan's adoption of Matterhorn's online platform and text-based interfaces for contesting or paying traffic tickets allows individuals to engage with the legal system without physically appearing in court. This approach not only minimizes personal biases that might arise during in-person interactions but also promotes convenience and accessibility for individuals who may face difficulties attending court due to various reasons. Researchers looked at the use of Matterhorn for traffic ticket cases, comparing two similar sets of traffic violation data. 109 One set of data was from face-to-face proceedings and one from online proceedings. 110 Because the study focuses on differences in severity of punishment based on judicial discretion, cases without judicial discretion for punishment were excluded from study.¹¹¹ Default cases, cases with a not-guilty disposition, cases with a guilty disposition without fines ordered, and cases dismissed on technical grounds are also excluded. 112 The final data-set includes 5,232 cases: 2,713 are face-to-face and 2,519 are online proceedings. 113

The findings focused on any differences based on age, gender, and race.¹¹⁴ First, the researchers used the total dollar amount of the fine ordered by the judge at the conclusion of proceedings.¹¹⁵ Second, the researchers looked at whether the judge reduced the fine at the conclusion of proceedings.¹¹⁶ Findings indicated strong evidence that younger drivers pay higher fines, especially in face-to-face proceedings.¹¹⁷ Older drivers also experienced more reductions on fines.¹¹⁸ This gap still existed, but was less affected in online proceeding settings.¹¹⁹ In face-to-face proceedings, women received "slightly lower" fines than men; and in online proceedings women received "fines that are almost identical to men."¹²⁰ The

¹⁰⁹ Avital Mentovich et al., *Are Litigation Outcome Disparities Inevitable? Courts, Technology, and the Future of Impartiality*, 71 Ala. L. Rev. 893, 934, 941–42 (2020).

¹¹⁰ Id. at 938.

¹¹¹ Id. at 939-40.

¹¹² *Id*.

¹¹³ Id. at 940.

¹¹⁴ *Id*. at 941.

¹¹⁵ Avital Mentovich et al., *Are Litigation Outcome Disparities Inevitable? Courts, Technology, and the Future of Impartiality*, 71 Ala. L. Rev. 893, 934, 941–42 (2020).

¹¹⁶ Id. This apparently also involves a reduction of points placed on a driver's license.

¹¹⁷ *Id.* at 948–49. Age brackets are 36 and older and 35 and younger.

¹¹⁸ Id. at 949-50.

¹¹⁹ Id.

¹²⁰ Id. at 951–52.

data on reduction in fines follows the same pattern. ¹²¹ In face-to-face proceedings, women were "slightly more likely" to receive fine reductions; in online proceedings, "there is no sign of a different tendency[.]" ¹²²

Findings with respect to race were perhaps most interesting. In face-to-face hearings, black defendants received higher fines in a statistically significant manner. In online proceedings, the researchers estimated that black defendants received slightly lower fines than non-black drivers. Fine reduction followed a similar pattern. In face-to-face hearings, black defendants were "significantly less likely" to receive fine reduction. In online hearings, the difference "evaporates." The researchers noted that they were unable to control for all variables, including infraction history (which could have a serious effect on these values). The researchers also found a strong correlation between neighborhood income level and outcomes. Still, this research provides support for text-based processes to address and help lessen biases that occur when judges see defendants.

6. Anonymized Case Information

Related to the above suggestion, the use of anonymized case documentation can further reduce the influence of biases. This suggestion is in the yellow category because, as is discussed below, it is still not well studied and there is a potential for unintended consequences including that anonymization could negatively impact justice. Anonymization ensures that identifying information such as names, gender, or ethnic backgrounds is not readily apparent, which should make it more challenging for legal professionals to inadvertently introduce or succumb to prejudicial judgments.

Despite attention to problems of bias, one study observed that racial disparity in different types of misdemeanor cases remained stable over a thirty-seven-year period.¹²⁹ This data reflects that conscious and unconscious bias continue to impact who is arrested

¹²¹ Avital Mentovich et al., *Are Litigation Outcome Disparities Inevitable? Courts, Technology, and the Future of Impartiality*, 71 Ala. L. Rev. 893 (2020).

¹²² Id. at 951.

¹²³ Id. at 953. Roughly 4% higher than the average fine.

¹²⁴ *Id*.

¹²⁵ *Id.* at 954.

¹²⁶ *Id*.

¹²⁷ Avital Mentovich et al., Are Litigation Outcome Disparities Inevitable? Courts, Technology, and the Future of Impartiality, 71 Ala. L. Rev. 893 (2020).

¹²⁸ Id. at 958.

¹²⁹ Stevenson & Mayson, supra note 17.

and who is charged.¹³⁰ Bias also impacts who gets bail or released on their own recognizance,¹³¹ what plea deals are offered,¹³² how a jury views the case if it goes to trial,¹³³ and how the judge sentences after trial.¹³⁴

One example of anonymized information in the context of criminal cases is the adoption of blind charging. Before deciding whether to charge a case, or what charges to file, prosecutors generally review the police report, which include the race of the potential defendant, the address (which may also give clues as to race and socio-economic status), and witness information (again, this includes race and gender information). In an effort to decrease bias that can, therefore, be embedded in the charging process, the San Francisco District Attorney adopted blind assessments in its charging decisions in 2019.¹³⁵ Under this policy any information that might indicate race or ethnicity, was removed. 136 Researchers from Stanford University created a "masking algorithm" that removed five types of information: "[1] explicit mentions of race; [2] select physical descriptors, including hair and eye color; [3] individual's names or nicknames; [4] location information, including neighborhood names and street addresses; and [5] officer names "137 Prosecutors first reviewed the redacted file and made initial charging decisions. Next, prosecutors reviewed all of the information in the file that included non-redacted information and made final charging decisions. 138 If the

¹³⁰ See also, Martin Kaste, NYPD Study: Implicit Bias Training Changes Minds, Not Necessarily Behavior, NPR (Sept. 10, 2020), https://www.npr.org/2020/09/10/909380525/nypd-study-implicit-bias-training-changes-minds-not-necessarily-behavior [https://perma.cc/64UD-D5D6]; Rachel D. Godsil & HaoYang (Carl) Jiang, Prosecuting Fairly: Addressing the Challenges of Implicit Bias, Racial Anxiety, and Stereotype Threat, 40 CDAA PROSECUTOR'S BRIEF 142 (2018).

David Arnold et al., Racial Bias in Bail Decisions, 133 Q. J. Econ. 1885 (2018)

¹³² Carlos Berdejo, *Criminalizing Race: Racial Disparities in Plea Bargaining*, 59 B.C. L. Rev. 1187, 1240–41 (2018).

¹³³ See, e.g., Lee John Curley et al., Juries are Subject to All Kinds of Biases When it Comes to Deciding on a Trial, The Conversation (Feb. 28, 2022, 8:58 AM), https://theconversation.com/juries-are-subject-to-all-kinds-of-biases-when-it-comes-to-deciding-on-a-trial-176721 [https://perma.cc/E5RC-MUZJ].

¹³⁴ See, e.g., Mark W. Bennett, *The Implicit Racial Bias in Sentencing: The Next Frontier*, Yale L. J. F. (Jan. 31, 2017), https://www.yalelawjournal.org/forum/the-implicit-racial-bias-in-sentencing [https://perma.cc/Z6W5-7QRY] (discussing implicit judicial bias that increases sentences for racial minorities).

¹³⁵ James Queally, San Francisco D.A. Unveils Program Aimed at Removing Implicit Bias from Prosecutions, L.A. TIMES (June 12, 2019, 11:00 AM), https://www.latimes.com/local/lanow/la-me-san-francisco-da-prosecutions-implicit-bias-software-20190612-story.html [https://perma.cc/4QVX-XL3L].

¹³⁶ Alex Chohlas-Wood et al., *Blind Justice: Algorithmically Masking Race in Charging Decisions*, AIES '21: Proc. 2021 AAAI/ACM CONF. AI, ETHICS, & SOCIETY 35 (2021).

¹³⁷ Id. at 2. Prosecutors are often familiar with individual police officers and the neighborhoods they work in so removing their names helps to mask that information.
¹³⁸ Id.

final recommendation was different from the initial recommendation, prosecutors needed to explain why. 139

In 2021, along with Stanford University's assistance to build an algorithm, Yolo County, California, adopted a race-blind charging policy. Yolo County specifically excluded sex crimes, domestic violence and homicides, because they wanted prosecutors to be able to look at the defendant's prior record when making charging decisions in these cases. 141 The Yolo County DA built this algorithm into their case management system. 142 Following the adoption of these programs, the California Legislature passed AB-2778, which requires the use of race-blind charging state-wide by 2025. 143

Initial studies of the impact of race-blind charging found that there was no significant difference in charging rates. ¹⁴⁴ This could be due to the low number of cases studied. ¹⁴⁵ Overall, charging rates seemed higher with redacted files, and lower once prosecutors were able to look at the whole file. The researchers gave a few possible reasons for this including the "de-personalization effect" of the platform and that prosecutors may "overestimate the likelihood that the full unredacted case files would contain incriminating evidence. . . and [therefore defaulted] to "probably charge" or "charge." ¹⁴⁶ These initial results may indicate that the existing institutional culture in individual prosecutors' offices, to charge high numbers of cases, will still dominate decision-making without changes beyond the introduction of new technology. ¹⁴⁷

Additionally, it may make sense to introduce blinding processes into prosecutorial decision making beyond charging, where there may be more embedded discriminatory practices

¹³⁹ Id. at 5.

¹⁴⁰ Yolo County Launches Race-Blind Charging Program to Remove Biases from Criminal Justice System, CBS Sacramento (Sept. 16, 2021, 11:18 AM), https://www.cbsnews.com/sacramento/news/yolo-county-launches-race-blind-charging-program-to-remove-biases-from-criminal-justice-system/ [https://perma.cc/E6TM-VJFQ].

¹⁴¹ Id.

¹⁴² Race Blind Charging, Mitigating Potential Bias in Charging Decisions with Automated Race Redaction, YOLO CNTY. DIST. ATT'Y (Jan. 19, 2022), https://yoloda.org/race-blind-charging/ [https://perma.cc/87LY-4H5D].

¹⁴³ Cal. Penal Code §741 (West 2022).

¹⁴⁴ Chohlas-Wood, et al., *supra* note 136, at 7 ("we again find no statistically significant difference in charging rates between cases with a race-obscured review and those without, although the relatively small number of cases make it difficult to estimate the effect precisely.").

¹⁴⁵ Id.

¹⁴⁶ Id. at 8

¹⁴⁷ John F. Pfaff, *The Micro and Macro Causes of Prison Growth*, 28 Ga. St. Univ. L. Rev. 1237, 1239 (2012); *id.* at 1242–43 (arguing that increases in prosecutor charging rates have contributed to mass incarceration).

(conscious or unconscious), such as during plea bargaining. 148 Anonymization holds the potential to lesson bias, but how it works in practice is not well studied. Since California has adopted blind charging statewide, starting in 2025, it is likely there will be more studies and more information on which to base any wider adoption of race-blind charging practices. This future study and additional information may also inform the adoption of blinding practices in other parts of the criminal process, such as plea bargaining. But, because it is still not well-studied, we are not recommending a clear "green light" to proceed, but instead recommend further study and attention to when, where, and how anonymization may contribute to better A2J.

7. AI to Detect Patterns of Bias

In recent years, the legal community has turned to AI as a powerful tool to address disparities and biases within outcomes in fields such as hiring and promotion. The use of AI in examining cases in criminal courts offers the potential to identify patterns of bias in sentencing and assessing fines, shedding light on systemic inequalities and guiding efforts toward a more equitable and just legal system. This innovative approach leverages data-driven insights to challenge long-standing disparities, promoting transparency and fairness. AI can be harnessed for data analysis to examine a wide range of factors that influence sentencing and fine outcomes. Machine learning algorithms can process large volumes of case data, identifying trends and disparities that may not be readily apparent to human observers. By scrutinizing variables such as race, gender, socioeconomic status, and prior criminal history, AI can highlight patterns of bias in sentencing decisions.

For instance, AI may actually become helpful in addressing and detecting bias. "Researchers at IBM are working on automated biasdetection algorithms, which are trained to mimic human anti-bias processes we use when making decisions, to mitigate against our own inbuilt biases." AI can evaluate the consistency of decisions and comparisons with human and machines. Additionally, sentiment analysis and text-mining techniques can identify implicit biases

¹⁴⁸ See generally, Cynthia Alkon, Bargaining Without Bias, 73 RUTGERS UNIV. L. REV. 1337, 1339–40 (2021) (recommending that case files be blinded before initial plea offers are made to decrease bias in the plea negotiation process).

¹⁴⁹ Lori Andrews & Hannah Bucher, *Automating Discrimination: AI Hiring Practices and Gender Inequality*, 44 CARDOZO L. REV. 145, 150 (2022).

¹⁵⁰ Bernard Mar, *Artificial Intelligence Has a Problem With Bias, Here's How To Tackle It*, Forbes (Jan. 29, 2019, 12:25 AM), https://www.forbes.com/sites/bernardmarr/2019/01/29/3-steps-to-tackle-the-problem-of-bias-in-artificial-intelligence/?sh=11cc82037a12 [https://perma.cc/F8FL-NA5Q].

within court documents, judge's statements, or other relevant records, contributing to a more comprehensive understanding of the factors influencing legal outcomes. Of course, even the AI seeking to detect bias can be biased and inaccurate—and judges may not be open to this type of scrutiny. Accordingly, this should be approached with caution, and it is not necessarily perfect or possible at this time. Still, AI can play a vital role in finding patterns in the data, which could help to generate recommendations and intervention strategies. These recommendations may include revised sentencing guidelines, educational initiatives for legal professionals on recognizing and addressing biases, or the implementation of bias-awareness programs within the legal system.

Prosecutor's offices may also use AI to help assess and track police misconduct. For example, the Philadelphia District Attorney has an internal system that tracks complaints against police officers and notifies the trial level Assistant District Attorney ("ADA") when a police officer that they are about to subpoena is on this list. 151 The Philadelphia District Attorney ("DA") has divided the notification into three levels. The first notifies the ADA that there have been complaints against the particular police officer. The second level flags that the complaints are serious enough that the ADA needs supervisor approval to subpoena the particular police officer. The third level requires the ADA to get approval of the elected DA, Larry Krasner, before proceeding with a subpoena in a particular case. This system is a comprehensive way of ensuring that individual prosecutors are aware when there are problems with the arresting police officers so they can make appropriate decisions not only about issuing subpoenas, but also about the strength of their case, particularly if the bulk of their case relies on evidence from a problematic police officer.

AI also could be used by defense offices to track patterns of bias or discrimination in police reports. For example, data analysis could be used to track repetitive statements in police reports that might indicate fabrication of evidence. For example, in 1998 the Rampart Scandal broke in Los Angeles. The Rampart CRASH unit (an anti-gang unit) engaged in wide-spread corruption, falsification of evidence and perjury. One piece of the scandal was wide-spread falsification of police reports. One of us was a public defender practicing in downtown Los Angeles in 1997–98 and had drug cases from two of the primary officers behind the Rampart Scandal. It was common knowledge in the public defender's office that there

¹⁵¹ Interview notes on file with author (Alkon).

¹⁵² Rampart Scandal Timeline, PBS, https://www.pbs.org/wgbh/pages/frontline/shows/lapd/scandal/cron.html [https://perma.cc/ZA2U-QY7Z] (last visited Feb. 12, 2024).

were problems with these officers and the unit. Public defenders regularly ran search and seizure motions to exclude the evidence in cases brought by this unit. Those motions were regularly denied. Once the scandal broke, both the Public Defender's office and the District Attorney's Office opened special units to re-investigate each case from this unit. This was painstaking work and consumed considerable human resources. In total, there were over 150 exonerations and over 140 civil lawsuits. Al would give the ability for public defender offices to enter all police reports into a system at the outset of every case to check for repeated language and flag problems.

That said, it is crucial to emphasize that the use of AI for bias detection in criminal court outcomes must adhere to ethical and legal standards. Careful considerations regarding data privacy, model transparency, and accountability are paramount. AI algorithms should be continually monitored and audited to avoid perpetuating existing biases or introducing new ones. Moreover, legal professionals must remain engaged in the process, working alongside AI systems to ensure that human judgment is a critical component in addressing bias and implementing reforms. AI should not become a weapon against criminal defendants.

F. Red Light: Technology the Criminal Legal System Should not Adopt

i. Direct Decision Support Tools for Defendants

As discussed above, in the complex landscape of the criminal legal system, many defendants find themselves navigating an intricate web of legal processes, terminology, and choices without a clear understanding of their rights and options. Accessible information about access to an attorney and process options is in the green light category, as tools for providing this type of basic information would

¹⁵³ Laurie Levenson, *Unnerving the Judges: Judicial Responsibility for the Rampart Scandal*, 34 Lov. L.A. L. Rev. 787, 796 (2001) (judges should evaluate the credibility of witnesses in search and seizure motions and more generally talking about judicial failures to take actions that might have prevented the Rampart Scandal).

¹⁵⁴ Henry Weinstein, *Rampart Probe May Now Affect Over 3,000 Cases*, L.A. Times (Dec. 15, 1999), https://www.latimes.com/archives/la-xpm-1999-dec-15-mn-44050-story.html [https://perma.cc/5S8A-7WZG].

¹⁵⁵ Id.

¹⁵⁶ Russell Covey, *Police Misconduct as a Cause of Wrongful Convictions*, 90 Wash. U. L. Rev. 1133, 1146, 1148 (2013) ("more than 150 persons were exonerated as a result of Rampart . . ."); PBS, *supra* note 152 ("more than 140 civil suits stemming from the corruption scandal.").

help empower defendants in discussions with their attorneys. In this section, we note further decision support tools that go beyond this type of basic information to provide a more comprehensive understanding of legal rights to help one make decisions regarding pleas and plea deals. This we put in the "red light" category because it could backfire and is quite problematic. While it is true that one of the fundamental challenges for criminal defendants is the lack of accessible information about their legal rights and the stages of court proceedings, technology tools to help in plea decisions runs afoul of Constitutional rights and potentially unauthorized practice of law.

In theory, technology-driven decision-support tools can demystify complex legal concepts. Many appreciate the ease of expert systems like TurboTax in making it easier for citizens to complete their taxes without the cost of hiring a CPA. Similar tools could help defendants understand their situation and the implications of their choices. By inputting relevant information about their cases, defendants could receive tailored recommendations from decision support tools. Predictive analytics based on AI and game theory can be integrated into decision support tools to simulate various scenarios that criminal defendants might encounter during their case. By exploring different pathways and potential outcomes, defendants can gain valuable insights into the consequences of their decisions at each stage of the process. For instance, technology could be used to provide information about the potential benefits and risks of accepting a plea deal versus going to trial, taking into account factors like evidence, potential sentences, and legal costs.

The systems must be user-friendly and mobile first, so that anyone can access and understand the system without need for expensive legal counsel. Expert systems also could help manage expectations by offering insights into the potential outcomes of various decisions. For example, defendants can gain an understanding of the strength of the case against them based on available evidence or the possible sentences for different charges. Managing expectations is crucial in reducing anxiety and helping defendants make rational decisions in the face of uncertainty. Furthermore, information asymmetry, where legal professionals possess more knowledge about the system than defendants, is a significant challenge in the criminal legal system. Decision support tools can help address this imbalance by equipping defendants with accessible and reliable information. This at least helps a bit in leveling the skewed playing field, allowing defendants to make more informed decisions and actively participate in their defense. This informed collaboration can lead to the development of more strategic defense strategies and better communication of the defendant's goals. Effective communication between defendants

and their attorneys is essential for a fair and just legal process, also supporting a client centered approach in legal representation.¹⁵⁷

This all sounds good in theory, if the goal is to address the problems associated with the opacity of legal proceedings, which can be overwhelming and confusing for defendants, particularly those who are unfamiliar with the system. Decision support tools can break down the process into manageable steps, providing defendants with a better roadmap of what to expect and how to navigate each stage in the criminal legal process. This reduces the emotional burden on defendants and allows them to approach their cases and conversations with their lawyers with greater confidence.

Still, there are real dangers to provision of specific decisionsupport tools directly to defendants, and this must be approached with caution which is why we place these in the red-light category. Indeed, it is better if these tools are provided to legal counsel to help them in doing more with less, as noted above. Furthermore, a human must remain in the loop and accuracy must be ensured, as well as confidentiality of information.

ii. Video Bail Hearings

Often the most important pre-trial proceeding is the bail hearing, which can happen at the same time as the arraignment. There are serious concerns about bias against defendants in video bail hearings, which makes this a "red light" use of technology. Defendants are routinely held in custody because they cannot raise small amounts of bail. In-person bail proceedings have also been notoriously biased, resulting in people of color being more likely to have bail set instead of being released on their own recognizance. Unfortunately, the bias concerns are augmented when video or remote hearings are used in setting bail—especially when the defendant is in jail. Consider the optics—seeing an individual already in custody at a jailhouse in assessing whether they should be bail or be released on their own recognizance. Furthermore, these problems are even more of a concern when the client does not have direct access to their lawyer

¹⁵⁷ See, e.g., Stefan H. Krieger & Richard K. Neumann Jr., Essential Lawyering Skills: Interviewing, Counseling, Negotiation, and Persuasive Fact Analysis 19, 20, 81–102 (3d ed. 2007) (describing approaches to client interviewing and client centered lawyering).

¹⁵⁸ Tami Abdollah, 60% of People Awaiting Trial Can't Afford Bail. A Civil Rights Commission Can't Agree on Reform, USA Today (Jan. 20, 2022), https://www.usatoday.com/story/news/nation/2022/01/20/cash-bail-reform-civil-rights-commission/6582976001/ [https://perma.cc/Z538-LMM3]; see also Leon Neyfakh, Why Was Sandra Bland Still in Jail?, Slate (July 23, 2015), https://slate.com/news-and-politics/2015/07/sandra-bland-is-the-bail-system-that-kept-her-in-prison-unconstitutional.html [https://perma.cc/N8JF-BBGF].

¹⁵⁹ Wendy Sawyer, *How Race Impacts Who is Detained Pretrial*, Prison Pot'y Inst. (Oct. 9, 2019), https://www.prisonpolicy.org/blog/2019/10/09/pretrial_race/ [https://perma.cc/5EXH-GM87].

who is physically in the courtroom, and not at the jail where the defendant is for the video bail hearing. How can the attorney and client discretely and confidentially confer? Despite these concerns, this is one area where courts have been more likely to accept and use technology. Sadly, this seems to be an economic decision to the detriment of defendants. A remote bail hearing can be more economical, as defendants do not need to be transported from the jail.

Despite this current use of remote hearings, this is in the "red light" category. Remote hearings for bail or jail do not expand A2J, but instead exacerbate biases. Furthermore, any use of technology in this phase should be specifically reserved for text-based bail hearings with low level cases where the defendant is not in custody and all agree to this process after legal advice. Bail hearings are an important piece in a criminal process, and empathy along with meaningful attorney contact is essential, meaning in-person processes remain important for bail hearings.

IV. CONCERNS/LIMITATIONS

As noted at the start, this article does not propose technology as a "fix" for all problems or even as appropriate in all cases or uses in criminal cases. Indeed, as we have explained, there are types of technology that fall under a "red light" as they are completely inappropriate or under a "yellow light" as they should only proceed with extreme caution. The following section highlights some of the concerns and limitations of opening a virtual window, supporting the reasons for red and yellow lights classification of some uses. Moreover, this is not exhaustive and recognizes that there are other significant problems to be addressed in the criminal legal system beyond those problems that technology may help to remedy.

A. Resources

Criminal courts, defense services, and prosecutors all operate with limited budgets. Adding technology can be expensive, especially at the outset. Creating new case management systems and building decision and option support tools all require employees with the right skill sets to create and use these new tools, not to mention the additional software and hardware. The first reaction within the

¹⁶⁰ Mentovich et al., *supra* note 109, at 962.

criminal legal system would likely be resistance to adding these changes because they would require resources that are not readily available. There may be less expensive ways to provide information about where to find attorneys and to learn about process options—for example, with cheap handouts at the courthouse, but handouts are quickly outdated and most defendants will not spend time studying a densely packed piece of paper. Some uses of technology (like those in the green light category) are well worth the cost over time in terms of improved A2J, efficacy, scalability, and longevity.

Still, any discussion about investment is quickly met with concern from courts that are already operating on shoestring budgets. They may not even have the minimal additional resources that are needed. Relatedly, there is a lack of resources in the wider community and the challenge to match defendants to the resources they need. There are few social workers employed in the criminal legal system. This means that even if the court or lawyers want to find services to help defendants, it is not always easy to figure out what is available in any given community. One of the advantages of Veteran's Courts is that they can help veteran defendants to access VA services—services that are available but are not always easy to find or access. In some veteran's courts, representatives of the VA will be in court, with their computers, to facilitate getting the participants services. Due to the resources needed, it can be harder to replicate this with, for example, mentally ill defendants who may be cycling in and out of the criminal legal system on petty charges, such as trespass. The real support would be provided through counseling and mental health services. The real issue is that an individual may have no home and they are not able to easily access mental health treatment, including medication.¹⁶¹

Accordingly, this article acknowledges this acute lack of resources. It may be that, on balance, adding a virtual window is not as important as adding mental health or addiction services. When considering any of the ideas above, it must always be viewed with this realistic lens.

B. Confidential Information

Defendants have a right to confidential communications with their lawyers and to not be forced to divulge information to the court

¹⁶¹ Holistic legal services are one approach to meeting the varied needs of defendants. This is still not a dominant model. The Bronx Defenders is an example of a public defender office taking a holistic approach, *see Holistic Defense, Defined*, Bronx Defs., https://www.bronxdefenders.org/holistic-defense/[https://perma.cc/97AH-HJD] (last visited Feb. 13, 2024).

or prosecutors. Some of our suggestions could be seen as creating circumstances that would not respect these rights. One challenge of remote appearances is figuring out how to give defendants the ability to do the electronic equivalent of whispering in their lawyer's ear or passing them a note. If the defendant is out of custody, they and their lawyer might engage in text messaging during a remote appearance. That said, there are serious and legitimate concerns about confidentiality when a defendant is in custody. The integration of technology in criminal cases could bring significant advancements in efficiency, transparency, and A2J. However, there are critical concerns and limitations surrounding the privacy and confidentiality of sensitive information shared within the criminal legal system, and the ability to have frank conversations with counsel.

To address these concerns effectively, it is essential to understand the potential threats and limitations associated with the use of technology in criminal cases. One of the primary concerns is the security of digital data. Confidential information, such as case documents, witness statements, and attorney-client communications, are often stored and transmitted electronically. The risk of data breaches, hacking, and unauthorized access to sensitive case materials poses a significant threat to the privacy of individuals involved in criminal cases. Inadequate cybersecurity measures can lead to the exposure of confidential data, compromising the integrity of the legal process.

Additionally, the use of surveillance technologies, such as body-worn cameras and audio recording devices in courtrooms and detention facilities, is a double-edged sword. While these tools can enhance transparency and accountability, they also raise concerns about the privacy rights of defendants, witnesses, and legal professionals. Defendants may be quite nervous and rightfully afraid to use technology that asks for any personal information or includes any communication with their attorneys. Striking the right balance between transparency and protecting individuals' privacy is an ongoing challenge. 162

Repeatedly, the use of technology in criminal cases can inadvertently erode attorney-client privilege. Electronic communications, such as emails, may be intercepted, and confidential attorney-client conversations might be recorded. For example, in the federal system where email is commonly used for communication by defendants in

¹⁶² David Allen Larson et al., *The American Bar Association Section of Dispute Resolution Adopts Guidance for Online Dispute Resolution (ODR)*, 38 Ohio St. J. Disp. Resol. 235, 238 (2023) (noting the tension between privacy and transparency); *Guiding Principles on Government Use of Surveillance Technologies*, U.S. DEP'T St., https://www.state.gov/wp-content/uploads/2024/02/Guiding-Principles-on-Government-Use-of-Surveillance-Technologies.pdf [https://perma.cc/F9GQ-K2T4] (last visited Apr. 6, 2024).

custody, the emails between lawyers and their clients are not reliably confidential. 163 In addition, telephone calls between lawyers and their jailed clients are recorded and lawyers do not trust the confidentiality of this basic form of communication.¹⁶⁴ This potential breach of confidentiality undermines the fundamental principle of trust between legal representatives and their clients. In a nationwide survey conducted at the beginning of the pandemic, 74% of the defense attorney respondents were "concerned about confidentiality" when communicating with their in-custody clients electronically (on the phone or video conferencing). 165 These concerns pre-date the pandemic and are related to the private telecom service providers who control the vast majority of jail electronic communications. 166 Just two service providers have 79% of the market share 167 in what is estimated to be a \$1.2 billion dollar industry. 168 These phone calls are routinely recorded and there have been lawsuits due to the failure to respect attorney-client confidentiality.¹⁶⁹ There is a serious and continuing failure of jails and prisons to provide secure online platforms, email, or phone services for attorney-client communications.

Of course, there are legal restraints on this type of eavesdropping. The use of electronic eavesdropping and wiretapping devices by the government as investigative tools are restricted under the Fourth Amendment of the United States Constitution. To Federal statutes provide that wiretap evidence may not be received in evidence in any trial, State or Federal, if the disclosure of that information would be in violation of this chapter (18 USC § 2515), and that a motion for suppression may be made by any aggrieved person on the ground that the communication was unlawfully intercepted. The Supreme

¹⁶³ Joel Rose, *When Prisoners Email Their Lawyers, It's Often Not Confidential*, NPR (Nov. 18, 2015, 4:32 PM), https://www.npr.org/sections/alltechconsidered/2015/11/18/456496859/when-prisoners-email-their-lawyers-its-often-not-confidential [https://perma.cc/MD6Z-CGRH].

¹⁶⁴ Alkon, *supra* note 2, at 490–93 (2022).

¹⁶⁵ Id. at 490.

¹⁶⁶ See, e.g., Peter Wagner & Wanda Bertram, State of Phone Justice 2022: The Problem, the Progress, and What's Next, Prison Pol'y Initiative (Dec. 2022), https://www.prisonpolicy.org/phones/state_of_phone_justice_2022.html [https://perma.cc/9C23-TVJB].

¹⁶⁷ Id.

¹⁶⁸ See, e.g., Alan Prendergast, Mission Creep: Prison Telecoms Scramble to Extend Their Reach, Prison Legal News (July 13, 2022), https://www.prisonlegalnews.org/news/2022/jul/13/mission-creep-prison-telecoms-scramble-extend-their-reach/ [https://perma.cc/37N9-FCU9].

¹⁶⁹ Jordan Smith & Micha Lee, *Not So Securus: Massive Hack of 70 Million Prisoner Phone Calls Indicates Violations of Attorney-Client Privilege*, The Intercept (Nov. 11, 2015), https://theintercept.com/2015/11/11/securus-hack-prison-phone-company-exposes-thousands-of-calls-lawyers-and-clients/ [https://perma.cc/X8NH-VR9R]; Maeve Allsup, *Inmates, Attorneys Settle California Prison Call Recording Suit*, Bloomberg L. (June 17, 2020), https://news.bloomberglaw.com/us-law-week/inmates-attorneys-settle-california-prison-call-recording-suit [https://perma.cc/JU8F-FV5D].

¹⁷⁰ U.S. Const. amend. IV; see also Katz v. United States, 389 U.S. 347 (1967)

¹⁷¹ 18 U.S.C. § 2518(10)(a)(i); People v. Gallina, 66 N.Y.2d 52, 54 (N.Y. 1985).

Court has confirmed that the right of privacy rests with people, not places— and includes communications in which a person has a reasonable expectation of privacy.¹⁷² Still, hacked accounts and lax attention to the rights of the accused remain and any digital communications should be approached with caution.

C. Resistance to Change

Another limitation is resistance to change. Human beings are highly resistant to change. 173 This is especially true in the criminal legal system, although perhaps a little less fierce with misdemeanor cases. Bill Henderson, a legal scholar and professor at Indiana University Maurer School of Law, has been a leading voice in highlighting the challenges and resistance to change within the legal profession.¹⁷⁴ His extensive research has shed light on the legal industry's longstanding resistance to innovation and its slow adaptation to technological advancements and new methodologies. Henderson's work emphasizes how the legal profession has traditionally been riskaverse and cautious when it comes to embracing change, largely due to concerns about ethical obligations, the preservation of tradition, and the conservatism inherent in the practice of law. This resistance to change has implications for the profession's ability to adapt to the evolving needs of clients and the broader demands of the modern world. As Henderson underscores in his research, while the legal profession may be slow to embrace change, it is crucial to confront these challenges to ensure the legal industry remains responsive, relevant, and effective in meeting the needs of an evolving society. 175

D. Digital Divide

The digital divide, a term coined in the late 20th century, continues to be a pressing issue in the United States. This is

¹⁷² People v. Diaz, 33 N.Y.3d 92, 98 (N.Y. 2019).

¹⁷³ Amy Schmitz, *The Arbitration Conversation-Podcast: Episode 10: Prof. Bill Henderson, Indiana University Maurer School of Law*, PodBean, at 4:35 (Sept. 29, 2022), https://arbitrate.podbean.com/e/episode-9-prof-bill-henderson-indiana-university-maurer-school-of-law/ [https://perma.cc/GS7A-ST79].

¹⁷⁴ Id. at 1:05.

¹⁷⁵ Norma Harris, *Why Do Lawyers Need to Keep Up with Legal Technology?*, A.B.A. (Mar. 23, 2023), https://www.americanbar.org/groups/law_practice/resources/law-technology-today/2023/why-do-lawyers-need-to-keep-up-with-legal-technology/ [https://perma.cc/DL52-2FGW].

characterized by disparities in access to and use of information and communication technologies. Despite remarkable progress in expanding digital connectivity, this divide remains a significant challenge today. The digital divide in the United States comprises inequalities in access to and use of digital technologies, such as high-speed internet and digital devices. These disparities are particularly pronounced in rural areas and along income lines. The consequences of this divide are far-reaching, impacting educational opportunities, employment prospects, healthcare access, and civic engagement. Despite the nation's technological advancements, the digital divide remains evident in several key areas.

Rural communities in the United States face persistent digital disparities compared to their urban counterparts. Limited infrastructure, high costs, and limited investment by service providers contribute to uneven access in these areas. The COVID-19 pandemic magnified these disparities, with students in rural regions grappling with challenges accessing online learning when schools transitioned to remote instruction. The Pew Research Center's data on broadband adoption reveals that rural residents are less likely to have high-speed internet compared to urban residents. This urban-rural digital divide poses challenges in various aspects of life, from accessing healthcare services to participating in the modern job market.

The digital divide is also inextricably linked to economic disparities, and this issue is starkly evident in the United States. The cost of acquiring and maintaining internet connectivity and digital devices continues to be a significant barrier for low-income individuals and families, particularly in rural regions. Research highlights how households with lower incomes are less likely to have high-speed internet connections, and they are more likely to rely on smartphones for online access.¹⁷⁷ As digital technologies become increasingly essential for education, medical and employment opportunities, these economic disparities perpetuate the digital divide, particularly in rural areas where income levels are often lower.

Age also plays a notable role in the digital divide in the United States. Older individuals, who may not have grown up with

¹⁷⁶ Emily A. Vogels et al., 53% of Americans Say the Internet Has Been Essential during the COVID-19 Outbreak, PEW RSCH. CTR. (Apr. 30, 2020), www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/ [https://perma.cc/BQ84-LZ88].

¹⁷⁷ See Suzanne Woolley, U.S. Schools Trying to Teach Online Highlight a Digital Divide, Bloomberg (Mar. 26, 2020, 7:00 AM), www.bloomberg.com/news/articles/2020-03-26/covid-19-school-closures-reveal-disparity-in-access-to-internet [https://perma.cc/JGD2-7BKL] (noting that NYC has an estimated 300,000 students without access to electronics).

technology, often face challenges in adopting and effectively using digital tools. The impact is particularly significant in rural areas with aging populations. A report by the AARP reveals that there are gaps in high-speed access which is problematic because internet access can help people stay connected and healthy.¹⁷⁸

Another form of digital divide is the lack of digital resources in the criminal legal system. This includes a lack of technological devices and skilled personnel that stands in the way of greater adoption of technology and even simple digitization of court records and processes. This is especially problematic when the individuals lack the digital literacy needed to navigate these systems, and there is no in-person help to assist with the technology. The disparities in digital access, education, and economic resources continue to pose substantial barriers, affecting the well-being and opportunities of those on the disadvantaged side of the divide. Closing this divide is not only a matter of equity and social justice but also a fundamental prerequisite for harnessing the full potential of the digital age. Any ideas must take the divide into account, and consider use of free iPads, cell phones, court kiosks and other strategies to address this divide. Moreover, in-person and accessible helpers should be available for anyone asked to use a given technology, especially in a criminal process.¹⁷⁹

E. Right to Counsel and Unauthorized Practice of Law

One key concern is the possible unintended consequence of further eroding the right to counsel. In the civil context, there are concerns about the unauthorized practice of law. In the criminal context, the concern is more that people will go unrepresented or courts that are already short on funding will see these technological tools as a way to ignore the need for adequate funding for defense services.

The use of technology to provide legal information has the potential to significantly enhance access to legal resources and knowledge. However, it must be done with caution to avoid violating the unauthorized practice of law ("UPL"). In many jurisdictions, UPL refers to the provision of legal advice or services by individuals who

¹⁷⁸ AARP Tele-Town Hall on the Impact of the Digital Divide for Older Adults, AARP (June 22, 2023), https://www.aarp.org/home-family/personal-technology/tele-town-hall.html [https://perma.cc/484Q-A8DM].

¹⁷⁹ Heather S. Kulp & Amy J. Schmitz, Real Feedback from Real People: Emphasizing User-Centric Designs for Court ODR, 26 DISP. RESOL. MAG. 6, 9 (2020).

are not licensed attorneys. When using technology to disseminate legal information, it's essential to draw a clear line between offering general legal information and providing personalized legal advice.

Technology platforms and legal information providers must refrain from giving specific legal guidance or making determinations on individual cases, as this could be perceived as practicing law without a license. The distinction between general legal information and advice can be nuanced, and it's crucial to establish clear disclaimers to ensure users understand the nature of the information being provided. It is essential to maintain transparency about the limitations of the information and to direct users to consult with licensed attorneys for personalized advice. This can be especially difficult if information is given directly to a criminal defendant without an attorney to help them understand the limitations of the information, or how to interpret that information for a given situation. Accordingly, only the most basic process and option information is in the "green light" category above. Still, this is a fine line, and often, "the perfect can be enemy of the good." Overeager bar associations may target any provision of information in the legal realm as UPL.

To avoid UPL, technology platforms and legal information providers should refrain from providing personalized determinations or recommendations tailored to a user's specific circumstances. ¹⁸⁰ Furthermore, an attorney should be in the loop, meaning that AI-generated legal information should be provided to the criminal defense attorney. The attorney should then verify that information and use it only to the extent that it adds value for the case. Indeed, even this can be dangerous if an overworked criminal defense attorney becomes complacent or "lazy" and uses AI-generated information without checking it for accuracy. Still, maintaining transparency and avoiding individualized predictions using technology is essential. With caution, technology can expand public legal knowledge without amounting to the unauthorized practice of law.

F. Power Imbalance

The criminal legal system has extreme power imbalances.¹⁸¹ Prosecutors have extraordinary power, which is reflected, in part, in their virtually unchecked power to charge cases and to decide

¹⁸⁰ El Gemayel v. Seaman, 72 N.Y.2d 701 (N.Y. 1988).

¹⁸¹ Cynthia Alkon, *The U.S. Supreme Court's Failure to Fix Plea Bargaining: The Impact of Lafler and Frye*, 41 HASTINGS CONST. L. Q. 561, 598–601 (2014).

whether or not to make plea deals. ¹⁸² The suggestions in this article do not address these concerns. Technology could help with provision of information, communication, transparency, and hopefully expanded A2J—but it will not make structural changes in skewed power dynamics or how our criminal legal system operates.

The power dynamic can shape the accessibility and use of technology. Well-funded law enforcement agencies and prosecutors often have more extensive resources at their disposal, allowing them to adopt cutting-edge technology for surveillance, evidence collection, and data analysis. This can create an asymmetry of power, as defendants, particularly those from marginalized communities, may lack the resources to challenge or counterbalance the technological advantages wielded by the prosecution. The National Association of Criminal Defense Lawyers created a Fourth Amendment Center to help defense lawyers better understand how new technology being used against their clients. However, this is just one resource and it does not address issues such as examining evidence created through technology. Overall, there is a serious concern that technology can exacerbate the power disparities between the state and the accused, potentially leading to unfair or biased outcomes.

Additionally, the power dynamics can influence the ethical use of technology. Decisions about the deployment of surveillance tools, predictive policing algorithms, and data analytics often rest in the hands of those in positions of authority. The potential for abuse of power in the collection and use of technology in criminal cases is a critical concern. Without proper oversight and

¹⁸² Alkon, *supra* note 148, at 1340–42.

¹⁸³ See generally Kevin Strom, Research on the Impact of Technology on Policing Strategy in the 21st Century, Final Report, NCJRS (May 2016), https://www.ojp.gov/pdffiles1/nij/grants/251140. pdf [https://perma.cc/JJ4R-KU99] (reporting on the wide variety of technology policing agencies have adopted, finding that "[n]inety-six percent had implemented one or more of the 18 core technologies of interest, most commonly car cameras (70% of agencies), information-sharing platforms (68%), and social media (68%). One-third of agencies had body-worn cameras ("BWCs"), geographic information system technology ("GIS"), cell phone tracking software, or investigative case management software. Notable among large agencies (250 or more sworn officers) was the prevalence of analytical and visual-based technology. About 81% of large agencies reported using GIS (compared with 31% overall) and 70% were using license plate readers (LPRs; compared with 20% overall). Use of predictive analytics software was reported by 28% of large agencies." *Id.* at 2.

¹⁸⁴ Johana Bhuiyan, *As Crime-Solving Goes Hi-tech, Public Defenders Scramble to Keep Up*, Guardian (Feb. 24, 2023), https://www.theguardian.com/technology/2023/feb/24/fourth-amendment-battles-geofence-warrants-public-defenders-nacdl [https://perma.cc/2F3N-K8VC] ("[p]ublic defenders are often the most overworked and underpaid lawyers in the criminal justice system, with little time and few resources to research the new technology now being used against their clients. This, in turn, creates an uneven playing field that disadvantages the most vulnerable people: those who can't afford private attorneys.").

¹⁸⁵ *Id.*; see also Fourth Amendment Center, NACDL, https://www.nacdl.org/Landing/FourthAmendmentCenter [https://perma.cc/5GRZ-MUBA] (last visited Feb. 12, 2024).

accountability measures, the same technology intended to enhance law enforcement's effectiveness could be exploited to infringe upon civil liberties, privacy, and due process rights. Striking a balance between the legitimate needs of law enforcement and protecting individual rights is a continuous challenge.

Lastly, power dynamics can influence transparency and accountability. Access to technology that facilitates the recording and dissemination of evidence, such as body-worn cameras or dashcams, can promote transparency and accountability in law enforcement. However, even in jurisdictions that require police to wear body cameras, there is not necessarily any punishment or consequence if police fail to turn on the body cameras. 186 The rules regarding when body camera videos must be released vary by state. 187 There are also differences in the willingness of authorities to release body cam or dash cam evidence which can be influenced by power dynamics. 188 The decision to make footage public, as well as the timing and context in which it is released, can have significant implications for public trust and perception of fairness within the criminal legal system. 189 The distribution of power among law enforcement agencies, prosecutors, and oversight bodies plays a pivotal role in determining the extent to which technology is harnessed to ensure accountability. 190

¹⁸⁶ Police Must Keep Body Cameras on with This New Texas Law, Kris 6 News (Sept. 6, 2021, 2:15 PM), https://www.kristv.com/news/texas-news/police-must-keep-body-cameras-on-with-this-new-texas-law [https://perma.cc/6FE5-33ZZ]. H.B. No. 929 amending §1701.655, §2c-1, Occupations Code, requires "a police officer who is equipped with a body worn camera and actively participating in an investigation to keep the camera activated" No penalties were included for failure to comply with this amendment, leaving it up to individual policing agencies to decide on their internal policies to enforce this provision. See also Sanford Nowlin, San Antonio police accused of turning off body cameras rarely suspended, investigation shows, San Antonio Current (Oct. 28, 2021, 10:33 AM), https://www.sacurrent.com/news/san-antonio-police-accused-of-turning-off-body-cameras-rarely-suspended-investigation-shows-27442743 [https://perma.cc/YC4R-K346] (police officers aren't punished on the first offense, but could be on later offenses, raising concerns that "an officer knows they can get away one, two, three, four times, whatever it is . . .").

¹⁸⁷ Jared Gans & Crawford Humphreys, *9 States with Some of the Strictest Rules on Releasing Body Cam Videos*, The Hill (May 10, 2021), https://thehill.com/homenews/state-watch/552665-9-states-with-some-of-the-strictest-rules-on-releasing-body-cam-videos/ [https://perma.cc/B8SK-9F5C].

¹⁸⁸ See generally, Jocelyn Simonson, Beyond Body Cameras: Defending a Robust Right to Record the Police, 104 Geo L. J. 1559 (2016) (discussing the power differential between police and civilians and how cameras could be a "method of power transfer from police officers to the populations they police"); see also Rob Schmitz, Bodycam footage was supposed to reform policing—if the public can get a hold of it, NPR (Dec. 31, 2023, 8:12 AM), https://www.npr.org/2023/12/31/1222337130/bodycam-footage-was-supposed-to-reform-policing-if-the-public-can-get-a-hold-of- [https://perma.cc/T7GF-DF7G].

¹⁸⁹ See e.g., Roseanna Sommers, Will Putting Cameras on Police Reduce Polarization?, 125 Yale L. J. 1304, 1311 (2016); Developments in the Law—Policing: Considering Police Body Cameras, 128 Harv. L. Rev. 1706, 1803.

 $^{^{190}}$ Kevin Strom, Research on the Impact of Technology on Policing Strategy in the 21st Century 4–11 (2017).

In summary, the power dynamics within the criminal legal system are intrinsically linked to the use of technology. The allocation of resources, ethical considerations, and transparency all intersect with the influence of power in determining how technology is applied in criminal cases. Balancing this dynamic to ensure a fair and just criminal legal system is an ongoing challenge that requires careful consideration of the ethical, legal, and societal implications of technological advancements.

G. Lack of Empathy

One concern about technology is that it can decrease empathy.¹⁹¹ Recent studies of children have linked their heavy use of technology to a decrease in empathy.¹⁹² The impact is not limited to children, as adults who are more plugged into technology also lose their ability to read non-verbal cues and have decreased levels of empathy.¹⁹³ This is an even more serious concern in the context of the criminal legal system which already suffers from a serious lack of empathy in terms of how defendants are treated.¹⁹⁴ Empathy is an essential, and often unrecognized component of the criminal legal system. Empathy allows individuals, including judges, attorneys, jurors, and defendants, to better understand the emotional and human dimensions of a case, thereby facilitating more compassionate and fair outcomes.¹⁹⁵ In-person court proceedings provide a unique platform for individuals to observe, engage with, and respond to the emotions and non-verbal cues of those involved.¹⁹⁶ This interpersonal

¹⁹¹ See, e.g., P.J. Manney, Is Technology Destroying Empathy?, LIVE SCI. (June 30, 2015), https://www.livescience.com/51392-will-tech-bring-humanity-together-or-tear-it-apart.html [https://perma.cc/GC34-FY6E].

¹⁹² See, e.g., Juana Summers, Kids And Screen Time: What Does The Research Say?, NPR (Aug. 28, 2014, 2:59 PM), http://www.npr.org/sections/ed/2014/08/28/343735856/kids-and-screen-time-what-does-the-research-say [https://perma.cc/7RNZ-T4SR].

¹⁹³ See generally Sara H. Konrath, et.al., Changes in dispositional empathy in American college students over time: A meta-analysis, 15 Personality & Soc. Psych. Rev. 180 (2011) (finding decreased empathy over a thirty-year period, as use of technology increased).

¹⁹⁴ See Alkon, supra note 148, at 1355–56 (recommending empathy training for prosecutors to decrease bias in plea bargaining).

¹⁹⁵ See, e.g., Abbe Smith, Too Much Heart and Not Enough Heat: The Short Life and Fractured Ego of the Empathic, Heroic Public Defender, 37 U.C. Davis L. Rev. 1203, 1221 (2004); Ronald F. Wright & Kay L. Levine, The Cure for Young Prosecutors' Syndrome, 56 Ariz. L. Rev. 1065, 1110–11 (2014) (experience can help prosecutors to develop empathy which can make a difference in the how they view cases and what they think is an appropriate outcome); Susan A. Bandes, Empathetic Judging and the Rule of Law, Cardozo L. Rev. de Novo 133, 137 (2009) (discussing how empathy can help a judge to understand different perspectives and competing claims).

¹⁹⁶ Jean R. Sternlight & Jennifer K. Robbennolt, *In-Person or Via Technology? Drawing on Psychology to Choose and Design Dispute Resolution Processes*, 71 DePaul L. Rev. 537, 562 (2022).

connection allows for recognition of the humanity of each person within the legal process.¹⁹⁷ For example, a defendant appearing in court can convey remorse or contrition through body language and expressions that may not be fully captured in written documents or remote appearances.¹⁹⁸ By enabling in-person communication, the justice system can foster greater empathy and a deeper understanding of the complex circumstances that often underlie criminal cases.¹⁹⁹ Arguably this is one of the advantages of problem-solving courts—there are more one-on-one interactions between the judge and the defendant, allowing the court to see the defendant as a whole person rather than simply as the one criminal act they committed.²⁰⁰

In-person actions and interactions within the criminal legal system can promote empathy by fostering an environment where stakeholders, including judges and attorneys, can engage in open dialogues and discussions. We know that face-to-face negotiations can result in better outcomes in some cases.²⁰¹ However, the first plea offer in many criminal cases is now conveyed electronically by the prosecutor.²⁰² This is often done before arraignment.²⁰³ Defense lawyers may get better outcomes if they resist the urge to respond electronically to an electronic offer.²⁰⁴ Criminal practice is still largely in-person, and the human connection that naturally occurs in a courtroom setting can encourage meaningful conversations that take into account the perspectives and experiences of all parties.

Ideally, meaningful provision of information and increased transparency around the process can lead to more informed decisions and a greater capacity for empathy. Allowing consideration of the full spectrum of factors in a case, from the defendant's background to the impact on victims and the community, is a good first step. Such engagement supports the ideals of fairness, equity, and individualized justice, which are critical principles within the criminal legal system.

¹⁹⁷ Id. at 540.

¹⁹⁸ Id. at 543.

¹⁹⁹ See e.g., Susan A. Bandes & Neil Feigenson, *Empathy and Remote Legal Proceedings* 51 Sw. L. Rev. 20, 27–36 (2021) (discussing ways that empathy can be lacking in virtual interactions); see also Shari Seidman Diamond et al., *Efficiency and Cost: The Impact of Videoconferenced Hearings on Bail Decisions*, 100 J. CRIM. L. & CRIMINOLOGY 869, 898, 900 (2010).

 $^{^{200}}$ See, e.g., Cynthia Alkon, Have Problem Solving Courts Changed the Practice of Law?, 21 Cardozo J. Conflict Resol. 597, 618–19 (2020).

 $^{^{201}}$ See e.g., Kathleen L. Valley, The Electronic Negotiator: Negotiations Over E-mail, Harv. Bus. Rev., Jan.—Feb. 2000, at 16–17.

²⁰² Cynthia Alkon, Bargaining Without Bias, 73 Rutgers U. L. Rev. 1337, 1342 (2021).

 $^{^{203}}$ Id.

²⁰⁴ Cynthia Alkon & Andrea K. Schneider, *How to be a Better Plea Bargainer*, 66 WASH. U. J. L. & Pou'r 65, 102–41 (2021) (recommending that lawyers be strategic about what communication mode might be most effective in each plea negotiation).

However, current caseload pressures often work against an idealized view of the advantage of face-to-face interactions—as no one in the courtroom has time for extended conversations at the expense of moving the docket. If targeted use of technology can streamline how cases are called and when they are on the docket, it may give time to allow for more of these kinds of meaningful conversations. For example, more remote appearances that are done with the defendant's approval, could be less time consuming for the court, in turn, giving more time for other in-person discussions. Furthermore, providing defendants with basic information about their attorney, the process, and process options, as suggested above, could likewise free time for more meaningful attorney-client communications. ²⁰⁵ Again, in-person processes remain essential, and thoughtful discussions are central to dispute prevention and resolution. The ideas suggested in this article do not mean to diminish or ignore the importance of empathy gained through meaningful discussions.

H. Focus on Efficiency at the Expense of Justice

A dominant and continuing interest of criminal courts is to increase efficiency. Judges want to move the cases and decrease backlogs, particularly in light of the continuing backlogs from the pandemic.²⁰⁶ There are courts that take a more thoughtful approach and are not singularly focused on increasing efficiency.²⁰⁷ However, we are concerned that technology is not being adopted simply to improve court efficiency, and only focusing on that singular goal may mean that other goals, such as better access to justice or decreasing bias, will not be addressed.

²⁰⁵ Amy J. Schmitz, *Measuring "Access to Justice" in the Rush to Digitize*, 88 Fordham L. Rev. 2381, 2406 (2020); Amy J. Schmitz, *Addressing the Class Claim Conundrum with Online Dispute Resolution*, 2020 J. Disp. Resol. 361, 376 (2020); Schmitz, *supra* note 1, at 101–07.

²⁰⁶ See, e.g., Kris Olson, Report: Courts making steady progress reducing COVID backlog, Mass Laws. Weekly (Oct. 12, 2023), https://masslawyersweekly.com/2023/10/12/report-courts-making-steady-progress-reducing-covid-backlog/ [https://perma.cc/86LA-FZJT]; Brian J. Ostrom et. al., Timely Justice in Criminal Cases: What the Data Tells Us, Nat'l Ctr. St. Cts., https://www.ncsc.org/_data/assets/pdf_file/0019/53218/Timely-Justice-in-Criminal-Cases-What-the-Data-Tells-Us.pdf [https://perma.cc/HL37-4D3H] (last visited May 13, 2024).

²⁰⁷ See generally Strategic Plan for the Maryland Judiciary, 2015-2020: Moving Justice Forward, Mb. Cts., https://www.courts.state.md.us/sites/default/files/import/judicialcouncil/pdfs/strategicplan.pdf [https://S33E-J855] (last visited Apr. 12, 2024) (listing seven goals: "provide access to justice; be responsive and adaptable to changing community needs; communicate effectively with stakeholders; improve systems and processes; be accountable; assure the highest level of service; build partnerships; use resources wisely." *Id.* at 2).

V. Conclusion

Criminal courts can increase access to information, voice, and perhaps justice, through targeted introduction of technology. There are four things that could immediately be done to assist this goal in misdemeanor cases: increasing use of remote processes when the defendant agrees; providing auto-reminders to defendants of court dates; introducing option support; and introducing limited textbased process. Each of these four suggestions is defendant focused. For example, allowing defendants to use remote processes when they choose, instead of forcing them to come in person to the court, may lower logistical hurdles for defendants to present their defenses and not be forced to accept inappropriate plea deals. Sending defendants auto-reminders, as is routine in other areas of life, may help to prevent failures to appear and imposition of arrest warrants and/ or additional fines. Option support technology could help inform defendants about what to expect in a proceeding and enhance their informed participation in attorney-client conversations. Finally, allowing for limited text-based processes, when defendants agree to use this alternative, could help defendants to press forward on weak cases and not accept plea deals because they cannot afford to keep coming to court. Text based processes could also decrease bias in the outcomes.

Increased use of technology is exploding throughout our society and in every sector, although the criminal legal system has been slow to change. We suggest that there are a variety of technological innovations that could improve practices in criminal courts, and help lower barriers to justice. We emphasize that all technology is not good, and technology should not be used simply to increase efficiency. Instead, we invite analysis that ask whether adoption of a new technology will improve access to voice, information, or justice. This is not to suggest that efficiency is irrelevant, as justice delayed can be justice denied, but a proper focus on justice goals is particularly important in criminal cases. Indeed, technology can augment power, and there is danger that it will be used only to augment the already powerful. Hence, certain uses of technology should remain halted behind the red light for now.