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Jennifer A. Brobst

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THE METAL EYE: ETHICAL REGULATION OF THE STATE'S USE OF SURVEILLANCE TECHNOLOGY AND ARTIFICIAL INTELLIGENCE TO OBSERVE† HUMANS IN CONFINEMENT

JENNIFER A. BROBST*

† Surveillance is defined as "close observation, esp. of a suspected person." Surveillance, THE OXFORD ENCYCLOPEDIC ENGLISH DICTIONARY 1457 (Joyce M. Hawkins & Robert Allen, Clarendon Press 1991). Oddly, there is no word in English or French that means "the one who surveils." Neither spy, which presupposes an enemy, nor observer, which lacks the deliberate focus of surveillance, equates to "surveilleur", should such a word exist. In 1900, one of the first English language thesauri aptly distinguished between the words *observe* (the chosen word for the title of this article) and *watch*: "These terms agree in expressing the act of looking at an object; but to *observe* is not to look after so strictly as is implied by to *watch*; a general *observes* the motions of an enemy when they are in no particular state of activity; he *watches* the motions of an enemy when they are in a state of commotion; . . . ." GEORGE CRABB, ENGLISH SYNONYMES EXPLAINED 635 (New ed., Harper & Bros., 1901) (emphasis in original).

* Jennifer A. Brobst, J.D., LL.M., is an Assistant Professor at Southern Illinois University (SIU) School of Law, cross-appointed in the SIU School of Medicine Department of Medical Humanities. She was formerly a deputy prosecuting attorney in Indiana and legal director of a mental health center in North Carolina. Many thanks to the student editors of the California Western Law Review, especially Brooke Raunig, Hana Willard, and Eric Clarkson. They provided excellent editing support on this article, as well as confident leadership during the Second Annual Legal Ethics Symposium on February 17, 2018, "Artificial Intelligence – Real World Ethics."

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> "How can we control the vast impersonal forces that now menace our hard-won freedoms?"
> – ALDOUS HUXLEY (1958)[1]

> "The officers of Congress may come upon you now, fortified with all the terrors of paramount federal authority. . . . They may, unless the general government be restrained by a bill of rights, or some similar restriction, go into your cellars and rooms, and search, ransack, and measure, every thing [sic] you eat, drink, and wear. They ought to be restrained within proper bounds."
> - PATRICK HENRY (1788)[2]

INTRODUCTION

Law, humanity, and human nature reflect a mastery of negotiation between the individual's need for both a private and a social life. Since its founding, state and federal government and their legal structures in the United States have been designed by and for humans to thrive as individuals in society, which, in turn, benefits government and society.[3]

1. ALDOUS HUXLEY, BRAVE NEW WORLD REVISITED 334 (Harper Perennial 2010) (1958).

2. JONATHAN ELLIOT, 3 ELLIOT'S DEBATES, A CENTURY OF LAWMAKING FOR A NEW NATION: U.S. CONGRESSIONAL DOCUMENTS AND DEBATES, 1774-1875, at 448-49 (2d ed. 1836), *available at* https://memory.loc.gov/cgi-bin/ampage?collId=lled&fileName=003/lled003.db&recNum=2&itemLink=r?ammem/hlaw:@field(DOCID+@lit(ed0032))%230030003&linkText=1 (Convention of Virginia debate on June 14, 1788) (enter "448" in the "Turn to image" query box). *See also* Warden v. Hayden, 387 U.S. 294, 316 (1967) (Douglas, J., dissenting) (referring to this passage of Patrick Henry's debate).

3. Most state constitutions in the U.S. explicitly uphold this assertion. *E.g.*, ALA. CONST. art. I, § 2 ("That all political power is inherent in the people, and all free governments are founded on their authority, and instituted for their benefit; and that, therefore, they have at all times an inalienable and indefeasible right to change their form of government in such manner as they may deem expedient."); IDAHO CONST. art. I, § 2 ("All political power is inherent in the people."). *See generally* PRISCILLA

For example, the State Constitution of Louisiana provides that the purpose of government is to protect the individual, which will protect "the good of the whole" of society:

> All government, of right, originates with the people, is founded on their will alone, and is instituted to protect the rights of the individual and for the good of the whole. Its only legitimate ends are to secure justice for all, preserve peace, protect the rights, and promote the happiness and general welfare of the people.[4]

Similarly, Patrick Henry spoke eloquently at the Convention of Virginia in 1788 of the need for a bill of rights and checks on federal government, asserting that "the power of a people in a free government is supposed to be paramount to the existing power."[5]

As inventors continue to design technology to supplant human interaction or constantly monitor human behavior, the role of the state in protecting individual rights to autonomy in navigating privacy and social interaction requires a close examination.[6] Fortunately, in the United States, a hard-fought legal respect for the rights of the individual in a free society remains a steady, rational force, capable of moderating

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M. REGAN, LEGISLATING PRIVACY 27-28 (1995) (asserting that individual rights, including the right to privacy, are also of societal importance, as discussed by theorists Alan Westin and others); DAVID F. LINOWES, PRIVACY IN AMERICA: IS YOUR PRIVATE LIFE IN THE PUBLIC EYE? 174 (1989) (quoting Edmund Burke in support of an individual right to privacy – "Government is a contrivance of human wisdom to provide for human wants."). In Rousseau's social contract, as a voluntary pact of individuals, "the natural law of the sovereignty of the people" proclaims that the government "only exists by its mandate; [government] is constantly subordinated to the sole legitimate sovereign: the people." ERNST BLOCH, NATURAL LAW AND HUMAN DIGNITY 62 (Dennis J. Schmidt transl., The MIT Press 1986) (1961) (referring to *The Social Contract* (1762)).

4. LA. CONST. art. I, § 1.

5. Henry, *supra* note 2, at 410 (June 14, 1788).

6. To effect the purpose of this article, determining the motives and cause of dramatic technological change is unnecessary. However, it is worthy of note that over the last two centuries some conspiratorially have identified the human role of an "elite of scientists", while others have asserted a "runaway world" of technological determinism spinning out of human control. *See* Lawrence Quill, *Technological Conspiracies: Comte, Technology, and Spiritual Despotism*, 28 CRITICAL REV. 89 (2016) (discussing Auguste Comte's post-revolutionary and H.G. Well's pre-world war visions of the future respectively).

intrusive surveillance through the common law, as well as state and federal constitutional jurisprudence.[7]

In a mature society, the process of drawing the lines of privacy against state intrusion should look first to those who have the least power and social capital—persons confined by the state, such as prison inmates and those who are involuntarily committed. As the Supreme Court has repeatedly affirmed: "[H]aving stripped [prisoners] of virtually every means of self-protection and foreclosed their access to outside aid, society may not simply lock away offenders and let the state of nature take its course."[8] Protected by common law and constitutionally-based duties of care to ensure a secure and safe environment, this population without much political power or voice is owed much by the State. Nevertheless, in a technological age of surveillance, the State has much greater opportunity to infringe on the rights of confined persons than it has on persons at liberty in the public sphere, thereby testing the bounds of basic individual rights. If those in state institutions—the most vulnerable or dangerous of us all, and arguably most in need of monitoring and observation—have a right to autonomy with respect to privacy and social interaction, then so do we all.

If it were technologically possible, would the United States lawfully permit a residential facility—a prison, immigration detention center, mental hospital, or nursing home—to be run solely by remote technology, using artificial intelligence (AI)[9] to subject confined

7. *See, e.g.*, U.S. DEP'T. OF JUST., NAT'L INST. OF JUST., PRIVACY AND INTELLIGENCE INFORMATION, SECURITY & PRIVACY ISSUE BRIEF NO. 2 (Mar. 1981) at 1 [hereinafter DOJ BRIEF NO. 2], *available at* https://www.bjs.gov/content/pub/pdf/pii.pdf (addressing efforts to regulate intelligence-gathering information in the United States after the Watergate scandal and other "publicity surrounding covert police intelligence and surveillance activities against dissident groups [which] has heightened public awareness of the potential threat to individual privacy associated with this kind of police activity").

8. Farmer v. Brennan, 511 U.S. 825, 833 (1994) (internal quotation marks omitted) (addressing whether the state ignored the risk of prison rape). *See also* Madrid v. Gomez, 889 F. Supp. 1146, 1245 (N.D. Cal. 1995) (citing *Farmer v. Brennan* when examining whether solitary confinement is cruel and unusual punishment); Davis v. Ayala, 135 S. Ct. 2187, 2209 (2015) (Kennedy, J., concurring) (expressing concerns that "[p]risoners are shut away – out of sight, out of mind").

9. In this article, artificial intelligence (AI) is defined using the definition of Margaret Boden, a research professor in cognitive science at the University of Sussex. That is, AI involves machine-based logical reasoning and psychological skills such as

persons to constant surveillance or completely replace human interaction with machine-based interaction? Can technology enhance the quality of human experience in confined settings or is reliance on such technology merely an expedient, harmful substitute for human supervision and social interaction?

These questions are not dystopian or utopian speculation. In South Korea, the world's first autonomous robotic prison guards, with AI capabilities that include use of surveillance technology and facial recognition software designed to assess a prisoner's mental state, are being tested in facilities.[10] In Australia, the Technological Incarceration Project has tested a relatively inexpensive home detention system with constant AI presence that monitors verbal and facial cues and delivers a shock if the monitored person appears to be about to commit a violation.[11] The European Union INDECT research project "for the security of citizens" is conducting a feasibility design for a constant surveillance system for automatic threat detection in public spaces, compliant with current national and international privacy laws:

> The value that will be added by deployment of INDECT research outcomes is that existing systems would operate with less human intervention, which will lower the level of subjective assessment and the number of human mistakes. This means less staff will be required for supervision of surveillance activities (e.g.[,] monitoring of CCTV camera networks). This will result . . . in less opportunities for illegitimate use of such information, or for human error to result in violations of the rights of the individual. There will also be economic

"perception, association, prediction, planning, [and] motor control" to problem-solve and process information. MARGARET A. BODEN, AI: ITS NATURE AND FUTURE 1-2 (2016).

10. *See World's First Robot Prison Guard*, YOUTUBE: CBS (Apr. 13, 2012), https://www.youtube.com/watch?v=dM9BJjjLU9U&feature=player_https://www.correctionsone.com/corrections/videos/7591864-Worlds-first-robot-CO/; Lena Kim, *Meet South Korea's New Robotic Prison Guards*, DIGITAL TRENDS (Apr. 21, 2012, 11:20 AM), https://www.digitaltrends.com/cool-tech/meet-south-koreas-new-robotic-prison-guards/ (discussing the robotic application of pattern recognition algorithms to detect safety concerns and signal the need for additional security).

11. Antony Funnell, *Internet of Incarceration: How AI Could Put an End to Prisons as We Know Them*, ABC NEWS AUSTL. (Aug. 13, 2017, 9:28 PM), http://www.abc.net.au/news/2017-08-14/how-ai-could-put-an-end-to-prisons-as-we-know-them/8794910.

> benefits, in terms of the reduced staffing requirements. Police officers could be freed up to carry out frontline policing tasks.[12]

Surveillance in these contexts is linked to public security concerns, which must be moderated by civil liberties. In the realm of national security, the AI international arms race continues to place pressure on democratic nations to undermine their values and recognition of civil rights.[13] Autonomous, untethered AI technology that would be implemented to kill without human decision or control is already possible, although the Department of Defense under both Presidents Obama and Trump has restricted their military applications.[14] The United Nations also continues to debate the need to restrict such weapons.[15] In the public-private sphere, technology companies, such as Google, have faced pressure to opt out of continuing to contribute

12. INDECT Research Project Ethics Board, *Ethical Issues: INDECT Approach to Ethical Issues*, INDECT, http://www.indect-project.eu/approach-to-ethical-issues (last visited Dec. 3, 2018).

13. *See* Anna Varfolomeeva, *Robotic Vehicles: Russia's Quest for the Weapons of Future Wars*, THEDEFENSEPOST BLOG (May 23, 2018), https://thedefensepost.com/2018/05/23/russia-robot-vehicle-ugv-uran/ ("As the artificial intelligence technology race unfolds, more countries, including China, France, the United Kingdom, other European Union members, and the United States, have become heavily invested in the research, which has been controversial.").

14. *See* U.S. DEP'T. OF DEF. DIRECTIVE, AUTONOMY IN WEAPONS SYSTEMS, No. 3000.09 (Nov. 21, 2012, amended May 8, 2017), *available at* http://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/300009p.pdf (requiring "appropriate levels of human judgment over the use of force"); *see also* Caroline Lester, *What Happens When Your Bomb-Defusing Robot Becomes a Weapon? Treating a Technology as a "Platform" has Consequences*, ATLANTIC (Apr. 26, 2018), https://www.theatlantic.com/technology/archive/2018/04/what-happens-when-your-bomb-defusing-robot-becomes-a-weapon/558758/; Ted Piccone, *How Can International Law Regulate Autonomous Weapons?*, BROOKINGS INST. (Apr. 10, 2018), https://www.brookings.edu/blog/order-from-chaos/2018/04/10/how-can-international-law-regulate-autonomous-weapons/.

15. *See* Chris Pash, *The World's Top Artificial Intelligence Companies are Pleading for a Ban on Killer Robots*, BUS. INSIDER AUSTL. (Aug. 21, 2017, 12:01AM), goo.gl/emD37e (reprinting the text of *An Open Letter to the United Nations Convention on Certain Conventional Weapons*, signed by 116 CEOs of AI research companies, including over 20 American companies). The letter states in part: "Lethal autonomous weapons threaten to become the third revolution in warfare. . . . We therefore implore the High Contracting Parties to find a way to protect us all from these dangers." *Id.*

their AI research to military purposes.[16] Google's contract with the U.S. Department of Defense reportedly "worked extensively to develop machine learning algorithms for the Pentagon, with the goal of creating a sophisticated system that could surveil entire cities."[17]

In the United States, state and federal departments of correction and mental health facilities increasingly incorporate and rely on security technology to maintain order and ensure the safety of confined prisoners and patients. Prison guards use aerial drones to supervise and record the activities of prisoners.[18] Psychiatrists conduct telehealth assessment and diagnosis of prisoners in multiple facilities from a single office computer.[19] AI video alert systems monitor the hallways

16. *See* Kate Conger, *Google Plans Not to Renew Its Contract for Project Maven, a Controversial Pentagon Drone AI Imaging Program*, GIZMODO (June 1, 2018, 2:38 PM), goo.gl/JvouXn (noting that Google's decision followed thousands of signatures and dozens of resignations by Google employees in protest against the company's involvement in the military contract).

17. *Id*. *See also* Jack Schofield, *Pentagon Delays Disputed JEDI Cloud Contract*, ZDNET (May 31, 2018, 22:47 GMT), https://www.zdnet.com/article/pentagon-delays-disputed-jedi-cloud-contract/ (discussing a potential $10 billion cloud computing federal defense contract with Amazon and other private tech companies); Samuel Gibbs, *Google's AI is Being Used by US Military Drone Programme*, THE GUARDIAN (Mar. 7, 2018, 06:11 EST), https://www.theguardian.com/technology/2018/mar/07/google-ai-us-department-of-defense-military-drone-project-maven-tensorflow (revealing that while Google does not currently use its cloud-computing technology to hold classified information for the U.S. government, both Amazon and Microsoft are contracted to provide such services).

18. *See* Meg Kinnard, *South Carolina Plans to Use Drones to Remotely Watch Inmates*, US NEWS (May 24, 2018, 2:16 PM), https://www.usnews.com/news/best-states/south-carolina/articles/2018-05-24/sc-prisons-embrace-drones-to-keep-remote-eye-on-inmates; *see generally Public Safety Drones: An Update*, CTR. FOR THE STUDY OF THE DRONE, BARD COLLEGE (May 28, 2018), *available at* http://dronecenter.bard.edu/public-safety-drones-update/ (reporting an 82% increase in public safety drone acquisition in the United States from 2017 to 2018, including at least 910 state and local police, sheriff, fire, and emergency services agencies); *cf.* Darlene Ricker, *Taking Flight: Navigating Drone Laws Has Become a Growing and Lucrative Legal Niche*, ABA J. 56, 58 (July 2017) (reporting that as of February 2018, there were 49,857 commercial drone operators and 664,688 hobbyist drone operators registered with the Federal Aviation Administration, which represents approximately 1.6 million drones in the private sector).

19. *See generally* U.S. DEP'T. OF JUST., REVIEW OF THE FEDERAL BUREAU OF PRISONS' USE OF RESTRICTIVE HOUSING FOR INMATES WITH MENTAL ILLNESS 46 (July 2017) [hereinafter DOJ RESTRICTIVE HOUSING], *available at* https://www.oversight.gov/sites/default/files/oig-reports/e1705.pdf; *Human Rights at Home: Mental*

at night outside bedrooms in mental health facilities to identify potential physical assaults or self-harm.[20] Several states statutorily authorize constant video surveillance of nursing home residents' rooms, with their consent or that of their guardians.[21] Many of these measures cut costs by reducing the need for human staffing.[22]

For the public at large, privacy interests are embodied in common law and statutory law,[23] with additional protections found in the shifting penumbra of constitutional rights.[24] Those subject to state confinement

Illness in U.S. Prisons and Jails, S. Hearing Before the Subcommittee on Human Rights and the Law and the Committee on the Judiciary, 111th Cong. 4-5 (Sept. 15, 2009) (statement of Harley G. Lappin, Director, Federal Bur. of Prisons), *available at* https://www.justice.gov/sites/default/files/testimonies/witnesses/attachments/2009/09/15/2009-09-15-bop-lappin-mental-illness.pdf.

20. Whether to approve a remote surveillance system in the hallways of a juvenile facility in lieu of a human seated near the residents' rooms at night was an issue voted upon during the author's term as Chair of the Rules Committee of the state administrative body, The North Carolina Commission for Mental Health, Substance Abuse, and Developmental Disabilities between 2008 and 2012.

21. *See, e.g.*, Authorized Electronic Monitoring in Long-Term Care Facilities Act, Pub. L. No. 99-430, 210 ILL. COMP. STAT. 32 (effective Jan. 1, 2016) (authorizing resident or guardian's consent to constant private bedroom surveillance); *see also* Nat'l Ctr. on Elder Abuse et al., *Fact Sheet, Balancing Privacy and Protection: Surveillance Cameras in Nursing Home Residents' Rooms*, *available at* http://ltcombudsman.org/uploads/files/issues/cv-ncea-surveillance-factsheet-web.pdf (last visited Dec. 3, 2018) (identifying Illinois, New Mexico, Oklahoma, Texas, and Washington as states that had laws by 2017 that permit the installation of cameras in nursing home residents' rooms, with their consent).

22. *See, e.g.*, Nat'l Law Enforcement & Corr. Tech. Ctr., *Camera System Stems Prison Violence, Saves $$$*, TECHBEAT (Spring 2011) (opting for a new prison video surveillance system in Oklahoma City for $384,000 in lieu of hiring 200 additional prison guards at a cost of $10 million per year in wages and benefits), *available at* https://www.justnet.org/interactivetechbeat/spring_2011/camerasystem.pdf; Meera Narasimhan, *Data Driven Decisions and Outcomes in Telepsychiatry*, AM. PSYCH. ASS'N.: TELEPSYCHIATRY BLOG (Feb. 26, 2018), https://www.psychiatry.org/psychiatrists/practice/telepsychiatry/blog/data-driven-decisions-and-outcomes-in-telepsychiatry (noting that telepsychiatry "is the more cost-effective option").

23. *See generally* OSCAR H. GANDY, JR., THE PANOPTIC SORT: A POLITICAL ECONOMY OF PERSONAL INFORMATION 184-85 (1993) (discussing the American development of privacy-related tort claims in the context of technology and surveillance, including intrusion into seclusion, false light publicity, and appropriation of likeness or name).

24. The "shadows cast by a variety of provisions in the Bill of Rights," Whalen v. Roe, 429 U.S. 589, 598 n.23 (1977), reflect what has come to be known as the zone

also have constitutional and statutory privacy rights, as well as common law parens patriae protections, all requiring consideration of legitimate governmental interests.[25] Rapidly changing technologies offer greater facility and breadth of surveillance, while the biology of the human species, with its essential mental and physical needs, remains relatively static, evolving gradually.[26] The pressures of technological change place a toll on humanity's well-being, particularly when the balance of personal and governmental interests does not sufficiently respect the realities of what level of autonomy our species inherently needs to thrive.

Autonomy in navigating both privacy and social interaction are essential to human well-being and the fulfillment of human potential. As Justice Douglas observed, "[p]rivacy involves the choice of the individual to disclose or to reveal what he believes, what he thinks, what he possesses."[27] Privacy and social interaction mutually reinforce each

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of privacy in a penumbra of privacy rights in the U.S. Constitution. *See also* Warden v. Hayden, 387 U.S. 294, 324 (1967) ("these penumbral rights of privacy and repose"); Matter of Welfare of Colyer, 600 P.2d 738, 741-42 (Wash. 1983) ("The United States Supreme Court has identified a right of privacy emanating from the penumbra of the specific guarantees of the Bill of Rights and from the language of the First, Fourth, Fifth, Ninth and Fourteenth Amendments.").

25. *See, e.g.*, Price v. Sheppard, 239 N.W.2d 905, 911 (Minn. 1976) (addressing the state as parens patriae in examining its authority to administer electroshock therapy to treat an involuntarily committed minor patient without his natural guardian's consent), *superseded by statute as stated in In re* Civil Commitment of Raboin, 704 N.W. 2d 767 (Minn. Ct. App. 2005).

26. *See generally* Peter Ward, *What May Become of* Homo Sapiens, SCI. AM., https://www.scientificamerican.com/article/what-may-become-of-homo-sapiens/ (last visited Dec. 3, 2018) (outlining the differing views of causation for continuing, but gradual, human evolution, including technological impact, gene drift, and genetic engineering); *see also* HUXLEY, *supra* note 1, at 8 ("The sciences of matter can be applied in such a way that they will destroy life or make the living of it impossibly complex and uncomfortable; but, unless used as instruments by the biologists and psychologists, they can do nothing to modify the natural forms and expressions of life itself." (Preface to the 1946 edition)); Clive Norris et al., *Algorithmic Surveillance: The Future of Automated Visual Surveillance*, in SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND SOCIAL CONTROL 255, 259 (Clive Norris et al. eds., 1998) ("The cost of autonomy and privacy lies not so much in the growth of surveillance but in its changing form: from the local and intimate, based on personal knowledge and mutuality of associations, towards the impersonal, the standardised and the bureaucratic.").

27. *Warden*, 387 U.S. at 323 (Douglas, J., dissenting).

other, allowing a person to safely choose and resist social interactions. As psychological research demonstrates, humans despair from too much of either: from loneliness and isolation, and from lack of privacy and difficulty in creating a self-identity.[28]

Surveillance technology, including AI applications, presents new opportunities to undermine humanity's basic need for autonomy, human social interaction, and privacy. It is not a disruptive technology, a technology which inadvertently happens to cause social disruption, but rather it is a technology designed to disrupt.[29] From a cynical perspective, commercial and governmental interests seek to convince the public that loss of privacy is inevitable because technology too easily invades our privacy or because this invasion is needed to protect society from unseen attacks. They do so to financially profit from the sale and development of security technology or to better monitor and control individual behavior for political purposes.

This is nothing new. When restricting state use of eavesdropping devices on the public to detect crime in *Berger v. New York* in 1967, the Supreme Court implied that profit motives foster technological innovation in spying: "Since 1940 eavesdropping has become a big business. Manufacturing concerns offer complete detection systems which automatically record voices under almost any conditions by remote control."[30] More recently, sociologist Barry Glassner noted just prior to the 9/11 terrorist attacks: "The short answer to why Americans harbor so many misbegotten fears is that immense power and money await those who tap into our moral insecurities and supply us with symbolic substitutes."[31] According to Glassner, symbolic substitutes are the bogeymen of commercial and media alarm, manipulating anecdotal incidents and statistically unsupported risks to further powerful interests at the expense of societal interests.[32] Surveillance

28. *See infra* Part IV(A).

29. *See generally* CYRUS FARIVAR, HABEAS DATA: PRIVACY VS. THE RISE OF SURVEILLANCE TECH (2018) (addressing the legal history of increasing state surveillance on private citizens).

30. Berger v. New York, 388 U.S. 41, 47 (1967).

31. BARRY GLASSNER, THE CULTURE OF FEAR: WHY AMERICANS ARE AFRAID OF THE WRONG THINGS xxviii (1999).

32. *See generally id.* (providing examples of general alarm over unfounded perceived trends, such as road rage and violent crime despite clear evidence of low numbers and a decrease over time, respectively).

technology manufacturers admit as much: "Every unfortunate event we hear about, whether it's cyber-related or just flat out terrorism, these are drivers for our business. It's unfortunate that they are and that they happen, but they do drive this industry and this market."[33]

If the technology industry can create invasive and intrusive technology, it can certainly craft technology with better privacy protections if properly motivated.[34] In the 1800s, when privacy of written communications was not practically assured, public approval for the innovations of envelopes and locks on mail bags compelled Congress to enact statutory protections for the privacy of the postal service.[35] Such efforts resulted in paper mail receiving greater legal privacy protections today than digital information.[36] Technological innovation and legal privacy protections can be and have been compatible. For this to occur, however, the American legal system must fulfill its obligation to enforce existing protections of the autonomy rights of individuals in the face of commercial and governmental interests intent on overreaching.

To illuminate how existing legal tenets identify and enforce privacy rights, it is critical to examine the contexts where individual privacy rights are already most suppressed under American law: the arena of persons in civil and criminal state confinement. The use of technology to constantly monitor humans in confinement without their consent presupposes a legitimate purpose of public health and safety pursuant to state police power and other common law doctrines.[37] More constant

33. Tim A. Scally, *State of the Market: Video Surveillance 2018*, SDM MAG. (Feb. 1, 2018), https://www.sdmmag.com/articles/94822-state-of-the-market-video-surveillance-2018.

34. *See, e.g.*, Alice Gregory, *This Startup Wants to Neutralize Your Phone – And Un-Change the World*, WIRED (Jan. 16, 2018, 06:00 AM), https://www.wired.com/story/free-speech-issue-yondr-smartphones/ (designing data suppressive neoprene bags to lock and store cellphones in hospitals, schools, and churches, and at events in order to limit unauthorized recording and distracting use).

35. REGAN, *supra* note 3, at 46-47.

36. *See* Matthew J. Tokson, *The Content/Envelope Distinction in Internet Law*, 50 WM. & MARY L. REV. 2105, 2112 (2009).

37. *See* Wiseman v. Massachusetts, 398 U.S. 960, 963 (1970) (Douglas, J., dissenting from denial of certiorari) (quoting with approval the Massachusetts Supreme Judicial Court which held that the public interest in viewing recordings of patient abuses at the Bridgewater State Hospital for the criminally insane "outweighs

monitoring is arguably warranted based on the lesser right to autonomy and privacy of persons who are subject to court-ordered confinement for the protection of themselves or others, but is facing a reexamination in the courts.

This article begins by introducing in Section I the legal recognition of the basic human need for autonomy in navigating privacy and social interactions, including its origins in natural law, adoption in international human rights, and emerging statutory and regulatory frameworks in the United States. Section II examines how and to what degree the courts have recognized the essential human and societal need for individual privacy and social interaction, with a focus on common law doctrines, as well as state and federal constitutional protections of the autonomy rights of persons in state confinement. Section III outlines the comparative state interests when infringing on the individual autonomy rights of confined persons in prisons and medical settings, including identification of interests common to all institutional settings. Finally, Section IV addresses the need for courts to realign the balance of these interests in light of emerging psychological research which reveals the continued importance of individual privacy with respect to technological innovation facilitating constant surveillance.

I. LEGAL RECOGNITION OF THE BASIC HUMAN NEED FOR AUTONOMY IN NAVIGATING PRIVACY AND SOCIAL CONTACT

Privacy has a long history of legal and cultural protection and is deemed essential to human and social well-being.[38] Apart from constitutional provisions, legal recognition of individual privacy interests arise in a myriad of state and federal contexts, such as privileges of confidentiality,[39] cyberstalking criminal statutes,[40]

any countervailing interests of the inmates and of the Commonwealth (as parens patriae) in anonymity and privacy").

38. *See* William L. Prosser, *Privacy*, 48 CALIF. L. REV. 383, 386 (1960) ("at the present time the right of privacy, in one form or another, is declared to exist by the overwhelming majority of the American courts").

39. *E.g.*, Paxton v. City of Dallas, 509 S.W.3d 247, 270 (Tex. 2017) (upholding the attorney-client privilege as well established and enduring "because the systemic harm from denying it is real even if it is not quantifiable").

40. *See generally* Jennifer A. Brobst, *The Modern Penny Dreadful: Public Prosecution and the Need for Litigation Privacy in a Digital Age*, 96 NEB. L. REV.

invasion of privacy torts,[41] informational privacy protections,[42] medical and genetic privacy regulations,[43] and exemptions to sunshine laws.[44] These privacy interests are held by all persons, whether confined in state institutions or living at large in society. Among these, the primary focus of this article is the observational right to be let alone,[45] which includes the right not to be touched, seen, heard, or watched without consent.[46] This essential right has been protected since the founding of

281 (2017) (addressing the rise of online stalking methods and limitations on public prosecution to protect the privacy of victims).

41. *E.g.*, McConnell v. Georgia Dept. of Labor, 814 S.E.2d 790, 799 (Ga. Ct. App. 2018) (public disclosure of private facts and negligent disclosure of personal information class action). "[I]t may seem surprising that our legislature has so far not acted to establish a standard of conduct intended to protect the security of personal information, as some other jurisdictions have done in connection with data protection and data breach notification laws." *Id.*; *see id*. at 799 n.16 (listing numerous state jurisdictions that have enacted data protection privacy laws).

42. *See, e.g.*, Whalen v. Roe, 429 U.S. 589, 599 (1977) ("the individual interest in avoiding disclosure of personal matters"); Mick Mulvaney, *Memorandum for the Heads of Executive Departments and Agencies*, EXECUTIVE OFFICE OF THE U.S. PRESIDENT (Feb. 27, 2018) (explaining the cybersecurity provisions of the federal Modernizing Government Technology Act (signed into law Dec. 12, 2017)), *available at* https://www.whitehouse.gov/wp-content/uploads/2017/11/M-18-12.pdf. *See generally* Julie E Cohen, *Examined Lives: Informational Privacy and the Subject as Object*, 52 STAN. L. REV. 1373 (2000).

43. *E.g.*, Higgins v. Sommerville Hosp., No. 914748, 1994 WL 903009 (Mass. Super. Ct. 1994) (interpreting a state statute which defined as public record the identity of patients with some types of sexually transmitted infections but not others); *see also* Barbara Zabawa, *FDA Regulation of mHealth and Wellness Devices: What You Need to Know*, 30 ABA: THE HEALTH LAW. 38, 38 (Dec. 2017) (addressing the complexity of federal and state regulation, including HIPAA privacy regulations, once a wellness tracking personal device enters the realm of diagnosis and treatment).

44. *E.g.*, Tennessean v. Metro. Gov't of Nashville, 485 S.W.3d 857 (Tenn. 2016) (strictly construing the applicable public records exemption when denying newspaper defendants' access to the criminal investigative case file in a sexual assault prosecution); MONT. CONST. art. II, § 9 ("No person shall be deprived of the right to examine documents . . ., except in cases in which the demand of individual privacy clearly exceeds the merits of public disclosure.").

45. *See* Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 193 (1890) (asserting that the broadening of common law legal rights now includes "the right to be let alone").

46. *See, e.g.*, Johnson v. Phelan, 69 F.3d 144, 145 (7th Cir. 1995) (distinguishing between visual and tactile inspections, and classifying both as a form of search under the Fourth Amendment).

the United States, promoting the "sanctity of a man's home and the privacies of life."[47] Indeed, the Court has connected these interests to "the very essence of constitutional liberty and security."[48]

A. The Ability to Respond to Intrusions on Privacy

While the need for and interest in privacy have remained constant, the ease of intrusion has changed in substantial and varied ways over time. In 1963, Chief Justice Warren wrote in *Lopez v. United States*:

> [T]he fantastic advances in the field of electronic communication constitute a great danger to the privacy of the individual; that indiscriminate use of such devices in law enforcement raises grave constitutional questions under the Fourth and Fifth Amendments; and that these considerations impose a heavier responsibility on this Court in its supervision of the fairness of procedures in the federal court system. However, I do not believe that, as a result, all uses of such devices should be proscribed either as unconstitutional or as unfair law enforcement methods.[49]

Perhaps because the value of privacy has often been taken for granted, the Court has not consistently felt the need to express its essential value to humanity; yet, the increasing intrusiveness of surveillance technology should compel the Court to underscore more fully why privacy requires robust protections in the law.[50]

Over time, a focus on the individual right to privacy in certain contexts, rather than a general right to privacy, has emerged in the

47. Boyd v. United States, 116 U.S. 616, 630 (1886) (addressing Fourth Amendment privacy protections). *See also* Olmstead v. United States, 277 U.S. 438, 473 (1928) (Brandeis, J., dissenting) ("Ways may some day [sic] be developed by which the Government, without removing papers from secret drawers, can reproduce them in court, and by which it will be enabled to expose to a jury the most intimate occurrences of the home.").

48. *Boyd*, 116 U.S. at 630.

49. Lopez v. United States, 373 U.S. 427, 441 (1963) (Warren, C.J., concurring).

50. Of course, the oft-cited 1890 law review article by Samuel Warren and Louis Brandeis, concerned with the emergence of photojournalism, connected "modern enterprise and invention" with a negative rights common law concept of invasion of privacy and the "right to be let alone." *See* Warren & Brandeis, *supra* note 45, at 193.

United States,[51] as well as a new understanding that the time for regulatory measures has come. U.S. Representative Greg Walden, Chair of the House Energy and Commerce Committee, stated in response to a question about regulating the technology industry: "If responsibility doesn't flow, then regulation will."[52]

The European Union ("EU") has taken the lead in moving forward legal strategies to protect consumer privacy in a digital age, strategies which may influence and further support American interest in individual privacy protections. In January 2018, a tech reporter for *The Irish Times* noted that 2017 had been the year of media focus on AI, while 2018 would be the year of privacy:

> Thanks to widespread heavy social media use, data breaches, US threats to demand account passwords from travellers, concerns about secretive state-run surveillance, some US and EU critical court cases and a consequent acceleration in popular awareness, the general public and the business world have never been as aware of privacy issues as they are now.[53]

On May 25, 2018, the EU rolled out its General Data Protection Regulation ("GDPR"), which contains more robust compliance enforcement provisions, including the potential for millions of euros in

51. *See, e.g.*, Whole Woman's Health v. Hellerstadt, 136 S. Ct. 2292 (2016) (enforcing the right to abortion against undue burdens imposed by state law); Whalen v. Roe, 429 U.S. 589 (1977) (right to individual privacy in choice on important matters and to informational privacy); Roe v. Wade, 410 U.S. 113 (1973) (right to individual privacy and reproductive choice in abortion); Eisenstadt v. Baird, 405 U.S. 438 (1972) (right to individual privacy and reproductive choice in contraception); Griswold v. Connecticut, 381 U.S. 479 (1965) (right to marital privacy and reproductive choice). *See generally* REGAN, *supra* note 3, at 39-40 (discussing the transition in American jurisprudence from privacy interests and civil liberties, to individual privacy rights in the 1960s and 1970s).

52. Nancy Scola, *Tech Scrambles to Shape U.S. Privacy Debate as EU Rules Loom*, POLITICO (May 25, 2018, 05:09 AM), https://www.politico.com/story/2018/05/25/tech-privacy-debate-us-eu-rules-565741.

53. Karlin Lillington, *Privacy and Security will be the Big Tech Stories of 2018*, THE IRISH TIMES (Jan. 4, 2018, 05:15 AM), https://www.irishtimes.com/business/technology/privacy-and-security-will-be-the-big-tech-stories-of-2018-1.3344154. *See also* Scola, *supra* note 52; Leonid Bershidsky, *Tech Underestimates Future Demand for Privacy*, BLOOMBERG (Mar. 31, 2017, 8:07 AM), https://www.bloomberg.com/view/articles/2017-03-31/the-tech-industry-underestimates-the-future-demand-for-privacy.

fines for American companies that do not comply and enforcement in in the European Court of Justice if necessary.[54]

The current efforts to regulate the intrusiveness of technology require a clear understanding of the interests involved. When balancing state and individual interests, the U.S. Supreme Court has articulated the value of legal privacy protections as a means of defending against state tyranny, a threat articulated in the Declaration of Independence and founded on Locke's ideals of the social compact.[55] In a democracy, citizens bear the burden of self-protection from state tyranny. The Declaration of Independence addresses when the people have a right "to provide new Guards for their future security."[56] That is, security against a ruling power's "long train of abuses and usurpations."[57] In a modern context, addressing the legality of federal surveillance of domestic political organizations, the Court noted: "Its resolution is a matter of national concern, requiring sensitivity both to the Government's right to protect itself from unlawful subversion and attack and to the citizen's right to be secure in his privacy against unreasonable Government intrusion."[58]

54. *See* Nancy Harris, *A Practical Guide to the European Union's GDPR for American Businesses*, RECODE (May 16, 2018, 2:00 EDT), https://www.recode.net/2018/5/16/17360944/gdpr-us-business-eu-european-union-data-protection-privacy; *2018 Reform of EU Data Protection Rules*, EUROPEAN COMMISSION, https://ec.europa.eu/commission/priorities/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules_en (last visited Dec. 3, 2018); *GDPR Portal: Site Overview*, EUGDPR.ORG, https://www.eugdpr.org/ (last visited Dec. 3, 2018).

55. *See* McDonald v. City of Chicago, 561 U.S. 742, 888 n.32 (2010) (referring to Blackstone and Locke for the proposition that one grants to the state duties of protection when joining civil society); Roberts v. Louisiana, 431 U.S. 633, 646 (1977) (Blackmun, J., dissenting) (arguing that the state must be empowered to establish order to protect individual liberty and freedom, as public protection "surely is at the core of the Lockean 'social contract' idea"); Texas v. United States, 300 F. Supp. 3d 810, 841 (N.D. Tex. 2018) (addressing Locke's and Blackstone's concept of separation of powers as "not merely convenient in avoiding tyranny, but a necessary feature of any government ruled by laws [] not men").

56. THE DECL. INDEP., para. 2 (1776). *See also id.* at para. 30 ("A prince, whose character is thus marked by every act which may define a Tyrant, is unfit to be the ruler of a free people.").

57. *Id.* at para. 2.

58. United States v. U.S. Dist. Ct. E. Dist. Mich., So. Div., 407 U.S. 297, 299 (1972).

Some citizens have more power and skill to resist tyranny than others. In 2016, after the Illinois legislature approved the optional law enforcement use of body cameras, the police department of Minooka opted in and then opted out of its use following reportedly excessive public information requests by suspects and their lawyers for video footage.[59] Freedom of information laws thus helped protect privacy interests and served as a practical deterrent to ubiquitous surveillance by law enforcement when implemented by a cadre of legally represented individuals.

Even single individuals may resist tyranny in the form of surveillance effectively. In November 2017, Ricardo Palacios, an attorney and rancher in Texas happened upon a portable camera strapped by the government to a mesquite tree on his son's private property.[60] He sued the U.S. Customs and Border Protection Agency that threatened to arrest him after he removed their camera, accusing the government of trespass and "*1984*-style" constitutional violations.[61] The camera, one of allegedly thousands of low-cost, commercially-available cameras placed near the border, was in constant use and purportedly provided information to federal, state, and local authorities.[62] In addition to the camera, the complaint alleged that "Plaintiffs have encountered agents of U.S. Customs and Border Protection (CBP) going onto their land, at will, day and night, without any warrant or legal authority, without landowner consent, over landowners' objection, and without exigent circumstances that would permit such intrusions upon private property, and roaming freely about."[63] One of the Plaintiff's attorneys stated publicly the importance

59. Tom Boggioni, *Illinois Police Department Gives Up on Body Cameras Because They're Tired of People Asking for Videos*, ALTERNET (Apr. 13, 2016, 7:00 AM), https://www.alternet.org/civil-liberties/illinois-police-department-gives-body-cameras-because-theyre-tired-people-asking.

60. Cyrus Farivar, *Man Removes Feds' Spy Cam, They Demand It Back, He Refuses and Sues*, ARS TECHNICA (Feb. 22, 2018, 3:00 AM), https://arstechnica.com/tech-policy/2018/02/rancher-finds-creepy-and-un-american-spy-cam-tied-to-his-tree-sues-feds.

61. *Id.; see* Plaintiffs' Original Complaint for General, Injunctive & Declaratory Judgement, Palacios v. Martinez, No. 5:17-cv-00244, 2017 WL 5903421 (S.D. Tex. Nov. 29, 2017) (filing claims for common law and criminal trespass, as well as a *Bivens* action for Fourth Amendment violations).

62. Farivar, *supra* note 60.

63. Plaintiffs' Original Complaint, *supra* note 61, at para. 15.

of protecting against government action without probable cause and consent: "And if you all are going to keep doing that, you're going to have to pay for it. It's called the right to be left alone. That's what the Fourth Amendment is all about."[64]

Confined prisoners and patients often have less capacity and fewer means to follow in the steps of Ricardo Palacios when asserting their right to observational privacy. Legal guardians of state nursing home residents may wish to fight privacy intrusions on behalf of their loved ones, but they face enormous financial hurdles in pursuing civil litigation, in addition to affording residential care.[65] Indigent prisoners may be eligible for public legal assistance, but penological interests in order and safety in the prison setting weigh heavily in favor of the state.[66] In mental health institutions caring for involuntarily committed patients, policies addressing the best interests of patients as well as serious security concerns may not weigh in favor of respecting autonomy.[67]

All of these groups of confined persons are particularly vulnerable to acts of tyranny. In *Wiseman v. Massachusetts*, Justice Douglas argued in his dissent that the public interest in being informed about egregious patient abuses at the Bridgewater State Hospital for the criminally insane "outweighs any countervailing interests of the inmates and of the Commonwealth (as parens patriae) in anonymity and privacy."[68] Here, notably, the remedy for one privacy intrusion is another privacy intrusion. In institutional settings, a history of accepted state surveillance, along with advances in surveillance technology, risk an even more intrusive environment for vulnerable persons than state efforts to surveil open spaces and the public at large, regardless of the prevalence of traffic cameras and business surveillance.[69]

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64. Farivar, *supra* note 60.

65. *See, e.g.*, Kaley Johnson, *The Metro-East has Some of Illinois' Worst Nursing Homes, Data Says. Here's Why.*, BELLEVILLE NEWS-DEMOCRAT (May 10, 2018, 10:48 AM), http://www.bnd.com/news/local/article209570444.html.

66. *See infra* Part III(B).

67. *See infra* Part III(C).

68. Wiseman v. Massachusetts, 398 U.S. 960, 962-63 (1970) (Douglas, J., dissenting).

69. Michael McCahill, *Beyond Foucault: Towards a Contemporary Theory of Surveillance*, *in* SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND SOCIAL CONTROL 41, 45 (Clive Norris et al. eds., 1998) (distinguishing public surveillance, which

In state confinement today, Jeremy Bentham's panopticon comes to life. Whether it is a prison or a mental hospital or a nursing home, "[t]he perfect disciplinary apparatus would make it possible for a single gaze to see everything constantly. . . . a perfect eye that nothing would escape and a centre towards which all gazes would be turned."[70]

B. Natural Law and the Fight Against State Tyranny

While state surveillance has solidly justifiable purposes, particularly in ensuring security and safety,[71] arbitrary surveillance – surveillance run amok – is a longstanding form of tyranny. History is rife with examples of nations implementing surveillance techniques to achieve unlawful and abhorrent political goals: the Nazi occupation,[72] the Cold War Eastern bloc under Communist rule,[73] South African apartheid.[74] Even prior to the digital age, technology companies such as IBM were reportedly involved in facilitating massive data collection and population control through cooperative agreements with Nazi Germany and South Africa.[75] More recently, in 2015, the Lucknow

observes unknown persons in an uncontrolled space, where a state reaction to observed misconduct is less easily responded to than surveillance in confined, controlled settings).

70. MICHEL FOUCAULT, DISCIPLINE AND PUNISH: THE BIRTH OF THE PRISON 173 (Alan Sheridan trans., Vintage Books 2d ed. 1995).

71. *See infra* Part III(A).

72. *See Forum: Surveillance in German History*, 34 GERMAN HISTORY 293, 306 (2016) (providing a transcript of an academic forum on the historical complexities of the rise of mass surveillance in nation-state building, including its use in Nazi Germany as a means of terror and genocide).

73. *See* VALENTINA GLASJAR ET AL., SECRET POLICE FILES FROM THE EASTERN BLOC: BETWEEN SURVEILLANCE AND LIFE WRITING (2016); *see also* MILAN KUNDERA, THE UNBEARABLE LIGHTNESS OF BEING (Michael Henry Heim trans., 1984) (addressing the 1960s Czechoslovakian police state).

74. Michael Kwet, *Cmore: South Africa's New Smart Policing Surveillance Engine*, COUNTERPUNCH.ORG (Jan. 27, 2017), https://www.counterpunch.org/2017/01/27/cmore-south-africas-new-smart-policing-surveillance-engine/ (addressing cyber-policing for crowd control in post-apartheid South Africa, including "[f]acial recognition CCTV cameras on the streets, UAV surveillance, and vast data collections used for predictive policing").

75. *See* EDWIN BLACK, IBM AND THE HOLOCAUST: THE STRATEGIC ALLIANCE BETWEEN NAZI GERMANY AND AMERICA'S MOST POWERFUL CORPORATION (2000); Michael Kwet, *Apartheid in the Shadows: the USA, IBM, and South Africa's Digital*

police of Uttar Pradesh, India, demonstrated drones that can be used to pepper spray an "unruly mob," which they asserted was "less harsh than a baton charge."[76]

Beneficent uses of technology, science and medicine have a way of being coopted, or some might say corrupted, for other purposes. In the United States, the packbot, a mobile robot first designed by the company iRobot twenty years ago, has saved numerous lives in search and rescue, law enforcement, and military bomb-defusing applications.[77] In 2016, in a police stand-off in Dallas, a similar robot was weaponized and used for the first government-authorized robotic or drone killing of a person on American soil.[78]

In this digital age, Amnesty International reports on unlawful government surveillance as a human rights violation. For example, it has decried such violations in Uzbekistan, where the government has spied on its own citizens both within and beyond its borders.[79] The concern, according to the Amnesty researchers, is that "[t]he Uzbekistani authorities have designed a system where surveillance and the expectation of surveillance is not the exception, but the norm."[80] "It's an environment of constant fear for Uzbekistani people, where every phone call, every email and every text message might not

Police State, COUNTERPUNCH.ORG (May 3, 2017), https://www.counterpunch.org/2017/05/03/apartheid-in-the-shadows-the-usa-ibm-and-south-africas-digital-police-state/.

76. *India: City Police to Use Pepper-Spray Drones*, BBC.COM: NEWS FROM ELSEWHERE (Apr. 7, 2015), https://www.bbc.com/news/blogs-news-from-elsewhere-32202466 (internal quotation marks omitted).

77. Lester, *supra* note 14 ("They were used in 9/11 search-and-rescue efforts, during the manhunt for Dzhokhar Tsarnaev [the Boston Bomber], and in the Fukushima plant [nuclear disaster], rolling around in areas with radiation levels too high for human engineers.").

78. *Id*. ("But that morning, the police attached a pound of C4 explosives to the robot's extended arm, and sent it down the hallway where Johnson had barricaded himself. The bomb killed him instantly. The machine remained functional.").

79. *Uzbekistan: Tentacles of Mass Surveillance Spread Across Borders*, AMNESTY INT'L (Mar. 31, 2017, 00:01 UTC), https://www.amnesty.org/en/latest/news/2017/03/uzbekistan-tentacles-of-mass-surveillance-spread-across-borders/.

80. *Id*.

be private. The restrictions that this places on people's lives and freedoms are unbearable and unacceptable."[81]

In parts of the world without enforced individual rights or a separation of powers, police states emerge more easily. In China, for example, Amnesty International reported that since a 2015 government crackdown on dissent, hundreds of human rights lawyers and activists have been arrested, had their homes raided, and been subject to constant surveillance as well as limits on their freedom of movement.[82] Members of the public detained at a bus checkpoint, suspected of civil unrest on the basis of Muslim ethnicity, are regularly subject to some of today's most modern surveillance tools in roadside kiosks, including digital fingerprinting, iris-recognition scans, and a cradle device which downloads the bus passengers' cellphone contents.[83]

Thus, the risk of state surveillance enables tyranny today, as it has in the past, when, as in Foucault's interpretation of the panopticon,[84] the *fear* of being surveilled escalates. That is, tyranny occurs when those surveilled know they are surveilled, and that this monitoring brings the potential for additional coercive or disciplinary acts by the state. In state institutional facilities in the United States, constant surveillance may lead to physical or chemical restraints or solitary confinement,[85] as those who are confined well know. Even without such physical restraints, Foucault would warn that fear alone repressives freedom of action and choice. Americans are no exception

81. *Id.*

82. *China: Human Rights Lawyer Released on Bail Amid Relentless Crackdown*, AMNESTY INT'L (May 10, 2017, 14:48 UTC), https://www.amnesty.org/en/latest/news/2017/05/china-human-rights-lawyer-released-on-bail-amid-relentless-crackdown/.

83. *China has Turned Xinjiang into a Police State Like No Other*, ECONOMIST (May 31, 2018), https://www.economist.com/briefing/2018/05/31/china-has-turned-xinjiang-into-a-police-state-like-no-other/ (describing hundreds of thousands of Uighur Muslim Chinese disappearing into re-education camps in Xinjiang Province after violent civil unrest).

84. *See* FOUCAULT, *supra* note 70, at 200 (discussing the negative social implications of Jeremy Bentham's *Panopticon*, the antithesis of the hidden dungeon, where a prison-like structure exists with a central tower that can see all of the inmates, but no prisoner can communicate with the tower or others and the prisoner never knows when he or she is being directly observed).

85. *See, e.g.*, 42 C.F.R. § 460.114 (2017) (authorizing chemical restraints in state elder care facilities).

to having to fight state action that ensures "visibility is a trap,"[86] a trap designed to reduce the power that comes from autonomy of choice in human interactions.[87]

Among developed nations, the United States is late to the table in adopting data protection laws. It is the last to create a federal agency to enforce those laws; yet, through its relatively functional separation of powers it has emerged as a strong force in avoiding some of the surveillance state aspects of its sister nations.[88] Sweden was the first nation, in 1973, to enact federal data protection laws.[89] Even prior to the fall of the Berlin Wall in 1989, West Germany had developed the most protective data privacy legislation in the Western World, a model for later American and Canadian legal restrictions on mass surveillance.[90]

Depriving a prisoner of privacy without consent may reach such levels of degradation as to constitute an international human rights violation, even torture.[91] It is used as a form of social control in a police

86. *See* FOUCAULT, *supra* note 70, at 200.

87. *See* RANDOLPH LEWIS, UNDER SURVEILLANCE: BEING WATCHED IN MODERN AMERICA 25 (2017) (reflecting on the novel KINDRED (2004) by Octavia Butler, in which constant scrutiny was used as a tool to enslave the protagonist, a modern Black woman from Los Angeles who travels back in time to the horrors of the ante-bellum South).

88. *See* JAMES MICHAEL, PRIVACY AND HUMAN RIGHTS: AN INTERNATIONAL AND COMPARATIVE STUDY, WITH SPECIAL REFERENCE TO DEVELOPMENTS IN INFORMATION TECHNOLOGY 81 (1994) ("The United States probably produces more privacy case law than any other common law jurisdiction."); Mike Maguire, *Restraining Big Brother? The Regulation of Surveillance in England and Wales*, *in* SURVEILLANCE, CLOSED CIRCUIT TELEVISION AND SOCIAL CONTROL 229, 234 (Clive Norris et al. eds., 1998) (outlining the slow emergence of privacy legislation in the United Kingdom, particularly with regard to police surveillance).

89. DAVID H. FLAHERTY, PROTECTING PRIVACY IN SURVEILLANCE SOCIETIES: THE FEDERAL REPUBLIC OF GERMANY, SWEDEN, FRANCE, CANADA, AND THE UNITED STATES 93 (1989) (providing a comparative legislative overview of privacy protections).

90. *Id.* at 21.

91. For example, The European Convention for the Protection of Human Rights and Fundamental Freedoms states in Article 8(1): "Everyone has the right to respect for his private and family life, his home and his correspondence." The United Nations Universal Declaration of Human Rights more generally commits in its Preamble to "freedom of speech and belief and freedom from fear and want . . . as the highest aspiration of the common people," rights more specifically related to privacy under Article 3 (right to life, liberty, personal security), Article 5 (freedom from torture and

state, where armed military roam the streets and invade homes to cause terror.[92] American courts are increasingly taking notice of the risk that deprivation of privacy and social isolation are deliberately used by the state to demean, control, and terrify.[93] As the Tenth Circuit Court of Appeals stated in 2017, "we, too, fear the Orwellian-style surveillance state that could emerge from unfettered government collection of personal data."[94]

In the United States, the judicial branch has served as a key force in elucidating the privacy rights and interests of individuals, particularly when the other branches of government have been reluctant to regulate the surveillance industry or governmental use of surveillance products. For example, in *Carpenter v. United States*, in 2018, the Supreme Court demonstrated its willingness to support individual privacy rights under the Fourth Amendment against state intrusion in the face of "the seismic shifts in digital technology that make possible the tracking of [individuals] . . . for years and years."[95] Some argue that overreliance on the judiciary for such a task results in a stinted approach:

degrading treatment), and Article 12 (freedom from interference with privacy, family, home and correspondence), among others, as well as Article 30 (freedom from state or personal interference in the above rights).

92. *See* Henry, *supra* note 2.

93. *See* Shilpa Jindia, *Secret Surveillance and the Legacy of Torture have Paralyzed the USS Cole Bombing Trial at Guantánamo*, THE INTERCEPT (Mar. 5, 2018, 9:18 AM), https://theintercept.com/2018/03/05/guantanamo-trials-abd-al-rahim-al-nashiri/ (reporting that defense lawyers of detainees in the Guantánamo Bay American military facility in Cuba could not proceed "for fear of [American] government surveillance"); Denver Nicks, *Government Spying Hurts Journalists and Lawyers, Report Says*, TIME (July 28, 2014, 4:51 PM), http://time.com/3048380 /government-spying-hurts-journalists-and-lawyers-report-says/ (reporting on U.S. National Security Administration efforts to weaken public cybersecurity development to better enable surveillance of the American public, including targeted surveillance of lawyers and journalists who fear for the safety of their clients and sources).

94. United States v. Thompson, 866 F.3d 1149, 1159 (10th Cir. 2017) (dismissing dicta in Supreme Court precedent that technological innovation might diminish expectations of privacy). *See also* Richards v. County of Los Angeles, 775 F. Supp. 2d 1176, 1184 (C.D. Cal. 2011) (holding that a state employer secretly videotaping employees without their knowledge or consent violated the Fourth Amendment and "goes against the grain of our strong anti-Orwellian traditions").

95. Carpenter v. United States, 138 S. Ct. 2206, 2219 (2018).

> Although the courts may be a natural venue for resolving legal questions, they provide a poor locus for policy making about issues of technological change and privacy because they deal with individual-level disputes and because their legal analysis is likely to reemphasize the individual character of the rights at issue rather than exploring the social implications.[96]

However, the individual nature of the right to privacy is where the importance of privacy begins, even if privacy is essential to societal well-being. Natural law and its influence on the American Bill of Rights conceptually reflect this. Rather than merely atomizing the need for privacy, the privacy discourse in case law repeatedly discusses the role of the individual in society and the mutually reinforcing concept that society's protection of the individual is protective of society itself.

Autonomy, privacy, and the need for human contact as a social species are ancient values. Natural law suggests a common thread of human need that is so inextricably intertwined with the human experience that it is endowed with lawful authority, whether or not it is expressly stated in a book of laws.[97] Yet natural law, much like the fading of the Titans,[98] has been battered in the storms of time, eventually replaced by the sharper edges of scientific and medical understanding.[99]

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96. REGAN, *supra* note 3, at 41.

97. *See* MARY ANN GLENDON, THE FORUM AND THE TOWER: HOW SCHOLARS AND POLITICIANS HAVE IMAGINED THE WORLD, FROM PLATO TO ELEANOR ROOSEVELT 21 (2011) (explaining that Plato's *The Laws* averred that there are "recurrent processes of human knowing by which the laws can be tested, evaluated, and improved, always with a view toward 'the freedom, unity and wisdom of the city'").

98. *See* Velvet Yates, *The Titanic Origin of Humans: The Melian Nymphs and Zagreus*, 44 GREEK, ROMAN & BYZANTINE STUDIES 183, 191-92 (2004) (identifying the role of the mythological Titans who violently created the many Greek gods from the one ruling deity, after which Zeus, one of the many, ultimately punished and destroyed the Titans by incinerating them with thunder and lightning, resulting in the birth of mankind "from their ashes").

99. *See, e.g.*, RONALD NIEZEN, PUBLIC JUSTICE AND THE ANTHROPOLOGY OF LAW 36 (2010) (inferring that the international human rights movement is a product of the politics of indignation, a reaction to the state as perpetrator rather than deserving of patriotism); Oliver Wendell Holmes, *Law in Science and Science in Law*, 12 HARV. L. REV. 443, 452 (1918) ("The true science of the law does not consist mainly in a theological working out of dogma or a logical development as in mathematics, or only

The English philosopher and physician John Locke "taught that men establish governments to protect their natural rights to life, liberty, and property."[100] Globally, the Universal Declaration of Human Rights adopted Article 12 in 1948, recognized humanity's common concerns with individual privacy rights, asserting that "no one shall be subjected to arbitrary interference with his privacy, family, home, or correspondence, nor to attacks upon his honour and reputation."[101] All of these concepts are bound up with freedom and autonomy. As Bloch argued, "[t]o be free means that a person is not imposed upon from the outside," or at least has a choice and a will with respect to human, environmental, and other causal pressures.[102]

Whereas the glorified American Declaration of Independence and its language of inalienable rights has been criticized for its overly aspirational and nebulous statements,[103] it does still inspire an effort in legal discourse to define the rights that are owed, because it assumes that some inalienable, inherent rights exist and that government has a

in a study of it as an anthropological document from the outside; an even more important part consists in the establishment of its postulates from within upon accurately measured social desires instead of tradition."); Oliver Wendell Holmes, *Natural Law*, 32 HARV. L. REV. 40, 41 (1918) ("The jurists who believe in natural law seem to me to be in that naïve state of mind that accepts what has been familiar and accepted by them and their neighbors as something that must be accepted by all men everywhere."); Steven J. Macias, *Utilitarian Constitutionalism: A Comparison of Bentham & Madison*, N.Y.U. J. L. & LIBERTY 1028, 1050 (2018) (explaining Bentham's criticism of natural law, "since there was no universally accepted authority on what exactly that law contained").

100. GLENDON, *supra* note 97, at 107.

101. *See* MICHAEL, *supra* note 88, at 19 (discussing the context of international law unambiguously identifying privacy as a universal, fundamental human right).

102. BLOCH, *supra* note 3, at 154.

103. *See, e.g.*, William F. Dana, *The Declaration of Independence*, 13 HARV. L. REV. 319 (1900) (asserting that the clarity of the Declaration's language served to justify separation from England, whereas the ambiguity of the principles stated served merely as a foundation for what Congress would eventually make concrete); John Inazu, *We Disagree on the 'Self-Evident Truths' in the Declaration of Independence. But We Always Did.*, WASH. POST (July 5, 2016), https://www.washingtonpost.com/news/acts-of-faith/wp/2016/07/05/we-disagree-on-the-self-evident-truths-in-the-declaration-of-independence-but-we-always-did/?noredirect=on&utm_term=.5253cf68ee2f (arguing that fundamental disagreements regarding the meaning and scope of the Declaration of Independence have continued since it was first written).

duty to protect them.[104] Even if the concepts are aspirational, they still present value to their skeptics. Jurist Oliver Wendell Holmes, critical of natural law and deeply saddened by war, still extended hope for the social contract and the search for the common wants of man, "the chords of a harmony that breathes from the unknown."[105]

When one hears in popular culture that privacy is dead, it is as if individual privacy *never* mattered. The legal profession knows better.[106] Even if the source of privacy rights for the public and persons in confinement is under debate, the courts in the United States have never asserted that privacy is dead.[107] The courts appear to adopt an anthropological approach, recognizing that cultural values are diverse and change with time and experience.[108] Nevertheless, even

104. *E.g.*, Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 848 n.2 (2015) (Thomas, J., dissenting) (asserting that the Anglo-American legal tradition recognizes Lockean core private rights, while non-core rights are privileges created as a matter of public policy, and therefore should not be blithely recognized or adopted by the courts); Roberts v. Louisiana, 431 U.S. 633, 646 (1977) (Blackmun, J., dissenting) (arguing that in order to protect individual liberty and freedom, the state must be empowered to establish order, including the assessment of who deserves the death penalty where public protection is "surely at the core of the Lockean 'social contract' idea").

105. Holmes, *Natural Law*, supra note 99, at 44.

106. *Compare* Jacob Morgan, *Privacy is Completely and Utterly Dead, and We Killed It*, FORBES (Aug. 19, 2014, 12:04 AM), https://www.forbes.com/sites/jacobmorgan/2014/08/19/privacy-is-completely-and-utterly-dead-and-we-killed-it/#562959c731a7 ("It doesn't appear that businesses or governments are going to protect us either, if anything there is a lack of education and no desire to educate the masses on these issues."), *with* Neil M. Richards & Jonathan H. King, *Big Data Ethics*, 49 WAKE FOREST L. REV. 393, 395 (2014) ("privacy (and privacy law) are very much alive").

107. In the author's online search of state and federal case law in the United States, no case includes the popular phrase *privacy is dead*. *See also* Johnson v. Phelan, 69 F.3d 144, 146 (7th Cir. 1995) ("Wolfish assumed without deciding that prisoners retain some right of privacy under the fourth amendment" (citing Bell v. Wolfish, 441 U.S. 520 (1979))); Hickman v. Jackson, No. 2:03CV363, 2005 WL 1862425, at *6 n.24 (E.D. Va. Aug. 3, 2005) (explaining that federal courts have chosen not to clearly identify the source of precedent for a prisoner's right to privacy, but that the right is consistently recognized nonetheless).

108. *See, e.g.*, Hill v. Nat'l Collegiate Athletic Ass'n, 7 Cal. 4th 1, 92 (1994) (addressing compulsory urine collection in drug testing of athletes, while stating "in our culture the excretory functions are shielded by more or less absolute privacy, so much so that situations in which this privacy is violated are experienced as extremely distressing, as detracting from one's dignity and self-esteem" (quoting Skinner v. Ry.

anthropologists have asserted that when the public voice lacks clarity and struggles to assert its autonomy rights, "it faces a likelihood of becoming invisible and therefore of being subject to the will and whims of illegitimate power."[109] In the arena of privacy rights, the courts need to continue to serve as a champion of authentic reliance on past principles,[110] particularly when the other branches of American government are reluctant to do so.[111]

C. Common Law Doctrines Protecting Autonomy: Police Power and Parens Patriae

Without adequate regulation of surveillance in public and private spaces clearly affirming an individual right to privacy, the courts are left to define what privacy is due and why it is important to the individual and society. In addition to state and federal constitutional

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Labor Executives' Ass'n, 489 U.S. 602, 645-46 (1989))); *cf.* Holmes, *Natural Law*, *supra* note 99, at 41 ("But while one's experience thus makes certain preferences dogmatic for oneself, recognition of how they came to be so leaves one able to see that others, poor souls, may be equally dogmatic about something else.").

109. NIEZEN, *supra* note 99, at 15.

110. *See* NIEZEN, *supra* note 99, at 173 (admonishing that powerful state interests can manipulate historical romanticism, putting forth "plain falsehoods with moral defences"); WILLIAM VANDERWOLK, VICTOR HUGO IN EXILE: FROM HISTORICAL REPRESENTATIONS TO UTOPIAN VISTAS 47 (2006) ("The government had carefully constructed its own mythology, based on past glory, in order to protect its interests.").

111. *See, e.g.*, Frank J. Cavico, *The Tort of Intentional Infliction of Emotional Distress in the Private Employment Sector*, HOFSTRA LAB. & EMP. L.J. 109, 111 (2003) (internal citation omitted) (discussing the weak development of emotional distress claims in tort law, where "the law has been slow to accept the interest in peace of mind as entitled to independent legal protection, even as against intentional invasions"); Catherine Tucker, *Empirical Research on the Economic Effects of Privacy Regulation*, 10 J. TELECOMM. & HIGH TECH. L. 265 (2012) (addressing the potential negative financial impact on businesses when internet advertising is regulated to protect consumer privacy); Anna Minton, *CCTV Increases People's Sense of Anxiety*, GUARDIAN (Oct. 30, 2012, 13:00 EDT), https://www.theguardian.com/society/2012/oct/30/cctv-increases-peoples-sense-anxiety (describing the insurance industry's commodification of fear for profit, with the "defensible space" concept of home and business protection promoting "purchase of security products, strongly backed by the insurance industry, which provides lower premiums for properties").

protections,[112] longstanding common law doctrines of police power and parens patriae provide support for individual autonomy, particularly in state institutional settings.

The Supreme Court has consistently upheld common law police power in state and local applications:

> Throughout our history the several States have exercised their police powers to protect the health and safety of their citizens. Because these are "primarily, and historically, . . . matter[s] of local concern", the "States traditionally have had great latitude under their police powers to legislate as to the protection of the lives, limbs, health, comfort, and quiet of all persons."[113]

Police power is protected by the Tenth Amendment, which reserves to the states powers not delegated to Congress under the Constitution.[114] With respect to use of surveillance technologies, searches, and other restrictive measures, such as solitary confinement, police power is often a source of authority for states to impose security and safety measures.[115] In upholding the state's exercise of police power, as shown in the practice of body-cavity searches, the court often defers to the state's choice of action.[116] Nonetheless, as a matter of public health law in both criminal and medical state institutions, police power has yet to be well defined and is often combined with a constitutional analysis defining the legal bounds of state restrictive measures.[117] At times, police power and parens patriae applications are in conflict when

112. *See infra* Part II.

113. Medtronic, Inc. v. Lohr, 518 U.S. 470, 475 (1996) (internal citations omitted).

114. U.S. CONST. amend. X.

115. *See, e.g.*, J.B. *ex rel.* Benjamin v. Fassnacht, 801 F.3d 336 (3d Cir. 2015) (permitting strip searches of juvenile detainees pursuant to state police power despite numerous countervailing privacy concerns).

116. *See, e.g.*, Timm v. Gunter, 917 F.2d 1093, 1099 (8th Cir. 1990) (asserting that prison officials are owed deference in choice of restrictive measures due to their "exceedingly complex task" of safeguarding institutional security), *cert. denied*, 501 U.S. 1209 (1991); *see also infra* Part IV.

117. *See generally* Richard A. Epstein, *In Defense of the "Old" Public Health*, 69 BROOK. L. REV. 1421, 1427 (2004) (examining the evolving scope of police power in the United States, with concerns that "[t]he law makes little attempt to identify separate headings of the police power, such as public health, that operate as limited exceptions to the general presumption in favor of protecting liberty and property").

addressing privacy concerns, despite their shared purposes, perhaps because they are both broad in scope and highly fact sensitive.[118]

The common law parens patriae doctrine also serves to create a governmental duty to protect the community, but particularly persons subject to governmental care and control.[119] As the Supreme Court of Minnesota explained, a state which acts as parens patriae is "fulfilling its [common law] duty to protect the well-being of its citizens who are incapable of so acting for themselves."[120] Again, it may supply the authority for the state to impose restrictive measures, such as restraints on prisoners or forced medication of persons subject to involuntary commitment. For example, in *Bigley v. Alaska Psychiatric Institute*, the Supreme Court of Alaska engaged in a best interest analysis, balancing a confined mentally ill patient's fundamental due process privacy and liberty interests against the psychiatric hospital's compelling state interest as parens patriae, in order to force the patient to receive psychotropic medications.[121]

In the debate over the impact of technological surveillance on autonomy rights there is often a false dichotomy presented of individual versus state interests. Political theorist Priscilla Regan explained:

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118. *Compare* J.B. *ex rel.* Benjamin v. Fassnacht, 801 F.3d 336 (3d Cir. 2015) (holding that a juvenile detainee has a greater privacy interest than an adult prisoner, but still permitting strip searches on both pursuant to state police power), *with* State ex rel. Oregonian Pub. Co. v. Deiz, 613 P.2d 23 (Ore. 1980) (upholding restrictions on public access to juvenile court proceedings pursuant to state action as parens patriae which "favored privacy because of their belief that exposing a child's misdeeds to the community would reinforce the delinquent's negative self-image and, therefore, impede rehabilitation.").

119. *See In re* D.C., 4 A.3d 1004, 1021 (N.J. 2010) (restricting child visitation rights of parents and siblings in the interests of state parens patriae protection of the child); State v. J.P., 907 So. 2d 1101, 1114 (Fla. 2004) (addressing the state's right as parens patriae to infringe on parental rights and fundamental liberty interests for the protection of children); Matter of Welfare of Colyer, 660 P.2d 738, 742 (Wash. 1983) (addressing the state's statutory and common law "parens patriae responsibility to supervise the affairs of incompetents"); *In re* Angelia P., 623 P.2d 198, 202-03 (Cal. 1981) (addressing parental custodial rights as involving "the liberty and privacy interest afforded to the parents, the interest of the state, as parens patriae, in protecting children from harm, and finally, the often silent interest of the child").

120. Price v. Sheppard, 239 N.W.2d 905, 911 (Minn. 1976), *superseded by statute*, Minn. Stat. § 253B.092, *as recognized in In re* Civil Commitment of Raboin, 704 N.W.2d 767 (Minn. Ct. App. 2005).

121. Bigley v. Alaska Psychiatric Inst., 208 P.3d 168, 185 (Alaska 2009).

"Framing privacy as a conflict between the individual and society is not only philosophically difficult, as Dewey suggested, but is also somewhat simplistic. People are both public and private, they operate in both contexts, and they see both as important."[122] As the common law doctrines of police power and parens patriae demonstrate, both the individual and the state have an interest in security and safety, but they also have a mutual interest in preserving the privacy rights of the individual.

As the Second Circuit Court of Appeals clearly stated when examining an application of state electronic surveillance, "the government as *parens patriae* has an interest in avoiding illegal invasions of its citizens' privacy."[123] Moreover, the state's crucial interest in avoiding tyranny is integral to the survival of the government itself.[124] Therefore, judicial interpretation of the autonomy rights of persons in confinement find support in both common law doctrines of police power and parens patriae.

II. STATE AND FEDERAL CONSTITUTIONAL RIGHTS PROTECTING THE PRIVACY OF PERSONS CONFINED BY THE STATE

While state and federal courts suggest that there is no general right to privacy under federal constitutional law,[125] they recognize privacy rights in special contexts such as those affiliated with bodily autonomy, the home, and, in a more limited way, institutional settings.[126] The Supreme Court has repeatedly stated that privacy rights are best crafted by Congress and state jurisdictions, which may, in fact, create a general right to privacy: "But the protection of a person's general right to privacy—his right to be let alone by other people—is, like

122. *See* REGAN, *supra* note 3, at 217-18.

123. *In re* United States, 10 F.3d 931, 933 (2d Cir. 1993) (addressing a Fourth Amendment claim related to government wiretapping and electronic surveillance in a criminal investigation).

124. *See supra* note 55 and accompanying text.

125. *E.g.*, Katz v. United States, 389 U.S. 347, 374 (1967) (stating that there is no general right to privacy under the Fourth Amendment).

126. *See* United States v. Orito, 413 U.S. 139, 142 (1973) (declining to extend a general right to privacy to obscene material outside the home, but recognizing that "[t]he Constitution extends special safeguards to the privacy of the home, just as it protects other special privacy rights such as those of marriage, procreation, motherhood, child rearing, and education").

the protection of his property and of his very life, left largely to the law of the individual States."[127]

Generally, state privacy law is not pre-empted by the federal government, with some exceptions, such as airspace above private property subject to federal regulation.[128] The Ninth Amendment assures states that they may provide expansive protection of rights not carved out in the United States Constitution: "The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people."[129] As discussed above, State and local jurisdictions are also imbued with more extensive common law police power than most federal jurisdictions.[130] Nevertheless, the penumbra of federal privacy rights found in the U.S. Constitution remains firm and widely applicable to both federal and state jurisdictions through the Fourteenth Amendment.[131]

Protecting the individual's autonomy to navigate the basic need for privacy and social contact from the intrusion of state surveillance invokes a complex overlay of constitutional issues. As with common law approaches, such as police power and parens patriae doctrines, the constitutional analysis addressing individual autonomy interests is inherently fact-sensitive. Efforts to monitor persons in confinement

127. *Katz*, 389 U.S. at 350-51 (internal citations omitted). *See also* United States v. Thompson, 866 F.3d 1149, 1159-60 (10th Cir. 2017) (promoting state adoption of enhanced privacy legislation).

128. *See* Ricker, *supra* note 18, at 62 (discussing Federal Aviation Administration regulation of drone use as a tool of private surveillance). Generally, when states exercise their state authority, federal preemption is discouraged to ensure the proper balance between state and federal powers, unless Congress expressly enacts legislation to preempt state law. *See* Brown v. Plata, 563 U.S. 493 (2011) (enforcing the federal Prison Litigation Reform Act to the California state prison system); Gregory v. Ashcroft, 501 U.S. 452, 460 (1991) (requiring that Congress must make its intention to preempt traditional state authority "unmistakably clear in the statute"). A thorough discussion of federal preemption is beyond the scope of this article.

129. U.S. CONST. amend. IX.

130. *See supra* note 113 and accompanying text.

131. *See* Canedy v. Boardman, 16 F.3d 183, 185 (7th Cir. 1994) (declaring that "[t]he right to privacy is now firmly ensconced among the individual liberties protected by our Constitution" when referring to Planned Parenthood v. Casey, 505 U.S. 833, 845 (1992)); Berger v. New York., 388 U.S. 41, 53 (1967) (asserting that a state eavesdropping statute that did not require particularity for authorization was overbroad in violation of the Fourth Amendment which is made applicable to the states under the Fourteenth Amendment).

may take place from a distance or close enough to monitor minute bodily movements or functions.[132] They may take place openly or secretly. They may infringe upon a right to observational privacy as well as bodily autonomy.[133] They may also violate First Amendment rights to freedom of speech, movement, association, and expression.[134]

The protection of autonomy, even for those subjected to surveillance in state institutions, finds support in common law, the federal penumbra of privacy rights, and a growing number of express privacy provisions in state constitutions across the United States.

A. Express State Constitutional Rights to Privacy

More than twenty States have taken up the mantle and asserted an express right to privacy greater than that afforded by the United States Constitution.[135] The Florida Supreme Court declared that "[b]ecause the right to privacy is explicit in the Florida Constitution, it has been interpreted as giving Florida citizens more protection than the federal right."[136] While many of these state constitutional privacy provisions

132. *E.g.*, People v. Buell, 16 Cal. App. 5th 682, 690-91 (2017) (addressing the reliability of continuous remote alcohol intake monitoring as a function of GPS ankle bracelets in state detention).

133. *E.g.*, Florence v. Bd. of Chosen Freeholders of Cty. of Burlington, 566 U.S. 318, 346 (2012) (addressing the constitutionality of state-authorized body-cavity searches).

134. *See* United States v. Jones, 565 U.S. 400, 416 (2012) (Sotomayor, J., concurring) (arguing that government surveillance chills freedom of association and expression); Millard v. Rankin, 265 F. Supp. 3d 1211, 1228 (D. Colo. 2017) (suggesting, in Eighth Amendment and substantive due process claims, that publication of the sex offender registry and the requirement to register online email and social media accounts create a "significant incursion" on the registrant's First Amendment rights by chilling speech and freedom of association).

135. *See Privacy Protections in State Constitutions*, NAT'L CONF. OF ST. LEGISLATURES (Nov. 7, 2018), http://www.ncsl.org/research/telecommunications-and-information-technology/privacy-protections-in-state-constitutions.aspx (identifying an initial eleven states with constitutional privacy provisions: Alaska, Arizona, California, Florida, Hawaii, Illinois, Louisiana, Montana, New Hampshire, South Carolina, and Washington).

136. State v. J.P., 907 So. 2d 1101, 1115 (Fla. 2004). *See also* Valley Hosp. Ass'n, Inc. v. Mat-Su Coal. for Choice, 948 P.2d 963, 968 (Alaska 1997) (holding that the express privacy provision in the Alaska Constitution provides more protections than that found in the U.S. Constitution).

expand upon Fourth Amendment search and seizure language,[137] others adopt narrow applications to certain state actions, such as the right of crime victims to privacy in legal proceedings.[138] For the slight majority of states that have not adopted an express constitutional privacy protection, nearly all provide language comparable to that of the federal constitution in their bill or declaration of rights, such as due process rights with respect to life, liberty, property, and the pursuit of happiness.[139] State courts have also maintained a right to privacy based on more broadly-worded provisions in the U.S. Constitution.[140]

In 1972, Alaska amended its state constitution to include a broad and express right to privacy; the amendment in Article I, section 22 states: "The right of the people to privacy is recognized and shall not be infringed. The legislature shall implement this section."[141] Similarly, California amended the first clause of its state constitutional Declaration of Rights to add a specific protection of individual privacy:

137. *See* FLA. CONST. art. I, § 12 ("The right of the people to be secure in their persons, houses, papers and effects against unreasonable searches and seizures, and against the unreasonable interception of private communications by any means, shall not be violated."); HAW. CONST. art. I, § 7 ("The right of the people to be secure in their persons, houses, papers and effects against unreasonable searches, seizures and invasions of privacy shall not be violated; . . .); ILL. CONST. art. I, § 6 ("The people shall have the right to be secure in their persons, houses, papers and other possessions against unreasonable searches, seizures, invasions of privacy or interceptions of communications by eavesdropping devices or other means. . . ."); LA. CONST. art. I, § 5 ("Every person shall be secure in his person, property, communications, houses, papers, and effects against unreasonable searches, seizures or invasions of privacy. . . ."); S.C. CONST. art. I, § 10 ("The right of the people to be secure in their persons, houses, papers, and effects against unreasonable searches and seizures and unreasonable invasions of privacy shall not be violated, . . .").

138. *See infra* note 149.

139. State constitutions that do not contain a clause expressly protecting "privacy" include Alabama, Arkansas, Colorado, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Nebraska, Nevada, New Jersey, New York, Oklahoma, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Vermont, Virginia, and Wyoming.

140. *See infra* Part II(B).

141. ALASKA CONST. art. I, § 22. *See Alaska Right of Privacy, Amendment 3 (August 1972)*, BALLOTPEDIA (noting the amendment passed by over 86% of the vote), https:// ballotpedia.org/ Alaska_Right_of_Privacy,_Amendment_3_ (August_1972) (last visited Dec. 3, 2018). *See also* ARIZ. CONST. art. II, § 8 (adopting a broadly worded provision, which states "[n]o person shall be disturbed in his private affairs, or his home invaded, without authority of law").

"All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety, happiness, *and privacy*."[142] Washington also has a broad constitutional privacy provision, which asserts that "[n]o person shall be disturbed in his private affairs, or his home invaded, without authority of law."[143] When a state constitutional privacy provision is express but broadly stated, the courts tend to grant broad privacy protections, inclusive of a range of interests and actions.[144]

Other states have adopted more limited constitutional privacy rights, such as the right to a secret ballot,[145] private prayer or contemplation in public schools,[146] or granting crime victims an express right to privacy and dignity in the criminal justice system.[147] The crime

142. CAL. CONST. art. I, § 1 (emphasis added). Hawai'i also adopted a broad privacy rights clause which states: "The right of the people to privacy is recognized and shall not be infringed without the showing of a compelling state interest. The legislature shall take affirmative steps to implement this right." HAW. CONST. art. I, § 6.

143. WASH. CONST. art. I, § 7.

144. *See, e.g.*, Kiva O. v. Alaska, Dep't Health & Soc. Servs., 408 P.3d 1181 (Alaska 2018) (upholding a mother's state constitutional rights to liberty and privacy to prevent the state from overmedicating her child in the custody of the Office of Children's Services); Bigley v. Alaska Psychiatric Inst., 208 P.3d 168, 185 (Alaska 2009) (requiring due process before administration of antipsychotic medications to an involuntarily committed patient under the Alaskan Constitution Privacy and Liberty Clauses); Valley Hosp. Ass'n, Inc. v. Mat-Su Coal. for Choice, 948 P.2d 963, 969 (Alaska 1997) (affirming reproductive privacy rights, despite arguments by the public hospital that the state constitutional privacy provision was to be limited to informational privacy); N.G. v. Super. Ct., 291 P.3d 328 (Alaska Ct. App. 2012) (denying defendant access to a crime victim's mental health records pursuant to the psychotherapist-patient privilege and the privacy protections of the Alaska Constitution).

145. *E.g.*, SO. DAK. CONST., art. VI, § 28 (ratified in 2010).

146. W. VA. CONST., art. III, § 15a ("No student of a public school may be denied the right to personal and private contemplation, meditation or prayer . . . ."). *But see* Walter v. W. Va. Bd. of Educ., 610 F. Supp. 1169 (S.D. W. Va. 1985) (holding in a declaratory judgment that W. VA. CONST., art. III, § 15a in violation of the First Amendment of the U.S. Constitution).

147. *See* IDAHO CONST., art. I, § 22(1) (providing crime victims with a right to "fairness, respect, dignity and privacy throughout the criminal justice process"); ILL. CONST. art. I, § 8.1(a)(1) ("The right to be treated with fairness and respect for their dignity and privacy and to be free from harassment, intimidation, and abuse

victim rights' movement has been particularly effective in laying a constitutional foundation for privacy rights for vulnerable populations, whereby the government becomes obligated to protect privacy, alongside health and safety, as a matter of state police power.[148] This most recent adoption of state constitutional rights could support arguments to expand privacy protections for persons in confinement for many of the same reasons, as some may be victims of crime within their institutions. Tennessee already specifically mandates "the humane treatment of prisoners" in its state constitution under article I, section 32.[149]

In addition, states have responded to the encroachment of surveillance in the form of online data collection by adding more stringent protections of informational privacy in their constitutions. In 2014, Missouri became the first state to adopt a constitutional amendment specifically protecting the privacy of electronic communications from unreasonable search and seizure.[150] Prior to that, New York had adopted a similar provision with respect to earlier forms of technology, specifically protecting against "unreasonable

throughout the criminal justice system."); MONT. CONST. art. II, § 36(1) (protecting the crime victim's right to refuse investigative interviews and to protect privileged and confidential information from disclosure); N.M. CONST. art. II, § 24(A)(1) ("the right to be treated with fairness and respect for the victim's dignity and privacy throughout the criminal justice system"); N. DAK. CONST. art. I, § 25(1) (protecting the "right to privacy", including refusal of discovery and protection of confidentiality information); OHIO CONST. art. I, § 10a(A)(1) ("to be treated with fairness and respect for the victim's safety, dignity and privacy"); ORE. CONST. art. I, § 42(1)(c) (including a crime victim's right to protection from discovery requests, although not specifically using the term privacy); SO. DAK. CONST., art. I, § 29 (amending the constitution in 2016 to provide protection from discovery requests as a "right to privacy"); WISC. CONST., art. I, § 9m ("This state shall treat crime victims . . . with fairness, dignity and respect for their privacy.").

148. *See generally* Mary Margaret Giannini, *The Procreative Power of Dignity: Dignity's Evolution in the Victims' Rights Movement*, 9 DREXEL L. REV. 43, 66 (2016) (identifying adoption of state constitutional protections that assert a right of crime victims to respect, dignity and privacy as a function of the states' protection of the public).

149. TENN. CONST., art. I, § 32 ("That the erection of safe prisons, the inspection of prisons, and the humane treatment of prisoners, shall be provided for.").

150. *See Privacy Protections in State Constitutions*, *supra* note 135; MO. CONST. art. I, § 15 ("That the people shall be secure in their persons, papers, homes, effects, and electronic communications and data, from unreasonable searches and seizures[.]").

interception of telephone and telegraph communications."[151] In 2018, New Hampshire voters approved the following constitutional amendment focused on protecting informational privacy from governmental intrusion: "An individual's right to live free from governmental intrusion in private or personal information is natural, essential, and inherent."[152]

Among the various state constitutions with express privacy provisions, several focus solely on governmental intrusion. For example, the Constitution of Florida, adopted in 1980, states:

> Every natural person has the right to be let alone and free from governmental intrusion into the person's private life except as otherwise provided herein. This section shall not be construed to limit the public's right of access to public records and meetings as provided by law.[153]

In Florida, the right to privacy survives death under Article I, section 23; for if it did not, "[it] would render those rights hollow, chilling the daily operation of them on people as they navigate their lives from moment to moment."[154]

Finally, in contrast to the more nebulous language of the federal constitution, several states overtly mention the reason why privacy is important to members of society. For example, the Montana Constitution states: "The right of individual privacy is essential to the well-being of a free society and shall not be infringed without the

151. N.Y. CONST. art. I, § 12.

152. BALLOTPEDIA, https://ballotpedia.org/New_Hampshire_Question_2,_Right_to_Live_Free_from_Governmental_Intrusion_in_Private_and_Personal_Information_Amendment_(2018) (last visited Dec. 3, 2018). *See* Dave Solomon, *Leading privacy advocate lauds passage of constitutional amendment*, N.H. UNION LEADER (Nov. 10, 2018), http://www.unionleader.com/news/politics/state/leading-privacy-advocate-lauds-passage-of-constitutional-amendment/article_5ce333c1-68b1-5a9f-897c-715bbd56cd76.html; *see also* Kevin C. McAdam & John R. Webb, *Privacy: A Common Law and Constitutional Crossroads*, 40 COLO. L. 55 (2011) (addressing movements to reform Colorado state rights to privacy).

153. FLA. CONST. art. I, § 23. *Cf.* ALASKA CONST. art. I, § 22; Bigley v. Alaska Psychiatric Inst., 208 P.3d 168, 185 (Alaska 2009) (interpreting the liberty and privacy rights of a person confined under state mental health care pursuant to the broader privacy provisions in the Alaska Constitution).

154. *See* Weaver v. Myers, 229 So. 3d 1118, 1130 (Fla. 2017) (addressing privacy of medical information).

showing of a compelling state interest."[155] The California Constitution provides: "All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing and protecting property, and pursuing and obtaining safety, happiness, and privacy."[156] Given these examples, Courts would find ample support to suggest that individual autonomy is not only an individual right, but a right which benefits both the individual and the state.

Critically, states with express constitutional privacy protections well adapted to a modern technological age do not have to engage in unpacking a penumbra of privacy rights in the federal constitution or determining what level of scrutiny should be applied.[157] A state constitutional privacy rights analysis is clearer and therefore more easily enforced against the pressures of the surveillance technology industry when the privacy right itself is expressly stated in the constitution.

For example, in *Bigley v. Alaska Psychiatric Institute*, the Supreme Court of Alaska held that a state mental health facility violated an involuntarily committed patient's state due process rights to liberty and privacy regarding forced psychotropic medications.[158] The state court applied the following balancing test: "[W]e must balance the fundamental liberty and privacy interests of the patient against the compelling state interest under its *parens patriae* authority to protect the person and property of an individual who lack[s] legal age or capacity."[159] Moreover, "[a]lthough the state cannot intrude on a fundamental right where there is a less intrusive alternative, the alternative must actually be available, meaning that it is feasible and would actually satisfy the compelling state interests that justify the proposed state action."[160]

In contrast, for states such as Minnesota that have opted not to follow the suggestion of the United States Supreme Court to adopt

155. MONT. CONST. art. II, § 10.
156. CAL. CONST. art. I, § 1.
157. *See supra* Part II(A).
158. *Bigley*, 208 P.3d at 185.
159. *Id.* (internal quotation marks and citation omitted).
160. *Id. Cf.* State v. J.P., 907 So. 2d 1101, 1115-16 (Fla. 2004) (applying state constitutional privacy protections to a juvenile curfew ordinance, with an efficient strict scrutiny analysis).

state-based privacy protections, the analysis remains muddled. The Supreme Court of Minnesota, in 1976, unable to rely on state constitutional or statutory guidance, or even on later-developed federal privacy rights, haltingly addressed the claim of a mental hospital patient who sought to resist forced tranquilizers:

> We recognize that it is far too early in the evolution of the right of privacy to offer any single definition or rule of what the right entails. Only its broadest contours have been sketched. We do feel, however, because of the importance of that emerging right, it is appropriate for us, at this time, to set forth more than our bare conclusion that the right of privacy is or is not involved.
>
> At the core of the privacy decisions, in our judgment, is the concept of personal autonomy—the notion that the Constitution reserves to the individual, free of governmental intrusion, certain fundamental decisions about how he or she will conduct his or her life. Like other constitutional rights, however, this right is not an absolute one and must give way to certain interests of the state, the balance turning on the impact of the decision on the life of the individual. As the impact increases, so must the importance of the state's interest. Some decisions, we assume, will be of little consequence to the individual and a showing of a legitimate state interest will justify its intrusion; other decisions, on the other hand, will be of such major consequence that only the most compelling state interest will justify the intrusion.
>
> But once justified, the extent of the state's intrusion is not unlimited. It must also appear that the means utilized to serve the state's interest are necessary and reasonable, or, in other words, in light of alternative means, the least intrusive.[161]

Before focusing on federal constitutional provisions, it is important to note that state decisions asserting privacy rights may be based on both state and federal constitutional principles, as illustrated in the case of the right to assisted suicide in the State of Washington.[162] Federal

161. Price v. Sheppard, 239 N.W.2d 905, 911 (Minn. 1976), *superseded by statute*, Civil Commitment Act, Minn. Laws ch. 282, art.2, §100, *as stated in*, *In re* Civil Commitment of Raboin, 704 N.W. 2d 767 (2005).

162. *See* Matter of Welfare of Colyer, 600 P.2d 738, 741-42 (Wash. 1983) (identifying the basis of the holding on Fourteenth Amendment due process liberty interests in the U.S. Constitution, supported by the Washington Constitution article I, section 7); James E. Dallner & D. Scott Manning, *Death with Dignity in Montana*, 65

constitutional principles supporting a right to privacy are perhaps more manifold and cumbersome than state constitutional rights, but they are longstanding and form a strong basis for a rights analysis. Additionally, the number of state constitutional privacy provisions are growing in number, but still represent only a minority of states. Therefore, the bulk of analysis that follows will focus on the developing reliance on federal jurisprudence to circumscribe the privacy rights of persons in confinement across the United States. If a majority of states eventually and wisely adopts express privacy rights in their constitutions, they may emerge as the dominant influence in identifying privacy rights against governmental surveillance and potential tyranny.

B. A Penumbra of Federal Constitutional Rights for Persons in State Confinement

Federal constitutional provisions key to understanding the privacy rights of confined persons include the Fourth Amendment, Eighth Amendment, and the Fourteenth Amendment liberty interest as a matter of substantive due process. The applicability of these three federal constitutional amendments generally reaches state institutions through the Fourteenth Amendment, which states that "[n]o state shall make any or enforce any law which shall abridge the privileges or immunities of citizens of the United States."[163] The privacy-related claims of prison inmates often assert the protections of all three clauses.[164] Persons

MONT. L. REV. 309, 329-31 (2004) (addressing the development of an express state constitutional right to privacy in Montana that is inclusive of observational privacy).

163. U.S. CONST. amend. XIV, § 1. *See* Berger v. New York, 388 U.S. 41, 53 (1967) (asserting that a state eavesdropping statute that did not require particularity for authorization was overbroad in violation of the Fourth and Fourteenth Amendments to the U.S. Constitution).

164. For example, cross-gender surveillance of inmates has frequently raised simultaneous federal Fourth Amendment, Eighth Amendment, and substantive due process claims. *E.g.*, Byrd v. Maricopa Cty. Bd. of Supervisors, 845 F.3d 919 (9th Cir. 2017) (addressing a detainee's Fourth Amendment claim for a violation of bodily privacy and Fourteenth Amendment claim for cruel and unusual punishment); Johnson v. Phelan, 69 F.3d 144 (7th Cir. 1995) (addressing Fourth, Eighth, and Fourteenth Amendment claims of a prison inmate). *Cf.* Burgess v. Fischer, 735 F.3d 462, 472 (6th Cir. 2013) ("excessive force claims . . . can be raised under the Fourth, Eighth, and Fourteenth Amendments"); Bloom v. Toliver, 133 F. Supp. 3d 1314 (N.D. Okl. 2015) (asserting Fourth, Eighth, and Fourteenth Amendments claims for the beating of a juvenile inmate by another inmate during transport).

subject to civil commitment or other civil restraints may assert both substantive due process and Fourth Amendment claims.[165] However, as discussed below, the courts may hold that a legally cognizable claim on one constitutional basis may preclude recovery on another.[166]

1. Intruding on Observational Privacy as Fourth Amendment Search and Seizure

Under the Fourth Amendment to the United States Constitution:

> The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Numerous exceptions to the warrant requirement remain, such as a good faith reliance on a complicated arena of precedent related to privacy.[167] Moreover, the Fourth Amendment demands a degree of persistence and care on the part of the defendant in asserting privacy rights, as shown in recent decisions related to the abandonment and third party doctrines, in which a person may lose existing privacy rights inadvertently.[168]

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165. *E.g.*, Millard v. Rankin, 265 F. Supp. 3d 1211 (D. Colo. 2017) (addressing assertions of federal Fourth Amendment and substantive due process claims against public dissemination of state sex offender registry).

166. *See infra* Part IV(A)(4).

167. *E.g.*, United States v. Katzin, 769 F.3d 163 (3d Cir. 2014) (holding that police officers reasonably relied on Fourth Amendment precedent prior to *United States v. Jones*, 565 U.S. 400 (2012) when placing GPS technology on the undercarriage of defendant's car in a public place and tracking its movements for two days without a warrant or the owner's consent).

168. *E.g.*, Carpenter v. United States, 138 S. Ct. 2206 (2018) (maintaining that a reasonable expectation of privacy remains in geolocation information provided to third parties, such as cell phone service providers); Riley v. California, 134 S. Ct. 2473 (2014) (interpreting the individual's continued assertion of an interest in privacy under the Fourth Amendment and the abandonment doctrine); *Jones*, 565 U.S. at 417 (2012) (Sotomayor, J., concurring) ("More fundamentally, it may be necessary to reconsider the premise that an individual has no reasonable expectation of privacy in information voluntarily disclosed to third parties."); State v. Brown, 815 S.E.2d 761 (S.C. 2018) (applying *Riley* regarding a burglar's cell phone left behind in the home that was burgled). *See generally* FARIVAR, *supra* note 29, at 77.

The Fourth Amendment only protects persons from arbitrary and unreasonable search and seizure by the government.[169] Its protections are broader than merely protecting privacy, where searches in public places may be unlawful in part due to public humiliation.[170] The Court has recognized that a loss of privacy infringes on human autonomy and the ability to make important decisions for oneself. For example, when the state reveals otherwise confidential medical information, it could deter patients from seeking needed healthcare treatment, despite state assurances that patients have a subjective and objectively reasonable expectation of privacy in their own medical information.[171]

The Fourth Amendment has not brought about a general right to privacy, but instead protects against "narrowly focused intrusions into individual privacy during the course of criminal investigations,"[172] which may occur in any number of settings. Moreover, defining reasonableness throughout the Amendment's history has required consideration of changes in the tools of surveillance.[173] It should have considered to a greater extent reasonableness with respect to technology's impact on human wellbeing. The constant and increasingly rapid advancement of technology, as well as resulting challenges associated with applying legal tests in our relatively young endeavor of self-governance, significantly outpace the slow process of human biological evolution in critical ways.[174] If humanity had the

169. Skinner v. Ry. Labor Executives' Ass'n, 489 U.S. 602, 619 (1989).

170. Katz v. United States, 389 U.S. 347, 350 n.4 (1967) (citing Griswold v. Connecticut, 381 U.S. 479, 509 (1965) (Black, J., dissenting) for the proposition that "a person can be just as much, if not more, irritated, annoyed and injured by an unceremonious public arrest by a policeman as he is by a seizure in the privacy of his office or home").

171. Ferguson v. City of Charleston, 532 U.S. 67, 78 n.14 (2001).

172. Whalen v. Roe, 429 U.S. 589, 604 n.32 (1977).

173. *See Jones*, 565 U.S. at 427 (Alito, J., concurring) ("And even if the public does not welcome the diminution of privacy that new technology entails, they may eventually reconcile themselves to this development as inevitable."); Berger v. New York, 388 U.S. 41, 49 (1967) ("The law, though jealous of individual privacy, has not kept pace with these advances in scientific knowledge.").

174. American astronaut and engineer Mae Carol Jamison commented: "People always think of technology as something having silicon in it. But a pencil is technology. Any language is technology. Technology is a tool we use to accomplish a particular task and when one talks about appropriate technology in developing countries, appropriate may mean anything from fire to solar electricity." Paula Lipp,

capacity to adapt well to rapid changes in technology, then perhaps a general right to privacy would not be needed, but that has not been the case.

In 1967, in *Berger v. New York*, the Supreme Court outlined the longstanding history of American law restricting government eavesdropping – from ancient common law addressing spying by ear as a public nuisance, to a California statute in 1862 restricting state use of telegraph interception of conversations, to similar bans on unrestricted wiretapping of telephone lines in the late 1800s.[175] By 1967, the Court was compelled to accept that "[s]ophisticated electronic devices have now been developed (commonly known as 'bugs') which are capable of eavesdropping on anyone in most any given situation."[176]

Observational privacy was also addressed in 1967 in *Katz v. United States*.[177] The decision examined what privacy rights and Fourth Amendment procedures were due to an individual whose conversation in a public telephone booth was surveilled and electronically recorded by the FBI's listening device attached to the booth.[178] The Court put forth that there is no general express right to privacy in the Constitution, but constitutional interests in privacy from government invasions do arise from the First, Fourth, and Fifth Amendments to the United States Constitution under limited circumstances.[179]

Justice Stewart, writing for the majority, stated that the Fourth Amendment protects people, not places; thus, what a person "seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected."[180] According to Justice Harlan, in his concurring opinion, a federal invasion into a constitutionally protected area has long been held to be "presumptively unreasonable in the absence of a search warrant" if the person has a subjective and

A Space to Call Her Own, GRADUATING ENGINEER + COMPUTER CAREERS (Sept. 29, 1999), http://www.graduatingengineer.com/articles/19990929/A-Space-to-Call-Her-Own.

175. *Berger*, 388 U.S. at 45-49 (holding a state eavesdropping statute to be overbroad in violation of an individual's Fourth and Fourteenth Amendment right to privacy).

176. *Id.* at 46-47.

177. Katz v. United States, 389 U.S. 347, 350-51 (1967).

178. *Id.* at 348-49.

179. *Id.* at 350.

180. *Id.* at 351.

objectively reasonable expectation of privacy.[181] This approach asserts respect for individual choice directing the scope of one's privacy, such as the deliberate use of a whisper to preserve confidentiality when one knows one is under surveillance.[182]

Yet, Justice Black in his dissent in *Katz* questioned the application of the Fourth Amendment to new surveillance technologies. He suggested that eavesdropping is an ancient practice that the Framers chose to leave out of the protections of the Fourth Amendment, protections that specifically address the search and seizure of tangible persons and things:

> Tapping telephone wires, of course, was an unknown possibility at the time the Fourth Amendment was adopted. But eavesdropping (and wiretapping is nothing more than eavesdropping by telephone) was, as even the majority opinion in Berger, supra, recognized, "an ancient practice which at common law was condemned as a nuisance. IV Blackstone, Commentaries s 168. In those days the eavesdropper listened by naked ear under the eaves of houses or their windows, or beyond their walls seeking out private discourse."[183]

Noting that the Bill of Rights should be given a liberal construction, Justice Black does not assert that privacy is unimportant, but rather suggests that the other branches of government should carve out privacy rights against state surveillance.[184] Indeed, in the same year as *Katz*, Justice Black, dissenting in *Berger v. New York*, admonished that privacy deserves protection in a technological age:

> The law, though jealous of individual privacy, has not kept pace with these advances in scientific knowledge. This is not to say that individual privacy has been relegated to a second-class position for

181. *Id.* at 361 (Harlan, J., concurring).

182. *See, e.g.*, United States v. Llufrio, 237 F. Supp. 3d 735 (N.D. Ill. 2017) (finding a subjective and reasonable expectation of privacy regarding a man in custody who mumbled softly to himself, believing that the interview room was monitored remotely by police).

183. *Katz*, 389 U.S. at 366 (Black, J., dissenting) (citing Berger v. New York, 388 U.S. 41, 45 (1967)).

184. *Id.* at 365-66 (Black, J., dissenting).

> it has been held since Lord Camden's day that intrusions into it are "subversive of all the comforts of society."[185]

Thus, Justice Black resisted carving out judicial privacy doctrines in *Katz* because he believed that the Framers left the control of privacy interests to Congress and the states:

> No general right is created by the Amendment so as to give this Court the unlimited power to hold unconstitutional everything which affects privacy. Certainly the Framers, well acquainted as they were with the excesses of governmental power, did not intend to grant this Court such omnipotent lawmaking authority as that. The history of governments proves that it is dangerous to freedom to repose such powers in courts.[186]

Since *Katz* and *Berger*, and despite Justice Black's reservations, Fourth Amendment precedent has consistently affirmed a relatively narrow right to privacy, including adoption of the exclusionary rule.[187] However, interpretation of privacy rights is qualified by the concurring view of Justice Harlan, requiring a reasonable expectation of privacy.[188] Reasonableness is a nebulous concept, but the Court has reiterated that the expectation of privacy "has a source outside of the Fourth Amendment, either by reference to concepts of real or personal property law or to understandings that are recognized and permitted by society."[189] The concept that autonomy in directing one's private life

185. Berger v. New York, 388 U.S. 41, 49 (1967) (Black, J., dissenting). *Cf.* Weaver v. Myers, 229 So. 3d 1118, 1130-31 (Fla. 2017) ("in Florida, the [state constitutional] right to privacy is no less fundamental than those other rights and is even more closely guarded in some respects").

186. *Katz*, 389 U.S. at 374.

187. *See, e.g.*, Herring v. United States, 555 U.S. 135, 139 (2009) (applying the exclusionary rule to support Fourth Amendment protections by excluding evidence of drugs and a gun); Mapp v. Ohio, 367 U.S. 643 (1961) (applying the federal judicially-created exclusionary rule in state courts under the Fourth and Fourteenth Amendments). *But see* Collins v. Virginia, 138 S. Ct. 1663, 1678 (2018) (Thomas, J., concurring) ("As federal common law, however, the exclusionary rule cannot bind the States.").

188. *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

189. United States v. Jones, 565 U.S. 400, 406 (2012) (quoting Minnesota v. Carver, 525 U.S. 83, 88 (1998)). *See also* O'Connor v. Ortega, 480 U.S. 709, 715

is a basic need is almost too obvious to define well in law. This is shown by a long history of continuous efforts to do so, as in natural law and common law doctrines protecting the individual.

The home is granted significant protection from state surveillance under the Fourth Amendment, which naturally supports an argument for the privacy rights of confined persons who reside under state care. As stated by the Court in *Georgia v. Randolph*:

> Since we hold to the centuries-old principle of respect for the privacy of the home, it is beyond dispute that the home is entitled to special protection as the center of the private lives of our people. We have, after all, lived our whole national history with an understanding of the ancient adage that a man's house is his castle [to the point that t]he poorest man may in his cottage bid defiance to all the forces of the Crown.[190]

In 2018, in *Collins v. Virginia*, Justice Sotomayor defined a home's curtilage to include portions of an open driveway, basing her interpretation on the longstanding principle that "at the [Fourth] Amendment's very core stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion."[191] The home is humanity's affirmatively private space, in contrast to deliberate movement in public spaces.

Nevertheless, with regard to Fifth Amendment *Miranda* rights in custodial interrogation, the Court has held that a guard questioning an inmate in prison may be deemed non-custodial, as the prison setting is familiar and less shocking or coercive than a police department interrogation of an arrestee unaccustomed to confinement.[192] Thus, in

(1987) ("[There is] no talisman that determines in all cases those privacy expectations that society is prepared to accept as reasonable.").

190. Georgia v. Randolph, 547 U.S. 103, 115 (2006) (internal quotation marks and citations omitted).

191. *Collins*, 138 S. Ct. at 1670 (internal quotation marks and citations omitted).

192. Howes v. Fields, 565 U.S. 499, 511 (2012). *See also* United States v. Conley, 779 F.2d 970, 973 (4th Cir. 1985) (suggesting a need for "more than the usual restraint on a prisoner's liberty to depart" in order to find that questioning of an inmate requires *Miranda* warnings); Jennifer A. Brobst, Miranda *in Mental Health: Court Ordered Confessions and Therapeutic Injustice for Young Offenders*, 40 NOVA L. REV. 387 (2016) (discussing Fifth Amendment *Miranda* rights during court-ordered mental health treatment in confinement).

one breath the Court acknowledges that prison is the de facto residence of an inmate, but in another it suggests that there is little if any expectation of privacy in a prison cell. While state interests may supersede those of persons in institutions under certain circumstances, the individual right to privacy remains. For example, in a case of first impression, the Eighth Circuit Court of Appeals determined that an involuntarily and civilly committed person retains the right to be free from unreasonable searches, yet found that the state hospital's policy of regular body-cavity searches for contraband cell phones was justified.[193]

In 1983, Justice Burger in *Hudson v. Palmer* definitively stated that "[a] right of privacy in traditional Fourth Amendment terms is fundamentally incompatible with the close and continual surveillance of inmates and their cells required to ensure institutional security and internal order."[194] Thus, in effect, search and seizure of prisoners are both protected and constrained by Fourth Amendment jurisprudence by balancing the interests of prisoner autonomy with the need to establish order and maintain security. In addition, Fourth Amendment protection is often more limited for convicted inmates than for pre-trial detainees.[195] Nevertheless, subsequent decisions have determined that while a prisoner may not have a reasonable expectation of privacy to his or her personal effects in a cell search,[196] "a right to privacy in one's own body . . . is not fundamentally inconsistent with imprisonment and is so fundamental that society would recognize it as reasonable even in the prison context."[197]

193. Serna v. Goodno, 567 F.3d 944, 953 (8th Cir. 2009) (arguing that prisons and mental hospitals for sexually dangerous patients have comparable security risks).

194. Hudson v. Palmer, 468 U.S. 517, 528 (1984). With respect to pre-trial detainees, there was initially a presumption that they had retained at least a "diminished expectation of privacy." Bell v. Wolfish, 441 U.S. 520, 557 (1979).

195. *See* Lopez v. Youngblood, 609 F. Supp. 2d 1125, 1141 (E.D. Cal. 2009) (finding under an equal protection analysis that pre-arraignment arrestees for relatively minor offenses were not similarly situated to post-arraignment detainees, justifying greater privacy for strip searches and body-cavity searches for the former, notwithstanding the contention that both groups had an equal interest in maintaining bodily privacy).

196. *See* Lanza v. New York, 370 U.S. 139 (1962).

197. Parkell v. Danberg, 833 F.3d 313, 325 (3d Cir. 2016).

That is, *Hudson* should not be interpreted to provide state prisons with carte blanche to exact any form of privacy intrusion, eliminating the requisite balance of interests.[198] The Court in *Hudson* expressly stated that the opinion does not create a "bright line rule" or an "iron curtain" separating prisons from the reach of the Constitution.[199] Thus, in 1995, the Seventh Circuit Court of Appeals in *Johnson v. Phelan* overstated the holding when it determined that *Hudson* stood for the proposition that "privacy is the thing most surely extinguished by a judgment committing someone to prison. Guards take control of where and how prisoners live; they do not retain any right of seclusion or secrecy against their captors, who are entitled to watch and regulate every detail of daily life."[200] Essentially, the Seventh Circuit attempted to foreclose all federal Fourth Amendment privacy claims for inmates, leaving only the more challenging Eighth Amendment analysis that requires proof of malicious intent on the part of the state.[201] This holding conflicted with the Ninth Circuit, which held that strip searches of prisoners could violate the Fourth Amendment reasonableness standard if they are "excessive, vindictive, harassing, or unrelated to

198. *See* State v. Howard, 728 A.2d 1178 (Del. Sup. Ct. 1998) (finding an objectively reasonable expectation of privacy for a couple in a police interview room when the state failed to present evidence of a justifiable purpose for the hidden video surveillance and recording).

199. *Hudson*, 468 U.S. at 523. *See also* United States v. Llufrio, 237 F. Supp. 3d 735, 745 (N.D. Ill. 2017) (following *Hudson* by requiring a balancing of interests to determine whether a reasonable expectation of privacy exists in a police interview room); Gilmore v. Jeffes, 675 F. Supp. 219, 221 (M.D. Pa. 1987) (interpreting *Hudson* in holding that prisoners "enjoy no privacy right within their cells and that cell searches do not implicate the Fourth Amendment"). *But see* Somers v. Thurman, 109 F.3d 614, 618 (9th Cir. 1997) ("Therefore, it is unclear from the dicta in Hudson whether prisoners retain any rights cognizable under the Fourth Amendment against searches qua searches of their bodies, or whether the only safeguard against assertedly egregious searches in prison is the Eighth Amendment.").

200. Johnson v. Phelan, 69 F.3d 144, 146 (7th Cir. 1995). Other courts have followed suit, such as *Aranda v. Meyers*, which relied on *Hudson* to find without analysis that electronic surveillance in prison does not support a Fourth Amendment claim. Aranda v. Meyers, 369 F. App'x. 874 (9th Cir. 2010) (unpublished memorandum opinion) (noting in addition that the prisoner's assertions of a state conspiracy to poison his coffee were unsupported).

201. *See infra* Part II(B)(2); *Johnson*, 69 F.3d at 147 (relegating prisoner privacy claims solely to acts of "calculated harassment unrelated to prison needs").

any legitimate penological interest,"[202] as well as the Third Circuit,[203] and even the Seventh Circuit itself.[204]

The *Hudson* Court reinforced the position that inmates should be afforded all constitutional rights not "fundamentally inconsistent with imprisonment itself or incompatible with the objectives of incarceration," including freedom from racial discrimination and the protection of religious freedom.[205] The Court has never stated that privacy is a lesser constitutional right, nor has it stated that privacy is inconsequential to the well-being of confined persons. However, the Court in *Turner v. Safley* held that judicial review of regulatory restraints on prisoners' constitutional rights is only subject to a low rational basis standard of review; that is, "when a prison regulation impinges on inmates' constitutional rights, the regulation is valid if it is reasonably related to legitimate penological interests."[206] This standard is fairly deferential to the state.

While courts have certainly asserted that privacy rights are outweighed by other interests at times, no court has argued effectively that some persons have a right while others have no right at all. The critical question under the Fourth Amendment is whether one has a subjective and reasonable expectation of privacy under the circumstances. This raises an interesting issue regarding state surveillance at a time when technology facilitates not only constant surveillance but surveillance in minute detail. Justice Scalia, writing for the majority in *United States v. Jones* in 2012, stated in dicta that public surveillance may still be an unconstitutional invasion of privacy.[207] In *Jones*, Justice Alito spoke directly in his concurrence

202. Michenfelder v. Sumner, 860 F.2d 328, 332 (9th Cir. 1988).

203. Parkell v. Danberg, 833 F.3d 313, 325 (3d Cir. 2016) ("We conclude that a right to privacy in one's own body, unlike a right to maintain private spaces for possessions, is not fundamentally inconsistent with imprisonment and is so fundamental that society would recognize it as reasonable even in the prison context.").

204. Canedy v. Boardman, 16 F.3d 183 (7th Cir. 1994) (finding a Fourth Amendment constitutional privacy right violation when a male inmate was regularly strip searched by female guards).

205. *Hudson*, 468 U.S. at 523.

206. Turner v. Safley, 482 U.S. 78, 89 (1987) (addressing the privacy interests of inmates with respect to inmate-to-inmate correspondence and the right to marry).

207. United States v. Jones, 565 U.S. 400, 412 (2012) (citing Kyllo v. United States, 533 U.S. 27, 31-32 (2001)).

regarding the potential impact of technological change on reasonable expectations of privacy:

> But technology can change those expectations. Dramatic technological change may lead to periods in which popular expectations are in flux and may ultimately produce significant changes in popular attitudes. New technology may provide increased convenience or security at the expense of privacy, and many people may find the tradeoff worthwhile. And even if the public does not welcome the diminution of privacy that new technology entails, they may eventually reconcile themselves to this development as inevitable.[208]

Justice Alito is musing here for it is far from clear whether society will eventually concede its right to privacy.

Justice Sotomayor, also concurring in *Jones*, directly opposed Justice Alito's supposition:

> I for one doubt that people would accept without complaint the warrantless disclosure to the Government of a list of every Web site they had visited in the last week, or month, or year. But whatever the societal expectations, they can attain constitutionally protected status only if our Fourth Amendment jurisprudence ceases to treat secrecy as a prerequisite for privacy. I would not assume that all information voluntarily disclosed to some member of the public for a limited purpose is, for that reason alone, disentitled to Fourth Amendment protection.[209]

Today, a reasonable expectation of privacy for detainees remains in flux. For example, one court may find that a person's mere presence in a law enforcement building or vehicle should justify severe curtailment of an expectation of privacy.[210] In 2017, the Seventh Circuit held that a paddy wagon with a separate compartment for

208. *Id.* at 427 (Alito, J., concurring).

209. *Id.* at 418 (Sotomayor, J., concurring).

210. *E.g.*, State v. Howard, 728 A.2d 1178 (Del. Super. Ct. 1998) (suggesting that although there is usually no reasonable expectation of privacy in a police interview room, a married couple in a police interview room post-arrest had a subjective and objectively reasonable expectation of privacy to marital communications where video cameras were hidden from view and the state never proved its interest use of the cameras).

detainees created no reasonable expectation of privacy, even in the absence of apparent signs of surveillance and in spite of the fact that detainees made a concerted effort to speak quietly out of earshot. The Seventh Circuit argued:

> [G]iven the increasing presence of unobtrusive, if not invisible, audio and video surveillance in all manner of places, public and private, one wonders how much of a reminder a detainee needs that he might be under surveillance—particularly in a marked police vehicle—or that this might be so regardless of whether he can see any obvious signs of surveillance devices.[211]

By contrast, in the same year, a federal district court came to quite a different result. The court held that a post-arrest detainee, alone in a police interview room, who suspected federal investigators were filming him, had a subjective and reasonable expectation of privacy when he deliberately mumbled to himself to maintain his composure out of earshot of the camera.[212]

As the Fourth Amendment protects the person from the state, rather than protecting specific places or things,[213] the courts should value and protect personal privacy assiduously in the face of technological innovation. Justice Sotomayor has warned of multiple constitutional rights vulnerable to infringement because of the technological ease of surveillance and data analytics: "Awareness that the Government may be watching chills associational and expressive freedoms. And the Government's unrestrained power to assemble data that reveal private aspects of identity is susceptible to abuse."[214] The heightened interest in preserving American life without fear of general state surveillance in a digital and technological age has caught the attention of the Court.

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211. United States v. Paxton, 848 F.3d 803, 812 (7th Cir. 2017) (internal citation omitted) (relying in part on two law review articles discussing surveillance technology, rather than empirical evidence of commonly held beliefs about the presence of surveillance, to arrive at a reasonableness measure).

212. United States v. Llufrio, 237 F. Supp. 3d 735 (N.D. Ill. 2017).

213. *Jones*, 565 U.S. at 406 (citing Katz v. United States, 389 U.S. 347, 351 (1967)).

214. *Id.* at 416 (2012) (Sotomayor, J., concurring). *Cf.* NAACP v. Alabama, 357 U.S. 449 (1958) (upholding the right to associational privacy against mandates for a private organization to disclose names and addresses of its members).

2. Privacy Intrusions and Deprivations of Social Contact as Cruel and Unusual Punishment under the Eighth Amendment

The Eighth Amendment prohibits cruel and unusual punishment, including torture as punishment.[215] The Amendment does not apply unless the state action in question is deemed a form of punishment, which takes into account both subjective and objective factors. That is, to succeed in a claim for violation of the Eighth Amendment a prisoner must be able to show that (1) "objectively, the deprivation of a basic human need was sufficiently serious" based on "contemporary standards of decency,"[216] posing a "substantial risk of serious harm"[217]; and (2) that subjectively the prison officials "acted with a sufficiently culpable state of mind," which addresses both excessive punishment and deliberate indifference to inhumane conditions.[218]

The Seventh Circuit has explained that "[e]ven where prison authorities are able to identify a valid correctional justification for [a] search, it may still violate the Eighth Amendment if 'conducted in a harassing manner intended to humiliate and cause psychological pain.'"[219] Strip searches, body-cavity searches, and being "paraded in a see-through jumpsuit" by prison guards have all supported a claim of cruel and unusual punishment when they are found to be unnecessary and not serving a legitimate penological purpose.[220]

Also, under the Eighth Amendment, a prisoner has a right to adequate medical and mental health care, where deprivation of such care would constitute cruel and unusual punishment.[221] Courts have

215. *See In re* Kemmler, 136 U.S. 436, 447 (1890) ("Punishments are cruel when they involve torture or a lingering death[.]"); Wilkerson v. Utah, 99 U.S. 130, 136 (1879) ("[I]t is safe to affirm that punishments of torture . . . and all others in the same line of unnecessary cruelty, are forbidden by that amendment[.]").

216. Hudson v. McMillian, 503 U.S. 1, 8 (1992) (quoting Estelle v. Gamble, 429 U.S. 97, 103 (1976)).

217. Farmer v. Brennan, 511 U.S. 825, 834 (1994).

218. *See* Williams v. Benjamin, 77 F.3d 756, 761 (4th Cir. 1996); *see also* Wilson v. Seiter, 501 U.S. 294, 297 (1991).

219. King v. McCarty, 781 F.3d 889, 897 (7th Cir. 2015) (citation omitted).

220. *See, e.g.*, *id*.

221. *See* Mintun v. Corizon Med. Serv., No. 1:16-cv-00367-DCN, 2018 WL 1040088 (D. Idaho Feb. 22, 2018) (addressing a claim for lack of adequate mental health services to a prisoner on the autism spectrum); Braggs v. Dunn, 257 F. Supp. 3d 1171 (M.D. Ala. 2017) (failing to provide mentally ill prisoners with adequate

taken care to limit this protection to serious medical needs, where "routine discomfort that is part of the penalty that criminal offenders pay for their offenses against society" does not constitute a serious medical need.[222] While this represents an expansion of Eighth Amendment protection beyond use of physical force and historically barbarous forms of punishment, the analysis does not extend more broadly to violations based on a totality of conditions of confinement.[223]

In civil confinement, the harsh impact of certain state actions may render the action punitive. Therefore, while Eighth Amendment constitutional protection would usually serve those confined by the criminal justice system, rather than in civil confinement settings, occasionally in hybrid settings evoking criminal and civil purposes the amendment may apply. For example, a sex offender registry may be intended by the legislature to create a civil, regulatory remedy, but state and federal courts have found some to be so restrictive or so arbitrarily applied that they exert a punitive impact akin to banishment or public shaming, historically deemed cruel and unusual punishment.[224] Whether such registries are deemed civil or criminal, in effect they are a form of mass public surveillance with lifelong consequences.[225] Internet transparency has also complicated the question, where the potential social stigma of mass surveillance is exacerbated as sex offender status can be checked in seconds. As one justice of the Ohio Supreme Court envisioned: "In this age of instant Internet chat rooms, imagine the future for his children when the mothers' network alerts all the grade-school children to avoid anyone who lives at 123 Elm Street.

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mental health care exhibited deliberate indifference and cruel and unusual punishment).

222. *Mintun*, 2018 WL 1040088, at *4. *See also* Rhodes v. Chapman, 452 U.S. 337, 349 (1981) (finding the Constitution "does not mandate comfortable prisons"); Ashann-Ra v. Virginia, 112 F. Supp. 2d 559 (W.D. Va. 2000) (asserting that providing ill-fitting shoes to a prisoner does not equate to cruel and unusual punishment).

223. Madrid v. Gomez, 889 F. Supp. 1146, 1246 (N.D. Cal. 1995) ("Nothing so amorphous as overall conditions can rise to the level of cruel and unusual punishment when no specific deprivation of a single human need exists[.]") (internal quotation marks omitted).

224. Millard v. Rankin, 265 F. Supp. 3d 1211, 1226-27 (D. Colo. 2017).

225. *See, e.g.*, State v. Blankenship, 48 N.E.3d 516, 525 (2015) (O'Donnell, J., concurring) (arguing that a lifetime sex offender registry is civil and non-punitive, but concurring in the judgment).

These requirements fall directly within the definition of the phrase 'cruel and unusual.'"[226]

Nevertheless, harsh conditions are often deemed a legitimate part of the punishment imposed by the state. Thus, to constitute cruel and unusual punishment the deprivation must be so serious that it is essentially a denial of the "minimal civilized measure of life's necessities."[227] To be civilized requires a respect for humanity. Thus, a sentencing program like that reported in Australia, with constant AI-surveillance of persons in home detention, electrically shocking them before they violate conditions of detention,[228] should not withstand constitutional scrutiny in the United States. Treating inmates like animals or "less than human" is identified as cruel and unusual punishment in the United States and against the standards of human decency.[229] Even zoo animals have received consideration by the courts in abuse cases as having a basic need for privacy from constant observation by patrons of the zoo, as well as the need for socialization with other animals.[230]

Constant governmental surveillance may be a designated form of punishment in many societies.[231] In the U.S., cruel and unusual punishment may include purely psychological punishment,[232] as well

226. *Id.* at 534 (O'Neill, J., dissenting).

227. Rhodes v. Chapman, 452 U.S. 337, 347 (1981).

228. *See supra* note 11.

229. *See* Morris v. Zefferi, 601 F.3d 805 (8th Cir. 2010) (holding that transporting a prisoner in a dog cage constitutes cruel and unusual punishment); Spain v. Procunier, 600 F.2d 189, 200 (9th Cir. 1979) (maintaining that under the Eighth Amendment, "prisoners are not to be treated as less than human beings").

230. *See* People for the Ethical Treatment of Animals, Inc. v. Tri-State Zoological Park of W. Md., Inc., Civil Action No. MJG-17-2148, 2018 WL 434229 (D. Md. Jan. 16, 2018) (denying a motion to dismiss a claim based on the federal Animal Welfare Act).

231. For example, the Chinese criminal code adopted in the 1980s included a punishment translated as "public surveillance," in which petty offenders are not imprisoned, but are subject to labor under mass surveillance along with regular reporting requirements. MICHAEL, *supra* note 88, at 126.

232. *See* Johnson v. Phelan, 69 F.3d 144, 153 (7th Cir. 1995) (Posner, J., concurring and dissenting) (identifying numerous cases that hold that "purely psychological punishments can sometimes be deemed cruel and unusual"). Article I of the 1987 United Nations Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment states in part: "[T]he term 'torture' means any act by which severe pain or suffering, whether physical or mental, is intentionally

as permanent constant surveillance for life.[233] As the Court acknowledged in *Weems v. United States*, when expanding the scope of the Eighth Amendment to reach state actions outside the bounds of traditional categories of barbarity, the guiding policy is that "cruelty might become an instrument of tyranny; of zeal for a purpose, either honest or sinister."[234] Justice White, dissenting in *Weems*, invoked natural law and an originalist interpretation to the amendment, arguing cruel and unusual punishment should be defined by the odious practices of past monarchies from which the United States broke free.[235] Today, the focus has shifted to proportionality in sentencing, including an added recognition of the particular vulnerabilities of certain prisoners, such as juveniles and those with mental illness or intellectual disabilities.[236]

Finding state surveillance to infringe on autonomy rights to such an extent that the monitoring becomes unconstitutionally punitive is not an easily reached conclusion, particularly when searches and surveillance are key to institutional security. For example, a claim of cruel and unusual punishment based on visual body-cavity searches in prison, one of the most intrusive forms of state surveillance, was initially dismissed

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inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person[.]"

233. *See, e.g.*, *In re* C.P., 967 N.E.2d 729 (Ohio 2012) (holding lifelong sex offender registration and notification requirements for juvenile convictions violate the Eighth Amendment); Weems v. United States, 217 U.S. 349, 366 (1910) ("His prison bars and chains are removed, it is true, after twelve years, but he goes from them to a perpetual limitation of his liberty."). *But see* State v. Blankenship, 48 N.E.3d 516 (Ohio 2015) (upholding, in a divided opinion, lifetime sex offender registration for a 21-year-old adult statutory rape offender against a cruel and unusual punishment claim).

234. *Weems*, 217 U.S. at 373.

235. *Id.* at 406 (White, J., dissenting) (asserting that drowning, disembowelment, boiling in oil, and other forms of torture are prohibited under the Eighth Amendment and are "not warranted by the laws of nature or society").

236. *See* Atkins v. Virginia, 536 U.S. 304 (2002) (holding the death penalty as punishment for a person with an intellectual disability to be cruel and unusual); *In re* C.P., 967 N.E.2d 729 (Ohio 2012) (following U.S. Supreme Court precedent regarding juvenile sentencing and the death penalty when recognizing that juveniles are less culpable and more capable of rehabilitation than adult offenders, thus removing them from lifetime sex offender registry status).

by a federal district court because "the conditions did not constitute a denial of basic human needs, and the defendants were not personally involved in creating the conditions."[237] However, surveillance may also serve to protect persons in confinement from other forms of degradation, for example, by deterring physical or sexual abuse, or identifying medical neglect. Therefore, under an Eighth Amendment analysis, prisoners have claimed to be subject to too much surveillance, as well as too little.[238]

Currently, an Eighth Amendment analysis is more deferential to the state for its use of surveillance monitoring than it is for its use of technology to facilitate removal of all human contact, as would be possible by remote AI surveillance. In cases addressing solitary confinement, the Court has shown a longstanding recognition of the terrible toll of social isolation on prisoners, while the prison system openly admits to the risk of psychological harm.[239] In 1890, the Court asserted that solitary confinement serves "as an additional punishment of such a severe kind that it is spoken of . . . as 'a further terror and peculiar mark of infamy.'"[240] There, the Court found a Colorado death penalty statute violated *ex post facto* prohibitions by adding the additional punishment of keeping all prisoners subject to execution in solitary confinement ignorant of their date of hanging.[241]

237. Parkell v. Danberg, 833 F.3d 313, 323 (3d Cir. 2016) (reversing the district court's ruling on a Fourth Amendment basis).

238. *E.g.*, Lyons v. Wall, C.A. No. 08-498-M, 2012 WL 3682983, at *4 (D. R.I. Aug. 24, 2012) (unreported) (finding, with respect to plaintiff's section 1983 claim, that a prison psychologist who took a prisoner "off camera" against his will (i.e., to a prison cell without a camera), did not inflict cruel and unusual punishment, despite the prisoner's claim that he could more easily attempt to commit suicide).

239. *See* DOJ RESTRICTIVE HOUSING, *supra* note 19, at i ("[A]ccording to recent research and reports, as well as the [Federal Bureau of Prisons'] own policy, confinement in [restrictive housing units], even for relatively short periods of time, can adversely affect inmates' mental health and can be particularly harmful for inmates with mental illness."); *cf. Nearly 20 Percent of Prison and Jail Inmates Spent Time in Segregation or Solitary Confinement in 2011-12*, BUR. OF JUST. STAT., U.S. DEPT. OF JUST. (Oct. 23, 2015, 9:00 AM), https://www.bjs.gov/content/pub/press/urhuspj1112pr.cfm (claiming that "[r]ates of SPD [serious psychological distress] did not increase with the length of time inmates had been in restrictive housing").

240. *In re* Medley, 134 U.S. 160, 170 (1890) (granting prisoner's petition for habeas corpus).

241. *Id.* at 172.

The importance of judicial attitudes towards solitary confinement cannot be understated, when technology has transformed state institutions allowing for significantly reduced human staffing and permanent solitary confinement in the United States.[242] One federal court described a maximum security prison, facing claims of excessive force and permanent solitary confinement, a modernized "prison of the future."[243]

Regarding the earliest known practices of solitary confinement in the 1700s, the Supreme Court notes that the practice was initially an experiment connected to hospital care when "public attention was [subsequently] called to the evils of congregating persons in masses without employment [in prison]."[244] Having been banned as a punishment in Great Britain, public outcry in the United States also quickly emerged regarding the use of solitary confinement after it was revealed that:

> [a] considerable number of the prisoners fell, after even a short confinement, into a semi-fatuous condition, from which it was next to impossible to arouse them, and others became violently insane; others still, committed suicide; while those who stood the ordeal better were not generally reformed, and in most cases did not recover sufficient mental activity to be of any subsequent service to the community.[245]

Today, the United States is the only nation in the developed world that permits extended solitary confinement as a form of punishment.[246] In 2015, the Supreme Court in *Davis v. Ayala* averred that "years on end of near-total isolation exact a terrible price," addressing the solitary confinement of a prisoner with an intellectual disability who had been confined awaiting execution for over 40 years.[247] After decades of an

242. *See infra* Part III(B).

243. Madrid v. Gomez, 889 F. Supp. 1146, 1155 (N.D. Cal. 1995).

244. *Medley*, 134 U.S. at 167.

245. *Id.* at 169.

246. Brandon Keim, *Solitary Confinement: The Invisible Torture*, WIRED (April 29, 2009, 8:30 PM), https://www.wired.com/2009/04/solitaryconfinement/.

247. Davis v. Ayala, 135 S. Ct. 2187, 2210 (2015) (Kennedy, J., concurring). *See also* Ruiz v. Texas, 137 S. Ct. 1246, 1247 (2017) (Breyer, J., dissenting from a denial of application for stay of execution of sentence of death) (describing the nature of the human toll on the prisoner awaiting execution for 22 years, including

equivocal stance toward the imposition of solitary confinement,[248] the lower federal courts are finally beginning to address its psychological impact more fully,[249] with special emphasis on the vulnerabilities of mentally ill prisoners in isolation.[250]

In 2018, in *Porter v. Clarke*, the federal district court considered the conditions of death row inmates in a Virginia state prison who were housed in single cells that did not permit any communication between cells, where inmates were granted an hour of outdoor recreation every five days, cell phone use on request, and the use of books, television, and compact disk (CD) players in their cell for entertainment.[251] The case provides a prescient nod to an understanding of the potential risks and benefits of an AI or remotely-run prison and whether machine substitutions for human contact carry serious psychological risks of social deprivation, particularly under constant surveillance.

As litigation began against the Virginia prison, social contact was ultimately allowed between death row inmates and outdoor recreation time was increased.[252] Nevertheless, the case proceeded and specifically analyzed "whether the deprivation of human contact and stimulation was an extreme deprivation—that is, whether it caused a serious or significant physical or emotional injury or the substantial risk of such an injury."[253] Repeatedly, the court cites longstanding precedent establishing that deprivation of all human contact and

"symptoms long associated with solitary confinement, namely severe anxiety and depression, suicidal thoughts, hallucinations, disorientation, memory loss, and sleep difficulty").

248. *See, e.g.*, Sandin v. Conner, 515 U.S. 472 (1995) (finding segregated confinement for 30 days as discipline did not implicate a due process liberty interest when it did not extend the length of sentence).

249. *See* Porter v. Clarke, 290 F. Supp. 3d 518 (E.D. Va. 2018), *appeal filed*, Case No. 18-6257 (4th Cir. 2018); *see also* Colleen Murphy, Comment, *The Solitary Confinement of Girls in the United States: International Law and the Eighth Amendment*, 92 TUL. L. REV. 697 (2018).

250. *See* Palakovic v. Wetzel, 854 F.3d 209 (3d Cir. 2017) (finding deliberate indifference to the needs of a mentally ill prisoner who committed suicide in solitary confinement).

251. *Porter*, 290 F. Supp. 3d at 522-23.

252. *Id.* at 524.

253. *Id.* at 527 (internal quotations omitted).

"complete isolation of the prisoner from all human society" is a serious deprivation.[254]

Importantly, the state argued that access to television and other entertainment decreased the inmates' social isolation.[255] The federal district court was not persuaded, opining that:

> The limited communication, stimulation, and contact provided to plaintiffs before 2015 does not overcome plaintiffs' showing that the vast majority of their time—almost every hour of the day—was spent alone, in a small, practically windowless, cell. When they were outdoors for five hours a week, they remained alone in an outdoor cage. Although they had access to television, music, and books, they had no access to congregate religious, educational, or social programming.[256]

The court in *Porter* expressly stated that human interaction is a basic human need, despite the defendants' assertion that this claim was too amorphous because basic human needs under an Eighth Amendment analysis are more concrete, such as exercise or food.[257] Other courts have identified concrete "minimum essentials" under the Eighth Amendment to include shelter, clothing, medical care, sanitation, warmth, and security.[258]

In 2018, with more psychological research available than in decades past, the *Porter* court turned to psychological expert testimony on the impact of social isolation:

> In particular, prolonged isolation has "led to clinical levels of depression that include dysphoric mood, constricted affect, hopelessness, feelings of worthlessness, anhedonia (loss of enjoyment in even basic pleasures), anergia (a low level or lack of energy), and suicidal ideation." Moreover, the restrictive confinement has caused a substantial reduction in plaintiffs' "initiative and motivation to maintain contact with family members and other loved ones"; reduced plaintiffs' "initiative and motivation to maintain a healthy physical condition"; and "created a profound

254. *See id.*
255. *Id.*
256. *Id.*
257. *Id.* at 528.
258. *See* Madrid v. Gomez, 889 F. Supp. 1146, 1245-46 (N.D. Cal. 1995).

> disturbance in sleep patterns and" quantities. . . . [P]laintiffs have found "creative use[s] of the limited items available to them" and have devised "ways of distracting themselves from boredom by relying on forms of self-entertainment." Although these coping mechanisms allow plaintiffs to deal with the negative effects of their restrictive confinement on a day-to-day basis, *the cruel irony is that, over time, they "thwart basic desire for human interaction" by making plaintiffs reliant on "internal resources that have no connection with meaningful social interaction with others." As a result, the coping mechanisms "have ultimately deprived [plaintiffs] of a core element of what it means to be human"* in a "lasting" way that Dr. Hendricks compared to the effects of war on soldiers' mental health.[259]

This case is currently pending appeal to Fourth Circuit Court of Appeals, and it remains to be seen whether such expert testimony is persuasive enough to tip the balance of interests in favor of the social rights of prisoners. The psychological evidence of harm certainly presents a stark contrast to what, in 1890, *In re Medley*, the court could only describe using terms like "semi-fatuous."[260]

3. Fourteenth Amendment Substantive Due Process and the Liberty and Privacy Interests

Under the Fourteenth Amendment, a state shall not "deprive any person of life, liberty, or property, without due process of law."[261] There is no affirmative right to State protection against harms by third parties, but the constitutional provision limits state action that may cause harm, with more protection owed to persons in state-controlled settings.[262] While the Eighth Amendment may not be available to most

259. *Porter*, at 529-30 (internal citations omitted and emphasis added) (quoting from the psychologist's expert report).

260. *In re* Medley, 134 U.S. 160, 168 (1890).

261. U.S. CONST. amend. 14, § 1.

262. *See* Castle Rock v. Gonzalez, 545 U.S. 748 (2005) (holding there is no state duty to enforce a domestic violence protective order in the face of risks of harm from private individuals); DeShaney v. Winnebago Cty. Dept. of Soc. Serv., 489 U.S. 189, 196-98 (1989) (noting that special duties do not arise merely from state care, but from state control). *Cf.* Estelle v. Gamble, 429 U.S. 97, 103 n.8 (1976) (holding that a state's deprivation of medical care for a prisoner in custody may violate the Eighth

persons in civil confinement, the Fourteenth Amendment, in tandem with parens patriae duties,[263] has served as a critical protection for the individual rights of persons in institutions such as nursing homes and hospitals for the mentally ill. While levels of scrutiny and a balance of interests are discussed in greater depth below,[264] the recognition of a liberty interest related to freedom from state surveillance in institutional settings will be briefly outlined in this section.

Typically, a substantive due process claim related to state observation or social isolation will address a deprivation of liberty.[265] As with claims based on an Eighth Amendment violation, the person confined may argue that the state's level of monitoring and observation of residents is either excessive or insufficient.[266] Claims for deliberate indifference to serious medical needs in state institutions may ask why the state did not surveil the persons in state care *more* to ensure the resident's right to personal security and protection from abuse.[267] "And that right [to protection] is not extinguished by lawful confinement, even for penal purposes," as the Court stated in *Youngberg v. Romeo*.[268]

Traditionally, in substantive due process cases involving confinement, the Court has tended to focus on the governmental duty to avoid risks to physical health, but more recently the Court hints at a willingness to consider duties with respect to the mental health of persons in state care. This is important, for the impact of a deprivation of a fundamental liberty interest related to exercising autonomy over privacy and social contact interests is often psychological. For example, in cases of involuntary commitment, the Fourteenth Amendment liberty interest has included "a right to adequate food,

Amendment prohibition of cruel and unusual punishment where standards of adequate care are regulated by the state).

263. *See supra* Part I(B).

264. *See infra* Part IV(B).

265. *See* Youngberg v. Romeo, 457 U.S. 307, 315, 324 (1982) (upholding the liberty interest of an involuntarily committed patient with an intellectual disability whose arm was broken while in confinement, including a right to be free from bodily restraint and to be safely confined).

266. *See supra* note 238.

267. *See* Ingraham v. Wright, 430 U.S. 651, 673 (1977) (asserting the "historic" right to personal safety and security as a due process liberty interest with respect to corporal punishment in public schools).

268. *Youngberg*, 457 U.S. at 315.

shelter, clothing, and medical care," safety, freedom of movement, and habilitative training.[269] In *Vitek v. Jones*, the Court explained that state authority must comply with minimum due process requirements when imposing unusual or severe conditions on confinement that impact such interests.[270] Later courts relied on *Vitek* to include within the purview of a liberty interest analysis conditions such as involuntary administration of antipsychotic medications, a form of physical restraint psychologically imposed.[271]

The liberty interest invites a broad interpretation, where the Court has incorporated the right "generally to enjoy those privileges long recognized at common law as essential to the orderly pursuit of happiness by free men,"[272] clearly protecting more than mere physical health. Such claims are met with a measure of restraint, where, for example, withholding television access from a prisoner has been deemed too minor to implicate a liberty interest.[273]

In more recent decisions examining solitary confinement, members of the Court have sought to extend this protection, contemplating that segregation as a form of non-physical restraint is legally actionable with evidence of a negative mental health impact, particularly if the state law carves out a right to avoid the state action.[274] Justice Breyer, dissenting in *Sandin v. Conner*, argued that the majority should have given more weight to the significant change in circumstances of state prison confinement, if not the length of confinement, to find a liberty interest:

> In the absence of the punishment, Conner, like other inmates in Halawa's general prison population would have left his cell and worked, taken classes, or mingled with others for eight hours each day. As a result of disciplinary segregation, however, Conner, for 30 days, had to spend his entire time alone in his cell (with the exception

269. *Id.* at 315, 324.

270. Vitek v. Jones, 445 U.S. 480, 491 (1980).

271. *See* Washington v. Harper, 494 U.S. 210, 221 (1990); *Youngberg*, 457 U.S. at 313.

272. *Ingraham*, 430 U.S. at 673 (quoting Meyer v. Nebraska, 262 U.S. 390, 399 (1923)).

273. Lyon v. Farrier, 727 F.2d 766, 768 (8th Cir. 1984).

274. *See* Sandin v. Conner, 515 U.S. 472, 493 (1995) (Breyer, J., dissenting) (citing Hewitt v. Helms, 459 U.S. 460, 471-72 (1983), which found a prisoner's liberty interest to be created by state regulations "requiring . . . that administrative segregation will not occur absent specified substantive predicates").

> of 50 minutes each day on average for brief exercise and shower periods, during which he nonetheless remained isolated from other inmates and was constrained by leg irons and waist chains).[275]

The majority in *Sandin* did note, however, that while liberty interests generally have been related to freedom from restraint, such cases may also include an extension of a prison sentence or state action which "imposes atypical and significant hardship on the inmate in relation to the ordinary incidents of prison life."[276]

If the severity of the intrusion is common to general prison practices, such as regular body-cavity searches of prisoners to detect contraband, courts may not find a liberty interest to be violated.[277] The Court has been deferential to the exercise of administrative discretion in prisons, where discipline for misconduct becomes necessary to maintain order and requires a flexible approach.[278] Nevertheless, due process rights of persons in confinement remain at the forefront of the analysis and are required to be taken into account even in highly restrictive settings.[279]

The Fourteenth Amendment liberty interest provides protections from government action when such action is arbitrary and imposed without due process.[280] In Pennsylvania, inmates kept on death row for years after their death sentences were commuted raised cognizable substantive due process claims for a violation of their liberty interest, reliant in part on the "scientific consensus" of a significantly harmful psychological impact.[281] Constant surveillance in confined settings is

275. *Id.* at 494 (Breyer, J., dissenting) (emphasis in original, internal citation omitted).

276. *Id.* at 483-84 (finding no liberty interest violated from 30 days' solitary confinement in state prison).

277. Parkell v. Danberg, 833 F.3d 313, 323 (3d Cir. 2016).

278. *Sandin*, 515 U.S. at 485.

279. *See, e.g.*, Greene v. Edwards, 263 S.E.2d 661 (W.Va. 1980) (holding that a tuberculosis carrier detained by the state should have at least the rights of persons subject to incarceration or involuntary commitment).

280. Youngberg v. Romeo, 457 U.S. 307, 315 (1982). *See also* Smith v. Dist. of Columbia, 306 F. Supp. 3d 223, 243-44 (D.D.C. 2018) ("the touchstone of due process is protection of the individual against arbitrary action of government").

281. Williams v. Sec'y Pa. Dept. of Corr., 848 F.3d 549, 574 (3d Cir. 2017) (noting research data on the impact of solitary confinement on "mental well-being and one's sense of self").

arbitrary if the technology is imposed without adequate human controls, but it has thus far not been deemed an atypical or sufficiently severe restraint in the courts under the Due Process Clause.

AI left to evolve in its decisionmaking capacity in an uncontrolled state also potentially creates the risk of unacceptable arbitrariness. That lack of control would emerge most likely if an AI singularity occurs, generally defined as "an artificial general intelligence, a self-teaching system that can outperform humans across a wide range of disciplines."[282] Concern with the hypothetical singularity is justified in one sense because AI has focused on intelligence,[283] and intelligence without emotion or empathy is akin to handing over control to a psychopath.[284] As stated by cognitive researcher Margaret Boden, "[n]on-mathematical simplifying assumptions in AI are legion – and often unspoken. One is the (tacit) assumption that problems can be defined and solved without taking emotions into account . . . ."[285] Hyperbolic alarm about singularity, however, fearing the end of

282. Stephen Talty, *Be(a)ware*, SMITHSONIAN 34 (Apr. 2018).

283. *See* BODEN, *supra* note 9, at 10-28 (outlining the historical development of AI research which focused on technological and scientific problem-solving with overly heuristic and simplistic assumptions about learning, such as the use of logic gates random associations).

284. "Psychopathy is defined as a mental (antisocial) disorder in which an individual manifests amoral and antisocial behavior, shows a lack of ability to love or establish meaningful personal relationships, expresses extreme egocentricity, and demonstrates a failure to learn from experience and other behaviors associated with the condition." HENRY R. HERMANN, DOMINANCE AND AGGRESSION IN HUMAN AND OTHER ANIMALS: THE GREAT GAME OF LIFE (2017), *available at* https://www.sciencedirect.com/topics/neuroscience/psychopathy. *See also* Charlie Osborne, *Meet Norman, the World's First 'Psychopathic' AI*, ZDNet (June 7, 2018, 10:06 GMT), https://www.zdnet.com/article/meet-norman-the-worlds-first-psychopathic-ai/ (describing an AI which adapts to psychopathic choices based on data input by MIT researchers); Chris Draper, *AI Robot that Learns New Words in Real-Time Tells Human Creators It will Keep Them in a "People Zoo"*, GLITCH.NEWS (Aug. 27, 2015), http://glitch.news/2015-08-27-ai-robot-that-learns-new-words-in-real-time-tells-human-creators-it-will-keep-them-in-a-people-zoo.html.

285. BODEN, *supra* note 9, at 29. *See also* Chris Frith & Geraint Rees, *A Brief History of the Scientific Approach to the Study of Consciousness*, *in* THE BLACKWELL COMPANION TO CONSCIOUSNESS 9, 15-16 (Susan Schneider & Max Velmans eds., 2007) (discussing the challenges of researching unconscious human processes, including emotions and subjective interpretation).

humanity's reign, is unnecessary, and more akin to eschatological fervor during times of war and crisis.[286]

Importantly, federal and state courts have yet to consider, as an integrated concept, the intersectionality of surveillance and confinement. The framework for analysis would permit this, however, as one court noted with respect to violations of cruel and unusual punishment: "courts may consider conditions in combination 'when they have a mutually enforcing effect that produces the deprivation of a single, identifiable human need'[.]"[287] As the mental health impact of a loss of privacy becomes known and recognized, better arguments will be made for a substantive due process right to freedom from arbitrary surveillance, particularly when cases also involve AI social substitutes enabling deprivations of human social contact.[288] All of the various legal protections of individual autonomy to navigate private and social aspects of human life—state and federal constitutional provisions, common law doctrines, and regulatory measures—would work well together to better face the impact of surveillance technology, including AI. The modern reality is that in state institutions technology enables the panopticon's constant surveillance, the metal eye of the state, where the barely seen man in the central tower may not be man, but machine.

286. *See* John Markoff, *Misconception: Computers will Outstrip Human Capabilities Within Many of Our Lifetimes*, N.Y. TIMES (Apr. 7, 2016), https://www.nytimes.com/2016/04/07/science/artificial-intelligence-when-is-the-singularity.html ("[T]he basic mechanisms for biological intelligence are still not completely understood, and as a result there is not a good model of human intelligence for computers to simulate[.]"); BODEN, *supra* note 9, at 154 (asserting that "intellectual rationality" is not enough to make AI reach humanity's capabilities); *see also* PAUL BOYER, WHEN TIME SHALL BE NO MORE 147 (1992) (describing evangelical Americans who believe in the end-of-days and accept the intensity of devastating national security measures, where those killed are viewed only as "eschatological zombies, signposts marking another stage in a sequence of familiar [Biblical] events" rather than "flesh-and-blood human beings").

287. Madrid v. Gomez, 889 F. Supp. 1146, 1246 (N.D. Cal. 1995) (internal citation omitted).

288. *See supra* Part II(B)(2).

III. INTRUDING ON THE AUTONOMY OF CONFINED PERSONS: THE STATE'S INTEREST

In a balance of interests, the individual right to privacy under the U.S. and several state constitutions reflects a basic need for autonomy,[289] which may be limited or overridden by justifiable government intrusion.[290] As the Court asserted in 1972, balancing security interests with the right of public protest:

> The price of lawful public dissent must not be a dread of subjection to an unchecked surveillance power. Nor must the fear of unauthorized official eavesdropping deter vigorous citizen dissent and discussion of Government action in private conversation. For private dissent, no less than open public discourse, is essential to our free society.[291]

Framing the right to privacy as a stand-alone right does not adequately take into account its close relationship to rights to expression or social contact or resistance to tyranny. They all link together conceptually in a right to autonomy to navigate the course of private and social lives. For persons in state confinement, potentially subject to constant surveillance, chemical restraint, and solitary confinement, the various legal claims asserting infringement on autonomy-related rights reveal the legitimacy of the state's rationales for imposing such substantial restrictive measures.

When the state's interest and that of the individual align, the balance is made easier. Outside of confined settings, the public expects greater individual freedom and the state recognizes that a free society is imperative to the survival of a democratically-elected government.[292] Individuals exercise their rights of autonomy to make the choice of

289. *See, e.g.*, Carpenter v. United States, 138 S. Ct. 2206, 2219 (2018) (upholding Fourth Amendment individual rights against unlawful state surveillance despite "the seismic shifts in digital technology").

290. *See, e.g.*, Riley v. California, 134 S. Ct. 2473 (2014) (holding that a warrantless search of for cell phone data violates the Fourth Amendment warrant requirement); United States v. U.S. Dist. Ct. E. Dist. Mich., So. Div., 407 U.S. 297, 313 (1972) (requiring warrant protections before domestic telephonic surveillance of community organizations may begin in the interest of national security).

291. *U.S. Dist. Ct.*, 407 U.S. at 314.

292. *See supra* Part I(B).

when to enter public space and engage in activities where they may be observed by others. Therefore, state surveillance by aerial drones in public places would not necessarily invade privacy interests where comparable inspection by humans as state agents could have occurred.[293] Courts have held that surreptitious recording may be lawful, where individuals have already consented to in-person disclosure of information to a state agent.[294] Thus, for the public at large, arguably an undercover officer may record a conversation with a willing drug dealer, and a Transportation Security Administration ("TSA") agent may record a scanned image of a passenger's body without violating the Fourth Amendment.

Statutory authorization for intrusions on autonomy are not without limitation. In the public space of airport security, warrantless airport searches are lawful if narrowly tailored to legitimate security purposes.[295] Yet "even with the grave threat posed by airborne terrorist attacks, the vital and hallowed strictures of the Fourth Amendment still apply: these searches must be reasonable to comport with the Constitution."[296] The implementation of full body scanners at TSA checks that use advanced imaging technology was met with public outcry, decried as an invasive practice because of the enhanced view of passengers' breasts and genitalia observed by a human security guard in real time.[297] This outcry led to stronger regulatory and policy

293. *See* Ricker, *supra* note 18, at 58 (noting the cost and safety advantages of drone inspection of dangerous locations, such as those used by firefighters, oil and gas exploration, and search and rescue). *But see* Citizens for Responsibility & Ethics in Wash. v. U.S. D.O.J., 160 F. Supp. 3d 226 (D.D.C. 2016) (upholding a national security exemption from the Freedom of Information Act when denying public access to government records on FBI domestic drone use, such as that used in rescue operations).

294. *See* Lopez v. United States, 373 U.S. 427, 439 (1963) ("The Government did not use an electronic device to listen in on conversations it could not otherwise have heard.").

295. *See* United States v. Aukai, 497 F.3d 955, 962 (9th Cir. 2007) (en banc) (permitting random, suspicionless, and warrantless searches of passengers and luggage by the government in airports).

296. United States v. Marquez, 410 F.3d 612, 618 (9th Cir. 2005).

297. Julian Mark Kheel, *How Can I Opt Out of the TSA Body Scanners?*, POINTS GUY (Mar. 13, 2017), https://thepointsguy.com/2017/03/opt-out-tsa-body-scanners/ ("I'm not sure why you wouldn't enjoy spending quality time inside a full-

protections, whereby TSA purportedly no longer stores or prints the images, the security guard viewing the image is in a separate area and cannot see the passenger directly, and software is being developed to provide a more stylized rather than realistic image.[298] Current TSA policies provide:

> TSA has strict privacy standards when using advanced imaging technology to protect your privacy. Advanced imaging technology uses automated target recognition software that eliminates passenger-specific images and instead auto-detects potential threats by indicating their location on a generic outline of a person. The generic outline is identical for all passengers.[299]

Privacy policies and standard practices are more malleable, of course, than statutory mandates. But a member of the public arguably can choose to avoid flying or speaking with those selling illegal substances.

As with observational privacy, informational privacy is subject to the exercise of individual autonomy in navigating whether to disclose information or to keep it private. When the balance of state and individual interests are not aligned, the state's purpose is more heavily scrutinized to ensure that it is necessary and warranted. For example, with respect to a statutorily-mandated disclosure of patient drug prescriptions, the Court in *Whalen v. Roe* held that the state interest

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body scanner machine that's beaming radiation directly into your body in order to see underneath your clothing.").

298. Submission to Screening and Inspection, 49 C.F.R. § 1540.107 (2018) (2016) (amending civil regulation security measures in response to public comment on privacy concerns). *See also* The Associated Press, *Just What Can They See?! Your Full Body Scanner Questions Answered*, N.Y. DAILY NEWS (Dec. 31, 2009, 9:42 AM), http://www.nydailynews.com/news/money/full-body-scanner-questions-answered-article-1.434194.

299. *Security Screening*, TRANSP. SEC. ADMIN., https://www.tsa.gov/travel/security-screening (expand the "Security Technology" tab under "Security Screening") (last visited Dec. 3, 2018). *See also* Tim Devaney, *TSA Sets Rules for Full-Body Scanners*, HILL (Mar. 2, 2016, 12:42 PM), http://thehill.com/regulation/transportation/271490-tsa-floats-full-body-scanner-rules (outlining the introduction of full body scanners in 2008 to the full regulatory approval in 2016).

justified disclosure,[300] but still strongly emphasized the informational privacy interest at stake:

> The right to collect and use such data for public purposes is typically accompanied by a concomitant statutory or regulatory *duty to avoid unwarranted disclosures*. Recognizing that in some circumstances that duty arguably has its roots in the Constitution, nevertheless New York's statutory scheme, and its implementing administrative procedures, evidence a proper concern with, and protection of, the individual's interest in privacy.[301]

In each of these examples, the judiciary serves as a check by ensuring that state interests do not unduly infringe on the privacy interests of individuals who remain at liberty in society, acknowledging that the interests may be in alignment where the state is also bound to protect individual autonomy. When the autonomy rights of the individual are increasingly limited without consent, however, the state interest must support the intrusion with an increasingly valid purpose. Because an inmate or confined patient is mandated to reside in the state facility without consent, the state interest in restrictive measures should be weighty. Therefore, in a time of rapid innovation in surveillance technology and autonomous AI that facilitates human isolation, often first implemented in institutional settings out of the public eye, it is imperative that courts carefully review the importance of the state interest involved.

A. Common State Interests to Intrude on Privacy: Safety, Security, Efficiency, and Cost

Some state interests are common to most institutional settings, whether housing prison inmates, patients in a mental hospital, or nursing home residents. Security and safety are perhaps the most important of these common concerns, interests also shared by both the individual confined and the state. The common law doctrines of state

300. Whalen v. Roe, 429 U.S. 589, 607 (1977) (Brennan, J., concurring) ("[T]he State's carefully designed program includes numerous safeguards intended to forestall the danger of indiscriminate disclosure").

301. *Id.* at 605 (emphasis added).

police power and the state as parens patriae reinforce the duty of the government to ensure the safety of persons in their care and custody.[302]

Yet enhanced surveillance technology in facilities both promotes and runs afoul of the parens patriae and public health goals of promoting the safety and well-being of the individual in a complex determination of how the individual functions in society. For example, among persons with mental illness, constant surveillance may increase paranoia and fear of state discipline or it may bring comfort and a sense of security. Technology may isolate humans from social contact or it may decrease the stigma of human observation if persons are able to adjust to an increased degree of surveillance.

Clearly an important security interest is the duty of prison officials "to protect prisoners from violence at the hands of other prisoners."[303] *Hudson v. Palmer* is commonly cited for describing penological interests that may justifiably invade a prisoner's right to privacy, "chief among which is internal security."[304] Confined persons may specifically request isolation or surveillance to avoid these risks.[305] Advances in surveillance technology may facilitate deterrence of abuse perpetrated not only by other inmates and residents, but by state employees, as institutional abuse remains a serious concern for the involuntarily committed patient, the nursing home patient, and the inmate.[306] Surveillance and restrictive confinement also serves an

302. *See supra* Part I(C).

303. Farmer v. Brennan, 511 U.S. 825, 833 (1994).

304. Hudson v. Palmer, 468 U.S. 517, 523 (1984). *See also* Parkell v. Danberg, 833 F.3d 313, 325 (3d Cir. 2016).

305. *E.g.*, Lyons v. Wall, C.A. No. 08-498-M, 2012 WL 3682983 (D. R.I. 2012) (objecting to prison's denial of suicidal prisoner's request for "on camera" surveillance); YouTube Channel for The Nat'l Consumer Voice for Quality Long-Term Care, *Balancing Privacy and Protection: Surveillance Cameras in Nursing Home Residents' Rooms* (Sept. 12, 2017), https://www.youtube.com/watch?v=j0nFXI7UoB8 (presenting options for patients and their guardians to consent to constant video surveillance in residential facilities to deter and identify elder abuse).

306. *See* Farmer v. Brennan, 511 U.S. 825, 837 (1994) (applying an Eighth Amendment analysis in requiring a conscious disregard of an excessive risk to inmate health or safety, as opposed to criminal negligence, when holding that prison staff members' disregard of prison rape constitutes punishment under the Eighth Amendment); The Nat'l Consumer Voice, *supra* note 305.

important function in preventing suicide and other forms of self-harm.[307]

New technology also poses new security concerns. For example, prison administrators currently struggle with the risk of prisoners illicitly receiving cell phones and other contraband by drone delivery over prison walls.[308] Whether such a risk causes a need for additional searches, including visual body-cavity searches of prisoners, remains to be seen. Thus, security risks and how security is achieved may vary significantly, impacting the balance of interests.

At times, the interest in security has been stated in absolutist terms. In *Johnson v. Phelan,* in 1995, the Seventh Circuit argued: "Inter-prisoner violence is endemic, so constant vigilance without regard to the state of the prisoners' dress is essential. Vigilance over showers, vigilance over cells—vigilance everywhere, which means that guards gaze upon naked inmates."[309] Few courts have endowed the state's security interest with such weight, applying a balancing test analysis which is highly fact-sensitive and subject to evolving standards of decency.[310] Indeed, the Ninth Circuit recently held that female guard observation of a male detainee using toilet and shower facilities raised a cognizable Fourth Amendment claim.[311]

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307. *See* Nat'l Comm'n on Corr. Health Care, *Position Statement, Prevention of Juvenile Suicide in Correctional Settings* 3 (Oct. 2012), *available at* https://www.ncchc.org/filebin/Positions/Prevention-of-Juvenile-Suicide-in-Correctional-Settings.pdf (identifying three levels of required medical observation for confined juveniles who may be suicidal).

308. *See* Josh Saul, *Prisoners Use Smuggled Phones and Drones, But Justice Department Plans to Jam Airways*, NEWSWEEK (Jan. 8, 2018, 1:53 PM), http://www.newsweek.com/prison-cell-phone-drone-jam-justice-department-rosenstein-774330; Devin Coldewey, *Federal Prisons Seek Methods to Shut Down Contraband-Toting Drones*, CORRECTIONSONE (Nov. 6, 2015), https://www.correctionsone.com/prison-technology/articles/38440187-Federal-prisons-seek-methods-to-shut-down-contraband-toting-drones/.

309. Johnson v. Phelan, 69 F.3d 144, 146 (7th Cir. 1995).

310. *See* Patchette v. Nix, 952 F.2d 158, 163 (8th Cir. 1991) (internal quotation marks and citation omitted) (stating that the Eighth Amendment "draw[s] its meaning from the evolving standards of decency that mark the process of a maturing society"); *see also infra* note 458 (addressing cross-gender surveillance of inmates).

311. *See* Byrd v. Maricopa Cty. Bd. of Supervisors, 845 F.3d 919 (9th Cir. 2017).

Unfortunately, state surveillance bears the concomitant risk of placing the confined in an even more vulnerable state. These persons are already more likely to be subject to the lawful use of force by the government, such as body cavity searches, physical or medical restraint, or forced movement, practices which are largely self-regulated by the facility officials.[312] Unlawful use of force or medical neglect is more easily concealed when the surveillance records are controlled by the same agency monitoring the confined person.[313]

The modern government facility system holds millions of individuals in confinement who themselves constitute a major sector of the public.[314] Their selection for confinement, punishment and/or treatment is continually challenged on due process grounds, and occasionally equal protection grounds, enhancing concern over the disparate impact of advanced surveillance technology in facilities.[315] Thus, a key state interest is that its use of technology in confinement exemplify standards of fairness and equity, considering not only levels of need to ensure security, but levels of impact based on demographics, such as race, gender, sexual orientation, age, disability, and other important forms of identity.[316]

312. *E.g.*, J.B. ex rel. Benjamin v. Fassnacht, 801 F.3d 336, 342 (3d Cir. 2015) (upholding strip search with body cavity inspection of juvenile detainee as a lawful exercise of parens patriae authority where it promoted penological interests in facility safety, and inspection of the detainee for evidence of parental abuse of the child); Bigley v. Alaska Psychiatric Inst., 208 P.3d 168, 185 (Alaska 2009) (balancing the patient's fundamental due process privacy and liberty interests against the hospital's compelling state interest under its parens patriae authority to force administration of psychotropic medications in the best interests of a patient with limited capacity).

313. *See* Mary D. Fan, *Missing Police Body Camera Videos: Remedies, Evidentiary Fairness, and Automatic Activation*, 52 GA. L. REV. 57 (2017) (revealing that most police departments do not adequately enforce body camera use and have no procedures to do so).

314. *See generally* Reuben Jonathan Miller & Amanda Alexander, *The Price of Carceral Citizenship: Punishment, Surveillance, and Social Welfare Policy in an Age of Carceral Expansion*, 21 MICH. J. RACE & L. 291 (2016).

315. *E.g.*, Smith v. Ryan, 137 S. Ct. 1283 (2017) (Breyer, J.) (commenting, in a denial of certiorari, on the "terrible price" of long-term solitary confinement while awaiting the death penalty with regard to a prisoner whose intellectual disability the Ninth Circuit had been struggling to assess).

316. *See infra* note 497 and accompanying text.

Finally, in terms of efficiency and cost, state and commercial interests may align, but state and individual interests may not. [317] Cost and efficiency are legitimate state interests in privacy claims, interests which the courts consider closely in a feasibility analysis of restrictive means.[318] Advocates for those confined suggest that the government is lured by the surveillance technology industry to purchase ever more intrusive products for its state institutions, such as AI-based hallway cameras or drones hovering over recreational areas in facilities.[319]

The state may argue that cost savings justify the elimination of human staff and any negative impact on those confined. Indeed, institutional funding is a persistent concern, where courts may construe efforts to accommodate constitutional rights, such as remodeling a facility to ensure greater privacy, to be too costly to be a reasonable accommodation.[320] Where over half of the operating costs of a prison are attributed to human labor,[321] replacement of human staff with remote constant surveillance is cost-effective, but not necessarily

317. *See generally* Quill, *supra* note 6, at 89 ("But today's technologists are different from Comte's [early 1800s] techno-spiritual elite in that they often operate at the head of corporations that provide services and products for a fee, many of which owe their success as much to marketing as to their contributions to the general welfare.").

318. *See* United States v. Jones, 565 U.S. 400, 416 (2012) (Sotomayor, J., concurring) (noting the dangerous temptation of less costly surveillance technology that risks greater infringement on privacy rights). "And because GPS monitoring is cheap in comparison to conventional surveillance techniques and, by design, proceeds surreptitiously, it evades the ordinary checks that constrain abusive law enforcement practices: 'limited police resources and community hostility.'" *Id.* (quoting Illinois v. Lidster, 540 U.S. 419, 426 (2004)). *See also* Teague v. Schimel, 896 N.W.2d 286, 310 (Wis. 2017) (holding that the Wisconsin statutory procedure to correct inaccurate criminal record information in a large state database with digital fingerprint identifiers was inadequate to safeguard the claimant's liberty interest, and criticizing the procedures and technology as "quick, cheap, and easy").

319. *See* TIM WU, THE ATTENTION MERCHANTS: THE EPIC SCRAMBLE TO GET INSIDE OUR HEADS 344 (2016) ("[T]he goals of the attention merchants are generally at odds with ours[.]").

320. Michenfelder v. Sumner, 860 F.2d 328, 333 (9th Cir. 1988) (addressing remodeling of facilities to ensure privacy during strip searches and body-cavity searches).

321. ALAN ELSNER, GATES OF INJUSTICE: THE CRISIS IN AMERICA'S PRISONS 211 (2d ed. 2006).

justifiable when considering the basic human need for privacy and social contact.

Safety, security, efficiency, and cost, as well as fairness in application, are thus all common legitimate concerns for state institutions when designing and implementing restrictive measures. Not all persons in confinement, however, bear the same levels of concerns or the same needs, as will be discussed below in differentiating state interests in penal and civil state institutions from a historical perspective.

B. The State Interest to Intrude on Prisoner Autonomy

Simply put, while the confinement may feel quite similar at times for those confined, the primary difference between confinement of criminals and patients is the goal of punishment in criminal settings and treatment in medical settings. For prisoners, "[t]he limitations on the exercise of constitutional rights arise both from the fact of incarceration and from valid penological objectives—including deterrence of crime, rehabilitation of prisoners, and institutional security."[322] Inmates pose particular challenges in ensuring safe confinement because they may have a demonstrated tendency towards violence or deception.

In 1984, in *Hudson v. Palmer*, the Court posited that "in traditional Fourth Amendment terms [a privacy right] is fundamentally incompatible with the close and continual surveillance of inmates and their cells required to ensure institutional security and internal order."[323] In addition to security, restraint on individual rights also may be justified, according to the Court, on practical grounds and as "reminders that, under our system of justice, deterrence and retribution are factors in addition to correction."[324]

Identifying the intentions behind the state's restrictive measures presupposes that prison itself is a legitimate enterprise. Historically, punishment through prison confinement was considered a softer approach than the death penalty, torture, and public humiliation that preceded it.[325] Foucault explains that in the early 1800s, the arrival of

322. O'Lone v. Estate of Shabazz, 482 U.S. 342, 348 (1987).

323. Hudson v. Palmer, 468 U.S. 517, 527-28 (1984).

324. *Id.* at 524.

325. *See* Pieter Spierenburg, *Four Centuries of Prison History: Punishment, Suffering, the Body, and Power*, *in* INSTITUTIONS OF CONFINEMENT: HOSPITALS,

penal institutions "[made] it possible to substitute for force or other violent constraints the gentle efficiency of total surveillance; of ordering space according to the recent humanization of the codes and the new penitentiary theory."[326] Prison itself was a substantial and civilized reform of the penological system, allowing for redemption and reform of the prisoners within the prison walls.[327]

In Jeremy Bentham's influential 18th century *Panopticon*, proposing an architectural structure with a central observational tower designed for constant surveillance over the confined surrounding the tower, Bentham saw a more humane form of state control, applicable not only to prisons, but to work-houses, mad-houses, poor houses, hospitals, and schools.[328] He wrote that the panopticon's success lay not in absolute perfect surveillance, which would be practically impossible at the time; rather, "that, at every instant, seeing reason to believe as much, and not being able to satisfy himself to the contrary, [the prisoner] should *conceive* himself to be so [surveilled]."[329] Benthamites would acknowledge that "all punishment is evil", but suggest that prison confinement as a form of punishment, is justifiable under utilitarian principles if it "promises to exclude some greater evil."[330] In effect, Bentham argues that punishment should be

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ASYLUMS, AND PRISONS IN WESTERN EUROPE AND NORTH AMERICA, 1500-1950 17, 22 (Norbert Finzsch & Robert Jütte eds., 1996).

326. FOUCAULT, *supra* note 70, at 249.

327. In Medieval times in the 1500s, Henry VIII of England had 72,000 "vagabonds" hanged, a time when police and investigative services were first instituted. BLOCH, *supra* note 3, at 245. *See also* FOUCAULT, *supra* note 70, at 11. ("From being an art of unbearable sensations punishment has become an economy of suspended rights"). "In short, penal imprisonment, from the beginning of the nineteenth century, covered both the deprivation of liberty and the technical transformation of individuals." *Id.* at 233.

328. *See* Jeremy Bentham, *Panopticon; or, The Inspection-House: Containing the Idea of a New Principle of Construction Applicable to Any Sort of Establishment, in which Persons of Any Description are to be Kept Under Inspection; and in Particular to Penitentiary-Houses* (1787), *in* JEREMY BENTHAM, THE WORKS OF JEREMY BENTHAM, vol. 4 (John Bowring ed., William Tait, 1843), *available at* http://oll.libertyfund.org/titles/bentham-the-works-of-jeremy-bentham-vol-4.

329. *Id.* (providing a detailed description of the panopticon's structure in Letter I "Idea of the Inspection Principle" and Letter II).

330. JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 158 (J.H. Burns & H.L.A. Hart eds., Clarendon Press 1996) (1780).

efficacious for reform and deterrence, and proportionate to the severity of the offense.[331]

Reform was to be achieved through work and industriousness, but prison was to be more than a factory of communal workers.[332] It was also meant to separate and awaken criminals, keeping them in solitude, away from each other's vices, while granting them the opportunity to rediscover in their conscience "the voice of good."[333] In a confined setting, for Foucault, heavily influenced by Bentham's *Panopticon*, "the prison became a sort of permanent observatory"[334] allowing for effective distribution of persons, experimentation, fear and control.[335] When one is aware of being constantly observed, it reduces the need for physical control and promotes self-subjugation.[336]

In American prisons today, the use of electronic video surveillance achieves the same purpose: "Some cameras are so well hidden, they are not suspected by inmates to be present. On the other hand, rumors abound among inmates that there are cameras where none exist."[337] One federal district court quoted with approval the justifications of wardens and guards for this electronic surveillance system:

> "[i]t is a significant advantage to have inmates uncertain as to what is being monitored, what is recorded, and what is in the field of view. . . . Prison surveillance cameras provide staff and officials a steady and valuable stream of intelligence information which is used in prison investigations and is often used to support prison infractions and/or criminal prosecutions."[338]

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331. *Id.* at 176.

332. FOUCAULT, *supra* note 70, at 122.

333. *Id.*

334. *Id.* at 126.

335. *Id.* at 203 (describing Bentham's Panopticon as a laboratory for human social and behavioral experimentation). *But see* Macias, *supra* note 99, at 1030 n.3 (identifying the scholarship of Bentham's Panopticon beyond Foucault, which focuses on both positive and negative effects of state surveillance).

336. FOUCAULT, *supra* note 70, at 203.

337. Florer v. Schrum, No. C11–5135 BHS/KLS, 2012 WL 2995071, at *2 (W.D. Wash. June 23, 2012) (denying prisoners, in the interests of security, a discovery motion for physical possession of video surveillance tapes, but permitting viewing the content of the tapes).

338. *Id.* at *2-*3.

Judge Posner, writing for the Seventh Circuit in *Johnson v. Phelan*, also supported the state's use of surveillance: "Anonymous visual inspections from afar are considerably less intrusive and carry less potential for 'the unnecessary and wanton infliction of pain'" of bodily searches under an Eighth Amendment analysis.[339]

While Bentham saw the panopticon as a utilitarian good, he still considered discomfort part of that good. In recommending that the panopticon include for each prisoner a raised iron bed with bedding, he noted that its purpose was not comfort, which would "gain[] nothing".[340] Courts today agree that prison conditions may be "restrictive and even harsh," but they may not be inhumane.[341] It is a fine line to be drawn. For Bentham, approved punishments would be inhumane if they caused the physical injury of torture or death, recommending the following instead: "Outrageous clamour may be subdued and punished by gagging; manual violence, by the strait waistcoat; refusal to work, by a denial of food till the task is done."[342] Today, surveillance in penal institutions is meant to keep order and thereby protect the inmates from abuse by each other or by staff, with some lawsuits indicating a need for *more* surveillance.[343] The softer approach of the prison as a modern form of punishment is not the

339. Johnson v. Phelan, 69 F.3d 144, 148 (7th Cir. 1995).

340. Bentham, *Panopticon*, *supra* note 328 (Postscript Part I, Section VIII "Bedding").

341. *See* Farmer v. Brennan, 511 U.S. 825, 833 (1994) (internal citations and quotation marks omitted) ("Prison conditions may be restrictive and even harsh, but gratuitously allowing the beating or rape of one prisoner by another serves no legitimate penological objectiv[e], any more than it squares with evolving standards of decency[.]").

342. Bentham, *Panopticon*, *supra* note 328 (Postscript Part I, Section XIV "Of Punishments").

343. *E.g.*, Brown v. Plata, 563 U.S. 493, 520 (2011) (finding an Eighth Amendment violation in part due to "CRAMPED conditions [that] promote unrest and violence, making it difficult for prison officials to monitor and control the prison population") (all caps in original); Farmer v. Brennan, 511 U.S. 825 (1994) (holding that prison staff may be found deliberately indifferent to transsexual prisoners' risk of rape when placed in the general prison population in violation of the Eighth Amendment Cruel and Unusual Punishment Clause); Ferreira v. Arpaio, No. CV-15-01845-PHX-JAT, 2017 WL 6554674, at *8 (D. Ariz. Dec. 22, 2017) (addressing a section 1983 claim by the mother of an inmate beaten to death by his cell mate, specifically claiming a violation of the due process right to be free from violence from other inmates).

experience for some, where incarceration is "a question of survival, nothing more."[344]

Arguably, AI could potentially provide a physically safer and more neutral institutional environment than that seen in the nightmare realm of supermax prisons, but it would potentially be devoid of real human contact, bearing a risk of psychological harm. Supermax prisons, which arose in the 1990s, used surveillance and isolation strategies at their most extreme level.[345] Some supermax cells where prisoners were isolated for years were reportedly constantly illuminated and deprived prisoners of any outdoor recreation or visual contact with staff or other inmates.[346] This level of social isolation in combination with constant surveillance has reportedly led to suicidality and other serious mental health impacts.[347] Although designed to address the most vicious offenders, supermax prisons frequently house mentally ill inmates who are considered disruptive to the general prison population.[348] Nationally, the highest rates of restrictive housing and solitary

344. RICHARD W. HARDING, PRIVATE PRISONS AND PUBLIC ACCOUNTABILITY 130 (1997) (assessing the rise of private prisons, particularly for less violent offenders, when public prisons faced overcrowding, gang culture, and racial tensions and "the prison experience [became] a question of survival, nothing more").

345. ELSNER, *supra* note 321, at 158.

346. *Id.* at 156 (noting that in person visitation with legal counsel was permitted).

347. *See, e.g.*, Valle v. Florida, 564 U.S. 1067 (2011) (Breyer, J., dissenting from denial of stay of execution) (identifying, with respect to an Eighth Amendment claim, studies that show a high rate of suicide attempts among prisoners on death row, with the national wait for execution averaging 15 years); *Brown*, 563 U.S. at 520 (finding that California's overcrowded prisons had an 80% higher suicide rate than the national average, where "[b]ecause of a shortage of treatment beds, suicidal inmates may be held for prolonged periods in telephone-booth-sized cages without toilets"). *But see* Christopher J. Mumola, *Suicide and Homicide in State Prisons and Local Jails*, NCJ 210036, BUR. OF JUST. STAT., U.S. DEPT. OF JUSTICE (Aug. 21, 2005) (finding a sharp overall decline in rates of suicide in prison, with higher rates in smaller institutions, among the youngest and oldest inmates, and during the first week of incarceration). Note that the latter BJS study did not differentiate the impact on prisoners in solitary confinement and isolation.

348. ELSNER, *supra* note 321, at 156-58. *See also Documentary Examines Life Inside America's Supermax Prisons*, CBS News (Jan. 18, 2018), https://www.cbsnews.com/video/documentary-examines-life-inside-americas-supermax-prisons/ (stating that approximately 40 supermax prisons are currently in operation in the U.S.).

confinement are currently found among prisoners convicted of violent crime, prisoners with serious mental health diagnoses, young prisoners, and lesbian, gay, or bisexual prisoners.[349]

Persons with mental illness are now overrepresented in prison institutions as a result of the now infamous American movement to de-institutionalize mental hospitals.[350] With this movement, which began in the 1960s, mentally ill patients were often released without the state providing them with adequate community support.[351] By 2001, 40 states had been sued for inadequate mental health treatment in jails and prisons, often after an inmate committed suicide.[352] Today, the criminal justice system has become the number one provider of mental health services in the country.[353] Accordingly, prison staff face greater struggles as they manage the serious mental health needs of inmates. As the Executive Director of the National Sheriff's Association stated:

> The problem continues to escalate. It is a major quality-of-life issue for severely mentally ill patients, because they are more likely to be beaten, victimized or commit suicide than those who are sick. The

349. *Nearly 20 Percent of Prison and Jail Inmates*, *supra* note 239.

350. ELSNER, *supra* note 321, at 92.

351. *Id.* (noting that released mental patients increasingly faced lack of treatment, homelessness, and addiction, eventually breaking the law, which resulted in "U.S. prisons [being] turned into de facto insane asylums"). *See also* Lappin, *supra* note 19, at 1 ("Inmates with mental health problems present a host of challenges and often need staff-intensive services. Over the past several years these challenges have become particularly difficult – the number of inmates with mental illness continues to increase and our agency operates within constrained budgets.").

352. ELSNER, *supra* note 321, at 96.

353. E. FULLER TORREY ET AL., THE TREATMENT OF PERSONS WITH MENTAL ILLNESS IN PRISONS AND JAILS: A STATE SURVEY, TREATMENT ADVOCACY CTR., at 37 (2014), http://www.treatmentadvocacycenter.org/storage/documents/treatment-behind-bars/treatment-behind-bars.pdf. (finding that in the District of Columbia and forty-four out of fifty states, at least one jail or prison in the state holds more persons with serious mental illness than the largest psychiatric hospital operated by the state); Thomas Insel, *Post by Former NIMH Director Thomas Insel: A Misfortune Not a Crime*, NIH.GOV: NIMH (Apr. 11, 2014), http://www.nimh.nih.gov/about/director/2014/a-misfortune-not-a-crime.shtml ("Our current system, if these new numbers are accurate, treats mental illness for many, not as a misfortune but a crime with little promise of recovery.").

> handling and control of these inmates pose a serious safety threat to staff.[354]

That the state contributed to the source of enhanced security problems faced by prison institutions is inherently problematic, particularly when the state has a clear parens patriae duty of care in both mental institutions and prisons.

While security and order are legitimate state interests well recognized in nearly all contexts of civil and penal state confinement, the Court has yet to clearly assert that surveillance and a loss of privacy promote a legitimate punitive goal. However, courts do recognize that certain uses of surveillance are a form of cruel and unusual punishment.[355] Thus, when imposing surveillance as a restrictive measure, the state would do well to argue an interest in security or deterrence, rather than an interest in punishment.

This is not to suggest that imprisonment for the purpose of retributivism is not a proper goal of sentencing, as that has remained a long-established goal according to the Court: "The infliction of punishment is a deliberate act intended to chastise or deter. This is what the word means today; it is what it meant in the eighteenth century . . . ."[356] To chastise promotes a purpose of correction, to train or curb behavior, and is not merely a deliberate imposition of suffering.[357]

In the 1980s, surveillance capabilities were limited, including time-lapse VHS, early CCTV cameras, and the first multi-camera recorders,[358] thus the *Hudson* Court's assessment of what constitutes an

354. ELSNER, *supra* note 321, at 95.

355. *See supra* Part II(B)(2).

356. Wilson v. Seiter, 501 U.S. 294, 300 (1991) (quoting Judge Posner in Duckworth v. Franzen, 780 F.2d 645, 652 (7th Cir. 1985), *cert. denied*, 479 U.S. 816 (1986)).

357. *See* Ingraham v. Wright, 430 U.S. 651, 661 (1977); Bloom v. Toliver, 133 F. Supp. 3d 1314, 1332 n.8 (N.D. Okl. 2015).

358. *See generally* April White, *A Brief History of Surveillance in America*, SMITHSONIAN MAG. (Apr. 2018), *available at* https://www.smithsonianmag.com/history/brief-history-surveillance-america-180968399/ (asserting that today "we're talking about a scale of surveillance that scarcely seems fathomable from the perspective of the 1960s, 1970s, or even the 1980s"). *Compare The History of Surveillance: The 1980s*, IFSEC GLOBAL, https://www.ifsecglobal.com/history-surveillance-1980s/ (last visited Dec. 3, 2018) (providing examples of iconic 1980s surveillance technology), *and* DOJ BRIEF NO. 2, *supra* note 7, at 2 ("the advent of

expectation of privacy in a prison cell cannot compare to current surveillance technology. In *Hudson*, the Court examined regular searches for contraband via a guard's shake-down of an inmate's cell, rather than constant observation with remote technology.[359] The Third Circuit Court of Appeals distinguished *Hudson's* more minor privacy intrusion when applying a Fourth Amendment analysis to a right to bodily privacy in body-cavity searches: "We conclude that a right to privacy in one's own body, unlike a right to maintain private spaces for possessions, is not fundamentally inconsistent with imprisonment and is so fundamental that society would recognize it as reasonable even in the prison context."[360] Thus, a revisiting of *Hudson* and the necessity of the state's interest may be warranted, should a cell be subject to far more intrusive surveillance than a physical cell search.

Courts will consider not only the expressed state interest, such as security generally or the benefit of a specific type of restrictive measure, but also how the measure is implemented. In *Parkell v. Danberg*, the Third Circuit applied a *Hudson* incompatibility analysis and found that body-cavity searches in prison are subject to Fourth Amendment protections of a reasonable expectation of bodily privacy.[361] The case addressed an allegedly excessive security practice involving a Delaware state prison inmate: "[t]hree times per day officers 'strip searche[d]' him, visually inspecting his anus and genitals while he 'was forced to squat naked and cough loudly.'"[362] Similarly, in *Canady v. Boardman*, the Seventh Circuit asserted that "all forced observations or inspections

computers and other automated data handling equipment raises new issues about the security of intelligence data"), *with* Ron Alalouff, *IDIS to Promote Video Surveillance System Convenience at IFSEC International 2018*, IFSEC GLOBAL (May 24, 2018), https://www.ifsecglobal.com/idis-promote-video-system-convenience-ifsec-international-2018/ (listing new products that offer motion detection and image analysis from 200 meters away in the dark, use of a centralized single monitor for a myriad of video surveillance applications, and enhanced smartphone cameras), *and* Scally, *supra* note 33 (identifying new trends such as improved body camera surveillance and deep learning analytics from visuals).

359. Hudson v. Palmer, 468 U.S. 517, 526 (1984). *See generally supra* note 323 and accompanying text discussing *Hudson*.

360. Parkell v. Danberg, 833 F.3d 313, 325 (3d Cir. 2016).

361. *Id.*

362. *Id.* at 321.

of the naked body implicate a privacy concern," in a case involving strip searches of a male prisoner by female guards.[363]

In each case, the necessity of the restrictive measure chosen was carefully scrutinized, when other means could effectuate the same protective result without infringing on the prisoner's individual rights to the same degree. As discussed in Part IV below, ideally improvements in prison management will be developed considering the state's interest in achieving a proper balance of security and protection of individual rights; such improvements, depending on the confinement needs, may incorporate new innovative technology or no technology at all.

C. The State Interest to Intrude on Patient Autonomy

As with prisons, confinement of medical and mental health patients have notorious origins. While treatment, rehabilitation, and compassionate care have emerged as duties of care for state institutions, along with the commonly held goals of security, safety, and cost-efficiency,[364] this was not originally the case. Early hospitals in America, as late as the 1900s, were scrutinized publicly with "grave reservations," in that the institutional setting was accompanied by a legacy of "memories of the pesthouse and the almshouse, of poverty and death."[365]

Yet before the creation of these institutions, medical care could be an exercise of even greater depravity for those without means. In describing the French enslavement of Protestants on galley ships in the early 1700s, the Reverend Bion recounts: "The stench is most intolerable, insomuch as that there is no slave, though ever so weak, but will rather choose to tug at his oar, and expire under his chain, than to retire to this loathsome hospital."[366] The hospital he describes was a

363. Canedy v. Boardman, 16 F.3d 183, 185 (7th Cir. 1994).

364. *See supra* Part III(A).

365. Morris J. Vogel, *The Transformation of the American Hospital*, *in* INSTITUTIONS OF CONFINEMENT: HOSPITALS, ASYLUMS, AND PRISONS IN WESTERN EUROPE AND NORTH AMERICA, 1500-1950 39, 48-49 (Norbert Finzsch & Robert Jütte eds., 1997).

366. Rev. J. Bion, *An Account of the Torments, The French Protestants Endure Aboard the* Galleys (1708), in AN ENGLISH GARNER, SOCIAL ENGLAND ILLUSTRATED: A COLLECTION OF XVIITH CENTURY TRACTS 433, 445 (Thomas Seccombe ed., E.P.

dark closet below deck, where persons were segregated from the rest of the crew for medical and disciplinary purposes.[367]

As medicine developed, middle-class patients came to expect individualized care and the privacy of house calls.[368] Foucault identified the gradually emerging administrative structure of the hospital facility as one registering and monitoring individuals, separating them by disease and diagnosis, until, "[o]ut of discipline, a medically useful space was born."[369] Foucault also famously addressed the origins of the insane asylum, where "[f]ear appears as an essential presence,"[370] eventually replacing repression and restraint with authority and surveillance.[371] By the Twentieth Century, state-funded medical care through major social programs such as Medicare, Medicaid, and the Veterans Administration, became more readily available, but consistently reimbursed at a lower rate than private care, resulting in greater risks of low quality care.[372]

Surveillance in civil institutions is key to safety and security, particularly when addressing mental illness and aggression or suicidality.[373] In such dire cases, the state has both an interest and a duty as parens patriae to engage in observation to avoid the danger of

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Dutton & Co.) (excluding a publication date as a reprint and revision of the eight volume collection of letters and essays comprising the original *English Garner* by Prof. Edward Arber (circa 1909)).

367. *Id.*

368. *See* Vogel, *supra* note 365, at 49 ("hospital medicine had been second-class medicine").

369. FOUCAULT, *supra* note 70, at 144.

370. MICHEL FOUCAULT, MADNESS AND CIVILIZATION: A HISTORY OF INSANITY IN THE AGE OF REASON 245 (Richard Howard trans., Tavistock Publications, 1967) (1961).

371. *Id.* at 251.

372. *See* Johnson, *supra* note 66 (providing an alarming exposé of the health and safety impact of underfunding Illinois state nursing homes); Scott Bronstein & Drew Griffin, *A Fatal Wait: Veterans Languish and Die on a VA Hospital's Secret List*, CNN (Apr. 23, 2014, 07:22), https://www.cnn.com/2014/04/23/health/veterans-dying-health-care-delays/index.html (reporting that approximately 1,500 veterans were forced to wait months to see a doctor at a Veterans Administration hospital in Phoenix); Vogel, *supra* note 365, at 53.

373. *See* Nat'l Comm'n on Corr. Health Care, *supra* note 307 and accompanying text.

harm to those in its care.[374] Nevertheless, in civil institutions with less urgent needs, state statutes tend to respect the rights of autonomy of institutional residents; for example, by permitting constant video surveillance in nursing home bedrooms only with the prior written consent of the patient or guardian.[375] Unlike prisons, medical and mental health institutions do not serve a population of persons with only criminal records.

Therefore, perhaps more than security, in the United States today cost-efficiency parallels the state interest in quality of care in medical and mental health institutions. Even with quality care, the demands placed on staff may be great. Some long-term care patients require constant and intensive monitoring to avoid dangers to themselves or others, such as aggressive Alzheimer's patients or persons with traumatic brain injury; or they may present elopement risks, seeking to leave the facility without notice.[376] When such monitoring is provided in person by staff serving only one patient, it is effective but costly.[377] Thus, facility administration may resort to constant internal and external remote video surveillance in order to reduce staff costs, while still serving as an aid in locating patients in crisis.[378]

Here, the combination of human assessment and expanded technological tools appears to be working well in the interests of the state. According to hospital safety management experts, "many hospitals take a multi-layered, integrated approach where access control, video surveillance, RFID [radio frequency identification tracking wristbands] and motion sensors all work together."[379] As far as the impact on patient's rights, integrating RFID technology with

374. *E.g.*, Palakovic v. Wetzel, 854 F.3d 209, 223-24 (3d Cir. 2017) (addressing the state's duty to prevent suicide in prison confinement).

375. *See supra* note 21.

376. Robin Hattersley, *Preparing for the Silver Tsunami Part 2: Responding to Elderly Patient Wandering & Elopement*, CAMPUS SAFETY MAG., April/May 2018, at 28.

377. *Id. See also Cost of Dementia Care at Home, in Adult Day Care, Assisted Living or in Nursing Homes*, DEMENTIA CARE CENTRAL, https://www.dementiacare central.com/assisted-living-home-care-costs/ (last visited Dec. 3, 2018) (stating the average national cost of assisted living with memory care in the United States in 2018 as $4,500/month, with nursing home care in more advanced cases ranging from $150/day to over $300/day).

378. *See generally* Hattersley, *supra* note 376, at 30.

379. *Id.*

software that allows for remote surveillance decreases the privacy of the patient, but permits greater freedom of movement in safe areas while alerting staff when the patient enters unsafe areas.[380] Thus, surveillance can potentially contribute to greater protection of individual autonomy.

In mental institutions confining those subject to involuntary commitment, the state interest requires closer examination. These settings reflect hybrid state purposes, according to the courts, particularly when patients were committed as criminal defendants or when the dangers they pose to the institutional community mirror those found in prison settings.[381] For example, forced psychotropic medication may be warranted not only for the purpose of treatment, as in medical settings, but for the purpose of restraint and the protection of others in the facility. The Eighth Circuit Court of Appeals recently held that regular body-cavity searches of sex offenders committed to involuntary commitment are warranted, despite an existing right to bodily privacy, because of the patients' greater risk of obtaining cell phones as contraband.[382]

Regardless of the level of risk, in general, a state medical or mental health facility as parens patriae may justify intrusion into autonomy rights for patient protection, with substantial discretion given to the views of medical providers.[383] Such deference may heighten the risk of state abuse of power by ignoring the inherent punitive nature of restrictive measures in civil confinement, thus leading to an increase in claims for Eighth Amendment protection of the individual rights of persons in civil involuntary commitment.[384]

380. *Id.*

381. *See generally* Brobst, Miranda, *supra* note 192 (addressing the legal risks in criminal-civil hybrid institutions with respect to the privilege against self-incrimination and court-ordered disclosures in mental health treatment of juvenile inmates); Benjamin J. Bogos, *On the Legal Standard for Evaluating Free Exercise Claims in the Context of Sex Offender Civil Commitment*, 11 AVE MARIA L. REV. 443 (2013) (analyzing the tension between treatment and penological goals for involuntary civil commitment of convicted sexual offenders creating a lack of uniformity in lower court interpretation of prisoner/patient claims).

382. Serna v. Goodno, 567 F.3d 944, 953 (8th Cir. 2009) (arguing that prisons and mental hospitals for sexually dangerous patients have comparable security risks).

383. Bigley v. Alaska Psychiatric Inst., 208 P.3d 168, 185 (Alaska 2009).

384. *See generally supra* notes 218-20 and accompanying text.

Courts examining the Fifth Amendment privilege against self-incrimination highlight the risk of coercion and abuse of power in hybrid settings of confinement such as custodial interrogation of prisoners by prison mental health providers, or law enforcement interrogation of patients in medical or mental health institution.[385] Justice Douglas stated in his concurring opinion in *McNeil v. Director, Patuxent Institution:*

> Whatever the Patuxent procedures may be called—whether civil or criminal—the result under the Self-Incrimination Clause of the Fifth Amendment is the same. As we said in *In re Gault*, there is the threat of self-incrimination whenever there is 'a deprivation of liberty;' and there is such a deprivation whatever the name of the institution, if a person is held against his will.[386]

In a key decision in 2017, explicating the policy concerns of hybrid settings, the federal district court in *Hallford* examined the Fifth Amendment claim of a patient involuntarily committed in a local psychiatric hospital. [387] The patient was questioned by Secret Service agents regarding involvement in a protest march, which revealed enough information to later convict him of a federal weapons charge.[388] Finding that the patient, Hallford, was unlawfully coerced by the state, the court highlighted the facts of the case: at the time of questioning, Hallford was tired, ill, naked, and shivering; the psychiatric nurse told him he had to speak with the agents; he was denied an attorney; and he was never Mirandized.[389] The district court emphatically stated that the institutional setting for this patient was not home.

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385. *See* Estelle v. Smith, 451 U.S. 454 (1981) (holding that admission at trial of in-custody pre-trial statements, made without *Miranda* warnings in a court-ordered competency examination, violated the Fifth Amendment privilege against compelled self-incrimination); United States v. Robinson, 439 F.2d 553, 560 (D.C. Cir. 1970) (arguing that being held in custody without an attorney at a psychiatric facility is "even more conducive to compulsion than Miranda's [setting]").

386. McNeil v. Director, Patuxent Inst., 407 U.S. 245, 256 (1972) (Douglas, J., concurring) (internal citation omitted).

387. United States v. Hallford, 280 F. Supp. 3d 170 (D.D.C. 2017), *appeal filed*, No. 17-3093 (D.C. Cir. 2017).

388. *Id.* at 179-182.

389. *Id.*

> He had just suffered a serious and painful medical episode that required immediate attention at a hospital. After arriving at the hospital and displaying signs of mental instability, he was involuntarily committed to the hospital and told that he could not go home.[390]

The court recognized that there is potential for an unlawfully coercive environment in all state institutions, including use of isolation, surveillance, and other significant losses of privacy and autonomy. Therefore, state interests in restrictive measures in confinement may appear legitimate and range from security to medical treatment to cost-efficiency, but must be balanced against the individual rights of those persons confined.

IV. ALIGNING THE BALANCE OF INTERESTS TO ENSURE REASONABLENESS IN THE USE OF TECHNOLOGY TO MONITOR AND CONTROL CONFINED PERSONS

Individual autonomy in controlling one's privacy is a core right, derived from natural law concepts of autonomy, common law police power and parens patriae, as well as state and federal constitutions. The Supreme Court of Minnesota aptly stated in 1976, without the benefit of the array of federal privacy jurisprudence which was to follow in the next several decades: "At the core of the privacy decisions, in our judgment, is the concept of personal autonomy—the notion that the Constitution reserves to the individual, free of governmental intrusion, certain fundamental decisions about how he or she will conduct his or her life."[391]

Determining how the right is impacted by emerging surveillance capabilities requires vigilance in the courts and other branches of government.[392] Justice Black noted the challenges of defining the

390. *Id.* at 183 ("At the time of his involuntary commitment, Hallford was hundreds of miles from home in an unfamiliar city.").

391. Price v. Sheppard, 239 N.W.2d 905, 909-10 (Minn. 1976), *superseded by statute*, Civil Commitment Act, Minn. Laws ch. 282, art.2, §100, *as stated in In re* Civil Commitment of Raboin, 704 N.W.2d 767 (Min. App. 2005).

392. *See generally* Mark Fenwick et al., *Regulation Tomorrow: What Happens When Technology is Faster than the Law?*, 6 AM. U. BUS. L. REV. 561 (2017)

concept, where "'[p]rivacy' is a broad, abstract and ambiguous concept which can easily be shrunken in meaning but which can also, on the other hand, easily be interpreted as a constitutional ban against many things other than searches and seizures."[393] Similarly, in 1963, the Court applied a broadly defined test in holding that under the Fourth Amendment, the trial court should make its determination of reasonableness "from the facts and circumstances of the case and in the light of the 'fundamental criteria' laid down by the Fourth Amendment and in opinions of this Court applying that Amendment."[394]

In order to refine the standards of analysis to address emerging technology, the courts should consider applicable balancing test factors in a modern light. The former assertion by the Court skeptically calling efforts to better delineate the reasonableness test in privacy cases a "Procrustean application" to be avoided,[395] is now outmoded. Today's vastly enhanced surveillance capabilities require much greater judicial guidance regarding available common law and constitutional privacy protections. While the courts recognize changing times,[396] they do not follow an Orwellian prophecy that if the state simply takes all privacy away, then humans will no longer expect, want, or need privacy.[397]

Some concepts of constitutional analysis are solidly in force without serious debate. For example, consent to surveillance should only be acceptable if it is based on meaningful choice.[398] When a

(asserting that greater effort is needed by lawmakers to reasonably regulate emerging disruptive technologies in order to facilitate the market and protect the public).

393. Griswold v. Connecticut, 381 U.S. 479, 509 (1965) (Black, J., dissenting).

394. Ker v. California, 374 U.S. 23, 33 (1963).

395. Berger v. New York, 388 U.S. 41, 53 (1967) (quoting Ker v. California, 374 U.S. 23, 33 (1963)).

396. Martin v. City of Struthers, Ohio, 319 U.S. 141, 152-53 (1943) (Frankfurter, J., dissenting) ("The lack of privacy and the hazards to peace of mind and body caused by people living not in individual houses but crowded together in large human beehives, as they so widely do, are facts of modern [industrialized] living which cannot be ignored.").

397. *See* Robinson v. Super. Ct. of Sacramento Cty., 164 Cal. Rptr. 389, 394 (Cal. Ct. App. 1980), *hearing granted and opinion on rehearing not for publication* (1984) (rejecting "a subjective measure of privacy which contains the Orwellian flaw," where judges should not "merely recite the expectations and risks without examining the desirability of saddling them upon society").

398. A stark and somewhat odd example of modern consent to constant surveillance is the spectacle of reality television, where, in the interests of celebrity,

nursing home resident signs a contract to permit constant video surveillance of the resident's bedroom, one must wonder whether the facility has already cut staff; thus, would *not* signing the consent form result in an absence of necessary monitoring or a breach of care?[399] In fact-sensitive analyses, it would benefit the courts to expressly carve out established and emerging factors of interest, many of which have been gathered and discussed in Sections B and C below.

Other developing approaches to balancing interests in institutional settings reflect an internal tension, even if the relevant factors and interests are clearly outlined. For example, in high risk institutional settings where security administration is "inordinately difficult," courts generally take a pragmatic approach and accord a higher degree of deference to supervisory authorities when choosing restrictive measures.[400] In contrast, even recent decisions suggest in broad terms that privacy in the home is "a protection of families and personal privacy"[401] and that the state may not invade the "sanctity of the home."[402] If the right to privacy of the home includes a nursing home patient's bedroom, an involuntarily committed patient's hospital room, or a prison cell, then deference to the state's interest in security should not be taken for granted.

Regulation of the state's use of technology as a restrictive measure in confinement must be human-centered. Therefore, implementing surveillance technology as a punitive measure for the purpose of humiliation must not be permitted by the courts. Nor should the courts permit intrusive restrictive measures, adopted for no purpose other than expediency and cost-efficiency, without regard to the impact on those confined. Of course, in any balance of interests related to surveillance

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the ordinary person consents to exposing his or her domestic life as visual entertainment. *See* WU, *supra* note 319, at 245.

399. *See supra* note 21.

400. *See* Klinger v. Dept. of Corr., 31 F.3d 727, 732 (8th Cir. 1994), *cert. denied*, 513 U.S. 1185; J.H. Coverdale et al., *Respecting the Autonomy of Chronic Mentally Ill Women in Decisions About Contraception*, 44(7) HOSP. CMTY. PSYCHIATRY 671 (1993), *available at* https://www.ncbi.nlm.nih.gov/pubmed/8354506 (addressing the complex ethical issues for institutions working with patients with serious mental illness who make privacy decisions, such as consenting to contraceptive implants, when they are delusional and when they are not).

401. Collins v. Virginia, 138 S. Ct. 1663, 1670 (2018).

402. *Id.* at 1672.

of confined persons, it is important to consider that the state and individual interests are frequently in alignment.[403] Acting as parens patriae and under constitutional principles, the state has a duty to protect not merely the physical health, but the well-being of those it has confined.

The discussion below first comparatively examines the specific legal balancing tests applied to the most common constitutional claims for a deprivation of autonomy in confined settings. Subsequent sections then address specific factors to balance in an age of surveillance technology, with a special emphasis on the growing scientific and medical research elucidating its human impact.

A. Levels of Scrutiny and Overlapping Federal Constitutional Claims

Whether institutional methods and use of technology to restrict privacy rights of confined persons must be the least restrictive, the best alternative, reasonable, or merely one of a number of available means differs according to the legal basis under which the right is asserted. Claims addressed herein include those supported by the Fourth, Eighth, and Fourteenth Amendments of the United States Constitution.[404] Each legal approach benefits from incorporating new research-based understandings of the importance of privacy to human well-being, but some require reinterpretation of the legal meaning of surveillance and observation.

In *Turner v. Safley*, the Court held that violations of the constitutional rights of prison inmates are subject to rational basis review, and the Ninth Circuit summarized the application of relevant factors as follows:

> The Court provided four factors to guide reviewing courts in applying this test: 1) the existence of a valid, rational connection between the prison regulation and the legitimate governmental interest put forward to justify it; 2) the existence of alternative means of exercising the right that remain open to prison inmates; 3) the

403. *See supra* Part III.

404. As discussed above in Part II(A), state constitutions may offer additional and even more robust protections of individual privacy and autonomy. However, in the interests of brevity, and for reasons noted above, a federal analysis is the primary focus of this section.

> impact that accommodation of the asserted constitutional right will have on guards and other inmates, and on the allocation of prison resources generally; and 4) the absence of ready alternatives as evidence of the reasonableness of the regulation (the presence of obvious easy alternatives may evidence the opposite).[405]

Each constitutional basis for addressing restrictions on autonomy through surveillance and AI in state institutions will be addressed separately, followed by a discussion of commonly overlapping claims.

1. Fourth Amendment Reasonable Expectation of Privacy

While *Turner v. Safley* only addresses prison incarceration, the Fourth Amendment remains a vital source of protection from unreasonable surveillance of persons confined in both civil and penal state institutions.[406] Generally, the Fourth Amendment prohibits the state from engaging in unreasonable searches and seizures, which require both a subjective and objectively reasonable expectation of privacy on the part of the person searched.[407] While the sanctity of the home is traditionally protected, in *Hudson v. Palmer*, the Court held that there was no reasonable expectation of privacy in prison cells from shake-down searches of property by guards.[408] More broadly, "[a] right of privacy in traditional Fourth Amendment terms is fundamentally incompatible with the close and continual surveillance of inmates and their cells required to ensure institutional security and internal order."[409] This decision was limited in part to its facts, where, for example, observational body-cavity searches have not been subject to

405. Michenfelder v. Sumner, 860 F.2d 328, 331 (9th Cir. 1988) (addressing Turner v. Safley, 482 U.S. 78 (1987)).

406. *See, e.g.*, Serna v. Goodno, 567 F.3d 944, 953 (8th Cir. 2009) (applying a Fourth Amendment rights analysis in mental hospital body-cavity search). *See supra* Part II(B)(1).

407. *See supra* Part II(B)(1) (outlining the historical development of the Fourth Amendment constitutional analysis).

408. Hudson v. Palmer, 468 U.S. 517, 527-28 (1983).

409. *Id.* at 528. With respect to pre-trial detainees, there was initially a presumption that they had retained at least a "diminished expectation of privacy." Bell v. Wolfish, 441 U.S. 520, 557 (1979).

the restrictions of *Hudson* and a reasonable expectation of bodily privacy is upheld.[410]

After 35 years, with new surveillance technology necessitating more evolved decisions, the Court may revisit the reasonableness of other forms of "close and continual surveillance," such as truly constant remote surveillance of prison cells with capabilities assessing a prisoner's mood, alcohol intake, and other physiological characteristics such as heart rate. In 2018, in *Carpenter v. United States*, the Supreme Court demonstrated readiness to support individual privacy rights under the Fourth Amendment against ever more intrusive technology.[411] The Court upheld informational privacy rights in private cell phone data against state intrusion, recognizing "the seismic shifts in digital technology that make possible the tracking of [individuals] . . . for years and years."[412]

However, under a Fourth Amendment analysis in the prison setting, employing the least restrictive means of engaging in a search or seizure is not required of the state, suggesting an approach deferential to governmental interests in security. "Less-restrictive-alternative arguments are too powerful: a prison always can do something, at some cost, to make prisons more habitable, but if courts assess and compare these costs and benefits then judges rather than wardens are the real prison administrators."[413] The state also faces new security challenges where prisoners make creative use of technology to obtain contraband, such as drone drop-offs over prison walls.[414] Thus state institutions might well counter the privacy arguments of prisoners with assertions of a heightened need for restrictive security measures of their own.

Nevertheless, when upholding state surveillance measures that would equate to a search, the *Turner* elements do require an examination of necessity and the "ready instruments" the Constitution

410. Parkell v. Danberg, 833 F.3d 313, 325 (3d Cir. 2016) ("We conclude that a right to privacy in one's own body, unlike a right to maintain private spaces for possessions, is not fundamentally inconsistent with imprisonment and is so fundamental that society would recognize it as reasonable even in the prison context.").

411. Carpenter v. United States, 138 S. Ct. 2206 (2018).

412. *Id.* at 2219 (denying application of the third party doctrine).

413. Johnson v. Phelan, 69 F.3d 144, 145 (7th Cir. 1995) (relying on Bell v. Wolfish, 441 U.S. 520, 559-60 (1979) and Sandin v. Conner, 515 U.S. 472 (1995)).

414. *See supra* note 308.

provides for an assessment of the impact on individual rights.[415] For example, the highly invasive practice of strip searches in group settings requires some showing of necessity, although the courts remain unsettled on how particular prison policies must be in determining levels of risk among prisoners warranting such routine searches.[416] In a hospital setting housing civilly committed sex offenders, courts have been willing to uphold routine body-cavity searches in the interests of security and detection of contraband.[417] Perhaps technology will improve the privacy rights of prisoners from invasive searches, as new innovative means to detect contraband are developed.

2. Eighth Amendment Cruel and Unusual Punishment

Under the Eighth Amendment, a prisoner must be able to show that (1) "objectively, the deprivation of a basic human need was sufficiently serious" based on "contemporary standards of decency,"[418] posing a "substantial risk of serious harm";[419] and (2) that subjectively the prison officials "acted with a sufficiently culpable state of mind," which addresses both excessive punishment and deliberate indifference to inhumane conditions.[420] An Eighth Amendment claim is arguably more difficult to prove, where an added culpable mental state is required, as seen in the wanton and deliberate indifference elements of the analysis.[421]

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415. *See* Samson v. California, 547 U.S. 843, 843 (2006); Zurcher v. Stanford Daily, 436 U.S. 547, 578 (1978) (Stevens, J., dissenting); Warden v. Hayden, 387 U.S. 294, 325 (1967); *see also* Collins v. Virginia, 138 S. Ct. 1663, 1683 (2018) (Alito, J., dissenting) (suggesting a need to consider the "real effect" of the intrusion).

416. *See, e.g.*, Florence v. Bd. of Chosen Freeholders of Cty. of Burlington, 566 U.S. 318 (2012).

417. *See, e.g.*, Serna v. Goodno, 567 F.3d 944 (8th Cir. 2009).

418. Hudson v. McMillian, 503 U.S. 1, 8 (1992) (quoting Estelle v. Gamble, 429 U.S. 97, 103 (1976)).

419. Farmer v. Brennan, 511 U.S. 825, 834 (1994).

420. *See* Williams v. Benjamin, 77 F.3d 756, 761 (4th Cir. 1996); *see also* Wilson v. Seiter, 501 U.S. 294, 297 (1991).

421. *See Hudson*, 503 U.S. at 8 (requiring an objective deprivation of a basic human need that is sufficiently serious based on "contemporary standards of decency"); Wilson v. Seiter, 501 U.S. 294, 297 (1991) (requiring a subjective intent of deliberate indifference on the part of state actors imposing the punishment).

In determining the culpable state of malice regarding a claim of cruel and unusual punishment, a fact-sensitive inquiry may consider: (1) the extent of the injury suffered; (2) the need for the application of force; (3) the relationship between that need and the amount of force used; (4) the threat reasonably perceived by the responsible officials; and (5) any efforts made to temper the severity of a forceful response.[422] As already discussed, restrictive security measures, such as excessive solitary confinement or harassing strip searches, may satisfy the court that the state's action is an added punishment, both cruel and unusual. While blanket surveillance may assist the state in defending against an Eighth Amendment claim requiring malicious intent, the application of new technologies may cause concern if they result in detrimental psychological harm.

Many of the recent non-physical cases of cruel and unusual punishment have addressed excessively harsh conditions in solitary confinement, made possible in part by new surveillance technologies and facilities that remove most human contact.[423] Therefore, claims under the Eighth Amendment for privacy and social isolation deprivations may particularly benefit from new research into the psychological impact of technology on persons in confinement.[424] Ideally, this will enable the courts to place particular emphasis on realigning the balance of interests in hybrid criminal-civil institutional settings, permitting proper recognition of the punitive nature of privacy violations under civil order so that such patients may assert claims under the Eighth Amendment.[425]

3. Substantive Due Process Deprivation of Liberty

A substantive due process claim on the basis of a state deprivation unlawfully infringing on a person's liberty interest may face varying

422. *See* Palakovic v. Wetzel, 854 F.3d 209, 223-24 (3d Cir. 2017) (addressing a claim of cruel and unusual punishment for the solitary confinement of a mentally ill inmate); Romano v. Howarth, 998 F.2d 101, 105 (2d Cir. 1993) (examining an excessive force claim for the forced medication of an inmate in a prison mental health unit).

423. *See, e.g.*, *Palakovic*, 854 F.3d. at 223-24; *see also supra* note 345 and accompanying text (addressing supermax prisons).

424. *See infra* Part IV(B).

425. *See supra* note 381 and accompanying text.

levels of scrutiny. As stated above, in prison settings, a low rational-basis standard of review has been applied, such as reviewing prison mail and marriage regulations in *Turner v. Safley* – "when a prison regulation impinges on inmates' constitutional rights, the regulation is valid if it is reasonably related to legitimate penological interests."[426] In civil settings, this may not be the case. The state has an affirmative duty to persons it holds in care or custody to ensure their personal security and protection from abuse and other forms of harm, supported in part by parens patriae duties of care.[427] Identifying liberty as freedom from restraint may be interpreted in numerous ways, particularly when the Court has also referenced the pursuit of happiness in the liberty context.[428] Thus, the Amendment is relatively flexible in addressing technology-related infringements on autonomy in both civil and criminal institutions. In addition, innovative technology could reduce the need for some substantive due process claims if reasonable electronic surveillance prevented other deprivations of liberty, such as deliberate indifference to serious medical needs.[429]

While the Court in *Turner* expressly declined to adopt a least restrictive means test for prisoners' constitutional claims, the Court did assert that "the existence of obvious, easy alternatives may be evidence that the regulation is not reasonable, but is an 'exaggerated response' to prison concerns."[430] Therefore, as new technologies are adopted in institutions of confinement, if they are imposed arbitrarily without due process and involve intrusive surveillance, they could clearly implicate a liberty interest and violate a fundamental right to privacy owed to those in confinement.

426. Turner v. Safley, 482 U.S. 78, 89-90 (1987) (addressing the privacy interests of inmates with respect to inmate-to-inmate correspondence and the right to marry).

427. *See* Vitek v. Jones, 445 U.S. 480, 491 (1980); *see also supra* note 270 and accompanying text discussing *Vitek*.

428. *See* Ingraham v. Wright, 430 U.S. 651, 673 (1977) (asserting that the Fourteenth Amendment liberty interest incorporates "the right generally to enjoy those privileges long recognized at common law as essential to the orderly pursuit of happiness by free men"); *supra* note 267.

429. *See, e.g.*, Youngberg v. Romeo, 457 U.S. 307, 315 (1982).

430. *Turner*, 482 U.S. at 90.

4. Overlapping Constitutional Claims

The Court has been hesitant to expand the scope of Fourteenth Amendment substantive due process protections for fear of implying a general right to privacy in all aspects of life. That is, due process claims may not serve as a catch-all privacy right.[431] Specifically, if other substantive claims are more expressly applicable, the Court may determine that the Fourteenth Amendment claim is not available. Although persons in civil confinement, such as nursing home residents or mental hospital patients, may more readily assert a Fourteenth Amendment claim as they have less of a risk of an overlap: the Eighth Amendment relates to the criminal justice system, and the heightened security concerns of prisons would more likely create Fourth Amendment concerns.

Whether a liberty interest due process claim is foreclosed by other constitutional claims requires a somewhat nuanced interpretation.[432] If a more substantive, directly applicable claim is available, then the due process claim is purportedly not viable; but if the claims address different interests regarding the same act both may state a claim.[433]

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431. *See* Albright v. Oliver, 510 U.S. 266, 266 (1994) (plurality opinion) (following Graham v. Connor, 490 U.S. 386, 395 (1989)); Evans v. Chalmers, 703 F.3d 636, 646 n.2 (4th Cir. 2012) (asserting that a Fourth Amendment specific application forecloses a Fourteenth Amendment due process claim); Bratton-Bey v. Straughan, Civil Action No. DKC 13-1964, 2015 WL 434142, at *4 (D. Md. Feb. 2, 2015) (following *Evans*, 703 F.3d 636, for the proposition that the Substantive Due Process Clause is not a "catch-all" remedy for state harms); Norwood v. Thompson, No. 2:05-CV-0904, 2006 WL 840384, at *8 (S.D. Ohio Mar. 30, 2006) (following *Graham*, 490 U.S. 386, when stating, "the substantive due process clause is not a 'catch-all' clause under which constitutional claims of any nature can be asserted").

432. *Compare* County of Sacramento v. Lewis, 523 U.S. 833 (1998) (addressing a Fourteenth Amendment substantive due process claim, asserting that *Graham* does not *require* a Fourth or Eighth Amendment analysis, but if either clause is directly applicable then a Fourteenth Amendment claim is foreclosed), *with* Graham, 490 U.S. at 395 (1989) (holding that an "explicit textual source of constitutional protection" will foreclose a more generalized substantive due process claim), *and* Johnson v. Phelan, 69 F.3d 144, 146 (7th Cir. 1995) ("[S]ubstantive due process is not an appropriate substitute for analysis under provisions of the Constitution that address a subject directly, and in particular does not trump the fourth amendment.").

433. Smith v. County of Los Angeles, No. CV 11-10666, 2015 WL 12731913, at *4 (C.D. Cal. Jan. 16, 2015) ("Failure to institute procedural safeguards to prevent

Courts have not uniformly applied this limitation, as recent federal decisions have found viable substantive due process and Eighth Amendment claims for some privacy intrusions,[434] but not in cases of excessive force.[435] Judge Easterbrook posited for the majority in *Phelan v. Johnson* that:

> Any practice allowed under the due process analysis of Turner is acceptable under the eighth amendment too—not only because the objective component of cruel and unusual punishment is more tolerant toward wardens, but also because the eighth amendment has a demanding mental-state component. *Farmer v. Brennan,* 511 U.S. 825, 114 S.Ct. 1970, 128 L.Ed.2d 811 (1994), holds that the standard is criminal recklessness. The guard or warden must want to injure the prisoner or must know of and disregard a substantial risk that harm will befall the prisoner.[436]

However, the Third Circuit more recently compared the two balancing tests with regard to suicide in solitary confinement, asserting that there is little difference between the analyses:

> [W]hen a plaintiff seeks to hold a prison official liable for failing to prevent a detainee's suicide, a pre-trial detainee may bring a claim under the Due Process Clause of the Fourteenth Amendment that is essentially equivalent to the claim that a prisoner may bring under

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the deprivation of liberty can, itself, be a Fourteenth Amendment violation, separate from the Fourth Amendment particularity inquiry.").

434. *E.g.*, Millard v. Rankin, 265 F. Supp. 3d 1211 (D. Colo. 2017) (providing injunctive relief on the basis of both federal Eighth Amendment and substantive due process claims for punitive privacy violations relating to the sex offender registry in Colorado). *But see* Whitley v. Albers, 475 U.S. 312, 327 (1986) (asserting that Substantive Due Process is not a distinct, overlapping source of constitutional protection in excessive force cases in prison, where the clause provides no greater protection than the Eighth Amendment, but withholding interpretation of whether overlapping protections could be available to detainees or persons with "unrestricted liberty").

435. *See* Bieros v. Nicola, 860 F. Supp. 226, 230-32 (E.D. Pa. 1994) (asserting that the Fourth Amendment no longer applies in excessive force cases once a person is arrested and becomes a pre-trial detainee, nor does the Eighth Amendment apply until the person is convicted and sentenced, but that excessive force claims for pre-trial detainees would invoke the Fourteenth Amendment to provide substantive due process protections).

436. Johnson v. Phelan, 69 F.3d 144, 149 (7th Cir. 1995).

> the Eighth Amendment. Thus, whether a pre-trial detainee or a convicted prisoner, a plaintiff must show: (1) that the individual had a particular vulnerability to suicide, meaning that there was a "strong likelihood, rather than a mere possibility," that a suicide would be attempted; (2) that the prison official knew or should have known of the individual's particular vulnerability; and (3) that the official acted with reckless or deliberate indifference, meaning something beyond mere negligence, to the individual's particular vulnerability.[437]

More clarity from the courts regarding the relationship between the Fourteenth Amendment and other constitutional claims would be beneficial as liberty interests face new challenges to privacy with expansive surveillance technology, and existing balancing tests in institutional settings are often deferential to the state.

As Patrick Henry stated to the members of the congressional convention when arguing for a Bill of Rights to be added to the Constitution:

> If you will, like the Virginia government, give them knowledge of the extent of the rights retained by the people, and the powers of themselves, they will, if they be honest men, thank you for it. Will they not wish to go on sure grounds? But if you leave them otherwise, they will not know how to proceed; and, being in a state of uncertainty, they will assume rather than give up powers by implication.[438]

The tremendous power differential between those in power in state institutions and the most vulnerable persons they house calls for public knowledge of the extent of rights retained, as Henry warned, and a well informed understanding of why those rights are essential. Today, advances in scientific and medical research on the impact of technological surveillance on human well-being shed light on how best to balance the interests between the state and the individual rights to privacy, autonomy, and social contact.

437. Palakovic v. Wetzel, 854 F.3d 209, 223-24 (3d Cir. 2017).
438. Henry, *supra* note 2, at 448.

B. Incorporating Scientific and Medical Research When Evaluating the Impact of Technology on Human Well-Being in State Institutions

Modern research in psychology, sociology, and evolutionary biology provide greater support for what the Founders and the Court have intuitively understood to be true about the human species.[439] That is, invasions of privacy that infringe on autonomy rights negatively impact human well-being by reducing a sense of security and safety, confidence, trust, mutual respect, freedom, and enjoyment of life.

> That dual aspect of privacy means that the individual should have the freedom to select for himself the time and circumstances when he will share his secrets with others and decide the extent of that sharing. This is his prerogative not the States'. The Framers, who were as knowledgeable as we, knew what police surveillance meant and how the practice of rummaging through one's personal effects could destroy freedom.[440]

In a modern framework, invasions of privacy and ubiquitous surveillance tend to produce in humanity a sense of fear, paranoia, suspicion, distrust, isolation, insecurity, conformity, and depression.[441] As the Fifth Circuit stated in 1987, "indiscriminate video surveillance raises the specter of the Orwellian state."[442]

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439. *See, e.g.*, MICHAEL, *supra* note 88, at 3 (identifying common themes of a human need for privacy in (a) anthropological research, (b) developmental psychology which demonstrates that control over privacy facilitates self-identity in infants, and (c) evolutionary biology which establishes that "a balance between privacy and participation is one of the basic features of [higher forms of] animal life").

440. Warden v. Hayden, 387 U.S. 294, 323-24 (1967) (Douglas, J., dissenting).

441. *See, e.g.*, McCahill, *supra* note 69, at 60 (identifying the fear of crime and terrorism as a political incentive and justification for public CCTV systems in Britain, systems which then contribute to a "universally shared and overwhelming sensation of insecurity") (internal quotation marks and citation omitted); GANDY, JR., *supra* note 23, at 230 ("[G]rowing mistrust leads to expanded surveillance, and each cycle pushes us further from the democratic ideal[.]"); *see also* GLASSNER, *supra* note 31, at xvii (arguing that given the paucity of credible data of largescale abuses, 1990s electronic surveillance systems "were implemented to protect children from fiends who reside primarily in the imaginations of adults").

442. *See* United States v. Cuevas-Sanchez, 821 F.2d 248, 251 (5th Cir. 1987).

The public's paranoia and distrust is not always rational, which may be the point of commodifying fear. For example, incentivized by the insurance industry, consumers have reportedly purchased more home security systems in recent years, despite the fact that burglary rates have already fallen by more than 25% in the last decade.[443] Historical use of surveillance and segregation as a form of state police power in public health contexts have, at times, demonstrated existing societal prejudices and unlawful deprivations of liberty rights.[444] Thus, historical moments of heightened fear or crisis enable the government to override individual privacy interests more easily. Fortunately, the courts serve as a particularly useful check on this exercise of emergency power.

When defining the basic human needs of confined persons, the courts evince an increased willingness to consider advances in scientific and medical research in producing evolving standards of humane treatment. For example, in holding that social isolation in solitary confinement bears a terrible toll on the psychological well-being of prisoners, one district court found that "there is a large and growing body of literature—both academic and legal—discussing the potentially devastating effects of prolonged periods of isolation."[445] This expanded understanding is taking hold amongst policy makers outside of the judicial system as well. The National Commission on Correctional Health Care adopted new standards for solitary confinement in 2016, which include the principle that "[a]dults and juveniles in solitary confinement should have as much human

443. Ronda Kaysen, *Do Security Systems Make Your Home Safer?*, N.Y. TIMES: RIGHT AT HOME (Dec. 22, 2017), https://www.nytimes.com/2017/12/22/realestate/do-security-systems-make-your-home-safer.html.

444. *E.g.*, Jew Ho v. Williamson, 103 F. 10 (N.D. Ca. 1900) (finding a local health ordinance limiting mandatory quarantine against bubonic plague to a single district of over 15,000 Chinese American residents in San Francisco to be an exercise of authority with an "evil eye and unequal hand"); Brown v. Maryland, 25 U.S. 419, 443-44 (1827) (asserting that state police power provides the authority to address public health emergencies), *abrogation on other grounds recognized by* Oklahoma Tax Comm'n v. Jefferson Lines, Inc., 514 U.S. 175, 180 (1995).

445. Porter v. Clarke, 290 F. Supp. 3d 518, 532 (E.D. Va. 2018), *appeal filed*, Case No. 18-6257 (4th Cir. 2018). *See also* Palakovic v. Wetzel, 854 F.3d 209, 225 (3d Cir. 2017) ("[W]e first acknowledge the robust body of legal and scientific authority recognizing the devastating mental health consequences caused by long-term isolation in solitary confinement[.]").

contact as possible with people from outside the facility and with custodial, educational, religious and medical staff."[446]

Perhaps the most basic question is why do humans as a species care about being watched? Psychologists and cognitive researchers suggest an evolutionary benefit when a species is capable of knowing it is being watched, as it permits communication and an identification of threats.[447] Biologists, in turn, suggest that human eyes, like many predatory species, have larger, whiter sclera that "vastly improved our ability to communicate with others – the same reason our complex language capacities evolved."[448] Neurologists have identified the brain's amygdala as a center that manages facial recognition, as well as a sense of fear and the need for fight or flight. [449] This function is found in humans as young as four months old, subconsciously detecting the visual cue of being watched by even an averted side gaze.[450]

Observing others and being observed is also important developmentally in forming social relationships. There is comfort in being watched, in vulnerable or intimate moments, but a reticence and wariness in being watched by strangers, particularly when it is one-sided.[451] Developmental psychologists note the importance of learning when to trust human interactions, in order to learn "what is good and safe, and what to fear and avoid by 'emotional referencing'."[452] It follows that some of the highest needs for privacy and autonomy are

446. Nat'l Comm'n on Corr. Health Care, *Solitary Confinement (Isolation)* (2016), https://www.ncchc.org/solitary-confinement (Principle 15).

447. *See* Susie Nielson, *The Psychological Explanation for When You Feel Like You're Being Watched*, N.Y. MAG.: THECUT (July 18, 2017), https://www.thecut.com /article/the-psychology-of-feeling-like-youre-being-watched.htm.

448. Ilan Shrira, *How You Know Eyes are Watching You*, PSYCHOL. TODAY: THE NARCISSUS IN ALL OF US (Feb. 16, 2011), https://www.psychologytoday .com/us/blog/the-narcissus-in-all-us/201102/how-you-know-eyes-are-watching-you.

449. David Nield, *Ever Feel Like You're Being Watched? It's Not Just You*, SCIENCE ALERT (May 19, 2017), https://www.sciencealert.com/the-science-behind-why-you-think-you-re-being-watched.

450. *Id.*

451. *See* Colwyn Trevarthen & Vasudevi Reddy, *Consciousness in Infants* , *in* THE BLACKWELL COMPANION TO CONSCIOUSNESS 42, 49-50 (Max Velmans & Susan Schneider eds., 2007) (discussing the development of human consciousness in infants and the importance of human social relationships to learn "what is good and safe, and what to fear and avoid by 'emotional referencing'").

452. *Id.*

found among persons in confinement – those most likely to be constantly surveilled at all times by strangers who have the power to determine whether to assist the person or whether to impose disciplinary measures or additional restraints.

Research on the need for human socialization spans the breadth of developmental and behavioral psychology, which the courts regularly draw on in determining the best interests of the child in abuse and dependency cases.[453] Furthermore, the fact that courts are willing to consider the basic need for socialization in other animals, based on a growing body of research, suggests that humans in confinement deserve even better. For example, in addressing allegations of violations of the federal Animal Welfare Act against a zoo in Maryland, the court highlighted some of the same psychologically stressful conditions other courts have considered with respect to prison inmates: "Lions are highly social, live in prides, and require enriching environments . . . . The lion at the Tri-State Zoo is confined to a barren enclosure in social isolation with no visual privacy from the public."[454]

One psychologist who studies the impact of solitary confinement on humans in prison noted that:

> Over a long period of time, solitary confinement undermines one's sense of self. It undermines your ability to register and regulate emotion. The appropriateness of what you're thinking and feeling is difficult to index, because we're so dependent on contact with others for that feedback. And for some people, it becomes a struggle to maintain sanity.[455]

Of course, the impact of conditions of confinement may vary and some suggest that restrictive measures should be tailored to certain categories

453. *See, e.g.*, Nat'l Child Traumatic Stress Network, *Fact Sheet, Children with Traumatic Separation: Information for Professionals*, NCTSN.ORG (2016), *available at* https://www.nctsn.org/sites/default/files/resources//children_with_traumatic_separation_professionals.pdf (addressing the occurrence of posttraumatic stress among children who are separated from caregivers or isolated from other social contact, including, for example, removal from the home by child protective services).

454. People for the Ethical Treatment of Animals, Inc. v. Tri-State Zoological Park of W. Md., Inc., No. MJG-17-2148, 2018 WL 434229, at *1 (D. Md. Jan. 16, 2018) (denying a motion to dismiss a claim based on the federal Animal Welfare Act under 50 C.F.R. § 17.3).

455. Keim, *supra* note 246.

of persons, such as those with particular illnesses,[456] or of a certain gender[457] or age.[458] In finding a violation of the privacy rights of a female inmate who was forcibly made naked by a nurse in front of male guards, the Fourth Circuit Court of Appeals explained:

> Persons in prison must surrender many rights of privacy which most people may claim in their private homes. Much of the life in prison is communal, and many prisoners must be housed in cells with openings through which they may be seen by guards. Most people, however, have a special sense of privacy in their genitals, and involuntary exposure of them in the presence of people of the other sex may be especially demeaning and humiliating. *When not reasonably necessary*, that sort of degradation is not to be visited upon those confined in our prisons.[459]

Medical and mental health research may help the courts determine, in a reasonableness analysis, whether differential impacts are based on significant biological or cultural differences. Juvenile brain research, for example, has been particularly influential in judicial opinions related to restrictive measures in sentencing youth in confinement.[460]

One area where mental health or sociological research could be beneficial is in determining whether hidden or open surveillance produces a greater risk of infringement on autonomy rights. As discussed previously, prison officials have expressed a preference for

456. *E.g.*, Moore v. Mabus, 976 F.3d 268 (5th Cir. 1992), *reh'g denied*, 253 F.3d 707 (finding no equal protection or due process violation for segregating prisoners who had tested positive for the Human Immunodeficiency Virus).

457. *See* Murphy, *supra* note 249 (recommending gender-specific regulations for restricting solitary confinement of juvenile girls). *But see* Riddick v. Sutton, 794 F. Supp. 169 (E.D. N.C. 1992) (female guards viewing male inmates using toilet and shower only a *de minimus* infringement on a constitutional right to privacy).

458. Tatum v. Arizona, 137 S. Ct. 11, 11-13 (2016) (Sotomayor, J., concurring in the decisions to grant certiorari, vacate, and remand) (summarizing the recent Supreme Court decisions which hold that children are "constitutionally different" from adults for the purpose of proportionate sentencing and punishment, based in part on advances in juvenile brain science research).

459. Lee v. Downs, 641 F.2d 1117, 1119 (4th Cir. 1981) (emphasis added).

460. *See, e.g.*, Montgomery v. Louisiana, 136 S. Ct. 718, 732-33 (2016) (following recent Supreme Court precedent identifying juveniles as generally less culpable and more likely to be rehabilitated due to their greater "immaturity, recklessness, and impetuosity[,]" which usually lessens with age and development).

hidden surveillance,[461] while civil institutions have opted for consent and transparency where possible.[462] If a diner sees a surveillance camera in every corner of a restaurant, would the diner be disturbed to know that the restaurant owner is actually watching the diner remotely in real time or would the diner prefer not to know?

There are many reasons why hidden surveillance could betray trust more than open surveillance. Surreptitious surveillance increases the vulnerability of persons who do not have the information, and therefore the choice, to respond accordingly to protect their privacy.[463] If the surveillance camera is hidden in the restaurant, then the diner has no autonomy to choose whether to exercise his or her privacy rights and eat somewhere else in peace. As the Texas attorney and rancher stated in his claim regarding unlawful government surveillance cameras placed on private property:

> The prevalence of inexpensive technology increasingly eliminates the distinction between what private citizens keep private and what they display in public. All the government needs to do, as it did in the present case, is sneak a camera in some place where nobody knows. Thus, the decreasing cost of technology leaves us all vulnerable to government spying.[464]

Therefore, on a larger scale, the act of secrecy may be one of tyranny. Marxist philosopher Ernst Bloch argued: "Visible powers are feared less than invisible ones . . . . It shows itself in supreme clarity in police, prisons, and soldiers . . . ."[465]

While this suggests that hidden state surveillance should be more heavily scrutinized than open surveillance, the question is more

461. *Florer*, *supra* note 337 and accompanying text.

462. *See supra* note 21 and accompanying text.

463. *See* LINOWES, *supra* note 3, at 172 (arguing that the unobtrusive nature of surveillance makes it difficult to detect when one's rights are violated); REGAN, *supra* note 3, at 29 (explaining theorist Charles Fried's view that privacy is integral to healthy social relationships "which we would hardly be human if we had to do without – the relationships of love, friendship, and trust").

464. Sidney Fussell, *Man Sues Feds After Finding Spy Camera on His Property and Refusing to Give It Back*, GIZMODO (Feb. 22, 2018, 12:05 PM), https://gizmodo.com/man-sues-feds-after-finding-spy-camera-on-his-property-1823229134. *See supra* note 60 and accompanying text.

465. BLOCH, *supra* note 3, at 267.

complicated with respect to incompetent persons with particularly challenging needs. For example, some current AI technology merely provides an enhanced form of existing technology, such as a companion pet that reminds a person to take medication,[466] medical delivery systems,[467] or autonomous swarms of bionic insects for commercial use in manufacturing.[468] Other forms increasingly provide sophisticated applications, such as medical diagnostic assessments with massively complex data sets.[469] If these technologies were used knowingly in the context of informed consent to achieve a beneficial purpose, many would be grateful for the advantages.

However, when these artificial tools enter the arena of social engagement or observation, they are not presumptively beneficial. More medical and mental health research is needed to determine whether attempts at AI social innovation ultimately serve to disturb or demean the vulnerable humans they are meant to help. For example, one humorist noted that she purchased a robo-cat for her 90 year-old mother who has dementia and lives in a nursing home that does not

466. *See* Talty, *supra* note 282 (discussing the Hasbro companion pet).

467. Rachel Becker, *I Launched a Blood-Delivery Drone*, VERGE (Apr. 13, 2018, 4:38 PM), https://www.theverge.com/2018/4/13/17206398/zipline-drones-delivery-blood-emergency-medical-supplies-startup-rwanda-tanzania.

468. *See*, *e.g.*, *BionicANTS*, FESTO, https://www.festo.com/group/en/cms/10157.htm (last visited Dec. 3, 2018) (selling ANT (autonomous networking technologies) with intelligent cooperative behavior with physical designs inspired by nature, such insect legs and octopus tentacles, for commercial use); REPORT FOR THE DIRECTOR, NET ASSESSMENT, U.S. OFFICE OF THE SEC. OF DEFENSE, VISION OF FUTURE WARFARE: PREPARING FOR A RENAISSANCE IN STRATEGIC WARFARE 30 (July 2012 revised), *available at* http://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/Other/Litigation%20Release%20-%20Vision%20of%20Future%20Warfare%20201207.pdf (describing military research into the use of robotic fire ants "with the battlefield dominated by large numbers of small semi-autonomous machines, networked together and capable of rendering an area impassable to troops"). *But see* Alexis C. Madrigal, *Drone Swarms are going to be Terrifying and Hard to Stop*, ATLANTIC (Mar. 7, 2018), https://www.theatlantic.com/technology/archive/2018/03/drone-swarms-are-going-to-be-terrifying/555005/.

469. *See*, *e.g.*, Clayton R. Pereira et al., *Handwritten Dynamics Assessment through Convolutional Neural Networks: An Application to Parkinson's Disease Identification*, 87 ARTIFICIAL INTELLIGENCE IN MED. 67 (May 2018) (improving early stage detection of Parkinson's disease with computer-aided diagnosis that assesses handwriting features of patients through machine-based convolutional neural networks that use deep learning to examine visual imagery).

permit real cats as pets.[470] Her mother's initial reaction was terse and disturbed, saying, "What the hell is that?" followed by "I think it's stupid," and "It's not a real cat," while glaring at the cat and refusing to touch it.[471] A social worker at the nursing home later informed the daughter, "[the residents] really have to be pretty far gone for those to work."[472]

Similarly, a veteran's hospital in California employed the use of Paro baby seal companion bots in hopes of comforting residents and reducing the need for anti-anxiety medication.[473] One of the hospital's therapists disclosed that the residents "[will] bark at it, they'll pet it, they'll sing to it. We find it works better with people with dementia because if the residents are aware that it's not real, we find that sometimes they don't engage with it as much."[474]

Whether deceptive technology is justified at a certain point, providing comfort when no reasonable alternatives are available, is a fair question.[475] But for those with the cognitive ability to live based in reality, replacing human contact with an artificial substitute without consent is a betrayal of trust in the social compact and a deficient approach to care akin to gaslighting.[476] Moreover, residents of state institutions may be especially vulnerable to being used as test subjects

470. Joyce Wadler, *Loving Robo Cat Needs Home*, N.Y. TIMES: I WAS MISINFORMED (Mar. 30, 2017), https://www.nytimes.com/2017/03/30/nyregion/loving-robo-cat-needs-home.html.

471. *Id*.

472. *Id.*

473. Angela Johnston, *Robotic Seals Comfort Dementia Patients but Raise Ethical Concerns*, KALW LOC. PUBL. RADIO (Aug. 17, 2015), http://kalw.org/post/robotic-seals-comfort-dementia-patients-raise-ethical-concerns#stream/0.

474. *Id.*

475. Robin Hattersley, *Preparing for the Silver Tsunami Part 1: Preventing Elderly Patient Wandering and Elopement*, CAMPUS SAFETY MAG. 16, 19 (Mar. 2018) (reporting memory care centers that paint the bedroom doors of facilities to look like there is no door in order to prevent elopement), https://www.campussafetymagazine.com/hospital/elderly-patient-wandering-elopement.

476. The classic film *Gaslight* (1944) is based on the 1938 play by Patrick Hamilton, set in the 1870s, a time when new technologies brought about newfound suspicions. *See generally* Alissa Wilkinson, *What is Gaslighting? The 1944 Film Gaslight is the Best Explainer*, VOX (Jan. 21, 2017, 10:00 AM), https://www.vox.com/culture/2017/1/21/14315372/what-is-gaslighting-gaslight-movie-ingrid-bergman.

for new AI applications in caregiving, particularly if such technology reduces costs. For example, companion bots, mental health assessment kiosks, and robot guards could all provide surveillance capabilities and methods of control for state agents.

Waxing fantastic, these governmental efforts to use technology to create a more controlled environment for confined persons could create virtual utopia for prisoners and patients, or dystopian Rooms 101.[477] Without an opportunity to be useful, to learn by error, and mediate the vagaries of real life, endeavors key to Bentham's utilitarian panopticon,[478] the world appears a dismal place. In 1899, Oliver Wendell Holmes wrote in *Law and Science and Science in Law*, that the unattainability of an ideal "so keeps forever before us something more to be done, and saves us from the ennui of a monotonous perfection."[479] In short, the serendipitous nature of human life, including opportunities for social interaction and moments of privacy and introspection, make life worth living.

And yet, most adults have the autonomy to choose whether or not to engage with such technology. Their reasons for doing so are not always sanguine. For example, in Japan, thousands of humanoid companion robots fill the need for sex, conversation, and company in a nation suffering from a concerning population decline.[480] One

477. In his 1949 novel *1984*, George Orwell crafted Room 101 as a punitive horror chamber tailored to the fears of specific prisoners. In the television series *Altered Carbon* (Netflix 2018) (Season 1 episode "Force of Evil"), a similar penological approach is used with recursive virtual reality.

478. *See* FOUCAULT, *supra* note 70, at 122.

479. Holmes, *Law in Science*, *supra* note 99, at 463.

480. *See Births Sink to Record Low of 946,060 as Deaths Surge and Marriage Dims*, THE JAPAN TIMES (June 1, 2018), https://www.japantimes.co.jp/news/2018/06/01/national/births-sank-record-low-946060-2017-deaths-surged-marriage-dimmed/#.WxFgY-4vzIU (finding from 2017 data that Japanese women will bear an average of 1.43 children, lower than the 2.1 children needed to sustain and grow a population); *Japan's Population Shrinks for Seventh Consecutive Year as it Falls to 126.70 Million*, THE JAPAN TIMES (Apr. 13, 2018), https://www.japantimes.co.jp/news/2018/04/13/national/japans-population-shrinks-seventh-consecutive-year-falls-126-70-million/#.WxFepu4vzIU (reporting that the World Health Organization defines an aging society as one with an older than 65 population exceeding 7%, and Japan's older than 65 population exceeded 27.7% in 2017, defined not only as a super-aged society but the world's most-aged society).

commentator suggested that "[f]or a population that is literally dying out, a little company – even if it is artificial – is better than none."[481]

On a less extreme level, domestic chatbots in the U.S. attempt to insert a facsimile of emotional chatter into conversation beyond mere informational assistance.[482] Woebot, designed to provide constantly available personal emotional support for therapeutic mental health purposes, was designed with the belief that competent "humans open up more when they *know they're talking to a bot*," because human-to-human conversation is fraught with the risk of stigma and discomfort.[483] Indeed, some evidence indicates that veterans with posttraumatic stress disorder have found speaking to a robotic console that reads and responds to facial and verbal cues helpful and comforting.[484] The model is likened to writing in a journal or speaking to a religious confessional, providing a degree of anonymity helpful for disclosure of painful information.[485] However, psychologists make clear that AI-based mental health assessments are not a replacement for treatment or learning how to cope with the greater challenges of real human social interaction.[486]

For example, while an AI caregiver or mental health kiosk could recognize human emotion from physiological cues such as breathing,

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481. Dean Cornish, *Love, Intimacy, and Companionship: A Tale of Robots in Japan*, SBS: DATELINE (June 21, 2017, 5:21 PM), https://www.sbs.com.au/news/dateline/article/2017/04/11/love-intimacy-and-companionship-tale-robots-japan. *See* Alison Nastasi, *Quiet Photos That Capture Japan's Loneliness Epidemic*, FLAVORWIRE (Aug. 16, 2017), http://flavorwire.com/609219/quiet-photos-that-capture-japans-loneliness-epidemic (describing an aging population and a "celibacy syndrome" that presents a "looming national catastrophe).

482. *See* Arielle Pardes, *The Emotional Chatbots are Here to Probe Our Feelings*, WIRED (Jan. 31, 2018, 7:00 AM), https://www.wired.com/story/replika-open-source/?mbid=social_fb (applying a sequence-to-sequence deep learning model to mimic and replicate the tones and modulation of human speech and the appearance of talking about feelings).

483. *See id.* (emphasis added).

484. *See* Gale M. Lucas et al., *Reporting Mental Health Symptoms: Breaking Down Barriers to Care with Virtual Human Interviewers*, FRONTIERS IN ROBOTICS AND AI (Oct. 12, 2017), https://www.frontiersin.org/articles/10.3389/frobt.2017.00051/full.

485. Robbie Gonzalez, *Virtual Therapists Help Veterans Open Up About PTSD*, WIRED (Oct. 17, 2017, 10:00 AM), https://www.wired.com/story/virtual-therapists-help-veterans-open-up-about-ptsd/.

486. *Id.*

verbal cues such as speed and intonation, and visual cues such as facial expressions,[487] the technology would never be able to use the empathy and familiarity with the human experience that a human being would.[488] That is, AI which learns to become sentient will never become empathetic with humans if humans have nothing to offer AI.[489] Also, the reported inherent personal biases in AI programming that favor their designers' demographics would likely ultimately favor AI over humanity: "Technologies are as much products of the context in which they are created as they are potential agents of change."[490] In

487. BODEN, *supra* note 9, at 73 (discussing the methods of AI interpretation of human emotion as "relatively crude"). "There's no attempt to make [AI companions] use emotions in solving their own problems, nor to illuminate the role that emotions play in the functioning of the mind as a whole. It's as though emotions are seen by these AI researchers as optional extras: to be disregarded unless, in some messily human context, they're unavoidable." *Id.* at 75.

488. The human capacity to interpret the needs and feelings of others is also subject to inherent limitations, shown by our continued implicit biases and prejudices. *See generally* Michael Selmi, *The Paradox of Implicit Bias and a Plea for a New Narrative*, 50 ARIZ. ST. L.J. 193 (2018) (addressing the legal difficulty in applying and defining unconscious implicit bias in discrimination litigation); *see also* ALEX CAMPOLO ET AL., AI NOW 2017 ANNUAL REPORT 4 (2017) ("training data, algorithms, and other design choices that shape AI systems may reflect and amplify existing cultural assumptions and inequalities").

489. The film *Ex Machina* (A24 Films 2015) reflects this concern through the AI humanoid Ava, who asks her human creator the following rhetorical question: "Isn't it strange to create something that hates you?" However, in the film *A.I. Artificial Intelligence* (Warner Bros./Dreamworks Pictures 2001), adult actor Jude Law, an AI humanoid, tells the AI child, "They hate us, you know, the humans." The child protests and insists his human mother loves him, but Law responds, "She loves what you do for her, as my customers love what it is I do for them." *Cf.* Steven Goldberg, *The Changing Face of Death: Computers, Consciousness, and Nancy Cruzan*, 43 STAN. L. REV. 659 (1991) (discussing the growing legal and research focus on human self-awareness, as shown in the evolving definition of brain death, a movement which purportedly attempts to distinguish humanity from other animals and from AI).

490. CAMPOLO ET AL., *supra* note 488, at 4, 18 ("AI is not impartial or neutral."). *See also* Jason P. Nance, *Student Surveillance, Racial Inequalities, and Implicit Racial Bias*, 66 EMORY L.J. 765 (2017) (addressing the uneven racialized application of public school video surveillance to combat school violence and maintain order and control); Piccone, *supra* note 14 (discussing the difficulty of constraining inherent biases in military applications of AI due to "inherent biases in how visual and audio recognition features operate in real time"); *How We are Not Like Robots After All*, SPIRITUALITY & HEALTH 32 (Jan./Feb. 2012) (addressing the

discussions identifying the lack of diversity among technology leaders, some have argued that autonomous programming bias inherently emerges due to the programmer's own isolated view of the world, which has a tendency to create modern surveillance that is decidedly privileged in its luxury to focus on the other, never on itself.[491]

In the 1990s, as judicial and legislative attention to technology's impact on personal privacy began to gain traction, Priscilla Regan warned of the commodification of privacy protections, where relegating human control of personal privacy through the private sector would result in the "privacy haves" and the "privacy have-nots" based largely on wealth.[492] In her vision, the poor and the marginalized would be more likely to be subject to state surveillance.[493] The wealthy, by contrast, would likely live relatively peaceful, private lives, able to afford the security technology necessary to keep clear of the masses and mass surveillance.

With historically disproportionate numbers of racial minorities in prison,[494] and low-income families whose only option is a state-funded

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human emotions research of psychologist Lisa Feldman Barrett of Northeastern University, Massachusetts General Hospital, and Harvard School of Medicine, which finds that recognizing human emotions requires context, memory, and the ability to anticipate unexpressed emotions, much more than facial recognition or physiological indicators).

491. *See* CAMPOLO ET AL., *supra* note 488, at 4; LEWIS, *supra* note 87, at 25. Lewis, a professor of American Studies, remarked that "middle-class white men are finally getting a taste of what women, poor people, and racial and sexual minorities have long known about the burden of living under supervision." LEWIS, *supra* note 87, at 51.

492. REGAN, *supra* note 3, at 237.

493. *See* Jeffrey Gilleran, *Why Should We Trust Baltimore Police with Aerial Surveillance Technology?*, THE BALT. SUN (Feb. 26, 2018, 10:30 AM), http://www.baltimoresun.com/news/opinion/oped/bs-ed-op-0227-aerial-surveillance-20180226-story.html ("New surveillance capabilities raise concerns about how powerful investigatory tools typically reserved for military purposes may now be turned against certain communities.").

494. *See* John Gramlich, *The Gap Between the Numbers of Blacks and Whites in Prison is Shrinking*, PEW RES. CTR. (Jan. 12, 2018), http://www.pewresearch.org/fact-tank/2018/01/12/shrinking-gap-between-number-of-blacks-and-whites-in-prison/ (noting a narrowing of the gap between incarcerated African-Americans as compared to white or Hispanic Americans, but explaining that there are still more African-Americans imprisoned in state and federal prison in the U.S. than any other racial group).

facility for medical and mental health care,[495] clearly some members of society would be more at risk of infringements on autonomy through surveillance technology. The Equal Protection Clause of the Fourteenth Amendment provides some protection against biased applications of surveillance and isolation measures, but the applied uniformity of institutional settings and structures does not raise these issues frequently.[496]

Scientific and medical research have much to offer the courts in realigning the balance of interests regarding restrictive measures imposed on persons in state confinement. In an age of innovation in surveillance and AI technologies, courts will need to express clear principles and draw on improved understandings of the psychological impact of such innovation. Specifically, the courts should address the fact that these methods of constant surveillance could facilitate safer and more rehabilitative confinement, but they could also represent a failure to develop more humane approaches respecting the basic human need for autonomy in navigating both privacy and social contact. Ultimately, the court must consider what is reasonable when examining restrictive measures, but not by the standards of a pre-digital age and not willfully blind to advances in psychological research.

C. Key Factors to Determine the Reasonableness of Restrictive Measures

As previously discussed, in constitutional claims the use of restrictive measures to surveil persons in confinement generally requires a showing of necessity and a measure of the impact on

495. From 1990-2017, enrollment nearly doubled in the Medicaid, a state and federal program providing assistance to low-income families to receive medical and long-term care. *Total Medicaid Enrollment from 1966-2017 (in millions)*, STATISTA, https://www.statista.com/statistics/245347/total-medicaid-enrollment-since-1966/ (last visited Dec. 3, 2018).

496. *Cf.* Bullock v. Sheahan, 568 F. Supp. 2d 965, 973-74 (N.D. Ill. 2008) (holding that a blanket strip search policy for discharged male prisoners, but not female prisoners, was a violation of the Equal Protection Clause), *with* Timm v. Gunter, 917 F.2d 1093 (8th Cir. 1990), *cert. denied*, 501 U.S. 1209 (1991) (identifying differences in male and female prison institutions including number and age of prisoners, types of crimes committed, length of sentence, and frequency of incidents involving violence, escapes, or contraband, when holding that differential gender practices in strip searches did not violate equal protection).

individual autonomy. Also, courts should consider that any state surveillance, particularly of persons who are confined without consent, has a potential detrimental social and psychological impact. To better outline which *additional* balancing test factors may be relevant when addressing surveillance technology as a restrictive measure, identifying trends in case law is critical, particularly in the absence of statutory protections.

Certain factors are generally recognized. If there is an opportunity for individual consent to surveillance, as shown in contractual agreements for cameras in nursing home bedrooms, then due consideration must be given to the resident's contractual right.[497] This comports with the primacy of individual autonomy rights regarding privacy. If there is statutory authorization for consent,[498] regulatory restriction on surveillance,[499] or mandates for restrictive measures,[500] the courts will show deference to the other branches of government, subject to a judicial check enforcing common law doctrines and constitutional provisions to ensure the protection of individual autonomy rights. Finally, with respect to state institutions, courts will give some deference to state administrators to ensure adequate security measures because of the complex nature of maintaining control and safety for large and potentially dangerous populations, and for those with serious medical or mental health needs.[501]

497. *See supra* note 21.

498. *E.g.*, Law Enforcement Officer-Worn Body Camera Act of 2016, 50 ILL. COMP. STAT. § 706/10-20(a)(4)(A) ("Cameras must be turned off when . . . the victim of a crime requests that the camera be turned off, and unless impractical or impossible, that request is made on the recording[.]").

499. *E.g.*, Lopez v. Youngblood, 609 F. Supp. 2d 1125 (E.D. Cal. 2009) (upholding the law enforcement practice of giving pre-arraignment arrestees greater privacy for body-cavity searches than post-arraignment detainees, notwithstanding the equal protection argument that the individual's privacy interest is the same in both cases).

500. *E.g.*, 28 C.F.R. § 550.10 (2017) (authorizing disciplinary measures against inmates who refuse to comply with inspections and testing for the use of alcohol).

501. *See, e.g.*, Timm v. Gunter, 917 F.2d 1093, 1099 (8th Cir. 1990), *cert. denied*, 501 U.S. 1209 (1991) (asserting that prison officials are owed deference in choice of restrictive measures due to their "exceedingly complex task" of safeguarding institutional security); Michenfelder v. Sumner, 860 F.2d 328, 332-33 (9th Cir. 1988) (finding justification for elevated security for maximum security prisons under a Fourth Amendment analysis).

Statutory protections may significantly favor state actors. For example, under the Prison Litigation Reform Act ("PLRA"), "[p]rospective relief in any civil action with respect to prison conditions shall extend no further than necessary to correct the violation of the Federal right of a particular plaintiff or plaintiffs"; and a court may not grant or approve any prospective relief unless it "finds that such relief is narrowly drawn, extends no further than necessary to correct the violation of the Federal right, and is the *least intrusive means necessary* to correct the violation of the Federal right."[502] Section 1983 civil rights actions are not available for negligence claims, and deliberate indifference in state institutions must meet the high standard of "shocking the conscience."[503]

Statutory and regulatory measures may also apply an internal balancing test analysis, similar to a due process liberty interest analysis, with less deference to the state. For example, regulation of the federally administered PACE outpatient program for elder care permits physical and chemical restraints, but "only when other less restrictive measures have been found to be ineffective to protect the participant or others from harm."[504]

Below are more specific factors that the courts have and should consider when addressing constitutional claims regarding the use of technology as a restrictive measure to observe humans in state confinement without their consent. As will be shown, while an egregious violation involving one factor may sufficiently support a

502. 18 U.S.C. § 3626(a)(1)(A) (2012) (emphasis added). *See, e.g.*, Porter v. Clarke, 290 F. Supp. 3d 518 (E.D. Va. 2018), *appeal filed*, Case No. 18-6257 (4th Cir. 2018) (granting a motion for injunctive relief against solitary confinement under the PLRA).

503. *See, e.g.*, Smith v. District of Columbia, 306 F. Supp. 3d 223, 242-46 (D.D.C. 2018) (suggesting that requisite split-second decisions by state actors that cause harm do not shock the conscience, relying on County of Sacramento v. Lewis, 532 U.S. 833 (1998), where the U.S. Supreme Court followed the same rationale regarding the disciplinary actions of prison guards).

504. 42 C.F.R. § 460.114 (2017). Note that regulations for this program (Program for All-Inclusive Care for the Elderly (PACE)) also grant patients the right "[t]o be treated with dignity and respect, be afforded privacy and confidentiality in all aspects of care, and be provided humane care." *Id.* § 460.112(a)(2).

claim, a combination of restrictive measures may also create a more severe impact on the individual.[505]

1. Intensity of Restrictive Measures

The reasonableness of observational restrictive measures considers the intensity of the impact, such as the length of time imposed and whether the measures are based on visual or auditory surveillance or tactile contact.

Constant surveillance is more invasive and therefore more heavily scrutinized. For example, placing a violent male prisoner in a paper gown for security measures, who is seen only occasionally by female guards, "does not rise to the level of constant surveillance, as might occur had a camera been installed in the cell or if the door were barred and not solid (thus affording a constant visual from the hall)."[506] In contrast, regular and close observation of toilet functions of male inmates by female guards is distinguishable and warrants a Fourth Amendment claim.[507] Global positioning system ("GPS") ankle bracelets are lawful tools in home detention, viewed by some as less invasive than prison confinement despite their use of constant geolocation tracking.[508] Recent military research by the U.S. Defense Advanced Research Projects Agency ("DARPA") is designing clothing fabrics that can monitor heart and breathing rates, which could also serve as a useful form of remotely monitoring the health of persons in confinement, particularly those with serious medical needs.[509]

505. *See* Madrid v. Gomez, 889 F. Supp. 1146, 1246 (N.D. Cal. 1995) (citing Wilson v. Seiter, 501 U.S. 294, 304-05 (1991), when addressing factors in a cruel and unusual punishment claim, and noting that "courts may consider conditions in combination 'when they have a mutually enforcing effect that produces the deprivation of a single, identifiable human need'").

506. Hickman v. Jackson, No. 2:03CV363, 2005 WL 1862425, at *10 (E.D. Va. Aug. 3, 2005).

507. Byrd v. Maricopa Cty. Bd. of Supervisors, 845 F.3d 919, 922 (9th Cir. 2017).

508. *E.g.*, Gonzalez Fuentes v. E.L.A., 167 D.P.R. 400, 2006 WL 6110919 (P.R. 2006) (denying prisoners convicted of murder the privilege of release under electronic surveillance, which they asserted was an acquired right under the Constitution of Puerto Rico to continued liberty under electronic surveillance).

509. NET ASSESSMENT, *supra* note 468, at 36.

Litigation has not addressed GPS ankle bracelets that visually record images, but some engage in auditory surveillance, which could violate attorney-client privilege when defendants meet with their defense attorneys.[510] Auditory surveillance also arguably constitutes a more invasive form of constant surveillance than geolocation. Others have the capability of continuous alcohol intake monitoring, where spikes in remotely monitored data from sweat analysis serve as a grounds to revoke probation.[511] Moreover, in *Carpenter v. United States*, in the context of Fourth Amendment protections against police access to geolocation information on cell phones, the Supreme Court has recently held that the third-party doctrine does not apply.[512] That is, disclosure to third party wireless service providers of constant physical location information does not diminish the individual's expectation of privacy in the same information with respect to others, including the state. Finally, constant surveillance of confined persons need not be merely a silent metal eye in a post-modern panopticon, but could instead be an autonomous machine with a constant, persuasive, elusive voice reminiscent of historic concerns with subliminal messaging in technology.[513]

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510. *See* Waldo Covas Quevedo, *Caution: Your GPS Ankle Bracelet is Listening*, THE CRIME REPORT (Oct. 25, 2013), https://thecrimereport.org/2013/10/25/2013-10-caution-your-gps-ankle-bracelet-is-listening/.

511. *See* People v. Buell, 16 Cal. App. 5th 682, 690-91 (2017) (addressing the reliability of continuous remote alcohol intake monitoring by a third party company contracted by the county probation office); *see, e.g.*, Alcohol Monitoring SCRAM Cam®, SCRAM SYSTEMS, https://www.scramsystems.com/products/scram-continuous-alcohol-monitoring/ (last visited Dec. 3, 2018) ("Standalone alcohol monitoring or CAM with home curfew monitoring at the flip of a switch[.]").

512. Carpenter v. United States, 138 S. Ct. 2206, 2218 (2018).

513. *See* Waller v. Osbourne, 763 F. Supp. 1144, 1149 (M.D. Ga. 1991), *aff'd*, 958 F.2d 1084 (11th Cir. 1992), *reh'g denied*, 964 F.2d 1148, 1149 (11th Cir. 1992), *cert. denied*, 506 U.S. 916 (1992) (noting, in addressing a claim against musician Ozzy Osbourne for wrongful death due to subliminal suicidal messages, that "[t]he most important character of a subliminal message is that it sneaks into the brain while the listener is completely unaware that he has heard anything at all"). *See generally* Victoria Stern, *A Short History of the Rise, Fall, and Rise of Subliminal Messaging*, SCI. AM. (Sept. 1, 2015), https://www.scientificamerican.com/article/a-short-history-of-the-rise-fall-and-rise-of-subliminal-messaging/ (noting continued research demonstrating a subtle response from subliminal messaging, including an influence on emotions); Richard Gafford, *The Operational Potential of Subliminal Perception*,

Visual observation has been heavily scrutinized, particularly when it is indiscriminate and ubiquitous. The detailed information obtained by visual images is far more invasive than auditory observation such as eavesdropping.[514] In both, however, the intrusion is exacerbated when the activity is recorded. The Tenth Circuit explained:

> The showing of necessity needed to justify the use of video surveillance is higher than the showing needed to justify other search and seizure methods, including bugging. The use of a video camera is an extraordinarily intrusive method of searching. Here, the incident in which an unidentified individual was observed masturbating provides an excellent example of this intrusiveness. No other technique would have recorded - at least in graphic visual detail - an apparently innocent individual engaging in this very personal and private behavior.[515]

Also, visual observation is legitimately more intrusive for certain individuals. For example, even if all inmates are equally subject to cells with open bars or showers without curtains, the courts have found constitutional privacy violations for inmates in settings that involve cross-gender observation of nudity, or when they are accompanied by religious objections.[516] Observation of the difficulties of a person with

U.S. CIA, (Sept. 18, 1995), https://www.cia.gov/library/center-for-the-study-of-intelligence/kent-csi/vol2no2/html/v02i2a07p_0001.htm (describing suggestive techniques by operatives to influence behavior, but not including subliminal messaging, and concluding "that there are so many elusive variables and so many sources of irregularity in the device of directing subliminal messages to a target individual that its operational feasibility is exceedingly limited"); LINOWES, *supra* note 3, at 7 (discussing early efforts to impart audio subliminal messaging in advertising and public malls).

514. *See* United States v. Mesa-Rincon, 911 F.2d 1433, 1442-43 (10th Cir. 1990) ("Because of the invasive nature of video surveillance, the government's showing of necessity must be very high to justify its use.").

515. *Id.* at 1442.

516. *But see* MacDonald v. Angelone, 69 F. Supp. 2d 787 (E.D. Va. 1999) (finding that an open toilet serves as a reasonable security measure in prison); Riddick v. Sutton, 794 F. Supp. 169 (E.D. N.C. 1992) (finding that female guards viewing male inmates using the toilet and shower creates only a *de minimus* infringement on a constitutional right to privacy).

a disability using bathroom facilities also warrants greater privacy protections.[517]

Nevertheless, the Seventh Circuit suggested that prisoners experience visual observation by guards when using a shower or toilet as less invasive than body-cavity searches.[518] Tactile contact as a form of observation appears to be most heavily scrutinized, thus metal detectors would arguably be preferable to body-cavity searches by guards.[519] The type of physical contact may impact the analysis, with strip searches potentially more intrusive than pat-down searches.[520] Medical examinations may warrant different standards of observational privacy.[521] Gender and biological differences are also key factors in the constitutionality of searches, where female inmates may justifiably receive more privacy than male inmates during strip searches.[522]

As a matter of observational privacy, the manipulation of the body to force a more intrusive view, particularly one involving nudity, is deemed more dehumanizing than simply having a guard view a prisoner naked, even one of a different gender.[523] It could be argued that remote surveillance or searches by machine eliminate the emotional stigma that accompanies observation or contact by human staff. However, in South Korea, one of the concerns raised by prisoners subject to observation

517. *See* LaFaut v. Smith, 834 F.2d 389, 394 (4th Cir. 1987) (finding that an open but inaccessible toilet for person with a disability violates Eighth Amendment).

518. Johnson v. Phelan, 69 F.3d 144, 146 (7th Cir. 1995).

519. *Id.* at 145.

520. United States v. Mesa-Rincon, 911 F.2d 1433, 1442-43 (10th Cir. 1990).

521. *See* Nat'l Comm'n on Corr. Health Care, *supra* note 446 (providing that principles of respect and medical confidentiality are owed to inmates in solitary confinement, where privacy should be maintained as much as possible).

522. *See* Florence v. Bd. of Chosen Freeholders of Cty. of Burlington, 566 U.S. 318, 346 (2012) (Breyer, J., dissenting) (identifying the added intrusiveness of menstruation or lactation for women during body-cavity searches); Bullock v. Dart, 599 F. Supp. 2d 947, 956 (N.D. Ill. 2009) (noting menstruation may warrant greater privacy for women during strip searches).

523. *Compare* Canedy v. Boardman, 16 F.3d 183 (7th Cir. 1994) (finding a constitutional privacy right violation for a male inmate to be regularly strip searched by female guards), *and* Lee v. Downs, 641 F.2d 1117 (4th Cir. 1981) (holding that a female inmate who was viewed naked by male guards constituted a violation of her constitutional right to privacy), *with* Hickman v. Jackson, No. 2:03CV363, 2005 WL 1862425 (E.D. Va. 2005) (holding that a male inmate who was occasionally viewed naked by female guards did not constitute a violation of privacy rights).

by the first autonomous robotic prison wardens was that the machines would handle them roughly and have no capacity to care why this matters.[524]

The intensity of solitary confinement perhaps best demonstrates the heightened impact of combining restrictive measures. Constant surveillance, coupled with the restriction of freedom of movement and social contact, facilitates the effectiveness of state control of confined persons. However, with the advent of alarming evidence of the detrimental psychological impact of extended solitary confinement, such forced, state-sanctioned isolation is now more heavily scrutinized.[525] Therefore, at minimum, indeterminate social isolation in state confinement under federal law should be held unconstitutional.

With or without psychological harm, the relative lack of consent will also impact the intensity of a restrictive measure's impact, even as society is adapting to surveillance in the public sphere. In a labor-related survey conducted by the American Management Association, 55% of employers use video surveillance to monitor the workplace and employee performance.[526] Other than restrictions on employers observing and constraining union or other concerted employee activity under the National Labor Relations Act,[527] there is no federal law that prohibits such workplace surveillance.[528]

Examples of web applications available to employers to assess employee productivity include automatic tracking of web browsing patterns, monitoring of keystrokes, and repeatedly taking webcam pictures of employees to produce a "focus score."[529] Such methods are

524. *See* articles cited, *supra* note 10.

525. *See* Valle v. Florida, 564 U.S. 1067 (2011) (Breyer, J., dissenting from denial of stay of execution); *supra* note 347 and accompanying text.

526. *More Video Surveillance in the Workplace. But is it Legal?*, GOVDOCS, https://www.govdocs.com/can-employers-use-video-surveillance-monitor-workers/ (last visited Dec. 3, 2018).

527. *See* Gordon B. Schmidt & Kimberly W. O'Connor, *Fired for Facebook: Using NLRB Guidance to Craft Appropriate Social Media Policies*, 58 BUS. HORIZONS 571 (2015), *available at* http://daneshyari.com/article/preview/1013883.pdf.

528. *More Video Surveillance*, *supra* note 526; Jo Ellen Whitney, *Workplace Surveillance in a World Where Everyone's Watching*, 22 No. 5 IOWA EMPLOY. L. LETTER 1 (2015).

529. *Big Brother Isn't Just Watching: Workplace Surveillance Can Track Your Every Move*, THE GUARDIAN (Nov. 6, 2017), https://www.theguardian.com/world/

not necessarily productive. The use of surveillance drones by the Union Pacific Corporation to monitor compliance with railyard safety guidelines received employee backlash in part because some workers became distracted by the drones risking additional hazards.[530] Additionally, union representatives asserted that using the drones to identify the need for discipline of workers caused concern among the workers.[531] Hence, the proliferation of Bentham's panopticon to other sectors in the society at large has functioned according to its design.[532] This employment context is relevant to the present analysis, because as in other private spheres, if an employee does not wish to be observed, he or she may choose another job. However, in state institutions, while the wardens, physician assistants, and other staff may be subject to surveillance technology by consent, the confined persons they subject to constant surveillance have no similar opportunity to consent or opt out. Thus, constant surveillance without any ability to avoid it or to opt out should be recognized as more harmful psychologically.

2. Availability of Less Restrictive Measures

Judicial interpretation of state interests in security must properly consider what type of security is necessary, without assuming that any and all security measures are necessary. For obvious reasons, the levels of security and need for surveillance or isolation will be measured, for the most part, by the degree of danger posed to the resident or inmate and to the community in confinement. Therefore, employing more restrictive means to intrude on the privacy and liberty of confined persons is not legally justified if a less restrictive means is available.

2017/nov/06/workplace-surveillance-big-brother-technology ("Over time it can build a picture of typical user behaviour and then alert when someone deviates."). *See also* Matt Novak, *Amazon Patents Wristband to Track Hand Movements of Warehouse Employees*, GIZMODO (Jan. 31, 2018, 1:30 PM), https://gizmodo.com/amazon-patents-wristband-to-track-hand-movements-of-war-1822590549 ("It's becoming more and more common for companies to monitor their employees through invasive technology, as there are virtually no laws to stop it.").

530. Paul Ziobro, *Hovering Drones Irk Rail Workers*, WALL STREET J., Mar. 15, 2018, at B1.

531. *Id.* at B1-B2.

532. *See* BENTHAM, PANOPTICON, *supra* note 328.

For example, a Fourth Amendment analysis would properly consider differing privacy intrusions based on technological capabilities:

> While the Court understands that a video camera might be necessary to monitor Llufrio's safety and ensure that he did not escape from the interview room while under arrest and unattended, the Government presents no reason why it would need to record the sounds from the room other than for incriminating purposes while Llufrio sat alone.[533]

Similarly, the National Commission on Correctional Health Care adopted new standards for persons in solitary confinement, including a provision providing that if visual privacy is not possible during medical examinations, then auditory privacy should be assured.[534]

Beyond tailoring the restrictive measure to the degree of necessity, other considerations such as availability and feasibility must also be taken into account. Various constitutional balancing tests related to privacy require that the state consider the technological options currently available,[535] which suggests that the court can alter its determinations of reasonableness as surveillance and privacy technology innovate over time. Even if a restrictive measure is relatively severe, if it is warranted and there is no feasible alternative, then the court may uphold the constitutionality of the measure. For example, the California CURES database for prescription drug monitoring holds information relevant to medical malpractice and criminal investigations, but may invade patient privacy when accessed for such investigative purposes.[536] In balancing state and personal

533. United States v. Llufrio, 237 F. Supp. 3d 735, 745 (N.D. Ill. 2017).

534. Nat'l Comm'n on Corr. Health Care, *supra* note 446 (Principle 13).

535. For example, an airport screening is reasonable as an administrative search under the Fourth Amendment if "(1) it is no more extensive or intensive than necessary, *in light of current technology*, to detect weapons or explosives; (2) it is confined in good faith to that purpose; and (3) passengers may avoid the search by electing not to fly." United States v. Marquez, 410 F.3d 612, 616 (9th Cir. 2005) (emphasis added) (upholding the governmental use of full-body scanners on passengers in airports to protect against acts of terrorism).

536. Lewis v. Super. Ct., 3 Cal. 5th 561, 576 (2017). *See also* Or. Prescription Drug Monitoring Prog. v. U.S. Drug Enforcement Admin., 998 F. Supp. 2d 957, 967 (D. Ore. 2014) (noting that a district court was persuaded that a reasonable expectation

privacy interests, including feasibility and necessity, the court noted in dicta that "adequate protections against public disclosure do not obviate constitutional concerns as privacy interests are still implicated when the government accesses personal information without disseminating it."[537]

Examining the means of technological surveillance is also important. With regard to the potential for disclosure of confidential information in a digitized medical database, Justice Brennan stated:

> [T]he Constitution puts limits not only on the type of information the state may gather, but also on the means it may use to gather it. The central storage and easy accessibility of computerized data vastly increase the potential for abuse of that information, and I am not prepared to say that future developments will not demonstrate the necessity of some curb on such technology.[538]

The burden is on the state to prove that available technologies and approaches have been considered.[539] If an approach would be less restrictive, but it is not practically available or financially feasible, it will not be deemed an available means. The Alaska Supreme Court, interpreting the state's constitutional rights of privacy and liberty in cases of involuntary medical care, held that "the patient's best interests [must be] considered in light of any available less intrusive treatments."[540] In that state, availability requires a showing of feasibility and a means that would satisfy the state's compelling interest in requiring treatment.[541] Specifically, the court determined that the psychiatric services of the Office of Children's Services in Alaska

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of privacy remained, where "the only way to avoid submission of prescription information to the PDMP is to forgo medical treatment or to leave the state. This is not a meaningful choice."), *rev'd*, 860 F.3d 1228 (9th Cir. 2017) (reversed on the basis of standing).

537. *Lewis* at 577.

538. *See* Whalen v. Roe, 429 U.S. 589, 607 (1977) (Brennan, J., concurring).

539. *Cf. Matter of United States*, 256 F. Supp. 3d 246, 252 (E.D. N.Y. 2017) (holding, in an examination of the All Writs Act, that the government did not present sufficient evidence that its wiretapping efforts were foiled by discontinuation of cell phone technology where "the complete lack of any showing of necessity weighs heavily against the government").

540. Kiva O. v. State Dep't of Health & Soc. Serv., 408 P.3d 1181, 1190 (Alaska 2018).

541. *Id.*

adequately considered family visitation and therapy before requiring a child in care to be placed on the antidepressant Lexapro; but that the state had acted too quickly in approving the mood stabilizing medication Risperdal when the child was depressed but not suicidal.[542]

Pragmatic concerns also impact feasibility. In a claim of cruel and unusual punishment, the Seventh Circuit identified a valid privacy interest in avoiding cross-gender observation in prison, but not a feasible alternative to the practice: "There are too many permutations to place guards and prisoners into multiple classes by sex, sexual orientation, and perhaps other criteria, allowing each group to be observed only by the corresponding groups that occasion the least unhappiness."[543] Similarly, budgetary shortfalls are also a valid consideration, possibly preventing a claim of cruel and unusual punishment for cramped and uncomfortable conditions.[544] Courts are beginning to take pause and try to recognize when use of technology is expedient or a "cheap" replacement for human staffing. Thus, courts have upheld some claims for harm resulting from poor technology applications in confined settings.[545] Comparably, when inexpensive technology is available that would improve state systems and treatment of persons in their care and custody, such as effecting the reduction of arrestee misidentification, the courts readily suggest that such technology should have been adopted.[546]

542. *Id.* at 1192-93.

543. Johnson v. Phelan, 69 F.3d 144, 147 (7th Cir. 1995).

544. *See id.* at 149-50. *But see* Brown v. Plata, 563 U.S. 493, 520 (2011); *supra* note 343.

545. *See, e.g.*, United States v. Jones, 565 U.S. 400, 416 (2012) (Sotomayor, J., concurring) ("And because GPS monitoring is cheap in comparison to conventional surveillance techniques and, by design, proceeds surreptitiously, it evades the ordinary checks that constrain abusive law enforcement practices: 'limited police resources and community hostility'" (quoting Illinois v. Lidster, 540 U.S. 419, 426 (2004)); *see also* Teague v. Schimel, 896 N.W.2d 286, 310 (Wis. 2017) (criticizing the state fingerprint database procedures and technology as "quick, cheap, and easy" and providing an unacceptable risk of error).

546. *E.g.*, Smith v. County of Los Angeles, No. CV 11-10666, 2015 WL 12731913, at *2 (C.D. Cal. Jan. 16, 2015) ("In a prior order in this case, Judge Feess lamented 'out-of-date Fourth Amendment jurisprudence, which has failed to require the use of unique[biometric] identifiers despite the availability of simple and cheap technologies that would avoid the kind of repeated mis-identification that

In short, the technology must work, which includes the ability for sufficient human control to ensure it works. Interestingly, emerging AI technology makes this assessment more difficult. For example, if the surveillance were conducted and assessed only by machines without human direction, those harmed would have to seek remedies from inventors and manufacturers under existing legal remedies. Twenty years ago, attributing fault to humanity's creation of unpredictable systems such as AI was highly speculative:

> It is not clear what the law will, or should, do when artificial intelligences make mistakes, thereby damaging property, causing monetary losses or killing people. Perhaps we will blame nature or the inchoate forces of the universe. But the legal system is unlikely to rest there; we will not long accept equating the damage done by an unexpected tornado with the mistakes made by programs that are, at some level, human artifacts.[547]

Today, with nascent autonomous drone and car industries, lawsuits for harm caused by autonomous machines has, as predicted, focused on human design defects, criminal recklessness, and negligent supervision.[548]

Lethal AI weapons have numerous opponents in the scientific community concerned about the lack of human control over life and death decision-making. This has drawn the attention of the United

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he has endured,' but ultimately held that Plaintiff could not state a Fourth Amendment particularity claim, given the current state of the law.").

547. Curtis E. A. Karnow, *Liability for Distributed Artificial Intelligences*, 11 BERK. TECH. L.J. 147, 154 (1996).

548. *E.g.*, Tina Bellon, *Fatal U.S. Self-Driving Auto Accident Raises Novel Legal Question*, REUTERS (Mar. 20, 2018, 2:18 PM), https://www.reuters.com/article/us-autos-selfdriving-uber-liability-anal/fatal-u-s-self-driving-auto-accident-raises-novel-legal-questions-idUSKBN1GW2SP (suggesting that liability for autonomous vehicle accidents could potentially attach to the transportation service, the car manufacturer, the technology and software design companies, and the human "safety" driver behind the wheel). *See generally* Ryan Calo, *Robotics and the Lessons of Cyberlaw*, 103 CALIF. L. REV. 513, 559 (2015) ("Common law courts look to whether a given digital activity is 'like' an activity for which there are already rules. Legal, policy, and academic debates become battles over the proper analogy or metaphor."); F. Patrick Hubbard, *Sophisticated Robots: Balancing Liability, Regulation, and Innovation*, 66 FLA. L. REV. 1803 (2014) (arguing that existing regulatory and common law liability systems adequately provide a balance of fairness in promoting safety and innovation with a sophisticated robotics industry).

Nations, but has yet to result in an international treaty or consensus.[549] Human soldier-machine symbiosis, coined "centaur warfare," may remove some of the concerns related to uncontrollable autonomous technology.[550] Military contractors envisioning future warfare propose "the synergistic merger of molecular biology, nanotechnology, and information technology, pointing to useful new directions in the design of mechanical devices."[551] Would prison wardens eventually be equipped with the same technology to control prison populations on American soil or police officers on American residential streets?[552] In a state institutional setting, the potential alternatives available for controlling persons in confinement raise deep concerns regarding the ability of human inmates, patients, or residents to assert their rights to autonomy.

While lack of control of AI surveillance or use of robotic discipline in institutions should clearly raise constitutional claims, there is also a risk of overreaching by human overseers recklessly adopting new technology. Technology is merely a tool for human actors and thus is susceptible to humanity's coercion and bias. For example:

> AI technologies are also being deployed in the very legal institutions designed to safeguard our rights and liberties, with proprietary risk assessment algorithms already being used to help judges make sentencing and bail decisions, potentially amplifying and naturalizing longstanding biases, and rendering them more opaque to oversight and scrutiny.[553]

549. *See UN Reopens Lethal Autonomous Weapons Talks with an Eye on Defining 'Killer Robots'*, THEDEFENSEPOST (Apr. 9, 2018), https://thedefensepost.com/2018/04/09/un-lethal-autonmous-weapons-killer-robot-talks/; Heather M. Roff, *The Strategic Robot Problem: Lethal Autonomous Weapons in War*, 13 J. MIL. ETHICS 211 (2014).

550. Lester, *supra* note 14.

551. NET ASSESSMENT, *supra* note 468, at 31.

552. *See* articles cited *supra* note 10 (discussing South Korea's first robotic prison guards).

553. CAMPOLO ET AL., *supra* note 488, at 4 (2017). *Cf.* Blake A. Klinkner, *Artificial Intelligence and Virtual Law Offices Expected to be Top Technological Trends Impacting the Legal Profession in 2017*, 40 WYO. LAW. 52 (Feb. 2017) (describing the use of predictive analytics to interpret precedent and compose legal briefs, interpret opposing counsel's strategy, and draft contracts); Amanda McAllister, Note, *Stranger than Science Fiction: The Rise of A.I. Interrogation in the Dawn of*

However, in 2016, in *State v. Loomis*, the Supreme Court of Wisconsin determined that formally authorized use of predictive analytical tools in sentencing did not violate the due process rights of a defendant when the sentence was based on accurate information.[554]

In contrast, the Iowa Court of Appeals in 2018 distinguished *Loomis* when determining that use of the Iowa Risk Revised tool in sentencing was a due process violation, where there was "the use of an unspecified algorithm in sentencing (if that is what the IRR is)."[555] Thus, it appears that courts are willing to consider AI assistance in the justice system, but wisely require that it be subject to human analysis and constraints. If court systems were readily to approve system technology in state institutions without proper restraint and caution, it would not bode well for vulnerable claimants subject to constant surveillance and dehumanizing social isolation.

CONCLUSION

Whether the executive or legislative branches are quick or slow to respond to the need for privacy protections as new technologies emerge, the judiciary has a crucial role in ensuring the reasonableness of surveillance. The courts continue to acknowledge the basic human need for autonomy in navigating privacy and social interactions, which has longstanding protections for persons in state confinement in common law doctrines of police power and parens patriae, the United States Constitution, and a growing number of state constitutions with

Autonomous Robots and the Need for Additional Protocol to the U.N. Convention Against Torture, 101 MINN. L. REV. 2527 (2017) (suggesting that as the United Nations examines lethal autonomous weapons restrictions, it should also consider prohibiting AI interrogation techniques which could use existing facial and physical bodily response interpretation software); Melanie Reid, *Rethinking the Fourth Amendment in the Age of Supercomputers, Artificial Intelligence, and Robots*, 119 W. VA. L. REV. 863 (2017) (addressing the constitutional implications of autonomous investigative robocops).

554. State v. Loomis, 881 N.W.2d 749, 757 (Wis. 2016) (noting that the COMPAS risk assessment was one of several factors considered by the trial court, which had declined to give weight to expert testimony explaining that COMPAS was not designed to be used in sentencing and therefore bore a "tremendous risk of over estimating an individual's risk").

555. State v. Guise, No. 17-0589, 2018 WL 2084846, at *3 (Iowa Ct. App. May 2, 2018).

express privacy provisions. Also, recognition of a growing body of social science and medical research has better informed the courts regarding the impact of new technology on human well-being, particularly with regard to surveillance and social isolation in confinement. As the courts carve a more civilized path, indeterminate solitary confinement under constant surveillance, now facilitated by AI and remote surveillance, may be seen as a substantive due process violation, as well as cruel and unusual punishment.

Protecting the social and privacy rights of prisoners and residential patients in state facilities is essential for the protection of the rights of all persons. Institutionalized members of society have the least political and social power yet face the greatest potential infringements on their privacy and their right to a social existence. A focus on their specific needs best demonstrates the appropriate balance of interests when innovation in surveillance may be meted out on this population first because it is unable to resist. Some enforced surveillance and social isolation are necessary to protect persons in confinement and ensure security in facilities, as demonstrated in cases with a high-risk of self-harm or harm to others. But all such restrictive measures must be subject to a rigorous balance of interests. The right to autonomy of navigating privacy and social contact is too important. The Seventh Circuit aptly stated: "But where it is reasonable . . . to respect an inmate's constitutional privacy interests, doing so is not just a palliative to be doled out at the state's indulgence. It is a constitutional mandate."[556]

Upon a review of precedent focusing on the interplay between the Fourth, Eighth, and Fourteenth Amendments' functions in privacy and isolation claims of confined persons, it is clear that the courts continue to uphold the primacy of a core individual right to autonomy. Courts in the United States have acknowledged the impact of changing technology on privacy for over a century, but in recent years there is a newfound judicial understanding of the "seismic shifts"[557] in technological innovation.

Moving forward, the judiciary continues to encourage the active adoption of state statutory and constitutional privacy provisions, while

556. Canedy v. Boardman, 16 F.3d 183, 188 (7th Cir. 1994) (emphasis in original).

557. Carpenter v. United States, 138 S. Ct. 2206, 2219 (2018).

reiterating the importance of the "broad and idealistic concepts of dignity, civilized standards, humanity, and decency"[558] for persons in state confinement. The states, in turn, have manifested a willingness to do so, seen in the growth of numerous express state constitutional privacy provisions in the last two decades, an effort that Congress has not been willing or able to achieve as yet. Nonetheless, both federal and state courts have the common law and constitutional legal tools on hand to keep a check on state institutions enamored of new forms of surveillance technology, including AI surveillance. Most important of all, with respect to confined persons, is that state interests always include not only the effective maintenance and control of state institutions, but the well-being of persons in state care and the protection of their individual rights. This is the state as parens patriae.

It is a matter of no small concern that new technologies could facilitate confining persons in brightly lit, modern institutions in isolation under constant surveillance. This would transform state confinement into a new form of oblivion, a status which the earliest prisons and mental hospitals offered the forgotten, condemned in dark, unsanitary facilities.[559] As the Supreme Court stated in upholding a claim for cruel and unusual punishment: "There may be involved no physical mistreatment, no primitive torture. There is instead the total destruction of the individual's status in organized society."[560] Such a prospect is neither constitutionally permissible nor ethically acceptable. Whether one is confined in state custody or care due to mental illness, severe disability, or criminal conviction, respecting human autonomy

558. This declaration is quoted in hundreds of state and federal cases in the United States in upholding Eighth Amendment rights. *See* Mintun v. Corizon Med. Serv., No. 1:16-cv-00367-DCN, 2018 WL 1040088 (D. Idaho 2018) (deprivation of mental health services); Morris v. Zefferi, 601 F.3d 805 (8th Cir. 2010) (transportation in dog cage); Madrid v. Gomez, 889 F. Supp. 1146, 1245 (N.D. Cal. 1995) (excessive force and solitary confinement in a modernized "prison of the future"); LaFaut v. Smith, 834 F.2d 389, 394 (4th Cir. 1987) (unusable and exposed toilet facilities for a paraplegic inmate); Estelle v. Gamble, 429 U.S. 97, 102 (1976) (deprivation of medical care); Jackson v. Bishop, 404 F.2d 571 (8th Cir. 1968) (beating with a strap).

559. *See* FOUCAULT, MADNESS AND CIVILIZATION, *supra* note 370, at 245.

560. Trop v. Dulles, 356 U.S. 86, 101 (1958) (laying out the origins of the Eighth Amendment based on the English Declaration of Rights of 1688 and the Magna Carta – "[Denaturalization] is a form of punishment more primitive than torture, for it destroys for the individual the political existence that was centuries in the development.").

in navigating core needs for privacy and social contact remain integral to sustaining a civilized and humane society.