



UNC
SCHOOL OF LAW

University of North Carolina School of Law
Carolina Law Scholarship Repository

Faculty Publications

Faculty Scholarship

2020

Automated Legal Guidance

Leigh Z. Osofsky

University of North Carolina School of Law, osofsky@email.unc.edu

Joshua D. Blank

Follow this and additional works at: https://scholarship.law.unc.edu/faculty_publications



Part of the [Law Commons](#)

Publication: *Cornell Law Review*

This Article is brought to you for free and open access by the Faculty Scholarship at Carolina Law Scholarship Repository. It has been accepted for inclusion in Faculty Publications by an authorized administrator of Carolina Law Scholarship Repository. For more information, please contact law_repository@unc.edu.

AUTOMATED LEGAL GUIDANCE

Joshua D. Blank[†] & Leigh Ososky[‡]

Through online tools, virtual assistants, and other technology, governments increasingly rely on artificial intelligence to help the public understand and apply the law. The Internal Revenue Service, for example, encourages taxpayers to seek answers regarding various tax credits and deductions through its online “Interactive Tax Assistant.” The U.S. Army directs individuals with questions about enlistment to its virtual guide, “Sgt. Star.” And the U.S. Citizenship and Immigration Services suggests that potential green card holders and citizens speak with its interactive chatbot, “Emma.” Through such automated legal guidance, the government seeks to provide advice to the public at a fraction of the cost of employing human beings to perform these same tasks.

This Article offers one of the first critiques of these new systems of artificial intelligence. It shows that automated legal guidance currently relies upon the concept of “simplicity,” whereby complex law is presented as though it is simple, without actually engaging in simplification of the underlying law. While this approach offers potential gains in terms of efficiency and ease of use, it also causes the government to present the law as simpler than it is, leading to less precise advice and potentially inaccurate legal positions. Using the Interactive Tax Assistant as a case study, the Article shows that the use of simplicity in automated legal guidance is more powerful and pervasive than in static publications because it is personalized, non-qualified, and instantaneous. Further, it argues that understanding the costs as well as the benefits of

[†] Professor of Law and Faculty Director of Strategic Initiatives, University of California, Irvine School of Law.

[‡] Professor of Law, University of North Carolina School of Law. We are grateful to Yariv Brauner, Neil Buchanan, Jeff Butler, John Coyle, Alan Feld, Victor Fleischer, Christopher Hanna, Stephanie Hoffer, Sarah Lawsky, Michelle Layser, Leandra Lederman, Charlene Luke, Omri Marian, Orly Mazur, Shu-Yi Oei, Leopoldo Parada, Gregg Polsky, Tony Reese, Diane Ring, Richard Schmalbeck, Ted Sims, Kathleen Thomas, David Walker, Lawrence Zelenak and participants in the 2019 National Tax Association Annual Meeting, the 2nd Annual UCI Law/A. Lavar Taylor Tax Symposium and the Indiana University Maurer School of Law/University of Leeds School of Law Tax Workshop Series and faculty workshops at Duke Law School, the University of California, Irvine School of Law, Boston University School of Law, the University of Florida Levin College of Law and SMU Dedman School of Law for thoughtful comments on prior drafts. All errors are our own.

current forms of automated legal guidance is essential to evaluating even more sophisticated, but also more opaque, automated systems that governments are likely to adopt in the future.

With these considerations in mind, the Article offers three recommendations to policymakers. First, it argues that governments should prevent automated legal guidance from widening the gap between access to legal advice enjoyed by high-income and by low-income individuals. Second, it argues that governments should introduce more robust oversight and review processes for automated legal guidance. Finally, it argues that the government should allow individuals to avoid certain penalties and sanctions when they have taken actions or claimed legal positions in reliance upon automated legal guidance. Unless these steps are taken, we believe that the costs of these automated legal guidance systems may soon come to outweigh their benefits.

INTRODUCTION	181
I. ARTIFICIAL INTELLIGENCE AND AUTOMATED LEGAL GUIDANCE	187
A. Artificial Intelligence, Machine Learning, and Government Enforcement.....	187
B. Government Service through Guidance.....	193
C. Automated Legal Guidance	195
II. SIMPLEXITY IN AUTOMATED LEGAL GUIDANCE: THE INTERACTIVE TAX ASSISTANT.....	202
A. The Interactive Tax Assistant	202
B. Simplicity and the Interactive Tax Assistant ..	205
1. <i>What is Simplicity?</i>	205
2. <i>Examples</i>	208
a. <i>Consistent with the Tax Law</i>	209
b. <i>Taxpayer-Favorable Deviations from the Tax Law</i>	210
c. <i>Taxpayer-Adverse Deviations from the Tax Law</i>	214
C. Impact of Simplicity and Interactive Tax Assistant.....	217
1. <i>Personalization</i>	218
2. <i>Non-qualified Statements</i>	219
3. <i>Immediate Responses</i>	221
III. HOW SHOULD AUTOMATED LEGAL GUIDANCE EVOLVE? .	222
A. Reaching Different User Populations	222
B. Administrative Process	227
C. Penalties	233
D. The Future of Automated Legal Guidance	239
CONCLUSION	243

*No matter how amazing your team of customer service reps is, they all have bad days from time to time. They all get frustrated. After all, they're only human. A sophisticated AI might actually become a perfect representative. Bots never get frustrated, never have a bad day, and never, ever, accidentally say the wrong thing in front of a customer.*¹

INTRODUCTION

Interested in becoming a U.S. citizen? No problem—just ask Emma, the U.S. Citizenship and Immigration Services (USCIS) interactive chatbot, what the form, fees, instructions, and eligibility requirements are for naturalization.² Want to know whether you are eligible to enlist in the U.S. Army? Just ask Sgt. Star, the virtual guide for the U.S. Army and the Army Reserve, whether you meet age, height, weight, and other requirements.³ Want to know how to conduct an unclaimed property search in the state of Mississippi? Just ask MISSI, Mississippi's artificial intelligence chatbot, what Mississippi agency handles such searches and how to do it.⁴ Or, if you'd prefer to ask your Mississippi questions through voice-control commands, ask Amazon's Alexa, which has been integrated with Mississippi's artificial conversation functions.⁵

While each of these examples seems to portend a future world in which robots take over our basic systems of governance,⁶ they also highlight a more near-term reality: governments at all levels are turning to technology to respond to public inquiries about available services and legal landscapes. In this regard, government is catching up to the private sector,

¹ *3 Reasons Why AI-Powered Customer Service Is the Next Big Thing*, ELEKS (July 20, 2020), <https://eleks.com/blog/artificial-intelligence-customer-service-next-big-thing/#> [<https://perma.cc/8Y9R-BV5Q>].

² *Meet Emma, Our Virtual Assistant*, U.S. CITIZENSHIP AND IMMIGR. SERVS. (Apr. 13, 2018), <https://www.uscis.gov/emma> [<https://perma.cc/Z8D4-E6RT>] [hereinafter *Emma*]; U.S. Citizenship and Immigr. Servs., *USCIS Customers Are Asking Emma, Our Interactive Virtual Assistant, More than 1 Million Questions a Month*, FACEBOOK (Mar. 1, 2017), <https://www.facebook.com/uscis/videos/uscis-customers-are-asking-emma-our-interactive-virtual-assistant-more-than-1-million-questions-a-month/> [<https://perma.cc/C35P-3QGS>].

³ *Ask SGT STAR*, U.S. ARMY, <https://www.goarmy.com/ask-sgt-star.html> [<https://perma.cc/9YVE-6FH9>] (last visited May 30, 2019).

⁴ *Your Mississippi Technology*, MS.GOV, <https://www.ms.gov/Technology> [<https://perma.cc/P3U2-X6KA>] (last visited May 30, 2019).

⁵ *All You Have to Do Is Ask*, MYMS, <https://www.ms.gov/msi/myms/ask-mississippi> [<https://perma.cc/DN6M-L5Y5>] (last visited May 30, 2019).

⁶ For one contemplation of this possibility, see Zeger van der Wal & Yifei Yan, *Could Robots Do Better than Our Current Leaders?*, WORLD ECON. F. (Oct. 17, 2018), <https://www.weforum.org/agenda/2018/10/could-robot-government-lead-better-current-politicians-ai/> [<https://perma.cc/7FD2-5PJE>].

which has created a rapid proliferation of customer service functions powered by artificial intelligence, such as Erica, Bank of America's virtual financial assistant,⁷ or Microsoft's Healthcare Bot, an "AI-powered, compliant, conversational healthcare experience,"⁸ or even innovations with significantly longer lineage such as Expedia, a website that searches for and books travel arrangements for customers.⁹

This trend highlights an underexplored aspect of the advent of artificial intelligence. The use of artificial intelligence as an aid to law enforcement has received significant attention from legal scholars. For instance, the government's ability to use machine learning to identify likely crime hot spots, or to recommend sentencing periods based on the likelihood of recidivism, has raised all sorts of legal and ethical questions about discrimination and justice in an age of artificial intelligence.¹⁰ But the government serves more than an enforcement function. A major aspect of government operations is to serve the public by providing a variety of assistance and information. Governments have quietly gone about increasing their use of artificial intelligence in this service capacity, through the advent of Emma, Sgt. Star, MISSI, and other seemingly friendly technological advances. The extensive examination of the government's use of artificial intelligence in the enforcement context has overlooked the issues underlying artificial intelligence in government service.¹¹

⁷ *Meet Erica, Your Virtual Financial Assistant in the Bank of America App*, BANK OF AMERICA, <https://promo.bankofamerica.com/erica/> [<https://perma.cc/6MC2-9GB4>] (last visited May 31, 2019).

⁸ *Microsoft Healthcare Bot*, MICROSOFT, <https://www.microsoft.com/en-us/research/project/health-bot/> [<https://perma.cc/4J4S-96HW>] (last visited May 31, 2019).

⁹ EXPEDIA, <https://www.expedia.com/> [<https://perma.cc/NW6V-6UDC>] (last visited May 31, 2019). For discussion of prevalence of female-gendered artificial intelligence, see Sigal Samuel, *Alexa, are you making me sexist?*, Vox.com (Jul. 12, 2019, 7:30 AM EDT), <https://www.vox.com/future-perfect/2019/6/12/18660353/siri-alexa-sexism-voice-assistants-un-study>.

¹⁰ See *infra* notes 53–57 and accompanying text.

¹¹ See, e.g., DAVID FREEMAN ENGSTROM ET AL., GOVERNMENT BY ALGORITHM: ARTIFICIAL INTELLIGENCE IN FEDERAL ADMINISTRATIVE AGENCIES 9 (2020), <https://www-cdn.law.stanford.edu/wp-content/uploads/2020/02/ACUS-AI-Report.pdf> [<https://perma.cc/Z43Q-ERME>] (explaining that "[w]hile many scholars and commentators have speculated about how government should regulate AI, we know precious little about how government agencies themselves use AI"). The ACUS survey is an important attempt to fill this gap, but it is also necessarily incomplete. While the ACUS report mentions government chatbots as examples of government AI, it provides no analysis of them or of automated legal guidance more generally. See *id.*

In this regard, a particularly important government service function is helping the public understand and even apply the law. The Internal Revenue Service (IRS), for instance, is tasked not just with enforcing the tax law (a function that many tend to most strongly associate with the IRS),¹² but also with “[p]rovid[ing] America’s taxpayers top quality service by helping them understand and meet their tax responsibilities.”¹³ Likewise, USCIS not only “adjudicat[es] requests for immigration benefits while protecting Americans,”¹⁴ but also “promote[s] instruction and training on citizenship rights and responsibilities and provide[s] immigrants with the information and tools necessary to successfully integrate into American civic culture.”¹⁵ And the Environment Protection Agency not only develops and enforces regulations, but also, among many other things, “help[s] companies understand the requirements.”¹⁶

When the government helps the public understand the legal framework, it often does so through the use of “guidance,” an important form of government communication. As administrative law scholars have examined extensively, guidance fills a critical role in our legal system. Guidance is not subject to formal promulgation requirements, and it also generally is not subject to judicial review.¹⁷ However, guidance is a crucial way in which the public learns what the law is and how it might apply in a given situation. Moreover, as administrative law scholars have underscored, when the government issues guidance, it often has a powerful impact on regulated parties.

¹² For a small sample of online articles that focuses on IRS audit capacity and audit triggers, see, e.g., Janna Herron, *7 Red Flags That Could Trigger an IRS Audit of Your Taxes*, USA TODAY (Mar. 19, 2019, 3:21 PM), <https://www.usatoday.com/story/money/2019/03/19/irs-audit-triggers-how-avoid-review-your-tax-return-year/3205302002/> [<https://perma.cc/FV74-47M9>]; Joy Taylor, *20 IRS Audit Red Flags*, KIPLINGER (July 1, 2020), <https://www.kiplinger.com/slideshow/taxes/T056-S001-20-irs-tax-audit-red-flags/index.html> [<https://perma.cc/7239-SN9J>]; Robert W. Wood, *IRS Can Audit for Three Years, Six, or Forever: Here’s How to Tell*, ABA (Aug. 15, 2017), https://www.americanbar.org/groups/business_law/publications/blt/2017/08/06_wood/ [<https://perma.cc/U95S-4MLQ>].

¹³ *The Agency, Its Mission, and Statutory Authority*, IRS (July 8, 2020), <https://www.irs.gov/about-irs/the-agency-its-mission-and-statutory-authority> [<https://perma.cc/GX6Z-H8UM>].

¹⁴ *Mission and Core Values*, U.S. CITIZENSHIP AND IMMIGR. SERVS. (July 5, 2020), <https://www.uscis.gov/about-us/mission-and-core-values> [<https://perma.cc/RC89-TT8P>].

¹⁵ *What We Do*, U.S. CITIZENSHIP AND IMMIGR. SERVS. (Feb. 27, 2020), <https://www.uscis.gov/about-us/what-we-do> [<https://perma.cc/5642-XUZ8>].

¹⁶ *Our Mission and What We Do*, EPA (Feb. 7, 2018), <https://www.epa.gov/aboutepa/our-mission-and-what-we-do> [<https://perma.cc/77DX-ZVYP>] (last updated Feb. 7, 2018).

¹⁷ See *infra* note 68 and accompanying text.

Such parties often change their behavior in response to the guidance, even though guidance is not supposed to serve as a coercive form of law.¹⁸ That fact, combined with the fact that the government often issues extensive amounts of guidance,¹⁹ makes guidance critical to the legal framework.

This Article examines how the rise of artificial intelligence in administrative guidance is producing a new phenomenon: automated legal guidance. Through online tools, virtual assistants, and other technology, governments help the public understand and apply the law by automating the guidance-giving function. After introducing this development, this Article offers several positive claims and addresses normative concerns. Using the IRS's Interactive Tax Assistant (ITA) as a case study, we show that automated legal guidance currently relies upon "simplicity," where the government presents complex law as though it is simple, without actually engaging in simplification of the underlying law.²⁰ While this form of automated legal guidance offers gains in terms of efficiency and ease of use, it also causes the government to present the law as simpler than it is, leading to less precise advice, and potentially inaccurate legal positions. For instance, as we have illustrated in prior work, simplicity may involve providing a basic statement about the deductibility of business expenses, without examining many of the contextual nuances.²¹ We argue that the use of simplicity in automated legal guidance is more powerful and pervasive than in static publications because it is personalized, non-qualified, and immediate. Further, we argue that understanding the costs as well as the benefits of current forms of automated legal guidance is essential to evaluating even more sophisticated, but also more opaque, automated systems that governments are likely to adopt in the future.

The Article then addresses important normative questions about automated legal guidance and offers suggestions for how government officials and policymakers should respond.

First, we argue that governments should prevent automated legal guidance from widening the gap between access to legal advice enjoyed by high-income and by low-income individuals. We explore ways that automated legal guidance may be

¹⁸ See *infra* note 72 and accompanying text.

¹⁹ See *infra* note 69 and accompanying text.

²⁰ See Joshua D. Blank & Leigh Osofsky, *Simplicity: Plain Language and the Tax Law*, 66 EMORY L.J. 189, 206–07 (2017).

²¹ See *id.* at 207–09.

better tailored to different user populations.²² Current automated legal guidance takes a one-advice-fits-all approach. ITA, for instance, provides the same answers regarding medical expense deductions regardless of the user's level of sophistication.²³ This approach may provide inadequately complex answers for certain users at best, or may encourage some users to take overly aggressive positions at worst. By asking questions that are designed to gauge a user's sophistication in the legal regime, tailored automated legal guidance may better match the advice being given with the actual user's profile. Alternatively, automated legal guidance may be targeted toward members of certain groups, who are most likely to benefit from such guidance, without the same potential imposition of costs.

Second, we argue that governments should introduce more robust oversight and review processes for automated legal guidance.²⁴ At present, many of the decisions being made about automated legal guidance are hidden from view, and not subject to transparent lines of control by central agency officials. This contrasts with the more transparent and formal review that applies to static guidance offered to the public, such as IRS publications. As the public turns more and more to automated legal guidance, it is untenable for the difficult questions underlying such guidance to be hidden in programming decisions. We suggest ways to subject automated guidance decisions to the same levels of oversight that we expect of other equally influential forms of guidance offered to the public.

We believe that our recommendations regarding the administrative process for automated legal guidance will have important implications for administrative procedure more generally.²⁵ As suggested previously, administrative law scholars have long identified some of the problematic features of guidance. Through guidance, the government may coerce certain behavior by the public without going through official law promulgation procedures. The seeming determinacy of automated legal guidance is likely to only exacerbate this tendency. At the same time, the fact that automated legal guidance can reach large portions of the public makes it incumbent on the government to follow more official procedures in promulgating it. Ulti-

²² See *infra* subpart III.A.

²³ *Interactive Tax Assistant (ITA)*, IRS (June 29, 2020), <https://www.irs.gov/help/ita> [https://perma.cc/MTY5-CC7J] [hereinafter *ITA*]

²⁴ See *infra* subpart III.B.

²⁵ See *infra* subpart III.B.

mately, the power of automated legal guidance to influence wide swaths of the public in a systematic way may break down some of the current, artificial categories of administrative law and suggests that, regardless of other characteristics, to the extent that the guidance is automated, it should be subject to greater oversight and review. This heuristic may not only improve the outcomes for automated legal guidance, but may also help ameliorate some longstanding, thorny questions in administrative law about what qualifies as a legislative rule.

Third, we argue that the law should evolve to allow individuals to avoid certain penalties and sanctions based on reliance upon automated legal guidance.²⁶ Much of the guidance that is made available to the non-expert public (such as responses to telephone inquiries or customer service centers) is also information that the public is not allowed to rely upon to avoid penalties for legal noncompliance. This creates inequities, in that taxpayers who pay for private, expert advice are often able to avoid penalties by relying on such advice, whereas taxpayers who choose to use the government-proffered advice often unwittingly are unable to rely upon it. The expansion of automated legal guidance exacerbates this issue and is likely to lead to greater inequities. Automated legal guidance will do so by expanding the number of members of the public likely to rely on government guidance, without ensuring that such guidance necessarily offers the correct answer for each user's particular situation. In response, we argue that a more nuanced approach to penalties is necessary in an era of legal automation. As we contend, there are significant differences between automated legal guidance and other informal guidance, such as oral advice provided during face-to-face meetings or through help telephone lines. Policymakers, we argue, should address these distinctions by reforming the structure of both penalties for legal noncompliance and the design of automated legal guidance itself.

As our discussion reveals, at present, automated legal guidance, such as ITA, remains somewhat primitive. As technology evolves, it may be capable of analyzing how the legal framework applies in a particular situation without having to actually explain the law to the public.²⁷ For instance, a machine learning algorithm may one day not too far in the future be capable of following all of an individual's data on bank websites, social media, and other locations and simply calculating

²⁶ See *infra* subpart III.C.

²⁷ See *infra* subpart III.D.

the individual's tax liability, without having to explain the law. This alternative may reduce some of the simplicity that we see in current automated legal guidance. Not having to explain the law at all would mean that complex law need not be presented in a simplified fashion. But this arguable benefit would be gained by producing another cost. Not having to explain the law at all may mean that the public stops understanding what the law is. This may have serious ramifications for our legal system. The existing state of automated legal guidance thus presents a particularly important time to evaluate the costs as well as the benefits of trying to explain the law to the public through the use of automation and accompanying simplicity.

This Article proceeds as follows. Part I explores the rise in artificial intelligence and the resulting automation of legal guidance. Part II examines the role of simplicity in current automated legal guidance, in particular through examples from ITA, and contrasts simplicity in automated legal guidance with that which occurs in static publications. Part III identifies and addresses normative concerns raised by automated legal guidance and its accompanying use of simplicity, including user targeting, the oversight and review process, the administrative law framework, and penalties, and user reliance. The Article ends with a brief conclusion.

I

ARTIFICIAL INTELLIGENCE AND AUTOMATED LEGAL GUIDANCE

A. Artificial Intelligence, Machine Learning, and Government Enforcement

Technology appears to be changing the world as we know it. From self-driving vehicles,²⁸ to robotic surgeons,²⁹ to deep learning that can teach itself to make health predictions,³⁰ po-

²⁸ See, e.g., Peter Holley, *Self-Driving Shuttles Arrive in Columbus this Week*, WASH. POST (Sept. 20, 2018, 10:43 AM), https://www.washingtonpost.com/technology/2018/09/20/self-driving-shuttles-arrive-columbus-this-week/?utm_term=.8a837556cc9a [<https://perma.cc/NJ5N-CR2G>] (heralding the arrival of self-driving shuttles and other vehicles).

²⁹ See, e.g., *What Is Robotic Surgery?*, NYU LANGONE HEALTH, <https://nyulangone.org/locations/robotic-surgery-center/what-is-robotic-surgery> [<https://perma.cc/XEF5-9Z3H>] (last visited June 3, 2019) (describing use of surgical robots, the da Vinci Si and da Vinci Xi, to conduct robotic surgery).

³⁰ See, e.g., Riccardo Miotto, Li Li, Brian A. Kidd, & Joel T. Dudley, *Deep Patient: An Unsupervised Representation to Predict the Future of Patients from the Electronic Health Records*, 6 SCI. REP. 26094, 26094 (2016) (describing a "novel unsupervised deep feature learning method" that can be used for predictive clinical decision making).

tential uses of technology seem endless. Industries have rapidly capitalized on these innovations, taking them out of the theoretical and moving them at the very least into the realm of our reality.³¹ And predictions for future evolutions of these and other technologies are even more fantastic.³²

The common thread between the innovations mentioned above is that they rely, to some extent, on artificial intelligence. Actually defining artificial intelligence is difficult, as it is an amorphous concept with no universally agreed-upon definition.³³ However, many would suggest that artificial intelligence includes, to some extent, the use of machines in a way that approximates or augments human intelligence.³⁴ There are more or less inclusive definitions, with some relatively exclusive definitions being reserved for only particularly advanced technologies such as autonomous vehicles, while other, more inclusive definitions apply to more basic functions, such as, for instance, spam e-mail filters, autocorrect, and internet-based image search technologies.³⁵ Part of the difficulty in reaching consensus on any one definition is that, as technology evolves, so do perceptions about what is sufficiently intelligent to qualify.³⁶

One of the most promising current techniques in artificial intelligence is machine learning.³⁷ Machine learning is based

³¹ See, e.g., *Sizing the Prize*, PWC, <https://www.pwc.com/gx/en/issues/data-and-analytics/publications/artificial-intelligence-study.html> [<https://perma.cc/4XVF-DPDC>] (last visited June 3, 2019) (predicting the likely impact of artificial intelligence in different industries through the year 2030).

³² See, e.g., Kalev Leetaru, *AI Package Delivery Drones Are Just Killer Robots in Waiting*, FORBES (Apr. 19, 2019, 3:51 PM), <https://www.forbes.com/sites/kalevleetaru/2019/04/19/ai-package-delivery-drones-are-just-killer-robots-in-waiting/#433b9fbd6265> [<https://perma.cc/GMC3-2EKW>] (discussing the future of drone deliveries and the potential to turn them into weapon systems).

³³ See, e.g., John McCarthy, *What Is Artificial Intelligence?* 2–3 (Nov. 12, 2007, 2:05 AM), <http://jmc.stanford.edu/articles/whatisai/whatisai.pdf> [<https://perma.cc/U2UE-5UN3>] (providing a lay description of artificial intelligence, including some of the difficulties in defining it).

³⁴ See, e.g., Om Malik, *The Hype—and Hope—of Artificial Intelligence*, NEW YORKER (Aug. 26, 2016), <http://www.newyorker.com/business/currency/the-hype-and-hope-of-artificial-intelligence> [<https://perma.cc/3NBE-4HDT>] (noting that “[t]he only thing [interviewed experts] all seem to agree on is that artificial intelligence is a set of technologies that try to imitate or augment human intelligence”).

³⁵ See Ryan Calo, *Artificial Intelligence Policy: A Primer and Roadmap*, 51 U.C. DAVIS L. REV. 399, 406–07 (2017).

³⁶ See COMM. ON TECH., NAT’L SCI. & TECH. COUNCIL, PREPARING FOR THE FUTURE OF ARTIFICIAL INTELLIGENCE 7 (2016).

³⁷ See, e.g., *id.* at 6 (attributing “[t]he current wave of progress and enthusiasm for AI” in large part to advances in machine learning); Calo, *supra* note 35, at 402 (describing machine learning as “a singularly important branch of AI”).

on the intuition that, rather than relying on formal logic, machines can be trained to make highly intelligent predictions based on the historical patterns in data.³⁸ Most strikingly, through the use of machine learning, machines may begin to actually teach themselves, developing more and more accurate predictions as they obtain more and more data.³⁹ To name just a few applications of this technology, machine learning may enable machines to spot diseases such as breast cancer earlier than human doctors can, provide companies the ability to target customers' likely interests based on prior internet searches, and teach automated vehicles what is likely to be a human or other obstacle that should be avoided.⁴⁰

While private industry has been a dominant developer and user of artificial intelligence in general and machine learning in particular,⁴¹ the government has also gotten in on the act. In addition to holding many hearings and the like evaluating the development of artificial intelligence in the private sector,⁴² the government has also considered how it can help promote and even expand its own capacity through the use of artificial intelligence. Indeed, Congress has been working on legislation that would, among other things, “establish[] within the [General Services] Administration an office to be known as the ‘AI Center of Excellence’” in order to “promote the efforts of the Federal Government in developing innovative uses of artificial intelligence” and “assist[] agencies in applying the management and use of data in applications of artificial intelligence.”⁴³ On February 11, 2019, President Donald Trump announced an executive order on *Maintaining American Leadership in AI*, which directs federal agencies to take various steps to promote U.S.

³⁸ See Chris Meserole, *What Is Machine Learning?*, BROOKINGS (Oct. 4, 2018), <https://www.brookings.edu/research/what-is-machine-learning/> [https://perma.cc/RXD4-UHV9].

³⁹ See, e.g., Leigh Sheneman & Arend Hintze, *Evolving Autonomous Learning in Cognitive Networks*, 7 SCI. REP. 16712, at 2–3 (2017) (describing methods of creating autonomous learning machines).

⁴⁰ See Bernard Marr, *The Top 10 AI and Machine Learning Use Cases Everyone Should Know About*, FORBES (Sept. 30, 2016, 2:17 AM), <https://www.forbes.com/sites/bernardmarr/2016/09/30/what-are-the-top-10-use-cases-for-machine-learning-and-ai/#7833f6eb94c9> [https://perma.cc/574D-4YAS].

⁴¹ Calo, *supra* note 35, at 406 (discussing how private industry is leading the way on artificial intelligence).

⁴² See, e.g., *Artificial Intelligence: With Great Power Comes Great Responsibility: Joint Hearing Before the Subcomm. on Research and Tech. & Subcomm. on Energy of the H. Comm. On Sci., Space, and Tech* (2018) (exploring potential promise and perils of emerging artificial intelligence technologies).

⁴³ AI in Government Act of 2019, S. 1363, 116th Cong. § 3(a), (b)(3).

advancement in artificial intelligence.⁴⁴ The executive order came on the heels of a 2018 Summit on “Artificial Intelligence for American Industry,” which emphasized not only the U.S. government’s support for the development of AI, but also the U.S. government’s own use of it.⁴⁵ An earlier, 2016 report from the National Science and Technology Council Committee on Technology recommended that “[a]gencies should work together to develop and share standards and best practices around the use of AI in government operations” and that “[a]gencies should ensure that [f]ederal employee training programs include relevant AI opportunities.”⁴⁶

Intense attention has been paid to the government’s use of artificial intelligence in enforcement. And this is for good reason. To those who are cognizant of how technology is developing, the government’s ability to use artificial intelligence in general, and machine learning in particular, in order to surveil, police, and punish members of the public is rapidly beginning to feel like the stuff of science fiction movies.⁴⁷ In the criminal context, machine learning algorithms are being used to predict where particular crimes or crime hot spots are likely to occur, which inmates are likely to engage in violent behavior, and which convicted criminals have a high likelihood of reoffending.⁴⁸ This information is being used to make policing and even sentencing decisions. Outside of the criminal context, government agencies are also relying on machine learning to

⁴⁴ *Artificial Intelligence for the American People*, WHITE HOUSE, <https://www.whitehouse.gov/ai/> [<https://perma.cc/VLY2-RQG9>] (last visited June 4, 2019).

⁴⁵ See OFFICE OF SCI. & TECH. POL’Y, WHITE HOUSE, SUMMARY OF THE 2018 WHITE HOUSE SUMMIT ON *Artificial Intelligence for American Industry* 6 (2018), <https://www.whitehouse.gov/wp-content/uploads/2018/05/Summary-Report-of-White-House-AI-Summit.pdf?latest> [<https://perma.cc/22JT-H2NM>] (discussing how “[e]xecutive departments and agencies are applying AI to improve the provision of government services to the American people”).

⁴⁶ COMM. ON TECH., NAT’L SCI. & TECH. COUNCIL, *supra* note 36, at 16 (2016), https://obamawhitehouse.archives.gov/sites/default/files/whitehouse_files/microsites/ostp/NSTC/preparing_for_the_future_of_ai.pdf [<https://perma.cc/US9U-TV2A>].

⁴⁷ Indeed, private companies now even promise that they are developing machine learning technology akin to what can be found in superhero movies. See, e.g., Ellen Joyner-Roberson, *What Do Drones, AI and Proactive Policing Have in Common?*, SAS, https://www.sas.com/en_us/insights/articles/risk-fraud/drones-ai-proactive-policing.html [<https://perma.cc/243K-XWSA>] (last visited June 6, 2019) (comparing their machine learning technology to Jarvis, Tony Stark’s assistant from the Marvel Iron Man movies).

⁴⁸ See Ed Yong, *A Popular Algorithm Is No Better at Predicting Crimes than Random People*, ATLANTIC (Jan. 17, 2018), <https://www.theatlantic.com/technology/archive/2018/01/equivant-compas-algorithm/550646/> [<https://perma.cc/FZU2-DC4K>].

identify and respond to risks. The SEC has indicated that it uses machine learning to identify potential fraud as well as systemic market risks.⁴⁹ And media sources have warned that the IRS may even conduct data analytics on a wide variety of sources, including taxpayers' online activity, in order to direct its enforcement resources.⁵⁰ Some scholars have suggested that the government will soon be using this technology in the national security space in order to predict the nation's military enemies and resulting targets.⁵¹

These developments, which many have noted bear an eerily striking resemblance to the dystopian future portrayed in the movie *Minority Report*,⁵² have drawn attention from a wide variety of scholars. One basic concern is what happens if the technology gets its predictions wrong. In such situations, the combination of the opacity of the technology and the human tendency to defer somewhat blindly to its predictions yields a potential nightmare scenario in which humans cannot extricate themselves from false accusations by machines, a situation not unlike that from *Minority Report*.⁵³ And there is reason to believe that the technology may actually lead to such outcomes in certain circumstances. Perhaps worse yet, in so doing, the technology may replicate problematic racial and other

⁴⁹ See Scott W. Bauguess, Acting Dir. and Acting Chief Economist, DERA, The Role of Big Data, Machine Learning, and AI in Assessing Risks: A Regulatory Perspective, Champagne Keynote Address at 2017 OpRisk North America Conference (June 21, 2017).

⁵⁰ See *Report: IRS Data Mining Facebook, Twitter, Instagram and Other Social Media Sites*, CBS DC (Apr. 16, 2014, 6:05 PM), <https://washington.cbslocal.com/2014/04/16/report-irs-data-mining-facebook-twitter-instagram-and-other-social-media-sites/> [<https://perma.cc/R7K2-P546>]. The government is using artificial intelligence and various taxpayer filings and records to determine the likelihood of fraud on tax refund claims. See DEP'T OF THE TREASURY, 2017 ANNUAL PRIVACY, DATA MINING, AND SECTION 803 REPORTS 24, <https://home.treasury.gov/system/files/236/annual-privacy-data-mining-report-and-section-803-report-final-2.pdf> [<https://perma.cc/S2RX-ZGVG>].

⁵¹ See Ashley S. Deeks, *Predicting Enemies*, 104 VA. L. REV. 1529, 1554 (2018) (arguing that the military may use predictive algorithms "to guide its decisions about where to most efficiently direct its resources during fighting").

⁵² See, e.g., Matt McFarland, *15 Years After 'Minority Report': A Cautionary Film, Ignored*, CNN (June 23, 2017, 9:52 AM), <https://money.cnn.com/2017/06/23/technology/future/minority-report-15-years/index.html> [<https://perma.cc/UNM9-39LJ>] (linking the use of machine learning to the movie *Minority Report*).

⁵³ See Matt Stroud, *The Minority Report: Chicago's New Police Computer Predicts Crimes, but is it Racist?*, VERGE (Feb. 19, 2014, 9:31 AM), <https://www.theverge.com/2014/2/19/5419854/the-minority-report-this-computer-predicts-crime-but-is-it-racist> [<https://perma.cc/3NDJ-N786>] (noting Chicago police department practice of showing up on the doorsteps of people who have been identified by predictive policing technology as likely to commit a crime).

biases.⁵⁴ For instance, ProPublica has produced data suggesting that a racially biased algorithm is being used by the government to predict, among other things, likelihood of recidivism for the purposes of sentencing people convicted of crime.⁵⁵

Aside from serious reliability issues, legal scholars have underscored that the government's use of artificial intelligence in enforcement presents numerous pressing questions for the legal system. Among many other issues, scholars have examined how to apply Fourth Amendment standards to predictive crime technology,⁵⁶ how to protect racial equity in an era of algorithmic technology,⁵⁷ and how to protect fundamental values such as transparency⁵⁸ or a commitment to a government of laws, not of machines,⁵⁹ when automated predictions drive enforcement decisions. These, and related inquiries,⁶⁰ are critical questions that will only become more important as the

⁵⁴ See generally Sandra G. Mayson, *Bias In, Bias Out*, 128 YALE L.J. 2218 (2019) (recently examining entrenchment of racial bias in algorithmic risk assessment tools in the criminal justice system, arguing that the problem is endemic to the concept of risk assessment generally, and proposing an alternative approach).

⁵⁵ See Julia Angwin, Jeff Larson, Surya Mattu, & Lauren Kirchner, *Machine Bias*, PROPUBLICA (May 23, 2016), <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> [<https://perma.cc/4TST-64CC>]; Yong, *supra* note 48 (describing the controversy).

⁵⁶ See, e.g., Andrew Guthrie Ferguson, *Predictive Policing and Reasonable Suspicion*, 62 EMORY L.J. 259, 262 (2012) (noting the "Fourth Amendment consequences" of "predictive policing strateg[ies]"); Elizabeth E. Joh, *Policing by Numbers: Big Data and the Fourth Amendment*, 89 WASH. L. REV. 35, 38 (2014) (identifying "three uses of big data that hint at the future of policing and the questions these tools raise about conventional Fourth Amendment analysis"); Michael L. Rich, *Machine Learning, Automated Suspicion Algorithms, and the Fourth Amendment*, 164 U. PA. L. REV. 871, 878 (2016) (claiming that automated suspicion algorithms "push the limits of the Court's current approach to the Fourth Amendment in areas that have already raised red flags among scholars").

⁵⁷ See, e.g., Aziz Z. Huq, *Racial Equity in Algorithmic Criminal Justice*, 68 DUKE L.J. 1043, 1045 (2019) (aiming to "isolate one important design margin for evaluating algorithmic criminal justice: the effect of algorithmic criminal justice tools on racial equity") (emphasis in original).

⁵⁸ See, e.g., Tal Z. Zarsky, *Transparent Predictions*, 2013 U. ILL. L. REV. 1503, 1521–22 (2013) (striving to "provide an overall coherent perspective of where transparency stands and where it ought to be in [the predictive modeling] context").

⁵⁹ See, e.g., Emily Berman, *A Government of Laws and Not of Machines*, 98 B.U. L. REV. 1277, 1282 (2018) (contending that "certain characteristics of predictive analytics inevitably bring them into tension with rule-of-law principles").

⁶⁰ The growing literature in this area is extensive. For just one of the many more examples of important analyses of issues with government use of artificial intelligence in the enforcement context, see generally, e.g., Rebecca Wexler, *Life, Liberty, and Trade Secrets: Intellectual Property in the Criminal Justice System*, 70 STAN. L. REV. 1343 (2018) (examining how to address the trade secrets in machine learning in criminal cases that rely upon such technology).

government relies on more advanced artificial intelligence to enforce the law.

B. Government Service through Guidance

But the government does a lot more than enforce the law. The government also provides extensive services to the public. This, of course, involves providing roads, national defense, and a variety of other public goods, as well as benefits such as social security and unemployment insurance payments. But it also often involves making the public aware of the applicable legal framework and assisting the public in accessing it. To take the government institutions mentioned above as examples, the police famously must communicate constitutional rights to suspects,⁶¹ the SEC has an Office of Investor Education and Advocacy that, among other things, provides investor alerts and bulletins about recent SEC action,⁶² and the IRS not only enforces the tax law but also helps the public understand it and comply with resulting taxpaying obligations.⁶³ These are but a few examples of a common phenomenon that can be found across federal agencies.⁶⁴

In many cases, government institutions not only choose to assist the public in understanding and applying the law as part of their general mission, but also are actually legally required to focus on service. The IRS is a prime illustration of this phenomenon. In 1998, in response to perceived abuses by the IRS, Congress enacted the Internal Revenue Service Restructuring and Reform Act (IRS RRA), which emphasized the IRS's obligation to not just enforce the law, but also provide "customer service" to taxpayers.⁶⁵ This led to a restructuring of the IRS to emphasize the IRS's duties to help taxpayers understand and

⁶¹ See *Miranda v. Arizona*, 384 U.S. 436, 467–77 (1966).

⁶² *Investor Alerts and Bulletins*, SEC, <https://www.sec.gov/investor/alerts> [<https://perma.cc/K8ME-XU97>] (last visited June 6, 2019).

⁶³ *The Agency, Its Mission, and Statutory Authority*, *supra* note 13 (beginning the IRS mission statement with a commitment to "[p]rovide America's taxpayers top quality service by helping them understand and meet their tax responsibilities").

⁶⁴ See also, e.g., *Citizenship Resource Center*, U.S. CITIZENSHIP & IMMIGR. SERVS., <https://www.uscis.gov/citizenship> [<https://perma.cc/SF8Q-X9TP>] (last visited June 11, 2019) (providing a variety of resources to the public, including information about rights and responsibilities of citizenship).

⁶⁵ Pub. L. No. 105–206, § 1205(b)(1), 112 Stat. 685, 722–23 (1998); see also, e.g., Blank & Osofsky, *supra* note 20, at 197–98 discussing the shift to customer-service emphasis in IRS RRA of 1998); Bryan T. Camp, *Tax Administration as Inquisitorial Process and the Partial Paradigm Shift in the IRS Restructuring and Reform Act of 1998*, 56 FLA. L. REV. 1, 78–79 (2004) (same); Leandra Lederman, *Tax Compliance and the Reformed IRS*, 51 KAN. L. REV. 971, 980–82 (2003) (same).

comply with the tax law.⁶⁶ Perhaps most strikingly, the IRS has underscored this duty by adopting a taxpayer bill of rights, which the IRS describes as a “set of fundamental rights [every taxpayer] should be aware of when dealing with the IRS.”⁶⁷ The first right is “the right to be informed.”⁶⁸ As the IRS describes this right,

[t]axpayers have the right to know what they need to do to comply with the tax laws. They are entitled to clear explanations of the laws and IRS procedures in all tax forms, instructions, publications, notices, and correspondence. They have the right to be informed of IRS decisions about their tax accounts and to receive clear explanations of the outcomes.⁶⁹

When the government apprises the public of the applicable legal framework and how it might apply in a given situation, the government frequently does so by issuing “guidance” to the public.⁷⁰ Guidance has a special meaning in administrative law, largely because it is a type of communication by government agencies which falls outside of formal administrative law requirements. Whereas special formulation procedures and layers of potential judicial review apply when agencies issue more formal types of law such as regulations, administrative guidance, at least historically, has been subject to no formal promulgation requirements and often is not subject to judicial review.⁷¹ And yet, precisely because of the widespread role of agencies in helping apprise the public of the legal framework, agencies engage extensively in offering guidance, leading to the characterization in a recent empirical study that guidance is

⁶⁶ See, e.g., U.S. GEN. ACCOUNTING OFFICE, GAO-02-674, TAX ADMINISTRATION: IMPACT OF COMPLIANCE AND COLLECTION PROGRAM DECLINES ON TAXPAYERS 16–17 (2002) (describing restructuring of IRS and reallocation of resources toward service after the IRS RRA of 1998).

⁶⁷ *Taxpayer Bill of Rights*, IRS (May 29, 2020), <https://www.irs.gov/taxpayer-bill-of-rights> [<https://perma.cc/ET9S-KB9Y>]; *codified at* I.R.C. § 7803(a)(3).

⁶⁸ I.R.C. § 7803(a)(3)(A).

⁶⁹ *Taxpayer Bill of Rights*, IRS (May 29, 2020), <https://www.irs.gov/taxpayer-bill-of-rights> [<https://perma.cc/ET9S-KB9Y>].

⁷⁰ For one of the canonical articles focusing on the “guidance” phenomenon, see generally Robert A. Anthony, *Interpretive Rules, Policy Statements, Guidances, Manuals, and the Like—Should Federal Agencies Use Them to Bind the Public?*, 41 DUKE L.J. 1311 (1992).

⁷¹ See 5 U.S.C. § 553 (2018) (setting forth the general procedural requirements that apply to rulemaking and exempting from such requirements, among other things, interpretive rules and statements of policy); Nina A. Mendelson, *Regulatory Beneficiaries and Informal Agency Policymaking*, 92 CORNELL L. REV. 397, 411–12 (2007) (detailing how finality, ripeness, and other doctrines often prevent judicial review of guidance documents). *But see infra* notes 265–268 and accompanying text (discussing recent executive actions with respect to certain types of guidance).

“the bread and butter of agency practice.”⁷² Guidance includes a great number of informal attempts to explain the law to the public, including, to name just a few, notices, press releases, frequently asked questions on agency websites, circulars, and personalized advice offered on agency phone lines or even in person.⁷³ Scholars have documented how the amount of guidance that agencies issue towers above more formal sources of law such as regulations.⁷⁴ Moreover, even though it does not have a formal place in the administrative law framework, scholars have examined how guidance can be highly influential on the public. By communicating a given legal position in guidance, an agency can create *de facto* law, because members of the public will have a strong inclination to change their behavior in a manner consistent with the guidance so as to avoid backend enforcement by the agency.⁷⁵ This tendency is even more powerful and problematic in light of the fact that it is often difficult to bring a judicial challenge against guidance documents.⁷⁶

C. Automated Legal Guidance

The confluence of the rise in artificial intelligence and the government’s extensive use of guidance has led to a little-noticed phenomenon: the government is increasingly using artifi-

⁷² Nicholas R. Parrillo, *Federal Agency Guidance and the Power to Bind: An Empirical Study of Agencies and Industries*, 36 YALE J. ON REG. 165, 168 (2019) (internal quotation marks omitted).

⁷³ Owing to its pervasiveness and importance, the scholarship attempting to catalog and analyze the many types of guidance documents is extensive. For some examples of scholarship that both crosses different areas of administrative law and that focuses on a particular area, see generally, Adam B. Cox & Cristina M. Rodríguez, *The President and Immigration Law Redux*, 125 YALE L.J. 104 (2015); William Funk, *A Primer on Nonlegislative Rules*, 53 ADMIN. L. REV. 1321 (2001); Jacob E. Gersen, *Legislative Rules Revisited*, 74 U. CHI. L. REV. 1705 (2007); Kristin E. Hickman, *Coloring Outside the Lines: Examining Treasury’s (Lack of) Compliance with Administrative Procedure Act Rulemaking Requirements*, 82 NOTRE DAME L. REV. 1727 (2007); Lars Noah, *Governance by the Backdoor: Administrative Law(lessness?) at the FDA*, 93 NEB. L. REV. 89 (2014).

⁷⁴ See, e.g., Peter L. Strauss, *The Rulemaking Continuum*, 41 DUKE L.J. 1463, 1469 (1992) (noting, as just a few examples, that “(1) formally adopted regulations of the Internal Revenue Service occupy about a foot of library shelf space, but Revenue Rulings and other similar publications, closer to twenty feet; (2) the rules of the Federal Aviation Administration (FAA), two inches, but the corresponding technical guidance materials, well in excess of forty feet,” and that these calculations do not even attempt to take into account the extensive unindexed guidance materials).

⁷⁵ See, e.g., Parrillo, *supra* note 72, at 177 (finding, through an extensive empirical study, that, while not universal, “[r]egulated parties often face overwhelming practical pressure to follow . . . [agency] guidance”).

⁷⁶ See *supra* text accompanying note 71.

cial intelligence to automate its issuance of guidance to the public.⁷⁷ The government's attempt to use artificial intelligence to automate its guidance arises out of the fact that the government not only has an obligation to provide services to the public in many different capacities, but also is subject to various mandates to do it well, or, at the very least, to aspire to try to improve its service over and above current levels. The GPRAMA Modernization Act of 2010 (GPRAMA) requires federal agencies to "establish a balanced set of performance indicators to be used in measuring or assessing progress toward each performance goal, including, as appropriate, customer service, efficiency, output, and outcome indicators."⁷⁸ The GPRAMA also required the Office of Management and Budget (OMB) to work with agencies to develop priority goals that apply across the federal government.⁷⁹ Thereafter, OMB identified improving customer service interactions with the federal government as one of the top cross-agency priority goals.⁸⁰ This perceived need has persisted over the years. The goal of the President's December 2018 Management Agenda was to "[p]rovide a modern, streamlined, and responsive customer experience across government, comparable to leading private-sector organizations."⁸¹ This goal is based on the realization that "individuals and businesses expect Government customer services to be

⁷⁷ Some scholars have imagined how the government may use artificial intelligence to issue guidance in the future, in some cases so as to eliminate any open legal questions. See, e.g., Anthony J. Casey & Anthony Niblett, *The Death of Rules and Standards*, 92 IND. L.J. 1401, 1410–12 (2017) (exploring how artificial intelligence may one day enable microdirectives, which can dictate exactly what actions are legal permissible in every situation). Others have explored how the government might one day use artificial intelligence to enhance regulatory or adjudicatory capabilities. See generally, e.g., Cary Coglianese & David Lehr, *Regulating by Robot: Administrative Decision Making in the Machine-Learning Era*, 105 GEO. L.J. 1147 (2017) (exploring whether future uses of machine learning by the government in regulation and adjudication will be consistent with both legal requirements and legal norms). This Article underscores and analyzes how the government is already using artificial intelligence in guidance giving in underappreciated ways.

⁷⁸ GPRAMA Modernization Act of 2010, Pub. L. No. 111–352, § 1115(b)(6), 124 Stat. 3866, 3869 (2011).

⁷⁹ See *id.* § 1115(a).

⁸⁰ U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-16-509, MANAGING FOR RESULTS: OMB IMPROVED IMPLEMENTATION OF CROSS-AGENCY PRIORITY GOALS, BUT COULD BE MORE TRANSPARENT ABOUT MEASURING PROGRESS 40 (2016).

⁸¹ OFFICE OF MNGMT. & BUDGET, PRESIDENT'S MANAGEMENT AGENDA: IMPROVING CUSTOMER EXPERIENCE (CX) WITH FEDERAL SERVICES 2 (2018), https://www.performance.gov/CAP/action_plans/FY2018_Q4_Improving_Customer_Experience.pdf [<https://perma.cc/6ZP7-LGUC>].

efficient and intuitive, just like services from leading private-sector organizations.”⁸²

The attempt to keep up with private industry customer service standards necessarily implicates the use of artificial intelligence. In particular, private industry has been turning to what are often referred to as “chatbots” or “virtual assistants,” which rely on natural language processing, powered by machine learning, to respond to conversational oral or text-based inquiries or commands.⁸³ As one of the most notable and comprehensive examples, IBM has developed Watson, a “suite of enterprise-ready AI services,”⁸⁴ which will “[s]eamlessly automate tasks.”⁸⁵ Many other companies have followed suit. To name just one, Bank of America has rolled out “Erica,” an artificial intelligence-driven virtual financial assistant, which promises to “help clients tackle more complex tasks and provide personalized, proactive guidance to help them stay on top of their finances.”⁸⁶ Within months of introducing Erica, Bank of America reported that the technology had more than 3.6 million users and more than 12 million client requests.

Industry has not only hurried to integrate artificial intelligence into customer service, but also has been downright ebullient about it. One industry representative, for instance, has explained that chatbots are reshaping the customer service industry because they learn quickly, they are always available, and they never get frustrated, allowing them to increase the accuracy of correct responses up to ninety percent and thereby create cost-effective solutions advantages.⁸⁷ And in 2019, industry analysts predicted that by 2020, approximately eighty

⁸² *Improving Customer Experience with Federal Services*, PERFORMANCE.GOV (July 6, 2020), https://www.performance.gov/CAP/CAP_goal_4.html [<https://perma.cc/HG72-WDEP>].

⁸³ For a basic introduction to chatbots, see, for example, Devin Coldewey, *What Are Chatbots? And Why Does Big Tech Love Them So Much?*, NBCNEWS (May 11, 2016, 12:40 PM), <https://www.nbcnews.com/tech/innovation/what-are-chatbots-why-does-big-tech-love-them-so-n572201> [<https://perma.cc/ZZZ8-2ZG4>].

⁸⁴ *Enterprise-Ready AI*, IBM, <https://www.ibm.com/watson/about> [<https://perma.cc/YJ8D-YL2H>] (last visited Mar. 27, 2020).

⁸⁵ *AI for Customer Service*, IBM, <https://www.ibm.com/watson/ai-customer-service> [<https://perma.cc/TH2N-YCWS>] (last visited June 7, 2019).

⁸⁶ *Introducing Erica® Insights: Bank of America’s AI-Driven Virtual Financial Assistant Just Got Smarter*, BANK OF AMERICA: NEWSROOM (Oct. 22, 2018, 9:00 AM), <https://newsroom.bankofamerica.com/press-releases/consumer-banking/introducing-ericar-insights-bank-americas-ai-driven-virtual> [<https://perma.cc/76LH-3RSE>].

⁸⁷ *3 Reasons Why AI-Powered Customer Service Is the Next Best Thing*, *supra* note 1.

percent of businesses would use chatbots.⁸⁸ Many have suggested that they are the way of the future for customer service interactions.⁸⁹

In their drive to improve their service, governments at all levels have been mimicking these private industry trends. For instance, at the state level, “MISSI” is “Mississippi’s first Artificial Conversational chatbot and is here to help with your questions 24/7.”⁹⁰ MISSI promises to “direct you to the appropriate state agency, send you the link to an applicable online service, and even help you through your online payment.”⁹¹ And Mississippi’s efforts are part of a broader move by states and other governments to create digital government. NIC, the company behind MISSI’s creation, boasts that it makes “government interactions more accessible for everyone through technology.”⁹² At present, NIC is rapidly expanding technology into government services, through relationships with more than six thousand local, state, and federal agencies.⁹³

At the federal level, a number of agencies are relying on chatbots, or virtual assistants, to help explain the law to the public. For instance, “Emma” is “a computer-generated virtual assistant” for the USCIS that promises to answer immigration and citizenship questions in either English or Spanish that are posed “based on your own words; you don’t need to know ‘government speak.’”⁹⁴ Emma can either respond in text or, if sound is enabled, Emma can speak the response. The natural language processing that runs Emma allows users to type in immigration questions and get very detailed responses. For example, if a user types in “can I get a green card,” Emma responds with various potential green card categories (including “Green Card Through Family,” “Green Card Through a

⁸⁸ Tom Taulli, *What You Need to Know About Chatbots*, FORBES (Apr. 21, 2019, 11:13 AM), <https://www.forbes.com/sites/tomtaulli/2019/04/21/what-you-need-to-know-about-chatbots/#4e77827a4844> [<https://perma.cc/L597-V8NU>].

⁸⁹ See, e.g., Aakrit Vaish, *Five Reasons Why Chatbots Are the Future of Customer Service*, ENTREPRENEUR (Jan. 5, 2019), <https://www.entrepreneur.com/article/325830> [<https://perma.cc/ZK4S-2VDG>] (predicting that “chatbots will definitely be the cornerstone of future customer service”).

⁹⁰ *Your Mississippi, Technology*, MS.GOV, <https://www.ms.gov/Technology> [<https://perma.cc/P3U2-X6KA>] (last visited June 11, 2019).

⁹¹ *Id.*

⁹² NIC, <https://www.egov.com/> [<https://perma.cc/3ST4-9D47>] (last visited June 11, 2019).

⁹³ *Who We Serve*, NIC, <https://www.egov.com/who-we-serve.html> [<https://perma.cc/4C36-BHCN>] (last visited June 11, 2019).

⁹⁴ *Emma*, *supra* note 2.

Job,” and “Green Card for an Asylee”).⁹⁵ Clicking the “green card for an asylee” category causes Emma to provide detailed information about the law that applies to asylum, including, for instance, that “[y]our spouse and children are also eligible to apply for a green card if they were admitted to the United States as asylees or were included in your grant of asylum.”⁹⁶ Emma is also integrated with the information on the USCIS website. By typing “does torture make you eligible for asylum” in Emma’s dialogue box, a user causes Emma to open a webpage that has extensive information about asylum and how to apply.⁹⁷ The webpage then has links to many specific topics, which themselves contain detailed substantive information about how the law of asylum applies in particular cases. For instance, under the link for “Humanitarian Parole,” one can find information about the “Filipino World War II Veterans Parole Program.”⁹⁸ This includes detailed information about this particular parole program, such as that:

You may request parole on your own behalf and on behalf of your spouse and children (unmarried and under 21) if:

- The veteran and spouse are both deceased, and
- You are the principal beneficiary of the Form I-130 submitted by the veteran or by the veteran’s spouse for a son or daughter who is also the son or daughter of a veteran.⁹⁹

The United States is not alone in integrating artificial intelligence into its legal-guidance-giving customer service functions. Other governments are also making the leap. For instance, the Australian Taxation Office (ATO) created “Alex,” a virtual assistant, to help Australian taxpayers with their tax questions. In introducing Alex, the ATO explained:

You can ask Alex questions about tax just like you would if you were talking to a person. Alex understands conversational language and can clarify what you want and answer your questions. The reason we’re introducing Alex is simple. You told us to make it easier for you to get support when it’s

⁹⁵ *Id.* (follow “Ask Emma” hyperlink; then type “can I get a greencard” into the dialogue box).

⁹⁶ *Id.* (from the previous instructions, select “Green Card for an Asylee”).

⁹⁷ *Id.* (follow “Ask Emma” hyperlink; then type “does torture make you eligible for asylum” into Emma’s dialogue box).

⁹⁸ See *Filipino World War II Veterans Parole Program*, U.S. CITIZENSHIP & IMMIGR. SERVS. (AUG. 7, 2019), <https://www.uscis.gov/fwvp> [<https://perma.cc/6X7M-KYWL>].

⁹⁹ *Id.*

needed by providing assistance and answering questions more effectively via the website.¹⁰⁰

Alex provides detailed responses to tax law questions. For instance, if a user types “is gambling income” into Alex’s dialogue box, Alex will respond with a couple of options (“gifts” and “lotto and other winnings”).¹⁰¹ Clicking on one of the options (“lotto and other winnings”) provides a detailed explanation of the Australian tax law. As Alex instructs:

Generally, you don’t have to declare prizes won in an ordinary lottery (such as lotto, caskets or a raffle), as they’re not considered assessable income. Likewise, prizes from game-shows may not be assessable.

This is because it’s a “windfall gain”, [sic] an unexpected piece of luck not associated with business or employment.¹⁰²

Like Emma, Alex is also integrated with the static guidance available on the ATO’s website. For instance, if a user wants more information, the user can click on a hyperlink in Alex’s dialogue box labelled “radio and television prizes,” in order to be redirected to an ATO ruling about the treatment for income tax purposes of radio and television competition prizes.¹⁰³

Moreover, as a result of the success of Alex in the ATO, Australia has expanded the chatbot’s use to other parts of the government. Another version of Alex (with a different color shirt) helps the Australian public with intellectual property rights.¹⁰⁴ And technology has been integrated to allow Alex to learn from each customer service experience, thereby enabling Alex to better serve the public.¹⁰⁵ The Australian IP office has

¹⁰⁰ *Introducing Alex, Our New Web Assistant*, ATO BETA (Sept. 15, 2015), <https://beta.ato.gov.au/Tests/Introducing-Alex—our-new-web-assistant> [<https://perma.cc/JC99-348U>].

¹⁰¹ *Live Chat*, AUSTRALIAN TAXATION OFFICE (JULY 2, 2020), <https://www.ato.gov.au/About-ATO/Contact-us/Live-chat/> [<https://perma.cc/FE7J-GYDS>] (follow “Ask Alex for help” hyperlink; then type “is gambling income” into Alex’s dialogue box).

¹⁰² *Id.* (follow “Ask Alex for help” hyperlink; then type “is gambling income” into Alex’s dialogue box and then click on “lotto and other winnings.”).

¹⁰³ AUSTRALIAN TAXATION OFFICE, IT 167, TREATMENT FOR INCOME TAX PURPOSES OF RADIO & TELEVISION COMPETITION PRIZES (1967), <https://www.ato.gov.au/law/view/print?DocID=ITR/IT167/NAT/ATO/00001&PiT=99991231235958&Life=1967103000001-99991231235959> [<https://perma.cc/5N2B-XRZV>].

¹⁰⁴ *Alex: IP Australia’s Virtual Assistant*, IP AUSTRALIA (Oct. 7, 2016), <https://www.ipaustralia.gov.au/beta/virtual-assistant> [<https://perma.cc/X77F-R399>].

¹⁰⁵ See Patricia Kelly, *Meet Alex – IP Australia’s Next-Generation Virtual Assistant*, WIPO MAGAZINE, December 2016, at 30, 30-31, https://www.wipo.int/export/sites/www/wipo_magazine/en/pdf/2016/wipo_pub_121_2016_06.pdf [<https://perma.cc/W227-W3WH>]; *IP Australia Teams with Nuance to Add Cutting-Edge AI Learning Capabilities to Highly Successful ‘Alex’ Online Virtual Assistant*,

explained that its “ultimate vision is to work collaboratively across a range of government agencies to explore the possibilities of supporting businesses and innovators in a seamless, citizen-centric digital experience.”¹⁰⁶

All of the examples above have some similarities that merit emphasizing.

First, in each case, the government is attempting to take questions that are asked in the public’s own nonexpert words and answer them in a straightforward way that the public can understand. As the USCIS emphasizes, Emma will answer your questions “based on your own words; you don’t need to know ‘government speak.’”¹⁰⁷ Rather than requiring an individual to hire an expert intermediary to translate the individual’s questions into legal language, the government is attempting to use the technology to translate the questions into the legal framework and to provide straightforward answers in return.

However, as the Emma example also illustrates well, in many of these instances, the actual, underlying legal framework is in fact quite complex. The rules regarding asylum are both extremely detailed and complicated, as Emma’s attempt to link to any digestible information about the Filipino World War II Veterans Program makes clear.¹⁰⁸

Finally, it bears emphasizing that, in each instance, the government is not only undertaking the difficult task of translating complex law to the public in a way that the public can understand, but it is also simultaneously trying to automate this job by training technology to do the necessary translations from the public to the legal framework and back. Automating its central guidance-giving function may allow the government to meet an identified government goal of redirecting resources to “outcomes that matter most to citizens” by “introducing new technologies, such as robotics process automation (RPA), to reduce repetitive administrative tasks, and other process-reform initiatives.”¹⁰⁹ But this automation also presents numer-

NUANCE (Feb. 14, 2017), <https://www.nuance.com/about-us/newsroom/press-releases/ip-australia-nina-virtual-assistant.html> [<https://perma.cc/3X6S-B2DQ>].

¹⁰⁶ Kelly, *supra* note 105, at 31.

¹⁰⁷ Emma, *supra* note 2.

¹⁰⁸ See *Filipino World War II Veterans Parole Program*, *supra* note 98.

¹⁰⁹ Memorandum from Mick Mulvaney, Dir. of the Office of Mgmt. & Budget 1–2 (Aug. 27, 2018), <https://www.whitehouse.gov/wp-content/uploads/2018/08/M-18-23.pdf> [<https://perma.cc/676Q-ADBL>].

ous issues and questions not yet examined by legal scholarship.

II

SIMPLEXITY IN AUTOMATED LEGAL GUIDANCE: THE INTERACTIVE TAX ASSISTANT

No federal government agency interacts more with individuals each year than the IRS.¹¹⁰ Following the approach of other private sector and government agencies,¹¹¹ including those discussed in Part I, the IRS has increasingly turned to automated legal guidance as a way to respond to questions from the public. When taxpayers have questions about their compliance and reporting obligations, the IRS directs them to ITA, an online service hosted on its website.¹¹² Using ITA as a case study, this Part shows how current versions of automated legal guidance frequently deliver answers that reflect “simplicity,” a concept we have introduced in prior research.¹¹³ With simplicity, the government presents complex law as though it is simple and clear without engaging in actual simplification of the underlying law. Not only does current automated legal guidance feature simplicity, but we argue that it does so in ways that are even more powerful and pervasive than those that occur in static publications.

This part offers an overview of the origin and current application of ITA, the most visible automated legal guidance tool of the IRS; provides several detailed examples of ITA’s use of simplicity; and contrasts the simplicity in automated legal guidance with that which occurs in written IRS publications.

A. The Interactive Tax Assistant

Throughout the latter half of the twentieth and early years of the twenty-first century, as April 15th, Tax Day, approached, millions of taxpayers would dial the IRS telephone hotline or walk into local IRS offices seeking answers to tax compliance questions.¹¹⁴ As a result of inconsistent and inaccurate re-

¹¹⁰ See OFFICE OF INFO. & REGULATORY AFFAIRS, OFFICE OF MGMT. & BUDGET, INFORMATION COLLECTION BUDGET OF THE UNITED STATES GOVERNMENT 7 (2016).

¹¹¹ See *supra* note 42 and accompanying text.

¹¹² ITA, *supra* note 23.

¹¹³ Blank & Osofsky, *supra* note 20.

¹¹⁴ See TREASURY INSPECTOR GEN. FOR TAX ADMIN., 2011-40-043, THE INTERACTIVE TAX LAW ASSISTANT HELPS ASSISTORS PROVIDE ACCURATE ANSWERS TO TAXPAYER INQUIRIES 1 (Apr. 20, 2011), <https://www.treasury.gov/tigta/auditreports/2011reports/201140043fr.pdf> [<https://perma.cc/5ZNX-4BSY>] [hereinafter ACCURATE ANSWERS TO TAXPAYERS].

sponses that IRS assistors (human customer service representatives) would frequently deliver to taxpayers, in 2008 the IRS instituted internal use of a new web-based system, the “Interactive Tax Law Assistant” (ITLA).¹¹⁵ Unlike the “publication method” where IRS assistors would review printed and electronic IRS publications to answer taxpayer questions, ITLA was developed to “provide accurate, consistent answers to certain tax law categories.”¹¹⁶ When a taxpayer would call the IRS hotline, the IRS assistor would read from the ITLA screen a series of questions and, eventually, an answer to the taxpayer’s initial inquiry. After the first two years of testing, the IRS determined that ITLA significantly increased the accuracy and consistency of IRS assistors’ responses to taxpayers’ inquiries in several tax law categories.¹¹⁷

Following the success of this internal program, in 2010, the IRS launched an external version of the automated system on its publicly accessible website, which it rebranded the “Interactive Tax Assistant” (ITA).¹¹⁸ As the IRS explains, ITA is “a tax law resource that takes you through a series of questions and provides you with responses to tax law questions”¹¹⁹ and “can determine if a type of income is taxable, if you’re eligible to claim certain credits, and if you can deduct expenses on your tax return.”¹²⁰ ITA can address questions in dozens of tax law categories, ranging from eligibility to deduct medical and dental expenses, to qualification to claim an education tax credit, to obligations to make estimated tax payments, among many others.¹²¹ For example, ITA asks users to choose a category (e.g., “Is My Pension or Annuity Payment Taxable?”) and then respond to a series of questions (e.g., “Was the distribution from a designated Roth account?”).¹²² After receiving the user’s responses to these questions, ITA displays a screen with the heading “Answers” (e.g., “Answers to Your Questions About

¹¹⁵ *Id.* at 24.

¹¹⁶ *Id.* at 1.

¹¹⁷ *Id.* at 4.

¹¹⁸ *Id.* at 23; *see also* TREASURY INSPECTOR GEN. FOR TAX ADMIN., 2011-40-070, THE INTERNAL REVENUE SERVICE PROVIDES HELPFUL AND ACCURATE TAX LAW ASSISTANCE, BUT TAXPAYERS EXPERIENCE LENGTHY WAIT TIMES TO SPEAK WITH ASSISTORS 15–16 (2011), <https://www.treasury.gov/tigta/auditreports/2011reports/201140070.fr.pdf> [<https://perma.cc/HY5R-4X6P>] (describing history of Interactive Tax Assistant).

¹¹⁹ *Id.* at 15.

¹²⁰ *ITA*, *supra* note 23.

¹²¹ *See id.*

¹²² *See id.* (follow “Is My Pension or Annuity Taxable?” hyperlink; then select “begin” and input the tax year; then select “Qualified employer plan”).

Income: The pension or annuity payment (distribution) from your qualified plan is fully taxable.”)¹²³

As a result of ensuing budget cuts and technological advancement, the IRS has made a strategic decision to direct taxpayers to automated systems rather than to human IRS assistors. In the initial years after the public launch of ITA in 2010, the IRS reported increased use by taxpayers.¹²⁴ The IRS reported that in 2015, ITA responded to 660,430 requests for answers to tax law questions, a 168% increase over 2014. By contrast, during the 2019 filing season, the IRS reported that human IRS assistors answered fewer than 20% of calls received through its toll-free IRS hotline during business hours.¹²⁵ The report found that IRS officials have decided to increase use of automated systems such as ITA, the IRS2Go app, and other self-help tools on the IRS website.¹²⁶

In some ways, ITA relies on particularly unsophisticated technology, in that it requires users to choose from a menu of options in order to receive answers from the IRS. ITA does not even attempt to use the artificial intelligence deployed in more sophisticated chatbots, like USCIS’s Emma. Those more sophisticated chatbots rely on predictive analysis to first translate users’ natural language questions into a menu of potential subjects and answers.¹²⁷ But this artificial intelligence distinction does not change the essential commonality of these automated guidance tools: in response to user inquiries (whether selected from a menu or communicated in natural language), the government’s technology attempts to explain the law in a simple way that the public can understand. As discussed below, and exemplified particularly well by ITA, this makes “simplicity” central to the government’s current automated guidance-giving.

¹²³ See *id.*

¹²⁴ See TREASURY INSPECTOR GEN. FOR TAX ADMIN., 2015-40-032, INTERIM RESULTS OF THE 2015 FILING SEASON 14 (Mar. 31, 2015).

¹²⁵ See TREASURY INSPECTOR GEN. FOR TAX ADMIN., 2019-44-030, INTERIM RESULTS OF THE 2019 FILING SEASON 16–17 (Apr. 2, 2019).

¹²⁶ See *id.*

¹²⁷ See, e.g., Mai-Hanh Nguyen, *How Artificial Intelligence and Machine Learning Produced Robots We Can Talk to*, BUS. INSIDER (Jan. 27, 2020, 3:18 PM), <https://www.businessinsider.com/chatbots-talking-ai-robot-chat-machine> [<https://perma.cc/L98E-BY23>] (explaining the technology behind chatbots).

B. Simplicity and the Interactive Tax Assistant

1. *What is Simplicity?*

At several million words in length and requiring billions of hours of compliance activities each year,¹²⁸ the Internal Revenue Code is the epitome of complexity. As the former National Taxpayer Advocate has reported to Congress, “[t]he largest source of compliance burdens for taxpayers—and the IRS—is the overwhelming complexity of the tax code.”¹²⁹ This complexity stems, in significant part, from detailed and technical tax rules, which often require extensive, but not always forthcoming or clear, administrative guidance. For example, while Congress enacted a twenty percent qualified business income deduction for pass-through businesses in 2017 (Section 199A),¹³⁰ accountants and tax lawyers continue to express uncertainty as to whether the provision applies to specific types of activities.¹³¹ At the same time, the tax law’s use of tax standards, such as whether a transaction has a principal purpose of tax avoidance¹³² or whether an individual is an employee or an independent contractor,¹³³ layers ambiguity onto already difficult tax rules.

Despite this complexity, the tax system in the United States requires “voluntary compliance” to function.¹³⁴ While third-parties, such as employers and financial institutions, withhold tax liability from payments to many taxpayers, individuals still must self-assess their own tax liability, file their own tax returns and pay taxes not previously withheld by em-

¹²⁸ See OFFICE OF INFO. & REGULATORY AFFAIRS, *supra* note 108. For additional discussion, see Adam M. Samaha, *Death and Paperwork Reduction*, 65 DUKE L.J. 279, 280 (2015).

¹²⁹ NATIONAL TAXPAYER ADVOCATE, 1 ANNUAL REPORT TO CONGRESS 3 (2008), https://www.irs.gov/pub/tas/08_tas_arc_msp_1.pdf [<https://perma.cc/9PPS-VKGQ>].

¹³⁰ Pub. L. No. 115–97, § 11011(a), 131 Stat. 2054, 2063 (2017).

¹³¹ For discussion, see Karen C. Burke, *Section 199A and Choice of Passthrough Entity*, 72 TAX LAW. 551, 566–68 (2019); Daniel Shaviro, *Evaluating the New US Pass-Through Rules*, 2018 BRITISH TAX REV. 49, 67 (arguing that pass-through provisions enacted in 2017 “ought to be repealed as soon as possible”).

¹³² See, e.g., I.R.C. §§ 269(a), 357(b)(1) (2018) (“principal purpose”).

¹³³ See *Independent Contractor (Self-Employed) or Employee?*, IRS (Apr. 8, 2020), <https://www.irs.gov/businesses/small-businesses-self-employed/independent-contractor-self-employed-or-employee> [<https://perma.cc/3KRZ-WXJD>].

¹³⁴ See *Understanding Taxes: Student*, IRS, <https://apps.irs.gov/app/understandingTaxes/student/glossary.jsp#V> [<https://perma.cc/C72L-LWCU>] (last visited June 9, 2020) (defining voluntary compliance as a “system of compliance that relies on individual citizens to report their income freely and voluntarily, calculate their tax liability correctly, and file a tax return on time”).

ployers or remitted through estimated tax payments.¹³⁵ Even though the many tax rules and standards in the Internal Revenue Code are accompanied by Treasury regulations, IRS revenue rulings and judicial decisions, most taxpayers are unsure of how the tax law applies to their own circumstances. Consequently, as part of its “customer service mission,” each year, the IRS attempts to assist millions of taxpayers as they attempt to comply with a complex body of tax laws.¹³⁶

One common characteristic of the IRS’s efforts to explain the tax law to the general public is “simplicity.”¹³⁷ As we have theorized in prior work, simplicity is distinct from simplicity.¹³⁸ Simplicity occurs when legislators eliminate or reject rules that would unduly complicate administration of the law. For instance, some commentators have described changes in the 2017 tax legislation, such as the suspension of miscellaneous itemized deductions, as temporarily increasing simplicity.¹³⁹ Simplicity, on the other hand, occurs when the government offers clear and simple explanations of the law without highlighting its underlying complexity or reducing this complexity through formal legal changes.¹⁴⁰ Much like how the smooth, green leaves of a houseplant masks its “microhydraulics and fine-tuned metabolism,”¹⁴¹ simplicity merely obscures, rather than eliminates, the underlying complexity of the law.

In prior work, we examined how the IRS delivers simplified explanations of the tax law through IRS publications.¹⁴² IRS publications have historically been the primary communication that the agency uses to explain the tax law to individuals, small businesses, and tax professionals in clear and simple

¹³⁵ See *id.*

¹³⁶ See Internal Revenue Service Restructuring and Reform Act of 1998, Pub. L. No. 105–206, § 1205, 112 Stat. 685, 722–23; IRS, YOUR RIGHTS AS A TAXPAYER: THE TAXPAYER BILL OF RIGHTS (2017), <http://www.irs.gov/pub/irs-pdf/p1.pdf> [<https://perma.cc/W4FN-7T4T>] (describing “Right to Be Informed” as the first taxpayer right).

¹³⁷ Blank & Osofsky, *supra* note 20.

¹³⁸ See *id.* at 205–07.

¹³⁹ See, e.g., Erica York & Alex Muresianu, *The Tax Cuts and Jobs Act Simplified the Tax Filing Process for Millions of Households*, TAX FOUND. (Aug. 7, 2018), <https://taxfoundation.org/the-tax-cuts-and-jobs-act-simplified-the-tax-filing-process-for-millions-of-americans/> [<https://perma.cc/7QBV-339P>] (stating that the 2017 legislation “simplif[ies] the individual income tax for millions of households”).

¹⁴⁰ Blank & Osofsky, *supra* note 20.

¹⁴¹ JEFFREY KLUGER, SIMPLICITY: WHY SIMPLE THINGS BECOME COMPLEX (AND HOW COMPLEX THINGS CAN BE MADE SIMPLE) 11 (2007).

¹⁴² See Blank & Osofsky, *supra* note 20, at 207–14.

terms.¹⁴³ For example, IRS Publication 535 (Business Expenses) discusses “what is and is not deductible” in concise statements, without references to statutory or regulatory provisions, and with the aid of numerous concrete illustrations.¹⁴⁴ IRS publications are forms of general, or static, guidance; they do not deliver guidance that is tailored to any one taxpayer’s particular circumstances. While the IRS provides these publications as part of its customer service mission, third parties such as tax accountants, tax lawyers, and commercial tax preparation software all rely on IRS publications when advising taxpayers and attempting to file tax returns on their behalf.¹⁴⁵ Further, the IRS itself relies upon these publications, rather than the statutory or regulatory text, when training its IRS assistants and designing its automated taxpayer guidance systems.¹⁴⁶

As we have argued, IRS publications often reflect simplicity by characterizing the tax law as clear and not contested, adding administrative gloss to the underlying tax law and failing to fully explain the tax law, such as by omitting exceptions or specific requirements.¹⁴⁷ For example, IRS Publication 535 (Business Expenses) explains that the “ordinary” requirement for business deductions means that the expense must be “common and accepted in your industry.”¹⁴⁸ After reading this explanation, a restaurant owner who hires a professional food taster may determine that the food-taster expense is not deductible as a business expense because she knows of no other restaurant owners who have incurred this expense. While some courts have agreed with the definition of “ordinary” presented by the IRS,¹⁴⁹ others have held that taxpayers should be entitled to deduct new or unusual expenses and

¹⁴³ See *id.* at 197–99.

¹⁴⁴ See INTERNAL REVENUE SERV., PUBLICATION 535: BUSINESS EXPENSES 1 (2020) [hereinafter PUBLICATION NO. 535].

¹⁴⁵ See Blank & Osofsky, *supra* note 20, at 228–33; *Oregon Basic Tax Course – 80 Hour*, PLATINUM PROF'L SERVS., <https://www.platinumprostudies.com/oregon-licensed-tax-preparer-course> [<https://perma.cc/MH8V-32UB>] (last visited Apr. 24, 2020) (“Using actual IRS Publications, a series of questions will guide you through each tax publication . . .”).

¹⁴⁶ See TREASURY INSPECTOR GEN. FOR TAX ADMIN., 2004-40-025, IMPROVEMENTS ARE NEEDED TO ENSURE TAX RETURNS ARE CORRECTLY PREPARED AT TAXPAYER ASSISTANCE CENTERS 10–11 (2003).

¹⁴⁷ See Blank & Osofsky, *supra* note 20.

¹⁴⁸ PUBLICATION No. 535, *supra* note 144, at 3.

¹⁴⁹ See, e.g., *Reffett v. Comm'r of Internal Revenue*, 39 T.C. 869, 878–79 (1963) (considering whether other coal operators paid same contingent witness fees as taxpayer).

“should not be penalized taxwise for . . . business ingenuity.”¹⁵⁰ The IRS has echoed this sentiment in its own internal memoranda.¹⁵¹ This example illustrates how, through the use of simplicity, the IRS may present the tax law as clear and undisputed (e.g., ordinary means “common and accepted in your industry”),¹⁵² even though courts and the IRS itself may have taken contrary positions.

As we have argued previously, simplicity presents both benefits and threats.¹⁵³ By describing the law in seemingly clear and simple terms, the IRS assists taxpayers in fulfilling their tax reporting and filing obligations, reveals its own view of how ambiguous law applies, and, in some cases, may aid the government’s efficient collection of tax revenue. Simplicity is also consistent with the movement to require the federal government to explain the law using plain language to members of the public, a goal that was most visibly expressed through the Plain Writing Act of 2010.¹⁵⁴ Despite its potential benefits, when the government issues statements that reflect simplicity, it may lead taxpayers to refrain from claiming tax positions that Congress intended, impose benefits and burdens on different taxpayers depending upon their sophistication and access to third-party advisors, and reduce transparency regarding the underlying tax law in ways that are difficult for existing administrative law to address.¹⁵⁵

2. *Examples*

Simplicity, long a part of the IRS’s communication tool kit, has become even more important with the IRS’s increasing use of automated legal guidance. As Tax Day nears and millions of taxpayers begin to file their annual tax returns, the IRS publicizes its automated legal guidance as an alternative to telephone or in-person assistance. During the early months of 2020, for example, the IRS informed taxpayers through its Twitter account, “Need tax information that fits your own circumstances? No need to wait. Check the Interactive Tax Assis-

¹⁵⁰ *Poletti v. Comm’r of Internal Revenue*, 330 F.2d 818, 822 (8th Cir. 1964).

¹⁵¹ See I.R.S. Field Service Advisory, 1996 WL 33320948 (Sept. 18, 1996).

¹⁵² PUBLICATION NO. 535, *supra* note 144, at 3.

¹⁵³ See Blank & Osofsky, *supra* note 20.

¹⁵⁴ Plain Writing Act of 2010, Pub. L. No. 111–274, § 2, 124 Stat. 2861, 2861 ; see Exec. Order No. 13,563, 3 C.F.R. § 13563 (2011); IRS, 2016 PLAIN WRITING ACT COMPLIANCE REPORT; CASS R. SUNSTEIN, SIMPLER: THE FUTURE OF GOVERNMENT 185 (2013).

¹⁵⁵ See Blank & Osofsky, *supra* note 20, at 206–16.

tant any time.”¹⁵⁶ While ITA often provides answers that are consistent with the tax law, it also can deliver answers that deviate from it as a result of the use of simplicity. Sometimes these deviations are beneficial to taxpayers; at other times, they are adverse.

a. *Consistent with the Tax Law*

When taxpayers have questions about issues that are relatively straightforward to explain and unambiguous, ITA is able to deliver accurate responses to these inquiries quickly and efficiently.

Example 1: Filing Deadlines. Consider a computer programmer from India, who moves to the United States as a lawful permanent resident (a green card holder) as part of an initiative to help his employer establish a branch office in California. In 2019, after one year of residing in the United States, he is preparing to file his first individual income tax return, IRS Form 1040. Unsure of the due date for the return, the computer programmer visits ITA and clicks on the category titled, “What Is the Due Date of My Federal Tax Return or am I Eligible to Request an Extension?”¹⁵⁷ ITA then proceeds to ask the individual several questions, including whether he will be “living outside the U.S. and Puerto Rico on 4/15/19?”¹⁵⁸ After reviewing his work schedule for a few moments, the individual concludes that he will not be returning to India for work at any point during 2019, and clicks, “No.”¹⁵⁹ Under the heading “Answers to Your General Filing Questions,” ITA informs the computer programmer that his tax return is considered to be timely if he files it by April 15, 2019.¹⁶⁰

This example illustrates how ITA can help a taxpayer determine the answer to simple tax compliance questions efficiently and accurately. The computer programmer quickly determined he had no plans to live outside the United States on April 15th

¹⁵⁶ IRS Tax Pros (@IRStaxpros), TWITTER (Jan. 28, 2019, 2:00 PM), <https://twitter.com/IRStaxpros/status/1089961466223042560> [<https://perma.cc/K2B2-MJUL>]. In 2020, the IRS issued similar statements through its YouTube channel, where the IRS presented a step-by-step overview of ITA, with the tag line “Got a tax law question? Our Interactive Tax Assistant has answers.” IRS videos, *Interactive Tax Assistant*, YOUTUBE (Jan. 22, 2020), <https://www.youtube.com/watch?v=dffgkaQcR68> [<https://perma.cc/YZ8Y-ZV7T>].

¹⁵⁷ ITA, *supra* note 23.

¹⁵⁸ *Id.* (follow “What Is the Due Date of My Federal Tax Return or am I Eligible to Request an Extension?” hyperlink; then select “begin” and “continue”; input the tax year; then select “Calendar year”).

¹⁵⁹ *Id.*

¹⁶⁰ *Id.* (Beginning with the previous instructions, select “No”).

and, as a result, learned that his filing due date was no different from that of other U.S. taxpayers. On the other hand, if he had answered “Yes” because he would be working in India on April 15th, ITA would have answered that he would automatically have until June 15th to file his return in a timely manner.¹⁶¹ Not only could ITA apply the law to multiple scenarios within seconds, but both outcomes are consistent with the underlying section of the Internal Revenue Code.¹⁶²

b. *Taxpayer-Favorable Deviations from the Tax Law*

While ITA delivers accurate answers to basic issues, such as the due date for filing tax returns or the proper IRS form for reporting certain income, ITA can also deliver answers that deviate from the underlying tax law in ways that are seemingly favorable to taxpayers.

Example 2: Artificial Teeth Expense. One instance in which ITA may offer taxpayer-favorable deviations is when ITA uses the existence of certain facts as a proxy for a more complex determination. For instance, imagine an aspiring model living in Los Angeles, California, who has attempted to alter his physical appearance—specifically the spacing between his front teeth—for years in order to obtain jobs as a model in print and online advertisements. After having no luck with braces and other orthodontic measures, he visits a maxillofacial surgeon who describes a procedure for replacing his four natural front teeth with four artificial teeth, at a cost of approximately \$10,000. The aspiring model considers the cost of the surgery and attempts to determine whether he can qualify for any tax credits or other benefits to offset some of the expense. When he visits ITA to investigate the tax consequences of the surgery, he selects “Can I Deduct My Medical and Dental Expenses?”¹⁶³ After asking a few questions about the model’s adjusted gross income for the year and the amount of the expense, ITA asks “What type of expense are you asking about?”¹⁶⁴ The model quickly selects “Artificial Teeth Expenses” from a dropdown menu.¹⁶⁵ After just a few more clicks, ITA informs the model that “Your artificial teeth expenses are a qualified deductible

¹⁶¹ *Id.* (Beginning with the instructions *supra* note 159, select “Yes”).

¹⁶² See I.R.C. § 6072 (2018) (“Time for filing income tax returns”).

¹⁶³ ITA, *supra* note 23.

¹⁶⁴ *Id.* (follow “Can I Deduct My Medical and Dental Expenses?” hyperlink; then select “begin” and “continue”; input the tax year and select “Yes” and “No”; then select “Yes” and “No”; then input marital status and filing status; then select “A” and then select “Artificial Teeth Expenses”).

¹⁶⁵ *Id.*

expense.”¹⁶⁶ Satisfied with this response, the model decides to have the surgery and later claims a medical expense deduction on his tax return.

While the taxpayer in this example was able to obtain a definitive answer to his question about the deduction for artificial teeth using ITA, the answer is inconsistent with the actual tax law. Under Section 213(d)(9) of the Internal Revenue Code, taxpayers are not permitted to claim medical expense deductions for cosmetic surgery.¹⁶⁷ In this example, ITA sought simplified inputs by asking about the specific type of expense, artificial teeth, but failed to ask questions about some of the more uncertain features of the statute, such as whether the procedure promoted “the proper function of the body” or treated a condition that resulted from “accident or trauma.”¹⁶⁸ At the same time, the taxpayer knew the reasons for the surgery—to improve his chances of securing modeling jobs, not to treat a condition resulting from accident or trauma—but ITA did not have access to this information. ITA’s use of only certain facts (artificial teeth) as a proxy for a more complex inquiry caused ITA to deliver a taxpayer-favorable answer, but, as a result of its direct conflict with relevant statutory authority, it is an answer that could ultimately lead to a challenge from the IRS during an audit.

Example 3: Lead-based Paint Removal Expense. Another feature of ITA that may yield taxpayer-favorable deviations is its failure to describe all of the statutory or regulatory requirements that a taxpayer must fulfill in order to claim a specific tax benefit. Consider the owner of a small construction company with two young children who has decided to remove cracking lead-based paint from the walls of her home, which was built in the early 1900s. For the past two years, she has been concerned that the children could ingest some of the paint chips. Before removing the cracked paint, she researches whether she can qualify for a tax deduction or credit for the expenses involved in the paint removal. Upon visiting ITA, she selects the category “Lead-based Paint Removal/Covering Services” under medical and dental expenses.¹⁶⁹ After asking the

¹⁶⁶ *Id.*

¹⁶⁷ *See* I.R.C. § 213(d)(9) (2018).

¹⁶⁸ *See id.*

¹⁶⁹ ITA, *supra* note 23 (follow “Can I Deduct My Medical and Dental Expenses?” hyperlink; then select “begin” and input the tax year and select “Yes” and “No”; then select “Yes” and “No”; then input marital status and filing status; then select “L” and then select “Lead-Based Paint Removal/Covering Services”; select “All” and “None”; then select “None” and “Self.”).

taxpayer preliminary questions, including questions about her children, ITA asks “Was the surface from which the paint was removed in poor repair (peeling or cracking) or within the child’s reach?”¹⁷⁰ The taxpayer clicks “Yes,” and ITA informs her that, “Your lead-based paint removal/covering services are a qualified deductible expense.”¹⁷¹

While ITA provides an answer that appears to confirm the taxpayer is entitled to a tax deduction, it is a deduction that the IRS could challenge upon review. While the IRS has held in a revenue ruling that taxpayers may deduct the cost of lead-based paint removal as a medical expense, the IRS has also required that this removal must occur pursuant to a medical doctor’s recommendation and as a result of certification by local health authorities.¹⁷² If, during a subsequent audit, the IRS later discovered that the taxpayer did not satisfy these requirements, it could take a contrary position to ITA by denying the taxpayer’s claimed deduction.

In this case, ITA simplified the description of the applicable tax law, which was implicit in its questions to the taxpayer, by failing to ask the taxpayer questions about certain factual requirements (a doctor’s recommendation and certification by the health authorities). Perhaps worse yet, the fact that ITA asked the taxpayer in this example a series of detailed and specific questions would only encourage the taxpayer to reasonably assume that he could rely upon the answer provided by ITA. As a result, ITA has led the taxpayer to take a potentially deniable deduction while, at the same time, leading the taxpayer to believe she has met all requirements.

Example 4: Tuxedo Expense. Finally, ITA can deliver taxpayer-favorable deviations as a result of its use of terms and phrases that do not appear in the statutes or regulations. Imagine an individual who serves as a maître d’ (head waiter) at a French restaurant in Chicago and who is required to purchase and wear a tuxedo to work each evening. He last purchased three tuxedos, at a cost of \$7500, in 2017. In 2019, the maître d’ heard from a friend at a competing restaurant that the cost of the tuxedos could be tax-deductible.¹⁷³ The maître d’ quickly visits ITA to inquire about this issue and selects the category,

¹⁷⁰ *Id.* (Beginning with the previous instructions, select “Yes” and “Yes”).

¹⁷¹ *Id.* (Beginning with the previous instructions, select “All” and “None”; then select “None” and “Dependent”; then select “Yes” and “No”).

¹⁷² See Rev. Rul. 79-66, 1979-1 C.B. 114, 1979 WL 50788.

¹⁷³ See I.R.C. § 162(a) (2018); INTERNAL REVENUE SERV., PUBLICATION 529: MISCELLANEOUS DEDUCTIONS 12 (2019).

“Work clothes, protective clothing or uniforms.”¹⁷⁴ After asking a few introductory questions, ITA asks the following question to the maître d’: “Are the clothes suitable for everyday wear?”¹⁷⁵ The maître d’ thinks about this question briefly before clicking “No.”¹⁷⁶ He knows that he only wears the tuxedos to work and would not wear them as “everyday wear.”¹⁷⁷ ITA promptly informs the maître d’, “You can deduct the cost of work clothes and the upkeep of those clothes since you must wear them as a condition of your employment and they are not suitable for everyday wear.”¹⁷⁸ He follows this advice and files an amended tax return for 2017, which includes the tax deduction for the tuxedos.

Even though ITA appears to deliver an unambiguous response that the taxpayer may claim the deduction for his work clothes, this response is not consistent with either the case law or the IRS’s official position. As most teachers and students of basic income tax know, individuals who attempted to claim miscellaneous itemized deduction for work clothing expenses (prior to the suspension of the deduction starting in 2018),¹⁷⁹ were required to meet the requirements of *Pevsner v. Commissioner*.¹⁸⁰ In that case, an employee of an Yves Saint Laurent (YSL) boutique in Dallas, Texas attempted to claim an ordinary and necessary business expense deduction for the cost of YSL clothing that she was required to wear to work.¹⁸¹ The IRS, and later the court, disallowed the deduction because the clothing was “adaptable to general usage as ordinary clothing,” even though the taxpayer was required to purchase the clothing by her employer.¹⁸² Applying an objective standard, the court found that clothing was not deductible because it could be worn for “general usage” by an individual even though the taxpayer did not do so.¹⁸³

When ITA asked the maître d’ in the example above about the tuxedos, it used a phrase that does not appear in the text of

¹⁷⁴ ITA, *supra* note 23 (follow “Can I Claim My Expenses and Miscellaneous Itemized Deductions on Schedule A” hyperlink; then select “begin” and input the tax year “2017” and input income).

¹⁷⁵ *Id.* (from the page in the previous instructions, select “Yes”).

¹⁷⁶ *Id.* (from the page in the previous instruction, select “No”).

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ I.R.C. § 67(g) (2018).

¹⁸⁰ *Pevsner v. Comm’r of Internal Revenue*, 628 F.2d 467, 470–71 (5th Cir. 1980).

¹⁸¹ *Id.* at 469.

¹⁸² *Id.*

¹⁸³ *Id.* at 470–71.

Peusner or statutory or regulatory authority—"everyday wear."¹⁸⁴ This phrase appears to be a simplification of the *Peusner* test and, presumably, is easier for people who are not tax experts to apply than "general usage."¹⁸⁵ Yet this new language could easily cause a taxpayer like the maître d' to consider whether he wears, or could wear, the tuxedos *every day* rather than whether he could wear them to an event where this type of clothing is the norm, such as weddings or other formal events. If the IRS were to audit the maître d', it could reject the business expense deduction by applying the *Peusner* test. In this case, the subtle changes to the relevant judicial test that appear in ITA's questions cause ITA to deliver dubious legal guidance to the taxpayer.

c. *Taxpayer-Adverse Deviations from the Tax Law*

The simplicity inherent in ITA not only can lead to legally questionable answers that benefit taxpayers, but also to those that conflict with taxpayer interests. The following illustrations reveal the double-edged character of automated legal guidance.

Example 5: Teeth Whitening Expenses. Where ITA uses certain facts as a proxy for a more complex determination, it also may incorrectly indicate that a tax deduction or credit is disallowed. Consider a taxpayer who is a cancer survivor and who has experienced several side effects from months of chemotherapy, including discolored patches on her teeth.¹⁸⁶ After receiving approval from her oncologist, the taxpayer spends over \$1,000 on professional teeth whitening services from her dentist in order to address the discoloration. The taxpayer researches whether she can claim a medical expense deduction for the teeth whitening services, which have not been covered by dental insurance. She contacts her friend, an accountant, to inquire about the deduction. Her accountant visits the ITA website and selects the medical and dental expense category of questions. Shortly after the accountant clicks on "Teeth Whitening Expenses," ITA states that, "The teeth whitening expenses are not a deductible expense."¹⁸⁷ After the accountant explains the IRS position, based on ITA's response, the tax-

¹⁸⁴ See *supra* note 195 and accompanying text.

¹⁸⁵ *Peusner*, 628 F.2d at 469.

¹⁸⁶ For discussion, see *Oral Complications of Chemotherapy and Head/Neck Radiation (PDQ®)-Patient Version*, NAT'L CANCER INST. (Apr. 26, 2019), <https://www.cancer.gov/about-cancer/treatment/side-effects/mouth-throat/oral-complications-pdq> [https://perma.cc/G62U-2P7C].

¹⁸⁷ ITA, *supra* note 23 (follow "Can I Deduct My Medical and Dental Expenses?" hyperlink; then select "begin" and "continue"; then input the tax year

payer follows this response and does not attempt to claim the medical expense deduction for the teeth whitening.

Despite the unambiguous nature of ITA's response, the IRS has implied that teeth whitening expenses could be deductible in certain circumstances. In Revenue Ruling 2003-57, the IRS stated that teeth whitening expenses are not deductible medical care where they do not treat discoloration that is "caused by a disfiguring disease or treatment."¹⁸⁸ In other words, if the reason for the procedure is merely to improve the taxpayer's appearance and is not due to a disease or treatment for the disease, then the expense is "cosmetic surgery," which does not fit within the definition of medical care.¹⁸⁹ In the example above, however, the taxpayer did experience tooth discoloration as a result of chemotherapy, which treated the taxpayer's disease, cancer. Yet ITA never asked questions regarding the facts surrounding the teeth whitening expense. Instead, ITA assumed that teeth whitening is a purely cosmetic expenditure. As a result, ITA presented a simplified output—teeth whitening expenses are not deductible—that caused the taxpayer to forgo the medical expense deduction.

Example 6: College Athletic Scholarship. At other times, unfavorable taxpayer responses can occur where ITA fails to describe potential statutory and regulatory exceptions. For example, consider a star high school soccer player who receives a full athletic scholarship to a university with an NCAA Division I team. Under the terms of the scholarship, described in the letter from the university, the student will receive the scholarship as long as she meets eligibility for athletic participation. In addition, the letter informs the student that the university may request that the student not only participate in soccer matches, but also in fundraising and promotional events throughout the academic year and summer. With help from her parents, the student reviews whether the scholarship is reportable as taxable income. She and her parents visit ITA and select the category of questions involving scholarships, fellowships and grants and receive the following question from ITA: "What portion of the scholarship . . . was a payment for services you were required to perform as a condition of receiving the scholarship . . . ?"¹⁹⁰ After considering the requirement

and select "Yes" and "No"; then select "Yes" and "No"; then input marital status and filing status; then select "T" and then select "Teeth Whitening Expenses").

¹⁸⁸ Rev. Rul. 2003-57, 2003-22 I.R.B. 959, 2003 WL 21100704.

¹⁸⁹ See I.R.C. § 213(d)(9) (2018).

¹⁹⁰ ITA, *supra* note 23 (follow "Do I Include My Scholarship, Fellowship, or Education Grant as Income on My Tax Return" hyperlink; then select "begin" and

to participate in soccer matches and fundraising and promotional events, the student selects “All.”¹⁹¹ ITA responds, “Your Scholarship, Fellowship or Grant is taxable,” offering the additional explanation that the scholarship is taxable because it “was received for services you were required to perform.”¹⁹²

Again, ITA delivers a response to the taxpayer’s inquiry that is clear and simple, but that is also at odds with the underlying tax law. In Revenue Ruling 77-263, the IRS considered whether athletic scholarships that required participation in competitions and other events constituted “qualified scholarships,” which are excluded from gross income.¹⁹³ After considering judicial decisions that addressed this issue, the IRS held that an athletic scholarship is not taxable as long as it is “not cancelled in the event the student cannot participate and the student is not required to engage in any other activities in lieu of participating in the sport.”¹⁹⁴ In the example described above, if the university would not cancel or reduce the scholarship if the student could not play due to injury or for other reasons, the scholarship would not be taxable. Yet ITA did not ask any questions regarding the terms of the athletic scholarship. Rather, it prompted the taxpayer to consider only whether the university provided the scholarship “for services.”¹⁹⁵ As a result, ITA could have caused the taxpayer to report as income an item that Congress intended to exempt from taxation.

Example 7: Charitable Contributions. Last, when ITA asks questions without defining terms or providing additional context, it may provide a deviation that is not favorable to the taxpayer. Imagine a taxpayer whose father received treatment at a local hospital for a serious medical injury resulting from an automobile accident. After the medical treatment of the taxpayer’s father, the taxpayer decides to make a charitable contribution to the tax-exempt foundation that receives charitable donations on behalf of the hospital. When making a \$2,000 charitable gift to the hospital foundation, the taxpayer notes

“continue”; then input the tax year and select “Yes” for the inquiry “Scholarships, fellowships, or need-based grants such as the Pell Grant” and “No” for the inquiry “tuition reduction”; then select “Yes” and “Part”).

¹⁹¹ *Id.*

¹⁹² *Id.* (Beginning with the previous instructions, select “All” and “No”).

¹⁹³ See Rev. Rul. 77-263, 1977-2 C.B. 47, 1977 WL 43568. For further discussion, see Richard Schmalbeck & Lawrence Zelenak, *The NCAA and the IRS: Life at the Intersection of College Sports and the Federal Income Tax*, 92 S. CAL. L. REV. 1087, 1125 (2019).

¹⁹⁴ Rev. Rul. 77-263, 1977-2 C.B. 47, 1977 WL 43568.

¹⁹⁵ See *supra* note 190 and accompanying text.

that the gift is in honor of his father (and includes his father's name with the gift). In considering whether he can deduct this gift, the taxpayer visits ITA. ITA asks the taxpayer, "Was your contribution to the qualified organization intended for a specific person, other than for a person in foster care or a student living in your home?"¹⁹⁶ After considering this question, the taxpayer clicks "Yes" because he did intend for his gift to honor a "specific person," his father. ITA quickly informs the taxpayer that "[y]ou are not eligible to claim a deduction for this charitable contribution" because it was "intended for a specific person."¹⁹⁷ After receiving this response and ITA's explanation, the taxpayer decides not to claim the charitable contribution deduction.

In this example, ITA caused the taxpayer to refrain from claiming a deduction to which he was legally entitled as a result of the vague and confusing question that ITA asked when seeking information. ITA's question screen asked if the taxpayer's gift was "intended for a specific person," but did not include any explanation of this term or provide any examples to the taxpayer.¹⁹⁸ By contrast, the written IRS publication on this topic, IRS Publication 526: Charitable Contributions, provides a description of the meaning for this term, including that "[p]ayments to a hospital that are for a specific patient's care or for services for a specific patient" are not deductible as charitable contributions.¹⁹⁹ If the taxpayer had received this additional explanation, he might have concluded that his gift was not "intended for a specific person" because it was not payment for services for his father. Without explanation of all terms in its questions, ITA can cause taxpayers to input responses that lead to deviations from the tax law that are contrary to the taxpayer's interests.

C. Impact of Simplicity and Interactive Tax Assistant

While automated legal guidance can enable administrative agencies to offer clear and simple answers to the public, it can also cause the public to follow responses that deviate from the underlying law. This can also be true of simplicity in tradi-

¹⁹⁶ ITA, *supra* note 19 (follow "Can I Deduct My Charitable Contributions" hyperlink; then select "begin" and "continue"; input the tax year and select "Yes" and "Yes" then select "Yes").

¹⁹⁷ *Id.* (Beginning with the previous instructions, select "Yes").

¹⁹⁸ See *supra* note 196 and accompanying text.

¹⁹⁹ IRS, PUBLICATION 526: CHARITABLE CONTRIBUTIONS 6 (2019).

tional written legal guidance to the public.²⁰⁰ But, as we argue in this subpart, automated legal guidance, such as ITA, creates more powerful and pervasive forms of simplicity than traditional written legal guidance, such as IRS publications, for several reasons: it presents personalized communication; offers even less qualified explanations of the law; and delivers information to requesting individuals almost immediately.

1. *Personalization*

The first distinguishing characteristic of automated legal guidance compared to static publications is that automated legal guidance delivers personalized, rather than generic, information. When taxpayers seek guidance from ITA, they input information in response to a series of questions, such as whether the taxpayer's medical expenses were reimbursed by health insurance. In nearly all cases, the questions use second-person pronouns (i.e., "you" or "yours").²⁰¹ After receiving these inputs, ITA presents the taxpayer with an output that is seemingly personalized to the taxpayer, as it uses second-person pronouns (e.g., "*Your* artificial teeth expenses are a qualified deductible expense.")²⁰²

Behavioral research shows that personalized communication can have a greater impact on recipients' beliefs and actions than generic statements. Online advertisers, political campaign consultants, and telemarketers often use second-person pronouns because they "enhance consumer involvement and brand attitude as a result of increasing the extent that consumers engage in self-referencing."²⁰³ Similarly, marketing researchers have found that when a solicitation contains the individual's name in the subject line, individuals are significantly more likely to open an e-mail and ultimately respond positively to the solicitation.²⁰⁴ Part of the motivation behind personalization of guidance, whether by government or private-sector actors, is to induce reliance and satisfaction from

²⁰⁰ See, e.g., IRS, PUBLICATION 502: MEDICAL AND DENTAL EXPENSES 5 (2020) [hereinafter PUBLICATION NO. 502] (stating that "[y]ou can include in medical expenses the amount you pay for artificial teeth").

²⁰¹ See section II.B.2.

²⁰² *Supra* note 166 and accompanying text (emphasis added).

²⁰³ Ryan E. Cruz, James M. Leonhardt, & Todd Pezzuti, *Second Person Pronouns Enhance Consumer Involvement and Brand Attitude*, 39 J. INTERACTIVE MARKETING 104, 104 (2017).

²⁰⁴ See, e.g., Navdeep S. Sahni, S. Christian Wheele, & Pradeep Chintagunta, *Personalization in Email Marketing: The Role of Non-Informative Advertising Content*, 37 MARKETING SCI. 1, 5 (2016) (finding that including the name in the subject line "increased the probability of the recipient opening the email by 20%").

users.²⁰⁵ By requiring users to input personal information, such as their own adjusted gross income and other personal details, and presenting outputs with personalized language, federal agencies attempt not only to provide relevant information, but also to convince users that this information has directly addressed their inquiries.

Automated legal guidance, such as ITA, achieves personalization more effectively than static written publications. Even though IRS publications use second-person pronouns, taxpayers know that these publications are written for every reader in a generalized way. The text on the page may use the words “you” or “your,” but does not vary in any way depending upon the specific reader.²⁰⁶ As communication research has shown, personalized messages, including those that use second-person pronouns, are not always more effective than generalized messages.²⁰⁷ The key feature that causes advertisers to affect consumers’ behavior is that the recipient of the information perceives that it is personalized. ITA, for instance, asks a series of questions that solicit specific information, including personal details that involve issues such as the user’s income, marital status and children, before it provides guidance to the taxpayer.²⁰⁸ Questions that seek personal information and that are directly addressed to the taxpayer, consequently, may cause ITA to achieve perceived, even if not actual, personalization.²⁰⁹ This may increase the impact of automated legal guidance and accompanying simplicity.

2. *Non-qualified Statements*

Another reason why simplicity in automated legal guidance may be particularly impactful is that automated legal guidance offers non-qualified answers to inquiries. For instance, when the taxpayer in Example 2, discussed above, sought information regarding expenses for artificial teeth, he was interested in learning whether he could qualify for a tax

²⁰⁵ See *id.* at 32–33.

²⁰⁶ See, e.g., PUBLICATION NO. 535, *supra* note 144, at 6 (“Generally, *you* can deduct the full amount of a business expense if it meets the criteria of ordinary and necessary and it is not a capital expense.” (emphasis added)).

²⁰⁷ See Cong Li, *When Does Web-Based Personalization Really Work? The Distinction Between Actual Personalization and Perceived Personalization*, 54 COMPUTERS HUM. BEHAV. 25, 25 (2016) (finding that “perceived personalization, instead of actual personalization, is the underlying psychological mechanism of message effectiveness”).

²⁰⁸ See, e.g., *supra* note 164 and accompanying text (“Do you know the amount of adjusted gross income reported on this return?”).

²⁰⁹ See Li, *supra* note 207, at 28–32.

deduction or credit.²¹⁰ Once the taxpayer selected “artificial teeth” from the list of possibilities under medical and dental expenses, ITA responded with a non-qualified statement that the expense is deductible.²¹¹ Despite the possibility that the IRS could characterize the expense as cosmetic surgery, ITA did not provide a qualified answer, such as that the expense is deductible as long as the procedure was “necessary to ameliorate a deformity arising from, or directly related to, a congenital abnormality, a personal injury resulting from an accident or trauma, or disfiguring disease.”²¹² This formulation would have alerted the taxpayer that he would have to satisfy additional statutory or regulatory requirements in order to claim a medical expense deduction. Instead, whenever taxpayers complete the questions that ITA poses, ITA takes a binary approach (e.g., deductible or non-deductible) and presents its response as the “answer.”²¹³

IRS publications, in contrast, often include general discussion of the requirements and exceptions that apply to specific tax treatment. For example, IRS Publication 502 uses plain language to describe the tax treatment of medical expenses.²¹⁴ It explains that artificial teeth expenses are deductible, but, in text that is nearby, describes rules regarding cosmetic surgery.²¹⁵ The publication informs readers that “[g]enerally, you can’t include in medical expenses the amount you pay for cosmetic surgery.”²¹⁶ It then provides a number of examples, involving breast cancer surgery and others, that describe when an expense is, and is not, cosmetic surgery. IRS publications at least offer the possibility that a taxpayer would read text addressing both artificial teeth and cosmetic surgery and conclude that additional research is necessary.

The tendency of ITA to issue even less qualified responses causes it to exhibit greater simplicity than IRS publications. By design, ITA provides taxpayers with simple and direct “answers” that taxpayers can follow, removed from broader legal context. This makes it easier for taxpayers to get answers that they can apply easily and upon which they feel they can rely. But, it also makes it even less likely that users of automated

210 See *supra* notes 163–166 and accompanying text.

211 See *supra* note 163.

212 I.R.C. § 213(d)(9)(A) (2018).

213 See *supra* section II.B.2.

214 See PUBLICATION NO. 502, *supra* note 200, at 15.

215 *Id.* at 5, 15.

216 *Id.* at 15.

legal guidance will be responsive to nuances and complexities in the underlying law.

3. *Immediate Responses*

Finally, automated legal guidance can deliver information more immediately than static written publications. When taxpayers start the process of submitting information to ITA, the initial screen provides an “[e]stimated completion time” for each question.²¹⁷ For questions about basic topics, such as filing dates and the amount of the applicable standard deduction, the estimate is less than ten minutes,²¹⁸ and for more complex topics, such as the deductibility of medical and dental expenses, the estimate is fifteen minutes.²¹⁹ If taxpayers respond to questions quickly, the total time needed to receive an answer to the initial inquiry can be significantly less than these estimates. IRS publications, in contrast, can number in the hundreds of pages and require readers to consider numerous exceptions, requirements, and examples.²²⁰ Even the online versions of IRS publications contain limited hyperlinks to other IRS publications, which require additional reading and review.²²¹

Individuals may rely more on automated legal guidance than other types of advice as a result of its ability to deliver information promptly and without charge. Marketing research shows that consumers value automated systems when they deliver requested information in as little time as possible.²²² Federal government agencies have attempted to emulate the private sector in developing automated systems.²²³ One effect of the immediate nature of ITA’s responses is that it may counteract taxpayers’ interest in conducting additional research or contacting third-party advisors for advice. In contrast, if the taxpayer reads apparently conflicting statements regarding a deduction in an IRS publication (such as a statement that artificial teeth are deductible but cosmetic surgery is

²¹⁷ See, e.g., *supra* note 164 (providing an estimated completion time of fifteen minutes for the question whether “I [can] Deduct My Medical and Dental Expenses”).

²¹⁸ See, e.g., ITA, *supra* note 23 (select the hyperlink “How Much is My Standard Deduction?”) (providing an estimated completion time of five minutes).

²¹⁹ See *supra* note 217.

²²⁰ See, e.g., IRS, PUBLICATION 17: YOUR FEDERAL INCOME TAX (2020) (277 pages).

²²¹ See *Publications Online*, IRS (July 25, 2020), <https://www.irs.gov/publications> [<https://perma.cc/V4FU-F9WB>].

²²² See, e.g., JESPER FALKHEIMER & MATS HEIDE, STRATEGIC COMMUNICATION: AN INTRODUCTION (2018).

²²³ See *supra* note 42 and accompanying text.

not), the taxpayer might be encouraged to ask an accountant for guidance (assuming the taxpayer could afford this service). For this and all the other reasons discussed above, automated legal guidance can provide the government with greater power to shape individuals' understanding of, and compliance with, the law than static publications.

III

HOW SHOULD AUTOMATED LEGAL GUIDANCE EVOLVE?

The prior part described in detail how one government agency, the IRS, is directing hundreds of thousands of users to automated legal guidance every year. It also explored how this decision increases the government's use of simplicity. This part examines, more broadly, some of the normative issues underlying the government's use of automated legal guidance, both when powered by simplicity, as is presently the case, and in more sophisticated forms the government may develop that move beyond the use of simplicity.

A. Reaching Different User Populations

One of the first questions government officials considering automated legal guidance must confront is how to direct it to the right populations. Part of the reason why complexity exists in the law is to more accurately target the right legal dictates to the right people in the right situations.²²⁴ This is an old concept, which grows out of the literature regarding rules and standards. Generalized legal standards, which are not tailored to particular situations, have fewer details, and thus are less complicated to understand at a high level, but they also yield uncertainty about how the standard applies in a given situation.²²⁵ Legal rules add detail about how the law will apply in given situations, thereby increasing certainty and the fit between the law and particular situations.²²⁶ But, the more de-

²²⁴ See, e.g., Louis Kaplow, *A Model of the Optimal Complexity of Legal Rules*, 11 J.L. ECON. & ORG. 150, 150 (1995) (explaining that "[r]ules that are more complex can be tailored to acts more precisely, thereby allowing better control of behavior").

²²⁵ See, e.g., Casey & Niblett, *supra* note 77, at 1409 (offering the conventional wisdom that "[u]ncertainty about the content of a law is greater with standards than with simple rules").

²²⁶ Kaplow, *supra* note 224, at 160 (describing how increased complexity of rules allows for more precise tailoring).

tail is added, the less comprehensible it may become, ultimately exceeding human comprehension.²²⁷

When automated legal guidance relies on simplicity to make otherwise complex law easily communicable, it tends to do so by reducing both the uncertainty that would be inherent in standards and the complexity that would flow from many rules. For instance, when asking ITA whether expenses for tuxedos are tax deductible, the fictional maître d', discussed earlier, responds to ITA's questions about whether the tuxedos are "everyday wear" and receives a response from ITA that they are deductible business expenses, even though the governing legal standard is much less clear and application of the standard in particular situations would actually yield a different answer.²²⁸

This reduction in both the uncertainty and complexity of the law may be appropriate for certain user populations. In such populations, the benefit of tailoring the law through application of uncertain standards or proliferation of many detailed rules may be outweighed by the inordinate cost of understanding and applying the law. For instance, in the tax context, for individuals with low income, the cost of applying uncertain or complex tax rules may be too high. Such taxpayers tend to have more limited opportunities to obtain outside private counsel and, like most taxpayers, are often unable to understand the complex tax law themselves.²²⁹ Moreover, when lower income is at stake, careful tailoring of the law to each situation may be less important from a revenue-raising perspective, since less revenue is at stake. Automated legal guidance may thus reduce the costs of applying the tax law in a welfare maximizing way.

However, when using automated guidance for low-income taxpayers, it is also important not to systematically increase their tax liability. This is because of the declining marginal utility of income, which suggests that the lower income an individual has, the higher the marginal utility of a dollar.²³⁰

²²⁷ See, e.g., David A. Weisbach, *Formalism in the Tax Law*, 66 U. CHI. L. REV. 860, 868 (1999) ("Too many lines means the map is incomprehensible.").

²²⁸ See *supra* notes 173–185 and accompanying text.

²²⁹ See, e.g., Emily Cauble, *Accessible Reliable Tax Advice*, 51 U. MICH. J.L. REFORM 589, 591 (2018) (exploring how "the task of accurately determining and reporting tax consequences is much more daunting" for "unsophisticated taxpayers who lack financial resources").

²³⁰ See, e.g., Joseph Bankman & David A. Weisbach, *The Superiority of an Ideal Consumption Tax Over an Ideal Income Tax*, 58 STAN. L. REV. 1413, 1421 (2006) (explaining and applying conventional wisdom about declining marginal utility to tax liability). *But see*, e.g., Sarah B. Lawsky, *On the Edge: Declining*

Intuitively, if it is particularly important to decrease the cost of applying the tax law for low-income taxpayers, it is equally, if not more, important to do so without increasing their tax liability in the process, because this population can least afford to pay more. The simplicity inherent in automated legal guidance is thus not only particularly important for low-income taxpayers, but also should be applied in a way that defaults to a pro-taxpayer position.

But the use of simplicity, especially in a taxpayer-favorable fashion, is not the best fit for all taxpayers. More sophisticated, higher-income taxpayers are more likely to be able to bear higher complexity or uncertainty in the law at lower costs. Among other ways, they can do this through access to private counsel, who can reduce uncertainty and complexity in the law through legal analysis.²³¹ Moreover, simply by virtue of having higher income, more tax revenue is at stake with higher-income taxpayers, making the costs for the government of offering simplicity to such taxpayers higher, to the extent that simplicity offers pro-taxpayer defaults. For more sophisticated, higher-income taxpayers, the combination of uncertainty and complex rules in the underlying law may reach more appropriate results than taxpayer-favorable simplicity.

The key question is how to ensure that the simplicity inherent in current automated legal guidance is directed toward the right populations. If it can be appropriately targeted, automated legal guidance may increase welfare. If not, it may decrease the cost of applying the law, but at a greater cost to the legal system. Many scholars have recognized that targeting different legal rules and regimes to different populations may be welfare enhancing, but have struggled with how to maintain a separating equilibrium among various populations, such that the right populations get the right legal rules and regimes.²³² Automated legal guidance raises this same set of issues and problems.

Marginal Utility and Tax Policy, 95 MINN. L. REV. 904, 906–07 (2011) (questioning conventional wisdom).

²³¹ See, e.g., Peter H. Schuck, *Legal Complexity: Some Causes, Consequences, and Cures*, 42 DUKE L.J. 1, 32–33 (1992) (discussing literature regarding role of lawyers in interpreting complex and indeterminate law and resulting lawyerly perpetuation of such law).

²³² See, e.g., Alex Raskolnikov, *Revealing Choices: Using Taxpayer Choice to Target Tax Enforcement*, 109 COLUM. L. REV. 689, 715–17 (2009) (exploring the possibility of separate tax enforcement regimes for different types of taxpayers and examining, among other things, how to keep different types of taxpayers in the different regimes).

Interestingly, however, at least as currently carried out in ITA, the tax system has settled on a resolution to this problem that seems somewhat well-designed to provide the bulk of the benefit of simplicity to lower-income populations (or at least not to particularly high-income populations). The reason is as follows. ITA focuses on individual income tax issues that are likely to be of particular importance to the average taxpayer, or even the relatively lower-income taxpayer, rather than focusing on complex tax issues that are likely to be important to higher-income taxpayers. On its home page, for instance, ITA offers that the most popular topics are:

- Do I Need to File a Tax Return?
- Whom May I Claim as a Dependent?
- How Much Is My Standard Deduction?
- What Is My Filing Status?
- Am I Eligible to Claim an Education Credit?²³³

By and large, these are basic tax issues that are likely to be more important for average or lower-income taxpayers. The standard deduction, for instance, would not be used by high-income taxpayers with high itemized deductions.²³⁴ And high-income taxpayers would surely be required to file,²³⁵ making the question about whether one has to file a tax return one for average or lower-income taxpayers.

While some of the other questions are likely to apply regardless of one's income level, they are likely to be significantly more important in terms of value the lower one's income. For instance, while a deduction for dependents is generally available to all taxpayers who have qualifying dependents (in tax years where this deduction is in effect),²³⁶ the deduction is phased out for taxpayers whose income exceeds a threshold amount.²³⁷ Even putting aside the phaseout, and assuming that the same deduction were available to low and high-income taxpayers, the same deduction amount would be a much less significant amount of money, relative to total tax liability or income, for high-income taxpayers than for low-income taxpayers. This makes questions about the deduction inversely im-

²³³ ITA, *supra* note 23 .

²³⁴ See I.R.C. § 63(b) (2018) (providing standard deduction for taxpayers who do not elect to itemize).

²³⁵ See I.R.C. § 6012 (2018) (only requiring individuals to file income tax returns if their gross income equals or exceeds the exemption amount plus the applicable standard deduction).

²³⁶ I.R.C. § 151(c) (2018). However, the 2018 tax reform suspended dependent deductions for taxable years 2018–2025. I.R.C. § 151(d)(5) (2018).

²³⁷ *Id.* § 151(d)(3) (2018).

portant relative to income.²³⁸ Likewise, education credits are phased out for taxpayers above certain income thresholds²³⁹ and, in any event, are more important the lower one's income.²⁴⁰ And one's filing status, while a potentially universally applicable question, is also going to be most critical to individuals with lower income at their disposal.²⁴¹ Other topics covered by ITA similarly focus on basic, individual income tax questions, which are often going to be the focus of average taxpayers, not high-income taxpayers with complicated tax situations.

In contrast, ITA does not address topics that would be common questions for high-income taxpayers with particularly complicated tax situations. For instance, ITA does not cover topics related to complex entity taxation, such as corporate or partnership taxation.²⁴² It does not cover topics related to estate taxation or gift tax, both of which are relevant only for taxpayers with enough disposable income to be subject to the estate or gift tax system.²⁴³ It does not even cover topics related to capital gains and losses or dividend taxation.²⁴⁴ All of these topics and more, which are central to the tax returns of higher-income taxpayers, are simply not covered by ITA.

Of course, some might argue that the lack of coverage for many of the issues that high-income taxpayers face, such as capital gains, or gift tax, may not be an intentional feature of ITA, but rather a bug. In other words, perhaps the IRS would like to cover more topics if possible, but resource constraints prevent the IRS from covering all of the topics it would like. As an initial matter, it seems unlikely that the extensive coverage of issues of importance to average taxpayers and the general exclusion of issues of importance to high-income taxpayers is accidental. Indeed, since ITA grew out of the IRS's effort to have its customer service representatives offer consistent information over the IRS's help telephone line,²⁴⁵ it seems to be the case that ITA has, in fact, been designed with the needs of

²³⁸ See, e.g., Joseph Bankman & Thomas Griffith, *Social Welfare and the Rate Structure: A New Look at Progressive Taxation*, 75 CALIF. L. REV. 1905, 1908 (1987) (exploring progressive nature of "demogrants").

²³⁹ See, e.g., I.R.C. § 25A(d) (2018) (phasing out American Opportunity Tax Credit and Lifetime Learning Credit for taxpayers whose income exceeds a certain threshold).

²⁴⁰ See, e.g., *supra* note 238 and accompanying text.

²⁴¹ See *id.*

²⁴² ITA, *supra* note 23.

²⁴³ *Id.*

²⁴⁴ *Id.*

²⁴⁵ See *supra* notes 115–118 and accompanying text.

average or lower-income taxpayers in mind. In any event, the IRS's intentions in this regard are not what is important. What is important is the effect: by focusing on issues that are more likely to be important to taxpayers who are more likely to need simplicity, ITA manages to target the benefits of simplicity appropriately, while limiting simplicity from being used in populations in which simplicity may be welfare-reducing.

This model suggests a direction the IRS can take as it continues to develop ITA. While ITA currently covers many topics that are likely to be important for average taxpayers, the IRS could continue to add topics to ITA, such as the earned income tax credit, the child and dependent care credit, and other similar, often notoriously complex provisions, that affect many low-income individuals. For the reasons discussed above, when adding these topics, especially if they involve uncertainty, the IRS should design ITA's answers to adopt pro-taxpayer defaults.

As for automated legal guidance more generally, the analysis above suggests that the government's goal should not necessarily be expanding automated legal guidance to every possible population. Rather, to the extent that simplicity remains a feature of automated legal guidance, it may make sense to offer automated legal guidance specifically for those populations for whom understanding the law is likely to be overly burdensome. This may be done in other areas as well by offering automated legal guidance with respect to certain, but not all, legal topics. Automated legal guidance that is more likely to be useful for certain populations may help allocate simplicity to the populations that will benefit from it most, without eliminating the benefits of the underlying, uncertain legal standards and complex legal rules.

B. Administrative Process

However automated legal guidance evolves, it is essential to consider what the administrative process around such guidance will be. When agencies offer automated legal guidance, they are inevitably making decisions about what the law is, or at least how it is going to be represented to the public, in a variety of situations. The question is how to ensure that such decisions are infused with legitimating values such as transparency, accountability, and non-arbitrariness.²⁴⁶

²⁴⁶ See, e.g., Shu-Yi Oei & Leigh Osofsky, *Legislation and Comment: The Making of the § 199A Regulations*, 69 EMORY L.J. 209, 220-21 (2019) (noting the legitimacy problem at the heart of administrative decisions).

In administrative law, the classic solution for ensuring transparency, accountability, and non-arbitrariness is to require agencies to use notice-and-comment procedures to promulgate so-called legislative rules.²⁴⁷ Legislative rules include agency statements of law that can bind both the agency and the public.²⁴⁸ Notice-and-comment procedures are supposed to instill legislative rules with legitimacy that may otherwise be lost by their promulgation outside of Congress.²⁴⁹

However, the longstanding problem with this solution is that it is often exceedingly difficult to draw the line between legislative rules, which formally bind both the agency and the public, and other agency statements about the law that are not subject to notice-and-comment requirements.²⁵⁰ The latter include interpretive rules (which, in theory, only provide the agency's interpretation of the law) and policy statements (which, in theory, only provide the agency's discretionary policies about the law, such as enforcement policies).²⁵¹ Courts have time and again underscored the difficulty of distinguishing between these different categories.²⁵² And, as a long line of academic literature has explored, agencies can often offer what seem to be interpretive rules and policy statements, but use them to de facto bind the public, for instance because regulated parties will often hew to agency positions to avoid back-end enforcement.²⁵³

Automated legal guidance falls into this morass. As an example, when the IRS tells taxpayers on ITA that artificial

²⁴⁷ See, e.g., *id.* (explaining that the conventional wisdom is that notice-and-comment procedures can help resolve the administrative legitimacy problem); *cf.*, e.g., ENGSTROM ET AL., *supra* note 11, at 7 (arguing that one key issue is how to “adapt existing principles of administrative law” to “modulate . . . use of AI” by government agencies). For further discussion, see Kristin E. Hickman, *Unpacking the Force of Law*, 66 VAND. L. REV. 465, 473–509 (2013).

²⁴⁸ See, e.g., *Chrysler Corp. v. Brown*, 441 U.S. 281, 295 (1979) (“It has been established in a variety of contexts that properly promulgated, substantive agency regulations have the ‘force and effect of law.’”); Michael Asimow, *Nonlegislative Rulemaking and Regulatory Reform*, 1985 DUKE L.J. 381, 383 (“A legislative rule is essentially an administrative statute—an exercise of previously delegated power, new law that completes an incomplete legislative design.”).

²⁴⁹ See Oei & Osofsky, *supra* note 246.

²⁵⁰ See 5 U.S.C. § 553 (2018).

²⁵¹ *Id.* § 553(b)(3)(A).

²⁵² See, e.g., *Cnty. Nutrition Inst. v. Young*, 818 F.2d 943, 946 (D.C. Cir. 1987) (“The distinction between legislative rules and interpretative rules or policy statements has been described at various times as ‘tenuous,’ ‘fuzzy,’ ‘blurred,’ and, perhaps most picturesquely, ‘enshrouded in considerable smog.’”) (citations omitted).

²⁵³ See, e.g., Anthony, *supra* note 70, at 1332–55 (1992) (exploring agency uses of nonlegislative rules to bind the public); Hickman, *supra* note 73.

teeth are deductible, it seems to be making a statement of the law that, in some ways, meets the definition of a legislative rule. For instance, the D.C. Circuit Court of Appeals has, on at least one occasion, adopted the reasoning of Robert Anthony that, “if the relevant statute or regulation ‘consists of vague or vacuous terms—such as ‘fair and equitable,’ ‘just and reasonable,’ ‘in the public interest,’ and the like—the process of announcing propositions that specify applications of those terms is not ordinarily one of interpretation, because those terms in themselves do not supply substance from which the propositions can be derived.”²⁵⁴ Applying this reasoning in the context of ITA, when the tax statute provides a deduction for medical care, accompanied by the vague definition that medical care includes amounts paid “for the diagnosis, cure, mitigation, treatment, or prevention of disease, or for the purpose of affecting any structure or function of the body,”²⁵⁵ ITA’s specific advice that artificial teeth are a deductible medical expense in some ways may appear to be a legislative rule.

However, there are also many reasons to suggest that, if anything, ITA’s advice about artificial teeth is merely interpretive. In other contexts, the D.C. Circuit has emphasized that simply “suppl[ying] crisper and more detailed lines than the authority being interpreted” does not definitively establish that a legislative rule exists because, “[i]f that were so, no rule could pass as an interpretation of a legislative rule unless it were confined to parroting the rule or replacing the original vagueness with another.”²⁵⁶ Instead, courts may look to factors such as “(1) whether in the absence of the rule there would not be an adequate legislative basis for enforcement action or other agency action to confer benefits or ensure the performance of duties, (2) whether the agency has published the rule in the Code of Federal Regulations, (3) whether the agency has explicitly invoked its general legislative authority, or (4) whether the rule effectively amends a prior legislative rule.”²⁵⁷ In the case of ITA and the example of artificial teeth guidance specifically, the IRS *would* have authority under the governing statute to decide whether artificial teeth do or do not constitute a medical expense, the IRS has *not* published the ITA guidance in the

²⁵⁴ Catholic Health Initiatives v. Sebelius, 617 F.3d 490, 495 (D.C. Cir. 2010) (quoting Robert A. Anthony, “Interpretive” Rules, “Legislative” Rules and “Spurious” Rules: Lifting the Smog, 8 ADMIN. L.J. AM. U. 1, 6 n.21 (1994)).

²⁵⁵ I.R.C. § 213(d)(1)(A) (2018).

²⁵⁶ Am. Mining Cong. v. Mine Safety & Health Admin., 995 F.2d 1106, 1112 (D.C. Cir. 1993).

²⁵⁷ *Id.*

Code of Federal Regulations, has *not* invoked its general legislative authority in offering ITA, and does *not* claim that ITA effectively amends a prior legislative rule. To the contrary, the IRS goes out of its way to offer a disclaimer on every ITA opening page, indicating that ITA “[a]nswers do not constitute written advice in response to a specific written request of the taxpayer within the meaning of section 6404(f) of the Internal Revenue Code,”²⁵⁸ a provision that deals with avoiding penalties based on provision of written advice by the IRS. Based on this analysis, ITA’s statements about artificial teeth seem, if anything, interpretive. This conclusion is at least consistent with the fact that the IRS, as a matter of practice, does not subject ITA or any of its accompanying guidance to notice-and-comment procedures.²⁵⁹

And yet, despite the arguments that ITA, if anything, provides interpretive, not legislative, guidance, and that the IRS does not, in fact, subject ITA or its guidance to notice-and-comment procedures, many taxpayers will rely on ITA in filling out their tax returns. Indeed, this is consistent with ITA’s stated purpose of “provid[ing] answers to a number of tax law questions” such as whether “you can deduct expenses on your tax return.”²⁶⁰ The fact that taxpayers will often rely on ITA’s guidance in filling out their tax returns, notwithstanding lack of clarity, at best, about whether such guidance is a legislative rule, and the lack of notice-and-comment procedures, makes ITA a classic example of the inadequacy of the existing administrative law framework to ensure that automated legal guidance receives appropriate, legitimating process.

Indeed, in some ways, ITA illustrates how the automated nature of legal guidance may exacerbate the already endemic problem of ensuring appropriate process around agency statements of the law. First, as with ITA, automated legal guidance is often subject to even less oversight than other forms of agency legal guidance. IRS publications undergo a lengthy review process by groups within the IRS, such as the Tax Forms

²⁵⁸ See, e.g., IRS, *Can I Deduct My Medical and Dental Expenses*, (Feb. 28, 2020), <https://www.irs.gov/help/ita/can-i-deduct-my-medical-and-dental-expenses> [<https://perma.cc/EHY6-QEKF>].

²⁵⁹ See IRS, INTERNAL REVENUE MANUAL § 1.1.13.6 (2018).

²⁶⁰ ITA, *supra* note 23 (“The Interactive Tax Assistant (ITA) is a tool that provides answers to a number of tax law questions. It can determine if a type of income is taxable, if you’re eligible to claim certain credits, and if you can deduct expenses on your tax return. It also provides answers for general questions, such as determining your filing status, if you can claim dependents, if you have to file a tax return, etc.”).

and Publications and Customer Assistance, Relationships and Education groups. Proposed changes to IRS documents are reviewed and discussed and a written record of any changes exists, at least internally.²⁶¹ In contrast, automated guidance like ITA does not undergo such forms of review. Second, making matters more problematic, decisions about automated guidance are often being made at the hands of computer coders, in a way that legal officials within the agency, much less the public, may not be fully equipped to understand.²⁶² Each of the categories on ITA requires taxpayers to respond to ten to fifteen separate questions before reaching the answer screen.²⁶³ Computer programmers could make adjustments, large or small, to the wording or ordering of the questions without causing individuals outside the IRS to realize that these changes have occurred.

However, while, in some ways, the automated nature of systems like ITA seem to exacerbate problems already endemic to the administrative guidance framework, in other ways, it also seems to pave a fruitful path forward. While, as discussed above, trying to distinguish between legislative rules and other forms of guidance has long proved problematic,²⁶⁴ a promising reform may be to subject all automated legal guidance to some form of centralized oversight, review, and public comment, regardless of whether such automated guidance is classified as a legislative rule. The justification for such an approach is that automation necessarily means that, once a decision is embedded in code, it can be used over and over again by regulated parties to apply the law. Critically, the potential influence that comes from easy replicability and thus likely repeated use by many regulated parties should require some systematized and transparent oversight and public engagement, regardless of whether the guidance attempts to bind or merely advise the public. At the least, this oversight and public engagement may consider deep-seated questions such as whether, as suggested above, automated legal guidance should concentrate its efforts on certain groups and avoid others and what, if anything,

²⁶¹ See INTERNAL REVENUE MANUAL, *supra* note 259.

²⁶² Cf., e.g., Deirdre K. Mulligan & Kenneth A. Bamberger, *Saving Governance-by-Design*, 106 CALIF. L. REV. 697, 719 (2018) (explaining concern that “governance by way of automated processes is essentially tantamount to rulemaking by programmers,” which is a “troubling delegation of legislative power that fails to satisfy norms of administrative process including transparency, participation, and legitimacy” (internal quotation marks omitted)).

²⁶³ See subpart II.B.

²⁶⁴ See *supra* notes 250–253 and accompanying text.

should be the default tendency of such guidance in cases of ambiguity.

In a similar vein, in recognition of the problems with the legislative rule framework, presidential administrations in recent years have increasingly called upon administrative agencies to use greater oversight, review, and public comment for significant agency statements (or “guidance documents”), whether or not they are formally classified as legislative rules.²⁶⁵ These executive orders have, for some time, subjected “economically significant” guidance documents to such procedures, with “economically significant” guidance documents including any “guidance document[s] that may reasonably be anticipated to lead to an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy or a sector of the economy.”²⁶⁶ The most recent executive order, released in October 2019, builds on prior iterations by, among other things, requiring agencies to create an online database of all their guidance documents, clearly state that guidance documents do not bind the public, and provide a fair amount of process and public engagement for the creation of “significant guidance documents.”²⁶⁷ The definition of “significant guidance documents” now includes not only guidance documents anticipated to “lead to an annual effect on the economy of \$100 million or more,” but also those that “raise novel legal or policy issues arising out of legal mandates.”²⁶⁸

But these recent executive orders are, by themselves, likely insufficient to solve the persistent problem of insufficient process for agency guidance. As Nicholas Parrillo has detailed, the number of agency guidance documents that have been deemed to be “significant” as a result of having “an annual effect on the economy of \$100 million or more” has been infinitesimally

²⁶⁵ See, e.g., Final Bulletin for Agency Good Guidance Practices, 72 Fed. Reg. 3432 (Jan. 25, 2007) (establishing “policies and procedures for the development, issuance, and use of significant guidance documents by Executive Branch departments and agencies”) [hereinafter Final Bulletin]; Exec. Order No. 13,422, 3 C.F.R. 191 (2008), *revoked by* Exec. Order No. 13,497, 3 C.F.R. 218 (2010) (“[f]urther amend[ing]” a prior executive order on “[r]egulatory [p]lanning and [r]eview”); Memorandum from Peter R. Orszag, Dir. Of Office of Mgmt. & Budget, (Mar. 4, 2009) (seeking to “clarify the current status of OMB review of agency actions, including guidance documents”).

²⁶⁶ Final Bulletin, *supra* note 265, at § I(5).

²⁶⁷ Exec. Order No. 13,891, 85 Fed. Reg. 12,805 (Mar. 4, 2020), <https://www.whitehouse.gov/presidential-actions/executive-order-promoting-rule-law-improved-agency-guidance-documents/> [<https://perma.cc/5HUL-X4GR>]. This was the most recent executive order on the subject as of July 25, 2020.

²⁶⁸ *Id.* at § 2(c)(i), (iv).

small.²⁶⁹ And, as he pointed out in reaction to the most recent executive order, the addition of guidance documents that “raise novel legal or policy issues arising out of legal mandates,” *could* be impactful, but leaves a lot of ambiguity and discretion regarding what documents count.²⁷⁰

These longstanding efforts to create more protective processes, along with the accompanying difficulties, underscore the utility of adding a requirement of additional processes for automated legal guidance. To be sure, there are likely to be definitional questions about what counts as “automated,” which will have to be examined and resolved. And requiring administrative process only of automated guidance would surely be underinclusive—agencies can and still will make important legal pronouncements outside of automated processes. But the suggestion here is not to make automation the only trigger for adequate administrative process. The traditional, legislative rule criterion would continue to require notice-and-comment procedures, as mandated by the Administrative Procedure Act,²⁷¹ and future administrations would be free to keep and add additional supplemental triggers for enhanced administrative process, as the recent executive orders have done. Rather, the claim here is that, especially as agencies increasingly turn to automated legal guidance to efficiently advise the public, using automation as an additional trigger for greater oversight, review, and public engagement may not only be a salutary, but also a critical, way of assuring that agency guidance is instilled with legitimacy.

C. Penalties

Even when automated legal guidance is infused with sufficient administrative process, a separate issue is what the penalty regime should be. Should penalties for legal noncompliance apply even where individuals have followed advice provided by automated legal guidance? Automated legal guidance systems are designed to collect information from users and then provide information to help those users make legal decisions. In many cases, these systems deliver clear

²⁶⁹ See Nicholas R. Parrillo, *Should the Public Get to Participate Before Federal Agencies Issue Guidance? An Empirical Study*, 71 ADMIN. L. REV. 57, 104–05 (2019).

²⁷⁰ See Nicholas R. Parrillo, *The New Executive Orders on Guidance: Initial Reactions*, YALE J. REG.: NOTICE & COMMENT (Oct. 10, 2019), <https://yalejreg.com/nc/the-new-executive-orders-on-guidance-initial-reactions-by-nicholas-r-parrillo/> [<https://perma.cc/DSH8-6X3U>].

²⁷¹ See 5 U.S.C. § 553 (2018).

answers to questions about deadlines, filing requirements, eligibility for benefits or services and other straightforward issues.²⁷² But when the legal issues rely upon factual assumptions or involve ambiguous legal standards, automated legal guidance may provide advice that is at odds with the actual law.²⁷³

As we show in this subpart, there are important differences between automated legal guidance and other informal guidance, such as oral advice, that government agencies provide. Policymakers, we argue, should recognize and address these differences by making changes to the structure of both penalties for legal noncompliance and the design of automated legal guidance systems.

ITA, as discussed earlier, provides a vivid illustration of the difficulty that taxpayers would face if they attempted to use automated legal guidance to assert a formal defense against penalties for legal noncompliance. Unlike private letter rulings issued to specific taxpayers, the IRS does not consider statements by ITA to be written advice upon which taxpayers can rely.²⁷⁴ On the ITA website, the IRS explicitly informs taxpayers that the penalty abatement provision (section 6404(f) of the Internal Revenue Code), which applies when the IRS provides erroneous advice to taxpayers, does not apply to any statements provided by ITA.²⁷⁵ In addition, if the IRS applies one of the accuracy-related tax penalties, such as the tax penalty for negligence, the taxpayer is not permitted to defend against this penalty by claiming a “reasonable basis” for the position as a result of any statements by ITA.²⁷⁶ And while it is technically possible that a taxpayer could attempt to point to statements made by ITA to assert a “reasonable cause and good faith” defense against accuracy-related tax penalties, as will be discussed below, this possibility is remarkably limited.²⁷⁷

The absence of defenses against tax penalties where taxpayers rely upon automated legal guidance, compared to other types of advice, raises significant fairness concerns. By frequently informing taxpayers that ITA “provides answers” to tax law questions, the IRS seeks to gain confidence from taxpayers.²⁷⁸ At the same time, the IRS has reduced taxpayers’ ability

²⁷² See *supra* subsection II.B.2.a.

²⁷³ See *supra* subsections II.B.2.b, c.

²⁷⁴ See *supra* note 258 and accompanying text.

²⁷⁵ See *id.*; see also I.R.C. § 6404(f) (2018).

²⁷⁶ See Treas. Reg. § 1.6662-4(d)(3)(iii) (1997).

²⁷⁷ See *infra* notes 299–303 and accompanying text.

²⁷⁸ See *supra* notes 117–122 and accompanying text.

to seek support through the IRS telephone help line and IRS Taxpayer Assistance Centers.²⁷⁹ As middle- and lower-income individuals are most likely to turn to ITA for help, the inability to assert tax penalties disproportionately affects this group of taxpayers.²⁸⁰ In contrast, wealthy taxpayers, who can afford to pay for written legal opinions from tax lawyers or accountants may use these documents to establish reasonable cause and good faith defenses to penalties.²⁸¹ Additionally, wealthy taxpayers may have the resources necessary to hire counsel and pay the required fee in order to request a private letter ruling, a “written determination,” directly from the IRS.²⁸² Current law, consequently, provides greater opportunities for the most well-off taxpayers, compared to others, to obtain written advice that they can use to defend against tax penalties.

The IRS characterizes automated legal guidance as having the same limited legal weight as oral guidance from IRS assistants for purposes of tax penalty relief.²⁸³ The IRS states that “[o]ral guidance is advisory only, and the [IRS] is not bound by it.”²⁸⁴ There are several justifications for this treatment of oral guidance by the IRS and the tax law. As was discussed earlier, the IRS found a lack of uniformity in the advice that IRS assistants would provide to taxpayers.²⁸⁵ In addition, compared to revenue rulings and Treasury regulations, the IRS does not subject oral guidance to a review process that could legitimize the oral guidance as the official position of the agency.²⁸⁶ An-

²⁷⁹ See TREASURY INSPECTOR GEN. FOR TAX ADMIN., *supra* note 114.

²⁸⁰ See *Internal Revenue Service Operations and the President's Budget for Fiscal Year 2016: Hearing Before the S. Comm. on Fin.*, 114th Cong. 5–8 (2015) (statement of Hon. John A. Koskinen, Commissioner of Internal Revenue).

²⁸¹ See Tanina Rostain, *Sheltering Lawyers: The Organized Tax Bar and the Tax Shelter Industry*, 23 YALE J. ON REG. 77, 97 (2006); Dennis J. Ventry, Jr., *Raising the Ethical Bar for Tax Lawyers: Why We Need Circular 230*, 111 TAX NOTES 823, 825 (2006); U.S. DEP'T OF TREASURY, THE PROBLEM OF CORPORATE TAX SHELTERS: DISCUSSION, ANALYSIS AND LEGISLATIVE PROPOSALS 90–93 (1999).

²⁸² See Rev. Proc. 2019–1 § 2.01, 2019-01 I.R.B. 1; I.R.C. § 6110(b)(1)(A) (2018) (defining written determination).

²⁸³ See Treas. Reg. § 601.201(k)(2) (2019); Rev. Proc. 2019-1, § 2.05(3), 2019-01 I.R.B. 1. For additional discussion, see NATIONAL TAXPAYER ADVOCATE, 1 ANNUAL REPORT TO CONGRESS 29 (2016); Emily Cauble, *Detrimental Reliance on IRS Guidance*, 2015 WIS. L. REV. 421, 431 (2015); Nina E. Olson, *IRS Frequently Asked Questions Can Be a Trap for the Unwary*, TAXPAYER ADVOCATE SERV.: NTA BLOG (July 26, 2017), <https://taxpayeradvocate.irs.gov/news/irs-frequently-asked-questions-can-be-a-trap-for-the-unwary> [<https://perma.cc/B4X8-KLX3>].

²⁸⁴ Rev. Proc. 2019-1, § 2.05(3), 2019-01 I.R.B. 1.

²⁸⁵ See *supra* notes 114–115 and accompanying text.

²⁸⁶ See IRS, INTERNAL REVENUE MANUAL § 32.3.1.9(1) (Aug. 11, 2004) (“The Service does not orally issue letter rulings or determination letters, nor does it issue letter rulings or determination letters in response to oral requests from taxpayers.”).

other reason for the IRS's treatment of oral guidance as advisory is due to IRS assistors' inability to review all relevant factual information and substantiation from the taxpayer.²⁸⁷ This type of guidance is very different from private letter rulings, where the IRS often requests, and receives, voluminous materials from the taxpayer before it issues a ruling.²⁸⁸ Last, oral guidance from the IRS, such as during a face-to-face or virtual meeting with an IRS customer service representative through a Taxpayer Assistance Center, often occurs without an audio- or video-recording of the interaction between the taxpayer and the IRS customer service representative.²⁸⁹ Without a formal record, the IRS could not consider and respond to a taxpayer's request for abatement or defense against tax penalties.

Despite the IRS's equal treatment of oral and automated legal guidance, there are significant differences that justify allowing taxpayers greater ability to rely upon statements from ITA to defend against tax penalties. First, compared to oral guidance, some automated legal guidance systems like ITA use a uniform decision tree structure, where each input triggers the same response to every user.²⁹⁰ Automated systems that use machine learning, on the other hand, can deliver different responses to users' questions over time as they discover patterns.²⁹¹ When automated legal guidance features a decision tree structure rather than machine learning to respond to users, it displays the uniformity and consistency that oral guidance often lacks. Second, while there is no audio- or video-recording of taxpayers' interactions with IRS customer service representatives at Taxpayer Assistance Centers,²⁹² automated legal guidance systems like ITA can record every input from the taxpayer. The possibility of a detailed, written record could assist the IRS or a court in determining whether the taxpayer's

²⁸⁷ See TREASURY INSPECTOR GEN. FOR TAX ADMIN., *supra* note 118.

²⁸⁸ See Rev. Proc. 2019-1, 2019-01 I.R.B. 1; Jay Starkman, *Applying for a Private Letter Ruling*, J. ACCT. (Jan. 1, 2010) <https://www.journalofaccountancy.com/issues/2010/jan/20092143.html>.

²⁸⁹ See OFFICE OF INSPECTIONS AND EVALUATIONS, TREASURY INSPECTOR GEN. FOR TAX ADMIN., 2019-IE-R002, ALTHOUGH VIRTUAL FACE-TO-FACE SERVICE SHOWS PROMISE, FEW TAXPAYERS USE IT 1 (2018) (noting that "video conference calls are not recorded, and the system does not store any sensitive taxpayer information").

²⁹⁰ See *Frequently Asked Questions and Answers*, IRS, (June 30, 2020), <https://www.irs.gov/faqs> [<https://perma.cc/C8GU-VC6Q>] ("The ITA tool is a tax law resource that takes you through a series of questions and provides you with responses to tax law questions.") (emphasis added).

²⁹¹ For discussion, see Meserole, *supra* note 38.

²⁹² See TREASURY INSPECTOR GEN. FOR TAX ADMIN., *supra* note 289, at 1.

representations were accurate and whether the taxpayer acted reasonably in relying upon ITA's advice.

The available defenses against penalties for legal noncompliance where individuals have relied upon automated legal guidance can be reformed by adjusting the substantive penalty defense rules or the design of automated legal guidance itself. Examples of each approach are discussed below.

Reform of Law. In the tax context, the Treasury Department could revise the regulations that govern defenses against accuracy-related tax penalties²⁹³ to allow taxpayers to assert a reasonable basis defense as a result of guidance they receive from ITA, as long as they disclose this guidance to the IRS when they file their tax returns. Under current law, in order to assert a reasonable basis defense, taxpayers must show that they reasonably relied upon written statements in an exhaustive list of authorities, including provisions of the Internal Revenue Code, Treasury Regulations, revenue rulings, judicial decisions and announcements published by the IRS in the Internal Revenue Bulletin, among others.²⁹⁴ Further, for certain accuracy-related tax penalties, such as the penalty for disregard of rules and regulations,²⁹⁵ taxpayers must file a specific tax form where they identify from this list the source upon which they are relying in claiming their tax position.²⁹⁶ The Treasury could amend this list by adding "answers" provided by ITA, provided that the taxpayer files the form and attaches a printed version of the answer from ITA.

One potential concern with this proposal is that it could incentivize taxpayers, or their advisors, to manipulate the inputs they provide to ITA in order to obtain an answer that could serve as a reasonable basis penalty defense.²⁹⁷ While this behavior may be a response from some taxpayers and advisors, the reasonable basis penalty defense still requires a showing of reasonableness by the taxpayer.²⁹⁸ The IRS and courts would retain the ability to question whether the taxpayer reasonably relied upon a statement from ITA in good faith or whether the

²⁹³ Treas. Reg. § 1.6662-3(b)(1) (1997).

²⁹⁴ *Id.* § 1.6662-4(d)(3)(iii).

²⁹⁵ I.R.C. § 6662(b)(1) (2018).

²⁹⁶ Treas. Reg. § 1.6662-4(f) (method of making adequate disclosure).

²⁹⁷ *Cf., e.g.,* ENGSTROM ET AL., *supra* note 11, at 7 (pointing generally to the risk that better-heeled groups with resources may be able to reverse-engineer the government's artificial intelligence).

²⁹⁸ Treas. Reg. § 1.6662-3(b)(3) (must be "reasonably based on one or more of the authorities set forth in § 1.6662-4(d)(3)(iii)").

taxpayer had submitted inputs designed to yield a desired answer simply for penalty defense purposes.

Reform of Automated Legal Guidance. Another possible approach could be to redesign ITA so that taxpayers could easily reproduce a written record of every input into ITA and its ultimate answer, which they could produce to establish certain tax penalty defenses. Under current law, taxpayers possess limited ability to assert a reasonable cause and good faith defense against accuracy-related penalties by claiming reliance on ITA. This defense may not be available unless the taxpayers can provide all communication with ITA and show that they acted with ordinary business care, including by reviewing other descriptions of the applicable tax law in other IRS publications and forms.²⁹⁹ After a taxpayer has submitted all of the information requested, which can require over a dozen responses, ITA produces an “answer” screen, but no record of the taxpayers’ responses to ITA’s questions.³⁰⁰ Further, ITA’s answer screen does not include a date when the taxpayer submitted the request for information or the taxpayer’s name.³⁰¹ One reform that IRS officials could implement easily would be to redesign ITA to require taxpayers to submit personal identifying information and, at the end of the question-and-answer process, provide taxpayers with date-stamped electronic copies of ITA’s answers and all of the taxpayers’ responses to ITA’s questions. Taxpayers could use this document to assert a reasonable cause defense against accuracy-related tax penalties or, if the proposal described above were adopted, a reasonable basis defense accompanied by disclosure.

One possible problem inherent in this proposed reform is that its requirement of personal identifying information, such as a Social Security Number, Taxpayer Identification Number, or even an e-mail address, could discourage taxpayers from using ITA at all.³⁰² A response to this concern is that the IRS could redesign ITA to offer taxpayers the option of submitting personal identifying information only if they desire to receive an electronic record that they can use for a tax penalty defense in

²⁹⁹ IRS, INTERNAL REVENUE MANUAL § 20.1.1.3.3.4.2 (Dec. 11, 2009); IRS, INTERNAL REVENUE MANUAL § 20.1.1.3.3.4.1 (Nov. 25, 2011); Treas. Reg. § 1.6664-4(b).

³⁰⁰ See *supra* subsection II.B.2.

³⁰¹ See *id.*

³⁰² See TREASURY INSPECTOR GEN. FOR TAX ADMIN., *supra* note 118, at 12 (noting that ITA does not “require sensitive information such as Social Security Numbers”).

the future.³⁰³ This approach would emulate the strategy of online sites that incentivize users to submit personal information by providing them greater access to content or discounts to those users who opt to share this information.³⁰⁴ In any event, the option of submitting personal identifying information could limit the potential for taxpayers and advisors to attempt to manipulate ITA in order to obtain statements that could be used purely for tax penalty defenses.

D. The Future of Automated Legal Guidance

A final question is whether automated legal guidance should evolve in a way that relies less on simplicity. As described in detail above, current government uses of automated legal guidance, such as ITA and Emma, tend to rely on simplicity, accompanied by a relatively primitive use of technology, to make the law more comprehensible to humans who will, at least in some fashion, apply it.³⁰⁵ ITA, for instance, does not fill out taxpayers' tax returns, or even learn from experience. Rather, it uses pre-programmed technology to answer taxpayers' questions and thereby enable taxpayers (or advisors) to file their own tax returns. Likewise, Emma, the virtual assistant for the USCIS, does not file a greencard application for online users. Rather, it simply answers questions about the various eligibility, procedural, and other requirements for doing so.³⁰⁶

But automated legal guidance does not need to remain limited in this fashion. Indeed, even now it is easily possible to integrate collecting information from taxpayers with actually filling out their tax returns for them. TurboTax and other private companies already do this. And, through the Free File Alliance, the IRS provides the same services to eligible, qualifying taxpayers through a "nonprofit coalition of industry-leading

³⁰³ Following recommendations from the Treasury Inspector General for Tax Administration in 2010, the IRS requests taxpayers Social Security Numbers before scheduling meetings at Taxpayer Assistance Centers. *See id.*

³⁰⁴ *See, e.g.*, Taylor Soper, *Starbucks Wants Your Email Address: Coffee Giant Tests new WiFi Sign-Up Process at U.S. Stores*, GEEKWIRE (Mar. 22, 2018, 3:37 PM), <https://www.geekwire.com/2018/the-new-price-of-wifi-at-starbucks-coffee-giant-requires-email-addresses-for-online-access-in-u-s-test/> [<https://perma.cc/SCB4-WN4H>] (noting that Starbucks is "asking customers to provide their email address before" obtaining WiFi internet access).

³⁰⁵ *Cf., e.g.*, ENGSTROM ET AL., *supra* note 11, at 7 (relaying conclusion of Stanford computer scientists that currently only 12% of the artificial intelligence used by government agencies is "high in sophistication").

³⁰⁶ *See Emma, supra* note 2.

tax software companies partnered with the IRS.”³⁰⁷ It is easily possible to imagine automated legal guidance becoming even more sophisticated. In the tax context, for instance, one could imagine a scenario in which taxpayers do not even have to answer questions in order to get tax software to fill out tax returns. Rather, artificial intelligence could examine taxpayers’ financial and other tax-relevant transactions (including, for instance, business trips, medical events, and the like) by monitoring email, bank records, and physical locations in order to seamlessly fill out a tax return for taxpayers.³⁰⁸

Indeed, as some scholars have described, as artificial intelligence continues to evolve, the government may be able to create perfectly targeted rules for every situation, which would essentially collapse guidance and enforcement.³⁰⁹ The government could do so by issuing “microdirectives,” which would automatically tailor and communicate the law in a way that was responsive to all relevant factors.³¹⁰ For instance, the government could use artificial intelligence to factor in a driver’s experience and accident history, the weather, the speed of other cars, and all other relevant factors, to communicate (through some sort of interface in the car) what speed the driver is legally required to go at every moment in time.³¹¹ In a not too

³⁰⁷ FREE FILE ALLIANCE, <https://freefilealliance.org/> [https://perma.cc/SU2V-JD9M] (last visited Oct. 31, 2019). There has been a vociferous, recent debate about the Free File Alliance. See, e.g., Elizabeth Williamson, *Industries Turn Freedom of Information Requests on Their Critics*, N.Y. TIMES (Nov. 5, 2018), <https://www.nytimes.com/2018/11/05/us/politics/freedom-of-information-requests.html> [https://perma.cc/DK3L-LQA6] (describing some of the fallout from this debate).

³⁰⁸ See, e.g., Michael Hatfield, *Taxation and Surveillance: An Agenda*, 17 YALE J.L. & TECH. 319, 340–50 (2015) (predicting such a potential system).

³⁰⁹ See Casey & Niblett, *supra* note 77 (introducing and exploring the concept of microdirectives).

³¹⁰ See *id.* Relatedly, other scholars have begun to contemplate the prospect of using big data and advances in artificial intelligence to create “personalized law,” which crafts appropriate legal rules (such as disclosure requirements and mandatory contract provisions) to best suit particular individuals. See generally, e.g., Christoph Busch, *Implementing Personalized Law: Personalized Disclosures in Consumer Law and Data Privacy Law*, 86 U. CHI. L. REV. 309 (2019) (exploring how big data and information technology may be used to tailor disclosure requirements); Omri Ben-Shahar & Ariel Porat, *Personalizing Mandatory Rules in Contract Law*, 86 U. CHI. L. REV. 255 (2019) (contemplating using data to develop personalized rules regarding mandatory contract provisions); Omri Ben-Shahar & Ariel Porat, *Personalizing Negligence Law*, 91 N.Y.U. L. REV. 627, 674–85 (2016) (exploring, among other mechanisms, the potential use of big data to personalize negligence law); Ariel Porat & Lior Jacob Strahilevitz, *Personalizing Default Rules and Disclosure with Big Data*, 112 MICH. L. REV. 1417 (2014) (introducing the notion of personalized default legal rules and disclosure).

³¹¹ See Casey & Niblett, *supra* note 77, at 1404 (providing example of microdirectives about traffic speed).

distant future, of course, driverless cars may automatically be programmed to go the legal speed dictated by the artificial intelligence, given all of the attendant circumstances.³¹² With such evolutions of automated legal guidance, the use of simplicity in automated legal guidance may be a waystation to something much more transformative: a world in which artificial intelligence can make all legal decisions, without any required human application.³¹³

The theory behind this alternative vision of automated legal guidance is as follows. As described previously, rules and standards are typically used in the law in order to calibrate the law appropriately to given situations.³¹⁴ But, at some point, the combination of uncertainty from standards and complexity from rules exceeds human capacity to understand what the law is. One solution to the problem, highlighted in this Article, is to provide automated legal guidance, powered by simplicity, which explains how the law applies to particular situations, albeit in an oversimplified fashion. This allows human beings to apply law that is otherwise too complicated for them to understand. But, as artificial intelligence continues to advance, an alternative is for artificial intelligence to simply take matters into its own hands and apply the law with little human involvement. By gathering the applicable facts and then mapping them onto algorithms about how the law applies in given situations, artificial intelligence can dictate what the legal requirements or outcomes are in a given situation, without any need to explain the law.³¹⁵

Would this evolution in automated legal guidance be desirable? And what are the costs and benefits? As it turns out, understanding the role of simplicity in today's government-provided automated legal guidance is critical to evaluating

³¹² See, e.g., *Driverless Cars Are Taking Longer Than We Expected. Here's Why.*, N.Y. TIMES (July 14, 2019), <https://www.nytimes.com/2019/07/14/us/driverless-cars.html> [HTTPS://PERMA.CC/Q8TA-UNXC] (explaining that “we are at the dawn of the driverless car” but there are also many obstacles in the way).

³¹³ But see, e.g., Niva Elkin-Koren & Michal S. Gal, *The Chilling Effect of Governance-by-Data on Data Markets*, 86 U. CHI. L. REV. 403, 404–05 (2019) (warning that governance-by-data may change and, in some ways, undermine incentives for data collection).

³¹⁴ See *supra* notes 226–29 and accompanying text.

³¹⁵ See Busch, *supra* note 310, at 314 (explaining that “[i]n the near future, however, big data, superhuman information processing capabilities, and artificial intelligence could redefine the optimal complexity of legal rules and refine their content to a hitherto unachievable level of granularity”). For discussion of impact of algorithmic mediation and public understanding of the law, see Dan L. Burk, *Algorithmic Fair Use*, 30 U. CHI. L. REV. 238 (2019) (describing how design values in algorithms can become “embedded in public behavior and consciousness”).

what would be gained and what would be lost. Simplicity helps communicate law in a way that is easy to understand for those who would not otherwise understand it.³¹⁶ But it can have costs as well, in terms of ironing out nuances in the law that serve important values.³¹⁷ Simplifying these nuances may, without proper targeting, confer disproportionate advantages on different groups.³¹⁸ In contrast, more advanced automated legal guidance need not have the same ironing-out effect. If artificial intelligence is going to monitor all of our actions in order to determine our tax liability without any understanding required on our part, then the tax law need not be presented or applied in an oversimplified way. The rules could be as complex as artificial intelligence can process, which may be extraordinarily complex—certainly far more complex than the current tax system, which assumes some amount of application by human beings. In this way, more advanced automated legal guidance can reach more accurate, individualized results, given some underlying motivating framework, than any existing legal system.³¹⁹

One of the principal costs of such development, however, would be the precise benefit that simplicity offers: the ability for people to understand what the law is. Simplicity may offer an overly simplified version of the law, but it does attempt to communicate the law to people. More advanced artificial intelligence that eschews the need for such communication may ultimately erode human beings' understanding of the law that governs them.³²⁰ In the tax context, some have long lamented how the advent of tax return preparation software has eroded taxpayers' understanding of the tax law and the sense of civic

³¹⁶ Blank & Osofsky, *supra* note 20.

³¹⁷ *See id.*

³¹⁸ *See id.*

³¹⁹ *See* Kaplow, *supra* note 224 (suggesting that increased legal complexity can increase accuracy).

³²⁰ *But see* Coglianese & Lehr, *supra* note 77; Cary Coglianese & David Lehr, *Transparency and Algorithmic Governance*, 71 ADMIN. L. REV. 1, 38–49 (2019) (exploring why regulation by algorithm, among other potential phenomena, can provide sufficient transparency about the law and satisfy various legal doctrines, such as procedural due process and equal protection). The argument in this Article is not that it is *impossible* to understand what the law is if automated legal guidance starts to rely on algorithms or other technological approaches, or even that such approaches necessarily violate any legal doctrines. Rather, the argument is that automated legal guidance that continues to rely on simplicity, based on an assumed step that humans will actually be applying the law themselves, clearly makes the law more transparent and visible (even if it does so by oversimplifying the law in the process), than further evolutions that eliminate the explanatory step.

virtue that accompanies filing a tax return.³²¹ They have also suggested that the technology perversely encourages Congress to make exceedingly complicated law, pacified by the notion that software, rather than people, will have to apply it.³²² At a more general level, automated legal guidance that no longer attempts to communicate the law may bypass some of the costs of simplicity, but at the potential cost of a citizenry with even lower sense of what the law is, how its effects are being allocated, and how to challenge it.

All of this does not suggest that we should put our heads in the sand and sign a pact to become Luddites. It does suggest that automated legal guidance powered by simplicity may be an important alternative to (1) an imprecise legal system, and (2) a legal system that forgoes attempts by human beings to understand the law that is being applied. In appropriate situations, in which we think that both extremely complex law and explanations of it remain important, automated legal guidance powered by simplicity may have a critical role to play. This may be especially so when, as discussed above, there are constituencies to whom the simplicity can be targeted, while preserving the benefits of greater complexity for others. In other words, this Article suggests that automated legal guidance powered by simplicity may remain an important part of the regulatory mix, even as technology advances to allow more sophisticated possibilities.

CONCLUSION

This Article has explored an important, previously unexamined, shift occurring in regulatory behavior at all levels of government: the increasing prevalence of automated legal guidance. While other legal scholars have focused on the use of artificial intelligence in law enforcement, this Article has examined the government's use of artificial intelligence to explain the legal framework to the public. In addition to being the first work to examine automated legal guidance, this Article makes several significant contributions to the legal literature.

First, this Article has identified several common traits of automated legal guidance, each of which raises normative concerns. Using the IRS's Interactive Tax Assistant as an example,

³²¹ See, e.g., Lawrence Zelenak, *Justice Holmes, Ralph Kramden, and the Civic Virtues of a Tax Return Filing Requirement*, 61 TAX L. REV. 53, 56–65, 70 (2007) (exploring the civic virtues of a tax return filing requirement).

³²² See, e.g., LAWRENCE ZELENAK, *LEARNING TO LOVE FORM 1040: TWO CHEERS FOR THE RETURN-BASED MASS INCOME TAX* 113–14 (2013).

we have revealed how current forms of automated legal guidance often rely upon “simplicity,” where the government presents complex law as though it is simple, without actually engaging in simplification of the underlying law. We have demonstrated that while ITA can provide answers that are consistent with the tax law, it can also present answers that deviate from the tax law, as a result of its reliance on simplicity. We have argued that automated legal guidance, and its reliance on simplicity to explain the law, is more powerful and pervasive than static publications because it delivers personalized guidance, presents non-qualified answers and provides answers almost immediately.

Second, this Article argues that governments should seek to prevent automated legal guidance from widening the gap between access to legal advice enjoyed by high-income and by low-income individuals. Governments can adjust automated legal guidance to deliver advice that best fits the user’s profile. As an alternative, governments can target automated legal guidance toward certain groups without exacerbating potential costs.

Third, this Article has asserted that governments should create more comprehensive oversight and review processes for automated legal guidance than occurs under current law. Today, important decisions regarding the design of automated legal guidance are hidden in programming decisions and do not reflect public input. We outline possible approaches to subjecting automated guidance decisions to oversight and transparency measures that are similar to those that apply to other forms of influential guidance.

Fourth, this Article has argued that policymakers should introduce reforms that allow individuals to avoid penalties for legal noncompliance where they have engaged in transactions or taken actions as a result of advice from automated legal guidance. As we have shown, there are substantial differences between automated legal guidance and other informal guidance, such as oral advice. Policymakers should consider these differences and reform the structure of both penalties and automated legal guidance.

Finally, this Article has argued that understanding both the costs and benefits of current forms of automated legal guidance is critical to evaluating even more sophisticated automated systems that governments are likely to introduce in the future. More sophisticated forms of automated legal guidance may avoid some of the costs of simplicity that we have ex-

amined, but some of the issues inherent in current forms of automated legal guidance will persist, and new dangers will be introduced. The Article thus offers a roadmap for how governments should evaluate tradeoffs and minimize costs as automated legal guidance evolves. The examination and prescriptions of this Article are relevant to government officials involved in regulatory guidance and technology and to scholars specializing in administrative law, artificial intelligence, tax law, and many other legal areas as well.

