The policy convergence of restrictive abortion laws and autonomous vehicle regulation in the U.S.[a]

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Abstract

In questo articolo sostengo che le discussioni sulle normative relative alle auto a guida autonoma e sulle attuali leggi restrittive in materia di aborto negli Stati Uniti siano intersezionali. Queste discussioni hanno gravi implicazioni per l'autonomia fisica, la libertà di movimento e la sorveglianza delle donne e delle comunità emarginate e minoritarie. In tutto l'articolo, concentro la mia discussione sull'intersezione tra leggi restrittive in materia di aborto e il divieto di guidare per gli esseri umani. Esamino la possibilità di vietare i conducenti umani e come potrebbe essere un futuro senza conducenti secondo Sparrow e Howard, nonché la transizione verso tale futuro. Successivamente, metto in evidenza i quadri tecnologici e politici che potrebbero influenzare la restrizione del diritto fondamentale di viaggiare e i precedenti costituzionali e giuridici. L'obiettivo del mio articolo è mostrare come le discussioni sulle normative relative alle auto a guida autonoma e le attuali leggi restrittive sull'aborto negli Stati Uniti siano intersecanti e sottolineare le conseguenti gravi implicazioni politiche.

Parole Chiave: regolamentazione dell'IA, veicoli a guida autonoma, sorveglianza digitale, autonomia del corpo.

In this paper, I argue that discussions of self-driving car regulations and current restrictive abortion laws across the United States are intersectional. These discussions have serious implications for bodily autonomy, freedom of mobility, and surveillance for women and marginalized and minority communities. Throughout the paper, I center my discussion on the intersection of restrictive abortion laws and the banning of human drivers. I examine the possibility of banning human drivers and what a driverless future looks like according to Sparrow and Howard, and the transition to such a future. Then, I highlight the technological and policy frameworks that could inform restricting the fundamental right to travel and the constitutional and legal precedents. The goal of my paper is to show how discussions of self-driving car regulations and current restrictive abortion laws across the United States intersect and to emphasize the subsequent serious policy implications.

Keywords: AI regulation, autonomous vehicles, digital surveillance, bodily autonomy.

[a] Received on 19/02/2025 and published on 09/12/2025.
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1. Introduction

In this paper, I argue that discussions of self-driving car regulations and current restrictive abortion laws across the United States converge in unexpected but important ways. In particular, these discussions have serious implications for bodily autonomy, freedom of mobility, and digital surveillance for women and marginalized and minority communities. Current ethical debates around self-driving cars involve questions related to what, if any, type of ethical settings self-driving cars ought to possess, like personal ethical settings (PES) or mandatory ethical settings (MES)[1].

Other discussions include the potential banning of human drivers altogether. In their article, "When Human Beings are Like Drunk Robots: Driverless Vehicles, Ethics, and the Future of Transport," Robert Sparrow and Mark Howard[2] advocate for mandatory self-driving cars, which effectively outlaws manually-driven cars. They cite the increase in both pedestrian and driver fatalities within the past ten years and to the likelihood that humans will jettison road safety laws and regulations as production and use of self-driving cars grow. The ethical debates surrounding driverless vehicles contain salient policy implications, especially when considered in combination with current laws around digital surveillance and bodily autonomy.

Consequently, for this paper, I examine the real-world policy implications of Sparrow and Howard's argument when understood as happening within broader policy contexts, such as the rise in abortion bans across the U.S., including restrictions on interstate travel, and the increase in digital surveillance. While developers have not fully realized autonomous vehicles yet, these rapidly progressing technologies are already reshaping future discussions on transportation, technology, and surveillance. Thus, I specifically examine Sparrow and Howard's argument in relation to restrictive abortion laws across the United States since the overturning of Roe v Wade in June 2022. Ultimately, I reject Sparrow and Howard's proposal, and others like it, on normative grounds. In particular, I argue that their vision for the banning of human drivers relies too heavily on forms of digital surveillance and control over mobility that is morally impermissible. I claim that these practices violate core ethical principles like consent and also establish dangerous precedents that corporations, law enforcement agencies, and political actors could exploit to target vulnerable populations in the future.

For this paper, I am assuming that these laws are overly restrictive. Additionally, I take a similar approach to policy that Gerald Gaus takes in *The Tyranny of the Ideal: Justice in a Diverse Society.* In *Tyranny of the Ideal*[3], Gaus acknowledges that policy frameworks in complex societies can significantly inform other policies and overlap in unexpected ways. This is a stance this paper takes.

Section 2 discusses current policy proposals for regulating driverless cars and the transition to a total ban on human drivers. Section 3 provides an analysis of current policies

[1] J. Gogoll, J.F. Müller, *Autonomous Cars: In Favor of a Mandatory Ethics Setting*, in «Science and Engineering Ethics», XXIII, n. 3, 2017, pp. 681-700.
[2] R.J. Sparrow, M. Howard, *When Human Beings Are like Drunk Robots: Driverless Vehicles, Ethics, and the Future of Transport*, in «Transportation Research Part C: Emerging Technologies», LXXX, 2017, pp. 206-215.
[3] G. Gaus, *The Tyranny of the Ideal: Justice in a Diverse Society*, Princeton University Press, Princeton 2016.

related to bodily autonomy and interstate mobility post Roe v Wade. Section 4 examines the convergence of post-Roe abortion bans with constitutional law, mobility rights, and state authority in the United States, with a focus on how states might leverage legal precedents and existing surveillance technologies to restrict or regulate interstate travel for abortion services. Section 5 highlights how data collection and the current digital infrastructure might be weaponized to monitor movement and enforce future mobility restrictions and the regulation of autonomous vehicles. Section 6 explores the practical and ethical implications of the overlap between proposed and current abortion laws and evolving regulations of autonomous drivers, including a case study to illustrate the potential consequences of these regulatory frameworks meeting. Section 7 concludes the paper.

2. Regulating Driverless Cars

There are many ethical reasons to support outlawing human drivers and promoting driverless cars and autonomous vehicles (AV)[4][5] beyond the fatal crash statistics[6]. However, it remains a complex policy issue that includes questions of implementation and what the transition entails. In their article, «When human beings are like drunk robots: Driverless vehicles, ethics, and the future of transport» Robert Sparrow and Mark Howard discuss the ethical implications of driverless vehicles and their implementation. Sparrow and Howard argue that the moment that driverless cars are safer than human drivers, that human drivers ought to be outlawed. «[W]e argue that the invention of fully autonomous vehicles that pose a lower risk to third parties than human drivers will establish a compelling case against the moral permissibility of manual driving»[7]. They bolster their argument through observing that morally allowing a human to use an AV with at least level 3 automation puts the rest of the drivers at unnecessary risk. Because the AV will be reliably autonomous, the person may mistakenly rely on its ability to encounter all and any risks. Subsequently, this may encourage the human driver to engage in reckless behavior, such as reading, drinking, having sex, falling asleep while at the wheel, or parents sending kids alone to school[8].
Additionally, the independence that such AVs provide could encourage individuals previously deemed unfit to drive to feel embolden to get behind the wheel, such as those

[4] There are five levels, which range from levels 0-5. Level 0 denotes a vehicle that does not contain any sort of automation. Levels 1-3 have some level of the AI performing dynamic driving tasks (DDT). DDT is when an automated system partially or conditionally performs operational and tactical functions like steering, acceleration, and braking (Y. Freemark *et al.*, *Regulations to Respond to the Potential Benefits and Perils of Self-Driving Cars*, Metropolitan House and Communities Policy Center, September 2022, pp. 5-6). Levels 4-5 entail an automated system fully or highly performing all DDTs under relevant or all conditions (*ivi*, p. 6). The vehicle moves from an AV to a driverless vehicle when its automated system fully performs DDTs under all conditions and does not need any human intervention or external override for strategic functions.
[5] It is important to note that car manufacturers, like GM, are currently planning for AVs that do not have steering wheels (G. Barta, *GM CEO Mary Barra Doubles Down On AV With No Steering Wheel*, in «GM Authority», 31 October 2024: https://gmauthority.com/blog/2024/10/gm-ceo-mary-barra-doubles-down-on-autonomous-vehicle-with-no-steering-wheel/). So, a human overriding the system to drive physically will not be an option.
[6] J. Gogoll, J.F. Müller, *Autonomous Cars: In Favor of a Mandatory Ethics Setting*, cit., p. 682.
[7] R.J. Sparrow, M. Howard, *When Human Beings Are like Drunk Robots*, cit., p. 207.
[8] Ivi, p. 208.

with cognitive impairments or other medical conditions that compromise the individual's ability to safely drive.

Sparrow and Howard argue that this would increase the number of unfit drivers on the road. They note[9], «Even if the vehicle can provide several seconds of warning before requiring manual control to be re-engaged, then, there may be no one in a fit state to do so» Sparrow and Howard continue to argue that such a transitional design[10] would render the human driver as morally equivalent to a drunk robot. They claim, «Moreover, imposing this extra risk on third parties will be unethical: the human driver will be the moral equivalent of a drunk robot. Eventually, we believe, the compelling moral argument against human drivers will be reflected in law: driving will be made illegal»[11]. Sparrow and Howard argue that a transitional AV would increase both reckless and unfit drivers, making most drivers morally equivalent to drunk robots. They argue that this comparison would provide robust support for the inevitable outlawing of human drivers, rendering driving illegal.

Sparrow and Howard's discussion highlights a difficulty that may arise during the transition from AVs to driverless vehicles. Currently, there are a handful of empirical examples of Tesla drivers that display the type of reckless behavior that is the focus of Sparrow and Howard's discussion. For example, in February of 2024, a video went viral of a Tesla driver in Full-Self Driving (FSD) mode wearing Apple's new virtual reality (V.R.) headset. Although the video went viral, the trend was not widespread, it still prompted United States Secretary of Transportation Pete Buttigieg and the National Highway Traffic Safety Administration to respond to the social media posts[12]. Similarly, in April 2024, a Tesla driver in FSD mode hit and killed a motorcyclist due to being on his phone at the time of the collision. Due to being distracted, the driver was not able to manually respond and override the system to prevent the collision[13]. Despite these instances of reckless driving Sparrow and Howard warn against, they may not reflect future driver behavior once AVs do become more widely used. However, they do not inspire support for retaining human driving, either. Even so, Howard and Sparrow's discussion does highlight important potential public health and safety concerns related to the possible increase in drunk robots on the road with the increased availability of AVs.

The upshot is that although autonomous vehicle drivers still only marginally make up a small fraction of drivers in the US, the push for more commercially available AVs

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[9] *Ibidem*.

[10] Although Sparrow and Howard do not explicitly call it a transitional design, their discussion is in relation to a transitional phase that is between fully autonomous vehicles and those that still require some level of human intervention. So, for clarity, I use transitional design to denote this transitional period.

[11] Ivi, p. 209.

[12] J. Jiménez, *Stop Wearing Vision Pro Goggles While Driving Your Tesla, U.S. Says*, in «The New York Times», 6 February 2024: https://www.nytimes.com/2024/02/06/technology/personaltech/apple-vision-pro-tesla.html; D. Shepardson, *Viral Videos of Tesla Drivers Using VR Headsets Prompt US Government Alarm*, in «Reuters», 5 February 2024: https://www.reuters.com/business/autos-transportation/us-transport-chief-urges-drivers-pay-attention-after-virtual-reality-driver-2024-02-05/.

[13] H. Jin, *Tesla Car That Killed Seattle Motorcyclist Was in 'Full Self-Driving' Mode, Police Say*, in «Reuters», 31 July 2024: https://www.reuters.com/business/autos-transportation/tesla-was-full-self-driving-mode-when-it-hit-killed-seattle-motorcyclist-police-2024-07-31/; M. Lenthang, *Tesla in Fatal Seattle-Area Crash That Killed Motorcyclist Was in Self-Driving Mode, Officials Say*, in «NBC News», 31 July 2024: https://www.nbcnews.com/news/us-news/tesla-fatal-seattle-area-crash-killed-motorcyclist-was-self-driving-mo-rcna164488.

increases the risk of drunk robots on the road. This is because, as car manufacturers work towards fully driverless vehicles, the existing AVs will be transitional models. Sparrow and Howard warn that even though the driver still has to intervene and take manual control at a moment's notice, similar to traditional vehicles, these transitional models could entice drivers to engage in reckless behavior. Consequently, the transition from AVs to driverless vehicles could potentially encourage policymakers to use Sparrow and Howard's argument to inform their case against the moral permissibility of manual driving. As a result, by the time driverless vehicles are commercially available, then regulations may already be in place that fully ban human drivers.

3. Current Policies: Bodily Autonomy, Surveillance, and Interstate Mobility

a. The Overturning of Roe v Wade 2022

The questions around bodily autonomy and freedom of mobility with the advent of driverless vehicles could find precedence or traction in the overturning of Roe v Wade, otherwise known as the Dobbs decision. In June 2022, the United States Supreme Court Justices overturned Roe v Wade, initiating the automatic banning of abortion in trigger law states.[14] Since then, lawmakers have introduced and passed an onslaught of various anti-abortion laws and ordinances, further restricting access to abortion and abortion-adjacent medical care to millions of people of reproductive age. As a result, 14 states have total or near-total abortion bans and a total of 41 states have some sort of abortion ban[15]. Only 9 states do not have any gestational limits or other restrictions to access an abortion[16]. In some states, anti-abortion and far-right organizations have continued their efforts to ban most reproductive care through introducing legislation that attempts to ban the abortion pill, plan b, birth control, and telemedicine in the context of offering abortion care[17]. In

[14]These states include Arkansas, Idaho, Kentucky, Louisiana, Mississippi, Missouri, North Dakota, Oklahoma, South Dakota, Tennessee, Texas, Utah, and Wyoming (J. Jiménez, *What Is a Trigger Law? And Which States Have Them?*, in «The New York Times», 4 May 2022: https://www.nytimes.com/2022/05/04/us/abortion-trigger-laws.html; Center for Reproductive Rights, *Abortion Laws by State*, 2024: https://reproductiverights.org/maps/abortion-laws-by-state/; E. Nash, I. Guarnieri, *13 States Have Abortion Trigger Bans – Here's What Happens When Roe Is Overturned*, Guttmacher Institute, 6 June 2022: https://www.guttmacher.org/article/2022/06/13-states-have-abortion-trigger-bans-heres-what-happens-when-roe-overturned).

[15] Guttmacher Institute, *State Bans on Abortion Throughout Pregnancy*, 29 July 2024: https://www.guttmacher.org/state-policy/explore/state-policies-abortion-bans.

[16] *Ibidem.*

[17] M. Kekatos, *A State-by-State Breakdown of Abortion Laws 2 Years after Roe Was Overturned*, in «ABC News», 22 June 2024: https://abcnews.go.com/US/state-state-breakdown-abortion-laws-2-years-after/story?id=111312220; J. Biden, *Statement from President Joe Biden on Senate Republicans Blocking Efforts to Safeguard Nationwide Access to Contraception*, The White House, 5 June 2024; A. Nawaz, S. Khan, *Louisiana Restricts Access to Abortion Pills by Classifying Them as a Controlled Substance*, in «PBS News», 24 May 2024: https://www.pbs.org/newshour/show/louisiana-restricts-access-to-abortion-pills-by-classifying-them-as-a-controlled-substance.

addition, states such as Alabama, Texas, Idaho, Tennessee, and Oklahoma have proposed or passed bills restricting women's interstate mobility[18].

To illustrate these legislative actions, consider conservative stronghold Amarillo, Texas. Amarillo became one of the first cities to attempt to ban interstate travel. In July 2024, the people of Amarillo voted to put on the November ballot Proposition A, an ordinance that would outlaw people from using local streets and highways as a way to obtain through an abortion in New Mexico, where abortion is still legal[19]. On November 5th, 2024, Amarillo residents resoundingly and unexpectedly rejected Proposition A. Because the questionable constitutionality of these laws, even conservative strongholds like Amarillo are resisting attempts for anti-abortion organizations to propose or implement such draconian measures. Given this, anti-abortion groups are having to pursue creative ways to circumvent any legal barriers and public backlash. The strategy is to use duplicitous language to make the laws more palatable to voters and constituents, and thus to circumvent the resistance they are currently receiving.

For example, some lawmakers are including abortion travel bans under trafficking laws under the pretense to safeguard minors. These laws have been called "abortion trafficking laws"[20]. Anti-abortion organizations are naming similar ordinances, like the Amarillo ordinance up for vote in November 2024, as "sanctuary city for the unborn" ordinances. Other laws include bans on "abortion tourism,"[21] or "Bans Offshore Abortion Tourism Act" also referenced to by its acronym BOAT[22]. BOATs, trafficking laws, and sanctuary ordinances are popping up across the country that fall under the radar due to their misleading names and goals[23]. For example, a constituent does not need to be "pro-life" to find it difficult to justify voting against a law that presumably aims to address child sex trafficking in their area, especially if they are a parent.

Given this, if lawmakers fail, either intentionally or not, to fully inform constituents about the law's actual intent, the inclusion of abortion travel bans in trafficking legislation could succeed. Such legislation can serve as the legal foothold that anti-abortion organizations need to advance these policies. This insistence on passing abortion travel bans, despite probable public backlash, reflects a broader legal trend that Justice Kavanaugh, for example, acknowledged in his decision to vote to overturn Roe v Wade. Kavanaugh noted that banning interstate travel for abortion was a likely next step.

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[18] M.A. Pazanowski, *Doubts Over Abortion Travel Bans Lead States to Try Other Means*, in «Bloomberg Law», 15 May 2024: https://news.bloomberglaw.com/health-law-and-business/doubts-over-abortion-travel-bans-lead-states-to-try-other-means.

[19] C. Sherman, *Texas City to Vote on Ban on People Helping Patients Traveling for Abortion*, in «The Guardian», 19 July 2024: https://www.theguardian.com/us-news/article/2024/jul/19/texas-abortion-travel-ban; J.L. Carver, *Amarillo City Council Must Vote on Abortion Travel Ban Following Successful Voter Petition*, in «The Texas Tribune», 16 May 2024: https://www.texastribune.org/2024/05/16/amarillo-texas-abortion-travel-ban-vote/.

[20] Idaho State Legislature, *Idaho Code § 18-623*, 2024; B. Pierson, *Idaho Seeks to Revive 'abortion Trafficking' Law in US Appeals Court*, in «Reuters», 7 May 2024: https://legislature.idaho.gov/statutesrules/idstat/title18/t18ch6/sect18-623/.

[21] Abortion tourism is a term used to denote when a person travels outside of a state with draconian abortion laws to seek an abortion or abortion-related medical care in a state where abortion is legal.

[22] R.K. Weber, *H.R. 5319 - Ban Offshore Abortion Tourism Act*, 118th Congress, 29 August 2023: https://www.congress.gov/bill/118th-congress/house-bill/5319.

[23] ACLU of Illinois, *Sanctuary for the Unborn Ordinances*, 12 October 2023: https://www.aclu-il.org/en/campaigns/sanctuary-unborn-ordinances.

However, he remained confident that such bans would face significant criticism and ruled as unconstitutional. So far, Kavanaugh has been right. Nevertheless, such a ban has precedence and a policy infrastructure from which contemporary proponents of such bans can build their current policies. While it can seem impossible for such blatantly unconstitutional laws or ordinances to pass, these organizations are adept at exploiting legal frameworks to advance or legitimize them. These efforts become significantly reinforced when endorsed by institutions like the Supreme Court or other federal entities.

Additionally, these organizations could exploit state legal frameworks, such as presumptive extraterritorial power that states have. Given this, states have some power to enforce regulations against a citizen, even if that citizen is in a different state. This is challenging for many reasons, some obvious, but the bottom-line is that states do have presumptive power to regulate their citizen's movements and behaviors, even when that citizen either relocates or travels to a different state. The enforceability of the regulation depends on how the state is interpreting both the law and the individual's behavior, but there have been some instances where an individual was subject to the regulations of state A, despite being in state B. Again, states do not usually exercise this power given the backlash and resistance they are likely to receive from the public.

4. Abortion Bans and Travel Restrictions

The tension between individual interstate mobility and state jurisdiction has become even more pronounced after the Dobbs decisions. Proposals for abortion travel bans have led experts and journalists to explore further downstream implications of the decision, such as possible implementation and enforceability of abortion travel bans. Some experts[24] focused on the presumed fundamental right US citizens have regarding their freedom of interstate mobility or travel, as possible constitutional and legal precedents for anti-abortion advocates. In their congressional report, "Congressional Authority to Regulate Abortion," attorneys Kevin J. Hickey and Whitney K. Novak[25] note that anti-abortion advocates have previously used the Commerce Clause, in particular, to support abortion-related legislation. They note that states could similarly use the clause to extend to abortion services, interpreting them as commercial activities that engage in interstate commerce[26].

Additionally, other discussions include other legal foundations, like the Model Penal Code[27] and the Spending clause to restrict interstate travel for abortion services[28]. Americans assume that the Fourteenth Amendment Article IV and the Privileges and Immunities Clause of Article IV protects the right to travel, but this is not the case. The Fourteenth Amendment does not mention the explicit right to travel. Rather, prevailing interpretations have presumed that interstate mobility is concomitant to the other rights guaranteed in the Fourteenth Amendment. Furthermore, some interpretations of the Right

[24] D.K. Brown, *Extraterritorial State Criminal Law, Post- DOBBS*, University of Virginia School of Law, 28 August 2023: https://www.law.virginia.edu/node/2171216; K.J. Hickey, W.K. Novak, *Congressional Authority to Regulate Abortion*, CRS Report LSB10787, 2022.
[25] K.J. Hickey, W.K. Novak, *Congressional Authority to Regulate Abortion*, cit.
[26] Ivi, p. 3.
[27] D.K. Brown, *Extraterritorial State Criminal Law, Post- DOBBS*, cit.
[28] I. Millhiser, *The Unconstitutional Plan to Stop Women from Traveling out of State for an Abortion, Explained*, in «Vox», 12 September 2023: https://www.vox.com/23868962/texas-abortion-travel-ban-unconstitutional.

to Travel and Privileges and Immunities Clause in Article IV of the Constitution include believing it grants and guarantees a US state citizen the immunities and privileges of citizens in several states[29]. However, the Constitution does not enshrine the fundamental right to travel. Rather, an overlapping of different federal and state policies and laws have led to *interpretations* by states and the U.S. Supreme Court. The U.S. Supreme court, for example, recognizes the freedom of travel as a fundamental right.

Nevertheless, the federal and state governments can restrict interstate mobility due to public health and national security reasons[30]. Even so, the prevailing view is that despite these possible constitutional and legal precedents, such travel bans would receive extensive challenges, and have so far. Despite these challenges, I briefly cover other legal precedents, specifically around surveillance that nefarious actors could use. There are potentially two types of surveillance that anti-abortion groups could pursue to advance their goals. They could either use mobility monitoring, which does have a legal precedence in the United States or digital surveillance, which is a growing industry.

a. Monitoring Mobility

Currently, the United States uses various tools and systems of monitoring mobility. The most well-known form is Location Monitoring (LM), which involves the use of electronic monitors that use Global Positioning Systems (GPS). Typically, an LM device attaches to an individual's ankle for 24/7 surveillance. These devices notify officers of when the individual with the LM device moves outside of the set parameters or if the individual tampers with the device. Similarly, it monitors whenever the individual leaves or enters the designated destination[31]. Other LM devices include data or cellular signals, voice recognition (VR), and virtual monitoring, like tracking the individual through apps on their phone. There are several LM restriction levels. They include, curfew, home detention, home incarceration, and stand-alone monitoring[32].

Additionally, the US restricts the mobility of formerly incarcerated individuals known as probation. The release of formerly incarcerated individuals comes with the expectation of receiving community supervision. Under some conditions of probation, individuals may be asked to «remain within the jurisdiction of the court, unless granted permission to leave by the court or a probation officer»[33]. Ultimately, for the individual under probation, the courts decide where they can and cannot travel and what restrictions to enforce. Consequently, despite the complexity and challenges of enforcing abortion travel bans, anti-abortion advocates can draw on constitutional and legal precedents related to monitoring mobility. Correspondingly, the criminal justice system contains established protocols and procedures that require restricting an individual's mobility, which future policies can expand upon.

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[29] *Right to Travel and Privileges and Immunities Clause*, in *Constitution of the United States of America: Analysis and Interpretation*, 2024.
[30] *Interstate Travel as a Fundamental Right*, in *Constitution of the United States of America: Analysis and Interpretation*, 2024; Legal Information Institute, *Interstate Travel*, Cornell Law School, 2024.
[31] United States Courts, *How Location Monitoring Works*, March 2023: https://www.uscourts.gov/services-forms/probation-and-pretrial-services/supervision/how-location-monitoring-works.
[32] *Ibidem.*
[33] United States Courts, *Chapter 3: Location Monitoring (Probation and Supervised Release Conditions)*, 2024.

b. Digital Borders

In tandem with traditional physical mobility monitoring, the U.S. has increasingly turned to the use of digital borders as a means to control movement. The evolving technologies and biometrics of digital borders require a flexible definition that captures their intent and purpose. In their article, "The digital border: Mobility beyond territorial and symbolic divides" Lilie Chouliaraki and Myria Georgiou[34] offer a clear definition of digital borders and state:

> The digital border, as we have established, can be grasped as a shifting assemblage of technologies and meanings organised around historically-specific power relations that regulate migrant mobility across the binary of inside/outside *at* the edge and *within* the boundaries of national sovereignty.

Digital borders use technology to regulate migrant mobility across borders or within a country. This trend is not isolated to the U.S., as the European Union (EU) is in the process of implementing iCROSS, which is a digital and portable border control system[35] and has other digital processes in place to monitor and track travel across the continent.

Even so, after taking office in 2025, the Trump administration immediately initiated a "social media screening/ vetting" policy for travelers, specifically visa or green card holders, to show their social media to Customs and Border Patrol (CBP). While this is not a new policy, it is a more subjective and invasive form of the Electronic System for Travel Authorization (ESTA), developed by the Department of Homeland Security (DHS) in 2008[36]. These enforcement changes have already had considerable consequences. Several high-profile cases have involved foreign nationals denied entry to the United States while attempting to attend conferences or go on holiday. According to multiple reports, this was after criticizing or mocking either Trump or his administration. This has increased significantly with CBP recently requiring F, M, and J visa applicants to have all of their social media platforms public or risk rejection[37]. In addition, on June 26th, 2025, the Trump administration announced that green card holders could have their eligibility to remain in the U.S. revoked if they support terrorism or violence[38]. According to several reports, the Trump administration has so far interpreted "support of terrorism or violence" as support for Palestine or criticizing Israel[39].

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[34] L. Chouliaraki, M. Georgiou, *The Digital Border: Mobility beyond Territorial and Symbolic Divides*, in «European Journal of Communication», XXXIV, n. 6, 2019, pp. 594-605: 600.

[35] European Commission, *Intelligent Portable Border Control System*, CORDIS, 6 September 2024: https://cordis.europa.eu/project/id/700626.

[36] U.S. Customs and Border Protection, *Strengthening Security of the VWP through Enhancements to ESTA*, 11 February 2025: https://www.cbp.gov/travel/international-visitors/esta/enhancements-to-esta-faqs.

[37] U.S. Embassy in Mali, *Updated Social Media Disclosure Requirement for F, M, J Visa Applicants*, 24 June 2025; United States Department of State, *Announcement of Expanded Screening and Vetting for Visa Applicants*, 18 June 2025: https://ml.usembassy.gov/u-s-requires-public-social-media-settings-for-f-m-and-j-visa-applicants/.

[38] B. Rahman, *New Warning Issued to Green Card Holders*, in «Newsweek», 26 June 2025: https://www.newsweek.com/green-card-warning-issued-immigration-violence-terrorism-2091042.

[39] A. Mahdawi, *Keep Calm (but Delete Your Nudes): The New Rules for Travelling to and from Trump's America*, in «The Guardian», 15 May 2025: https://www.theguardian.com/us-news/2025/may/15/travel-trump-

For example, in March 2025, immigration officers denied a French scientist heading to a conference in Houston over his criticism of the Trump administration[40]. In June 2025, CBP went through an Australian writer's phone and used what they found on it as a pretense to detain him in Los Angeles. He was then deported back to Melbourne because of his coverage of the Pro-Palestinian protests in 2024 while he was a student at Columbia[41]. These cases reflect a broader trend among a growing number of unreported detentions and deportations by the CBP at the border.

In light of these high-profile cases, the Trump administration's enforcement and interpretation of the ESTA policy has drawn renewed public scrutiny, particularly over concerns of the politicized use of digital surveillance to target political dissidents rather than genuine national security threats. These concerns intensified in May 2025, after the Trump administration announced they formed a partnership with surveillance and technology firm Palantir to compile profiles on every American[42]. Palantir also revealed it is developing a platform to track migrant movements in real time for Immigration and Customs Enforcement (I.C.E.)[43]. Alongside creating these databases on Americans, the Trump administration also adopted Foundry, a technology program that specializes in organizing and analyzing data to facilitate information sharing between different agencies[44]. In addition, in June 2025, the Trump administration created a new US army division, Detachment 201, which is the Army's Executive Innovation Corps, designed to "fuse cutting-edge expertise with military innovation." According to the Army's official website, the division's new Army Reserve Lt. Cols. include, «Shyam Sankar, Chief Technology Officer for Palantir; Andrew Bosworth, Chief Technology Officer of Meta; Kevin Weil, Chief Product Officer of OpenAI; and Bob McGrew, advisor at Thinking Machines Lab and former Chief Research Officer for OpenAI»[45]. Given the Trump administration's approach to surveillance and dissent, the formation of the new tech army division further

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america-us-border-detentions; A. Greenberg, M. Burgess, *How to Enter the US With Your Digital Privacy Intact*, in «Wired», 24 March 2025: https://www.wired.com/2017/02/guide-getting-past-customs-digital-privacy-intact/; M. Malaver, J. Weaver, *US Border Officials Can Search Your Phone without a Warrant. What to Know*, in «Tampa Bay Times», 20 April 2025: https://www.tampabay.com/news/2025/04/20/immigration-phone-searches-customs-border-protection-florida/.

[40] R. Mackey, *French Scientist Denied US Entry after Phone Messages Critical of Trump Found*, in «The Guardian», 19 March 2025; Reuters, *French Scientist Denied Entry into the US, French Government Says*, 20 March 2025: https://www.theguardian.com/us-news/2025/mar/19/trump-musk-french-scientist-detained.

[41] A. Lewis, *Australian Denied Entry to US after Being Grilled on Israel-Gaza Views*, in «ABC News», 15 June 2025: https://www.abc.net.au/news/2025-06-16/australian-denied-entry-united-states-israel-gaza-columbia/105419154.

[42] S. Frenkel, *Lawmakers Demand Palantir Provide Information About U.S. Contracts*, in «The New York Times», 17 June 2025: https://www.nytimes.com/2025/06/17/technology/palantir-government-contracts-democrats-letter.html; J. Jones, *Trump Appears to Be Building an Unprecedented Spy Machine That Could Track Americans*, in «MSNBC», 30 May 2025; B. Allyn, *How Palantir, the Secretive Tech Company, Is Rising in the Trump Era*, in «NPR», 3 May 2025: https://www.npr.org/2025/05/01/nx-s1-5372776/palantir-tech-contracts-trump.

[43] S. Frenkel, A. Krolik, *Trump Taps Palantir to Compile Data on Americans*, in «The New York Times», 30 May 2025: https://www.nytimes.com/2025/05/30/technology/trump-palantir-data-americans.html.

[44] *Ibidem.*

[45] U.S. Army Public Affairs, *Army Launches Detachment 201: Executive Innovation Corps to Drive Tech Transformation*, 13 June 2025: https://www.army.mil/article/286317/army_launches_detachment_201_executive_innovation_corps_to_drive_tech_transformation.

raises concerns about the lack of oversight and the scale and scope of digital surveillance. These concerns extend not only to targeting alleged security threats, but also to Americans or others seemingly targeted by the administration.

5. Emerging Telematics Systems Technology in Automobiles

In this section, I argue that widespread, unregulated surveillance built into emerging telematics technologies poses serious ethical risks for women and other historically marginalized communities. I draw on digital ethics frameworks to emphasize ethical concerns regarding autonomy, disproportionate impact on populations already marginalized and heavily surveilled by current institutions, and privacy violations within the larger context of reproductive rights. From this perspective, I show how these surveillance technologies coupled with the increase in mobility monitoring occur due to morally impermissible means. This is because data collection and the data broker industry are both heavily unregulated. This has allowed companies from Meta to car manufacturers to engage in nontransparent practices that include the implicit collection of data of their consumers.

Recently, car manufacturers across the board have embedded telematics systems or software over-the-air (SOTA) technology into newer models of their cars. According to Rambus Press[46], over-the-air programming refers, "to the ability to download applications, services, and configurations over a mobile or cellular network. Over-the-air (OTA) programming is used to automatically update firmware, software, and even encryption keys." OTA technologies allow car manufacturers to connect directly to the cars, either to disable certain functions in the car to prevent that tethered feature unless the individual pays the required subscription fee or to update certain upgrades. Tesla was the first automaker to monetize OTAs in early 2019. Other luxury brands, including Mercedes, BMW, Audi, and Lexus have all rolled out their subscription services.

For example the new A3 requires users to choose a subscription package to access, «adaptive cruise control, Apple CarPlay and Android Auto, automatic high beams, and, bafflingly, dual-zone climate controls»[47]. Lexus rolled out its "The Go Anywhere Plan" that provides consumers access to features originally part of the car, such as navigational systems, remote access to the car, like un/locking the doors, and safety features within the car. If the consumer does not purchase the premium package, then certain safety features, along with the sat nav, will be disabled[48]. BMW requires an $18-a-month subscription for consumers to access their heated seats and remote-start features, features their cars already contain[49]. This is just one of the potential (mis)use of systems that monitor mobility in cars to collect data for training and other purposes specific to the manufacturer.

[46] Rambus, *What Is OTA in Automotive? Over the Air Updates Explained*, 13 May 2022: https://www.rambus.com/blogs/ota-updates-explained/.
[47] C. Teague, *The New Audi A3 Comes with Subscription Fees in Europe*, in «The Truth About Cars», 12 March 2024: https://www.thetruthaboutcars.com/cars/news-blog/the-new-audi-a3-comes-with-subscription-fees-in-europe-44505658.
[48] Lexus, *Subscription Plans*, 23 January 2024: https://support.lexus.com/s/article/Subscription-Plans-L.
[49] H.D. Beaver, *Automakers' Added Subscription Fees Raise Legal Questions*, in «Kiplinger», 2 January 2024: https://www.kiplinger.com/personal-finance/automakers-added-subscription-fees-raise-legal-questions.

a. *Digital Surveillance*

For cars to continue advancing toward full autonomy, as envisioned by Howard and Sparrow, they require collecting a vast amount of consumer data which often happens without the consumer's knowledge or consent, and commonly car manufacturers are not transparent about how, why, when, or what kind of data they collect. This is in addition to the amount of data consumers already have collected on and about them throughout the day, including on social media, their medical apps, like MyChart, the weather app, security cameras, and voice assistants[50]. This is known as datafication. In their article, "How to protect privacy in a datafied society? A presentation of multiple legal and conceptual approaches" Oskar J. Gstrein and Anne Beaulieu explore the increase in datafication of our private and public spheres. Gstrein and Beaulieu state:

> Datafication is a complex process that is often associated with digital technologies and (Big) data infrastructure. Furthermore, data and data-related capabilities are central to datafication. This includes the extension of automation, the proliferation of digital technologies, the willing production of massive amounts of data and the combination and circulation of datasets[51].

Datafication requires an interconnectedness between digital devices, supported by both digital infrastructures and societal practices. Thus far, I have shown multiple ways that companies and the government in the United States collect data on the public, from ankle monitors to social media posts and the use of surveillance technologies. Datafication allows companies like Palantir to quantify, track, and render things like social ties and associations into digital data and traces. Gstrein and Beaulieu state:

> Hence, data generated by highly connected and monitored environments do not only allow one to make explicit statements about the individuals consenting to its collection and use, but also about those resisting it. The pervasive deployment of datafication also enables inferences on those who opt-out, regardless of how techniques such as anonymisation are being applied[52].

Even when people are not chronically online, do not have social media apps, and largely stick to a more analog life, companies continue to collect data on them. In their book, *The Secret Life of Data: Navigating Hype and Uncertainty in the Age of Algorithmic Surveillance* Aram Sinnreich and Jesse Gilbert[53] call this data holes. Even a data hole is data. This is because of the interconnected nature between digital devices of people around them. This means that even gaps between data is meaningful data. Given this, datafication impacts the ways in which we interact with each other and our perception of what is private or public information.

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[50] C. Véliz, *Privacy Is Power: Why and How You Should Take Back Control of Your Data*, Melville House, Brooklyn-London 2021.

[51] O.J. Gstrein, A. Beaulieu, *How to Protect Privacy in a Datafied Society? A Presentation of Multiple Legal and Conceptual Approaches*, in «Philosophy & Technology», XXXV, n. 1, 2022, p. 5.

[52] Ivi, p. 3.

[53] A. Sinnreich, J. Gilbert, *The Secret Life of Data: Navigating Hype and Uncertainty in the Age of Algorithmic Surveillance*, The MIT Press, Cambridge (MA) 2024.

While this may not alarm some consumers, it reflects a growing trend in mass surveillance in the United States, particularly in more subtler forms like digital surveillance. For this paper, I adopt a broad understanding of digital surveillance to refer to the use of technology by governments, third parties, corporations, or individuals to collect personal data, monitor, and track people, such as through biometric data, online communications, or networks. With this in mind, car manufacturers are collecting data across the board, which reports have found include consumers' sexual preferences, to their exact locations, such as the exact parking spot they parked in[54]. They do so through infotainment or driver-assistance systems, and Bluetooth. This digital surveillance raises concerns regarding consent, transparency, and the weaponization of data.

For example, a report by the Mozilla Foundation found that the amount of personal data collected by car manufacturers is already alarming. Even more concerning is that a staggering 56% of manufacturers disclosed that they share consumers' personal information with the government or local law enforcement, often without formal requests. As Mozilla's privacy team members explain in their consumer-facing research report, «A surprising number (56%) also say they can share your information with the government or law enforcement in response to a "request." Not a high bar court order, but something as easy as an "informal request"». When they are not selling consumer personal information to law enforcement or the government, they are selling it to data brokers. According to Brown University Office of Information Technology[55], data brokers are, «companies that collect, analyze, and sell large volumes of consumer information, often without direct consent, to third parties, for various purposes, such as targeted advertising and risk assessment» Data brokers will then sell the information they bought to other companies, law enforcement agencies, or anyone willing to buy that information.

Cars manufacturers are not the only ones to collect and then sell consumer data to data brokers. In fact, almost every company or entity we interact with will collect and sell out data at some point. This includes hospitals and social media websites like Facebook. Consequently, digital surveillance of women post-Roe v Wade increased and became a lucrative frontier for data brokers. Some of their highest bidders turned out to be anti-abortion groups. For instance, a *Wall Street Journal* report by Byron Tau[56] detailing that anti-abortion groups were using cellphone data to target people who visited Planned Parenthood. Following this report, Senator Ron Wyden initiated an investigation and found that the anti-abortion organization, The Veritas Society, hired advertising agency Recrue Media, who then used the data broker company Near Intelligence to obtain consumer location data from each reproductive health facility and their parking lots. The Veritas Society proudly proclaimed that just in Wisconsin they delivered 14.3 million ads

[54] A. Greenberg, *Subaru Security Flaws Exposed Its System for Tracking Millions of Cars*, in «Wired», 23 January 2025: https://www.wired.com/story/subaru-location-tracking-vulnerabilities/; O. Povey, *Concerns Raised over Tesla Spying on Drivers from Their Cars*, in «AS», 3 April 2025: https://en.as.com/latest_news/concerns-raised-over-telsa-spying-on-drivers-from-their-cars-n/; T. Klosowski, *How to Figure Out What Your Car Knows About You (and Opt Out of Sharing When You Can)*, Electronic Frontier Foundation, 15 March 2024: https://www.eff.org/deeplinks/2024/03/how-figure-out-what-your-car-knows-about-you-and-opt-out-sharing-when-you-can.

[55] Brown University Office of Information Technology, *Learn About Data Brokers*, 2025.

[56] B. Tau, *Antiabortion Group Used Cellphone Data to Target Ads to Planned Parenthood Visitors*, in «The Wall Street Journal», 18 May 2023: https://www.wsj.com/us-news/society/antiabortion-group-used-cellphone-data-to-target-ads-to-planned-parenthood-visitors-446c1212.

to people who visited abortion clinics[57]. Furthermore, Recrue Media's Cofounder admitted, «The company used Near to target ads to people who had visited 600 Planned Parenthood locations in the lower 48 states»[58].

To assess the ethics of such surveillance, I turn to Carissa Véliz's work on privacy and surveillance. Even when American women do not realize it, they are under significant amount of digital surveillance that may show up as something as simple as an anti-abortion ad that feels like it came out of the blue. In her chapter, "The Surveillance Delusion" in *The Oxford Handbook of Digital Ethics* she discusses surveillance delusion. Véliz believes that this normalization of the amount of surveillance we are under causes people to miscalculate the costs of surveillance. In particular, she believes that people fall into what she calls the surveillance delusion.

> Under surveillance delusion, only the benefits of surveillance are considered, and, as a result, surveillance is taken to be a convenient solution to problems that could be solved through less intrusive means—all without realizing that surveillance itself may be creating more weighty problems in the long run than the ones it is solving[59].

Consumers and the public struggle to understand the actual amount of harm that surveillance causes, especially when companies frame the technology in exciting or positive ways, like with autonomous vehicles. For example, people who buy Electric Vehicles (EVs) may do so wanting to be more environmentally conscientious or for their enhanced driver assistance systems, like in Tesla's. They most likely do not consider the amount of data the Tesla collects on them, including personal conversations they have inside the car. This is because having the ability to have a car that drives autonomously periodically offers a tradeoff with convenience that makes the surveillance component less important.

In her book, *The Ethics of Privacy and Surveillance*[60], Véliz discusses the duties that come with the use of surveillance. Véliz states:

> Whenever surveillance is implemented (even when it is justified), successive waves of duties arise from it, because duties to protect the right to privacy are being unfulfilled. Those new duties include informing the targets of surveillance (unless a criminal investigation necessitates temporary secrecy), keeping the data safe, deleting sensitive data as soon as possible, and minimizing the possible harms of surveillance[61].

This framing helps us understand the duties owed to those under surveillance. It is not always clear because of how common it is for companies not to obtain consent or mishandling personal or sensitive data. Take for example the case with the car

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[57] R. Wyden, *Letter to FTC and SEC regarding Near Intelligence Inc.*, 13 February 2024: https://www.wyden.senate.gov/imo/media/doc/signed_near_letter_to_ftc_and_sec.pdf.

[58] R. Wyden, *Letter to FTC and SEC regarding Near Intelligence Inc.*, cit., p. 2; Z. McNeill, *Data Broker Sold Data From 600 Planned Parenthood Visits to Anti-Abortion Group*, in «Truthout», 15 February 2024: https://truthout.org/articles/data-broker-sold-data-from-600-planned-parenthood-visits-to-anti-abortion-group/.

[59] C. Véliz, *The Surveillance Delusion*, in C. Véliz (edited by), *The Oxford Handbook of Digital Ethics*, Oxford University Press, Oxford 2024, pp. 555-574: 556.

[60] C. Véliz, *The Ethics of Privacy and Surveillance*, Oxford University Press, Oxford 2024.

[61] Ivi, p. 139.

manufacturers. They collected data on consumers without informing them that their infotainment centers, Bluetooth, and voice-assistants collected and sold data to third parties. Law enforcement agencies and the government, were among the third parties that received consumer data, even when they did not make a formal request. Even though those car manufacturers technically did not do anything illegal, they failed their duties to protect their consumers in almost every way.

Véliz continues to critique the normalization of surveillance and argues that in order for its use to be morally permissible, it must be proportionate and necessary. Véliz states, "Given that surveillance has costs, it has to be *necessary* in that comparable beneficial results cannot be achieved by less intrusive or harmful methods. The moral concept of *proportionality* refers to a moral constraint on actions that cause harm."[62] In this case, if surveillance is necessary, the benefits of its use must outweigh any risks, wrongs, or harms it creates than the overall bad it creates. If it meets this condition, then it is proportionate and morally permissible. Similarly, Véliz notes, «Necessity is concerned with comparing what will happen if an act is done with what will happen if alternative acts are done that are also means of achieving the same end»[63]. If surveillance is necessary it is because all alternatives, including not using surveillance, fails to achieve the results or effectiveness. Veliz continues:

> The main idea is that any action that has moral costs (wrongs or harms) must have a convincing justification for it to be morally acceptable. For harms or wrongs to be justified, they must be done in an attempt to accomplish something good. If an action only creates a harm, and has no benefit, then it is not morally acceptable, as harms are something that ought to be avoided, other things being equal.[64]

This insight is relevant given the sheer amount of datafication in our lives and their associated harms. For instance, it is difficult to find data brokers who, following the Dobbs decision, increased surveillance of women because selling that data to anti-abortion organizations proved extremely profitable, as morally permissible. This contributed to groups like the Veritas Society to monitor and track random women who visited Planned Parenthoods. Furthermore, all of those women had no idea they were under surveillance because some random organization suspected them of getting abortions. However, the women could have been seeking other services other than abortion care, especially at Planned Parenthood. Planned Parenthoods provide free or low-cost Sexually Transmitted Infection (STI) testing, cancer screening, birth control, breast exams, and other preventative treatments and cancer screenings, mental health services, prenatal and postpartum services, vaccinations, and gender-affirming care, as well as testing and treating urinary tract infections (UTIs)[65]. The data broker company acting on behalf of the Veritas Society violated the privacy rights of the women they put under surveillance. This caused an immense harm, without any benefit.

As a result of this surveillance, the women received targeted anti-abortion ads. This despite the fact that they could have visited Planned Parenthood for other reasons. For

[62] Ivi, p. 138.
[63] Ivi, p. 139.
[64] *Ibidem*.
[65] Planned Parenthood, *Our Services*, 2025: https://www.plannedparenthood.org/get-care/our-services.

instance, they may have gone because they suspected they had endometriosis, or found a lump in a breast, or needed an STI screening because they had a new partner. Instead, a company willing to abuse privacy laws holds their information and stores it indefinitely. If the Veritas Society's true goal was to send targeted ads to women of a certain age and demographic, they could have used other well-known and used alternatives. For example, other companies regularly use Meta or TikTok Ads Manager because they are less invasive and do not violate abuse privacy laws, while achieving the same results. These methods show the surveillance capability a single data broker took on behalf of one anti-abortion organization to send targeted ads on social media. Their use of surveillance was clearly neither proportional nor necessary, and thus morally impermissible. In fact, it sets a dangerous precedent for other companies and organizations to do the same, and against other vulnerable populations.

Now, imagine if Veritas Society was one of the companies that car manufacturers sold sensitive location data, too, as well, in addition to what they collected through Near Intelligence. Remember, car manufacturers already plan on installing these emerging technologies and their data collection features into newer models. These cars are likely the ones that will be operational during the transitional period Sparrow and Howard predict occurs before the ban. Nevertheless, it is important to note that their proposal is still speculative. This means, that even before their proposed ban, people will not be able to opt-out of the ban, so to speak. Their old cars will be able to sit in their garages or on the side of the street, but car manufacturers will and can disable the car, prohibiting any access to the roads. Similarly, the car manufacturer can and most likely will provide law enforcement with data on any human driver who defies the new ban. The caveat is that implementing and enforcing such a ban would require even greater levels of digital surveillance. Thus, I ultimately reject Sparrow and Howard's proposal on the grounds that it would be morally impermissible for the government to outlaw human drivers. This is because the level of surveillance required would be neither proportional nor necessary. I further support this stance by first presenting a troubling empirical case, followed by a hypothetical case study involving Saoirse.

In addition, the outlawing of human drivers is likely to receive significant pushback. If the sustained resistance to Seat Belt Laws since the 1980s is any indication of the public's response to laws they perceive as overstepping, then it is hard to imagine that the public would not react similarly, if not more zealously, to increased surveillance, surveillance delusion or not. Furthermore, it is difficult to imagine that a full outright ban on human drivers would go well, either. If a significant portion of the public continues to rally against seat belts, it is likely they will rally against increased surveillance and an outright ban on their right to drive. Similarly, increased surveillance and data collection are likely to face legal and democratic resistance and barriers, especially as public awareness about the data broker industry increases, as is evidenced by Senator Ron Wyden's letter to the FTC and John Oliver's humorous, but poignant, segment on data brokers[66].

[66] Last Week Tonight, *Data Brokers: Last Week Tonight with John Oliver (HBO)*, 11 April 2022: https://www.youtube.com/watch?v=wqn3gR1WTcA.

6. The Convergence of Restrictive Abortion Laws and Autonomous Vehicle Regulation in the U.S.

a. The Benefits and Perils of Banning Human Drivers

One such emerging technology is likely autonomous vehicles because they are the perfect amalgamation of mobility regulation, legal frameworks, and digital surveillance that overlap in complex ways that may draw people out of their surveillance delusion. In this section, I develop a critical analysis of the convergence of the previously-discussed abortion travel bans and proposed autonomous vehicle regulation in the U.S. From Sparrow and Howard's (2017) techno-optimistic perspective[67], the future of autonomous vehicle regulation, contains a list of potential benefits of banning human drivers and increasing the availability of driverless vehicles that outweighs any harms that may arise.[68] Their list of benefits includes a total shift in insurance and liability costs, from the human driver to the programmer or engineer; an increase in accessibility for previously excluded populations like the elderly or those with medical conditions; and an increase in efficiency and improvement of current public transportation systems. I do not disagree or dispute their listed benefits. Additionally, because users will need to input point A and point B of their travel destinations, there are some further benefits beyond Sparrow and Howard's list. They include prohibiting:

- Domestic abusers from violating temporary protection orders (TPO) or going anywhere near the victim;
- Convicted pedophiles or sex offenders from accessing known children-oriented places, like schools, theme parks, and homes with children;
- Reckless driving;
- Driving under the influence (DUI).

The list of potential benefits contains various reasons to support a ban on human driving. The ban on human driving could theoretically reduce traffic fatalities, kidnappings, and instances of domestic violence. It could also lead to local and federal governments prioritizing public transit, making public transit more accessible and effective. Additionally, this technology could increase independence for the elderly and those previously under driver restrictions due to medical reasons. While these benefits are promising, it is important to keep in mind some potential perils.

Potential Perils:

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[67] In his article, "Techno-optimism: an Analysis, an Evaluation and a Modest Defence", John Danaher (J. Danaher, *Techno-Optimism: An Analysis, an Evaluation and a Modest Defence*, in «Philosophy & Technology», XXXV, n. 2, 2022, p. 11: https://doi.org/10.1007/s13347-022-00550-2) states, "This article focuses on impersonal forms of optimism. Techno-optimism is the stance that holds that technology, defined here in largely material and instrumentalist terms, plays a key role in ensuring that the good does or will prevail over the bad." Danaher's definition points to a general understanding of emerging technologies largely producing benefits that outweigh any harms generated by its adoption. Danaher offers a moderate defense of techno-optimism. Danaher (ivi, p. 27) states, «Despite this, however, I have concluded that a modest form of techno-optimism, one that does not assume that technology will save humanity by itself, nor that technology is sufficient for the good to prevail, is defensible» Danaher's modest defense does point to more of a viewpoint that this paper takes: if we establish the right regulatory frameworks and policies, then technology has the potential to improve humanity and allow good to prevail over bad.

[68] To view Sparrow and Howard's list see R.J. Sparrow, M. Howard, *When Human Beings Are like Drunk Robots*, cit., pp. 212-213.

- Misuse and abuse of current policy frameworks by policy and lawmakers.
- Surveillance of women and marginalized communities through using:
  - Digital surveillance;
  - Data brokers;
  - Social media;
  - Geolocation.
- Limitations of individual freedom of movement.
- Automated Incident Reporting and the Militarization of US Police
- Interpretations of regulations in relation to other laws and policies.

Although we have strong reasons to support the ban of human drivers, the perils do point to nontrivial ethical problems when applied in tandem with other regulations. Like previously discussed, vehicles have unprecedented abilities to surveil people inside and around them, and then selling that information to data brokers, marketing firms, and the government (Ferris 2024) without much prompting or justification. As digital surveillance advances in the United States, it is plausible that authorities will likely increase monitoring not only women, but also other heavily surveilled populations such as political dissidents, immigrants, and historically marginalized and minority communities. Consequently, digital privacy could become a more pressing issue as current vehicles continue to become more advanced and regulations continue to remain lax.

b. Social Media as a Digital Canary Bird

Social media users are similarly vulnerable to the misuse, selling of, and abuse of their personal data, due to ambiguous regulations around digital privacy. They suffer the consequences of techno-optimism and lack of protections in the name of innovation. If Sparrow and Howard's own policy proposal to ban human drivers comes to fruition, there is a potential for there to be the perfect dystopian combination of complementary, but destructive policies.

This is where the laws around driverless vehicle regulations and restrictive abortion laws may converge. In the near future, we could live in a time period where a ban of human drivers exists, which would be in a post-Roe v Wade world. Due to the weak regulatory landscape surrounding digital privacy, the overturning of Roe v Wade and the Chevron doctrine, in the U.S. could subject people of reproductive age to heightened surveillance from their social media to the driverless vehicle they use to travel.

c. Current Empirical Cases

For women of reproductive age in the US, they are under more surveillance than they realize, especially in areas with strict abortion laws that allow and have reporting systems in place (e.g., Texas). For instance, due to resistance from the courts and the public, anti-abortion groups have enlisted the help of former "sex partners" of women who get an abortion or are suspected of getting an out-of-state abortion[69]. For example, the anti-

[69] C. Kitchener, *Antiabortion Advocates Look for Men to Report Their Partners' Abortions*, in «The Washington Post», 17 January 2025: https://www.washingtonpost.com/investigations/2025/01/17/texas-abortion-pills-lawsuit/.

abortion group, Texas Right to Life, uses social media campaigns to recruit aggrieved current or former male partners of women who they suspect of obtaining an abortion, planning to, or who have obtained an abortion. The group became inspired by anti-abortion lawyer, Jonathan Mitchell's use of legal loopholes to file lawsuits against people who assist women seeking abortion care, through using Texas's wrongful death statute. In her article, "Antiabortion advocates look for men to report their partners' abortions" Caroline Kitchener reports:

> For male partners initiating a wrongful-death case, the first step is frequently to request highly personal and sensitive information from the woman who chose to end her pregnancy, compelling her to hand over text messages and other documentation related to her abortion that could then be made public during discovery.[70]

Anti-abortion groups have not stopped at recruiting men to report their partners after either coercing or deceiving women into providing personal information to them. Texas's restrictive abortion laws have also emboldened police officers in Texas to stalk women they suspect may have had an out-of-state abortion in a state where abortion is legal. On June 9th, 2022, The Illinois secretary of state had to initiate an investigation into a suburban Chicago police department sharing data from an automatic license-plate reader to a Texas sheriff deputy. This discovery occurred due to a website, 404 media, reporting that the Texas sheriff sent out a nationwide request for data that amounted to requesting access from roughly 83,000 cameras operated by Flock Safety[71].

The Texas sheriff justified violating state laws by stating he sought the digital surveillance data because the woman's family reported that they suspected the woman had obtained an abortion in Chicago. The woman did not violate or break the law in Illinois, where abortion is legal, but her data from license plates readers in the state were still collected and given to the Texas sheriff anyway. These two cases are just two of many likely unreported efforts of anti-abortion groups to weaponize legal loopholes, judicial precedents, and digital surveillance technologies to persecute women seeking abortion care, even in states where abortion is legal. This type of weaponization, coupled with the growing interoperability of digital surveillance systems, sets the stage for increasingly aggressive and systematic attempts to restrict mobility. Even without driverless car bans, these cases illustrate real-world scenarios in which legal loopholes, interjurisdictional data-sharing, and surveillance technologies are already in use.

d. A Collision of Regulations Case-Saoirse

To help concretize what a convergence of restrictive abortion laws and a ban on human drivers could look like in practice, here is a case study.

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[70] *Ibidem.*

[71] J. O'Connor, *Illinois Investigates Police for Sharing License Plate Data with Texas Sheriff*, in «AP News», 12 June 2025: https://apnews.com/article/abortion-access-immigration-license-plate-readers-surveillance-13fac7c045df3c5e5145f6d4e4c4db28; A. Mahdawi, *A Dystopian Surveillance Fear Has Become Reality in Texas*, in «The Guardian», 31 May 2025: https://www.theguardian.com/commentisfree/2025/may/31/a-dystopian-surveillance-fear-has-become-reality-in-texas.

Some Key points:

- State A-abortion is illegal;
- State B- abortion is legal;
- Driverless vehicles exist;
- Human Drivers are Banned.

Case:

According to Sparrow and Howard's ideal regulatory framework and anti-abortion groups ideal abortion regulations, resides Saoirse. Saoirse is a 24 year-old woman, who is 12 weeks pregnant. She lives in State A. She wants to get an abortion from State B. However, humans cannot drive. The only type of available transportation that is an individual-public driverless vehicle or public driverless fleets. Saoirse cannot drive herself to an abortion clinic in State B because she lives in State A, which prohibits such inputs. In addition, all users must first input their information in order to access a driverless vehicle.

Saoirse uses a period tracker app and the app sold her health data to data brokers. Her profile now indicates that she is of reproductive age and possibly pregnant due to missed periods. Due to the possibility of being pregnant, through OTA systems, the app will not allow her to schedule a pick-up or drop-off near State B. Instead, it indicates permitted roads and routes pregnant people can use, as a pregnant person living in and subject to laws and regulations in State A. Saoirse knows not to request help via social media or messaging apps. In addition, there is a possibility that the driverless vehicle she uses collects and sends her information to local law enforcement. Thus, due to the heavy surveillance the two overlapping laws allow, Saoirse cannot access abortion care or support. Furthermore, the convergence of the regulations, restrict her mobility, especially interstate mobility, until further notice.

e. Upshots

In understanding Saoirse's case study, it illustrates the perils of when Sparrow and Howard's regulatory framework converges with in-practice anti-abortion groups ideal regulations. Sparrow and Howard's techno optimism fails to account for when their ban on human drivers would converge with existing technological and constitutional and legal precedents, and policy frameworks. Additionally, the case study expands to include other heavily-surveilled populations, like political dissidents, immigrants, and other marginalized and minority communities. Moreover, the case study shows the potential for driverless vehicles to play a fundamental role in the surveillance state and either reducing or undermining bodily autonomy and freedom of mobility for millions of Americans. Thus, although we have strong reasons to support banning human drivers, such policies need to take into consideration the interplay with existing regulations and their ethical implications. When we consider the ideal outcomes of these regulatory proposals according to their sponsors and advocates, that is when we can see the true potential perils. Moreover, Saoirse's case study helps explore broader policy implications regarding policy and the often overlooked impact on marginalized communities.

As the examples illustrate, state surveillance currently uses various tools and resources (e.g., digital borders and surveillance) and those are likely to increase in scope and scale in the near future. These also include taking advantage of interoperability between government agencies and data systems, a weak digital regulatory landscape, and the use of data brokers to scrape and aggregate user information. The banning of drivers increases the use of digital profiles for travelers accessing driverless fleets. In addition, proposed surveillance measures to enforce restrictive abortion laws, could further exacerbate state surveillance. Together, these converging regulations could potentially reduce or undermine the bodily autonomy and freedom of mobility of millions of Americans. However, the state would need access to an unprecedented amount of surveillance technologies beyond what they already utilize. Although I am uncertain how seriously the United States will approach digital regulations, following the EU's suit is one potential way to mitigate the risks I have addressed throughout the paper.

7. Conclusion

Throughout the paper, I centered my discussion on the convergence of restrictive abortion laws and the banning of human drivers. I examined the possibility of banning human drivers and what a driverless future looks according to Sparrow and Howard, and the transition to such a future. I further provided an examination of current and proposed restrictive abortion laws in the United States and their future policy implications, outlining the various approaches anti-abortion organizations are taking to circumvent constitutional challenges to their goal to ban abortion travel across the United States. Afterwards, I examined current forms of digital surveillance and mobility monitoring the United States already engages in, the current administration's expansion of those capabilities, and the potential implications. Then, I presented a case study to show the ethical implications of the convergence of autonomous vehicle regulation and restrictive abortion laws. This paper shows how discussions about self-driving car regulations and current restrictive abortion laws in the United States, overlap. It highlights the serious implications for bodily autonomy, freedom of mobility, and surveillance, particularly for women and marginalized communities.

However, despite an increase in digital surveillance and other restrictions, the public has continued to show significant resistance and pushback that has meaningfully stalled or made it more difficult for these more restrictive or despotic policies to pass. It is crucial that the public sustains this resistance. Equally vital is the ongoing efforts by academics, journalists, and other organizations to continue sharing knowledge and information. My hope is that by showing the potential harms of these overlapping policies, I can contribute to a broader public discourse. The goal is not to spark moral panic, but rather to foster greater awareness of the potential consequences when these policies meet.